The Hygienic System

Vol. VII Orthopathy

Herbert M Shelton

The HYGIENIC SYSTEM

Vol. VII ORTHOPATHY

By

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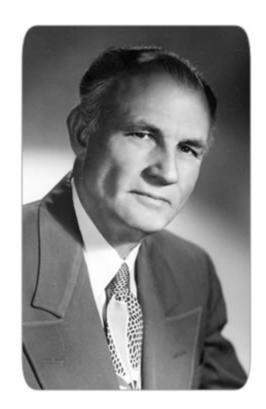
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In this chapter we shall deal with what are commonly classified as "infectious diseases." These are subdivided into "infectious diseases of known origin," and "infectious diseases of unknown origin." The first group are again divided into "diseases due to bacteria," "diseases due to non-bacterial fungus," "diseases due to protozoa" and "diseases due to metazoa." The reader should know that of those said to be due to bacteria, some of them are not "absolutely established" to be of bacterial origin. Of those "known" to be "of bacterial origin," the causative organism is "known" in but few. We shall ignore all these distinctions and deal with this group of symptom-complexes in alphabetical order.

There is no infection, or contagion, in the sense now understood. Certain of these "infectious diseases" are said to provide "immunity" against future "attacks." But when we reflect upon the fact that the great majority of mankind never develop a given so-called "disease"—diphtheria, or smallpox, for instance—it does not seem strange if the same person should not develop the same "disease" two or more times. More than one, sometimes three or more, "attacks" have been observed in all so-called "contagious diseases" and the assumption that one "attack" renders the victim immune is wholly gratuitious.

Anthrax

Definition: This "disease" is found largely among sheep and cattle, especially in those of Asia, Russia, and France. In man it is often called "wool sorter's disease" and "rag picker's disease." It is claimed to be due to the bacillus anthracis, and is said to be transferred to man in meat or milk, or may be inhaled with dust.

Symptoms: Three forms are described: (1) the enteric form ("a rapidly fatal enteritis") resulting from "infection" from meat or milk; (2) the bronchial form ("a fatal bronchitis") resulting from inhalation of dust from wool or rags; (3) the pustular form ("a malignant pustule" or "very bad form of boil") resulting from "infection" of a scratch on the skin. The boil has a black center due to the death of the flesh and is often followed by "blood poisoning."

Care of the Patient: Hygienists seem to have had no experience with this condition, but we may be sure that "infection" can occur only in those whose resistance has collapsed under enervation and toxemia.

Actinomycosis

Definition: Actinomycosis is defined as "a chronic infectious disease chiefly of cattle," caused by "the actinomyces or ray fungus, which forms translucent to opaque, grayish or yellow granules composed of radiating filaments with bulbous ends." These are "probably ingested with food."

Symptoms: Four types are described:

- (1) alimentary—there may be swelling of the face or tumor of the jaw, or the intestine or liver may be involved.
- (2) Pulmonary—there is cough with mucopurulent and sometimes fetid sputum, irregular fever, loss of weight.
- (3) Cutaneous—skin tumors form and break down (suppurate), forming chronic ulcers.
- (4) Cerebral—This form which presents symptoms resembling brain tumor or epilepsy, is rare.

Care of the Patient: No food should be given so long as acute symptoms persist. Rest in bed is essential. Open lesions should be cleansed thoroughly and kept clean.

Blackwater Fever

See Malaria.

Chicken-Pox (Varicella)

Definition: A dynamic biogony characterized by a vesicular eruption of the skin. Since "several attacks may occur" it is not claimed that one "attack" confers "immunity."

Symptoms: Chicken-pox begins with a chill, vomiting, and pain in the back. The rash develops within the first twenty-four hours of fever. As a result, the biogony is mild. The rash begins as small red papules which develop into vesicles, but without, as in smallpox, the surrounding area of inflamed skin. In two days the fluid in the vesicles develops into pus. In two more days the pustules dry to. dark-brown crusts. These fall off without, as a rule, leaving a scar. Successive crops of the eruptions develop at intervals of from one to four days, so that unlike small-pox, all stages of the rash are present at the same time. The eruption seldom begins on the face, but begins, usually on the trunk, back and chest. The pustules never coalesce.

Complications: These are rare and result from feeding and drugging or other wrong care.

Etiology: Chicken-pox, like the other eruptive fevers, is a manifestation of protein poisoning: sepsis. It develops only in those who are in favorable condition.

Prognosis: All cases rapidly recover.

Care of the Patient: This condition should be handled the same as measles or smallpox. It is a mild biogony, does not last long, and is very comfortable under Hygienic Methods.

Cholera

Definition: A biogony characterized by vomiting, purging, spasms and griping pain. Asiatic or epidemic cholera has gone out of date in all countries where sanitation is what it should be. In China and India, cholera is still prevalent.

Symptoms: Well-marked but favorable—cases are divided into three stages, as follows:

- (1) Stage of Invasion: This name is based on the theory that cholera is caused by the "comma bacillus" of Koch. It usually begins with malaise, headache, diarrhea, rumbling noises in the intestines, and colic. Frequently these symptoms last a few days and subside: such cases are named cholerine.
- (2) Stage of Collapse: The diarrhea becomes more marked, the evacuations become copious, lose their feculent character, take on a rice-water appearance, and are discharged forcibly but without pain. Vomiting soon develops, the vomitus resembling the stools. There is unquenchable thirst, severe cramps in the muscles of legs, thighs, arms and abdomen. The surface is cold and covered with a clammy sweat; the breath is cool, the voice is husky and finally reduced to a whisper, breathing is quickened, the pulse becomes progressively feeble, the body is livid and shriveled, the features are ached, sometimes distorted, the eyes sunken. Temperature in the axilla falls, though there may be fever internally and the urine is scanty or suppressed. Consciousness usually persists until the end, when coma develops. This stage lasts from a few hours to two days.
- (3) Stage of Reaction: In this stage the symptoms gradually grow better, the stools become less frequent, temperature returns to normal, more urine is excreted and convalescence is soon established.

Cholera Typhoid is the term given to those cases where moderate fever, a dry brown tongue, muttering, delirium, coma and usually death follow the collapse stage instead of reaction.

Cholera Sicca is the term applied to cases in which the intoxication is so overwhelming that the patient dies within a few hours after the first symptoms appear and before the saving diarrhea has developed.

Complications and Sequelae: Nephritis, pneumonia, pleurisy, parotitis, ulceration of the cornea, croupous inflammation of the throat and fauces, abscesses and local gangrene are the chief complications.

Etiology: Enervation, toxemia, and insanitary surroundings are the chief causes.

Prognosis: The Hygienic System received its baptism in cholera and proved its great effectiveness. In the aged, very young, debilitated and intemperate the death rate is very high. If the body is not forced to expend too

much fluid in its efforts to flush away the source of poisoning, recovery will always occur.

Care of the Patient: Fasting, rest, heat and an abundance of pure water are the chief needs. Great thirst is due to loss of body fluids.

Coryza

Definition: Coryza (or colds in the head) is an acute catarrhal inflammation of the nasal cavities sometimes extending to the pharynx, upper respiratory tract, Eustachian tubes and accessory nasal sinuses.

Symptoms: It begins with chilliness, muscular soreness, general malaise, fullness in the head and sneezing. Obstruction of the nasal chambers causes the patient to breathe through his mouth. At first there is no excretion, but in twenty-four or forty-eight hours a watery discharge is set up which later becomes muco-purulent. Slight fever accompanies.

Complications: The inflammation may extend to the frontal sinuses (sinusitis), Eustachian tubes, pharynx (pharyngitis), larynx (laryngitis), and bronchi (bronchitis). Frequent colds may lead to chronic rhinitis.

Etiology: Colds, or rhinitis, represent processes of vicarious elimination. They are not caused by cold feet, damp air, night air, exposure 'to cold, eating your gruel out of a damp bowl, exposure to heat, etc., nor are they caused by germs.

The two great causes of colds are repletion and exhaustion. Anything and everything that tends to tax and lower the vital or nervous powers, impairs digestion, checks elimination and tends to bring on "disease."

Repletion or plethora (overeating with surcharged blood vessels) tends to overtax the functions of life, poison the body and necessitates a process of compensatory elimination, which is "disease."

Eating when exhausted, when worried, over-excited, or under any similar circumstance, when the digestive powers are low, also poisons the body and calls for an unusual house-cleaning process. Excesses of sugar, starch and milk are the chief causes of colds and her catarrhal conditions.

We do not "catch" colds; we develop them within ourselves. The cold, per se, is a life saving measure, a process of elimination.

Many so-called "diseases" begin with a cold and others develop after recurring colds, and this has given rise to the theory that colds prepare the way for other "diseases"; that they weaken the body and prepare it for "attack" by some other and more virulent "disease." Nothing can be farther from the truth. If the prevailing theory that colds and other so-called "diseases" are due to germs is correct, there seems to be no reason why the less virulent germs (of colds) must first break down the resistance of the body before the more virulent germs (of infantile paralysis, measles, tuberculosis etc.) can cause "disease" therein.

Instead of laying us liable to "other diseases", colds tend just the other way. That condition of the body that makes the cold, or a series of colds, necessary, may and often does, due to the persistence of its causes, demand other forms of eliminating crises ("disease") to remedy.

But tuberculosis no more develops out of a cold than the hair on a man's face develops out of the hair of his head. A cold may be and usually is part of an acute "disease," like measles or scarlet fever, and it may be the first part of this marvelous process of systemic purification to develop.

Prognosis: The duration is from a few days to two weeks. Indeed, some spontaneously abort in a few hours. A cold that persists for two weeks is badly cared for.

Care of the Patient: It is only because the cold may be the prodromal symptom of a formidable "disease" that this condition could receive immediate care. A "disease" cared for properly from the start never becomes serious, nor results fatally.

Whether it is a "common cold" or a prodrome of typhoid or spinal menengitis, the patient should be put to bed, all food stopped, except perhaps some orange juice, where there is no fever, and kept warm. That is all there is to the treatment of any acute so-called "disease"—rest, fasting, warmth. Rest includes quiet and physical comfort. Fresh air is always imperative. No common cold can last long when the patient is cared for in this manner.

Dengue

Definition: Called also breakbone fever and dandy fever, this is a febrile condition confined almost entirely to hot climates.

Symptoms: These appear suddenly with malaise, chilliness, headache, intense pain in the muscles and joints and high fever. Fever rises rapidly to a maximum of 104 to 105 F. in a few hours. The skin and conjunctiva are

congested, the pulse rapid, urine scanty, the superficial lymph glands are enlarged, the joints are painful, tender, and slightly swollen. Mild delirium sometimes develops. In three to four days sweating occurs, the temperature falls, pain abates, and the patient becomes comparatively comfortable, though weak. This remission lasts one or two days to be followed by a return of all the original symptoms, though in less severe form and of shorter duration. A roseolar eruption usually develops during the second period of fever. After one or two days, desquamation (peeling) follows.

Complications are rare. Hemorrhages from the mucous membranes occasionally occur.

Prognosis: Recovery is the rule. Convalescence is sometimes slow, the soreness of the joints persisting for a long time.

Care of the Patient: Fasting, rest and warmth are all these cases require. After convalescence begins, great care is needed in feeding and in conserving the patient's strength.

Diphtheria

Definition: Diphtheria is a symptom-complex characterized by an exudation thrown out on the mucous membrane of the pharynx, tonsils, larynx, and sometimes in the trachea and bronchial tubes.

Symptoms: The patient seldom feels as ill as in acute tonsilitis. The fever is seldom high and soon falls to normal. Where the poisoning is intense the temperature may run to 102 and 103 F. The throat is not very sore although the tonsils may be greatly enlarged. In some cases which suffer most severely there is little membrane, some even have no fever. In others the temperature is sub-normal. These cases are especially dangerous; the lack of fever indicating a lack of reactive power. To express it differently: temperature is so low because pan-toxemia has so overwhelmed the nervous system that only a feeble reaction is possible. Diphtheria of the nose, of the eyes and around a recent wound may cause no serious feeling of discomfort.

Diphtheria begins with fever, chilly feelings, pains in the limbs back, headache and malaise. The throat is not very red and tonsils are not greatly swollen. The glands in the neck enlarge and the face becomes an ashen gray. The patch of white membrane enlarges and extends beyond the tonsil. The membrane may grow rapidly and extend over the soft palate to the posterior

wall of the fine bronchi. The membrane may even extend through the Eustachian tube into the middle ear, along the nose into the nasal sinuses and sometimes it extends down the oesophagus into the stomach. Under the membrane there is death of tissue and there follows sloughing. The "disease" is self-limited and after ten days the membrane loosens and falls off in shreds.

Within recent years medical men have recognized that "membranous croup" is diphtheria and these cases are now quarantined. When the writer was younger, cases of membranous croup were not quarantined and no one ever "caught" the "disease" from these cases. An unquarantined case did not produce an epidemic. In his Mother's Hygienic Handbook, 1874, Dr. Trall asserted "the pathological identity of croup and diphtheria.

"Membranous croup" is the worst form of diphtheria. These cases seldom appear to be very ill. For two or three days there is a rough, croupy cough which becomes a little more croupy each after-noon and evening, but wearing off somewhat in the forepart of the night and in the morning. The child's breathing is not affected, he has an appetite—and there is usually little uneasiness on the part of parents. Then, suddenly, the child almost suffocates. He tosses about on the bed, sits up and struggles in various ways in an effort to breathe. He becomes blue. In severe cases the child suffocates unless relieved by intubation or tracheotomy. In the milder cases the paroxysms are soon over, but they sometimes recur later.

Complications: Under regular medical care, acute myocarditis, severe nephritis, and bronchopneumonia are common. The first two, at least, are resultants of anti-toxin. Various forms of paralysis, especially of the throat and eye muscles and of the limbs develop as sequalae in about one fifth of medically treated cases. Paralysis is often the result of anti-toxin, although we cannot always attribute this to the anti-toxin, for it sometimes occurs in cases which have had no anti-toxin.

Anti-toxin does not cure diphtheria and toxin-anti-toxin does not prevent it. Both these foreign proteins are responsible for many deaths in both the well and the sick and for much other injury short of death.

Etiology: Diphtheria develops in fat, soft, sleek, "well fed" children that are so generally admired as "pictures of health." These children are chronically ill, are predisposed to the, development of severe acute biogonies, and, if they reach maturity, supply the greater portion of the cases

of tuberculosis. Children who spend most of their time out of doors, are thinly clad, sleep in cold, well-ventilated rooms, have a spare diet and are not pampered, do not develop diphtheria.

The symptom-complex of diphtheria starts with enervation which checks secretion and excretion. Inhibition of excretion produces toxemia; checked secretion produces indigestion—fermentation and putrefaction. Such a child will suffer from putrescent poisoning and may at any time, develop scarlet fever, measles, smallpox, diphtheria or other severe protein-poisoning crisis. Trall, Page, Tilden, Weger and others have shown the putrescent basis of diphtheria.

Prognosis: Dr. Weger says of his care of diphtheria cases by hygienic methods that, the "disease" has "invariably responded in the same even and consistent manner." Trall, who treated hundreds of cases, says: "There is little danger of this formidable disease, which often desolates the family circle of all the little ones, terminating fatally, if this plan of treatment is thoroughly carried out—unless it is a very frail and scrofulous child. Nor have I yet known it to fail in but one such case." Tilden says: "I never knew a case to get well where this disease is located in the pharynx, and passes down only a very short distance, into the trachea, sometimes the membrane is thrown off and the child recovers, but this is so rare that I have heard only of a few cases." 'Again he says: "I have never seen a case of bronchial diphtheria get well, and I never expect to."

Care of the Patient: No food of any kind should be given. In croupy cases, whether it is or is not membranous croup, it is well to stop all food the instant the first sign of trouble (the cough) shows. These cases may stand some chance of recovery if proper care is taken before the membrane spreads to such an extent that breathing is made impossible.

Put the child to bed in a well ventilated room. If it is winter, place a hot water bottle at his feet.

Drinking should be discouraged. Swallowing tends to break up the membrane and carry it into the stomach. Small water enemas, given after the bowels have been thoroughly cleaned out, must take the place of drink.

The throat should not be gargled. No sprays or washes of any kind are to be employed.

The child should be placed in a position so that everything will well out of the mouth. Place him on his right side so that he leans well forward and face down. If the child is permitted on the back, the secretion tends to run down the throat and the trachea and stomach. This must be avoided. If he tires of lying on one side he may be placed on the other, or he may be placed on his face.

Dr. Tilden says: "In pseudomembranous inflammation (diphtheria, membranous croup) of the throat, everything should be done to avoid breaking or loosening up the membrane; for the more it is interrupted, the greater the local poisoning, and the more toxins there will be swallowed to be neutralized by the stomachic secretions.

"Positively nothing is to be put into the child's 'mouth; not a drop of water, for swallowing must be avoided. The act of swallowing breaks the membranous protection. The old treatment of gargling and swabbing, was barbarous and, for intelligent people, criminal.

"Thirst must be controlled by frequent enemas of water. Nourishment is not life-saving, as many think, but positively disease and death-provoking. *

* * From the foregoing explanation, it is obvious how dangerous is the old time practice of swabbing and gargling the throat. No wonder the mortality was great, and no wonder the anti-toxin treatment has proved such a success. Its success however, has been of a negative character—on the order of the lesser evil.

If the anti-toxin has any influence—if it is not inert—it certainly must make a change in the nervous system; and this change must be reconciled and an equilibrium or readjustment take place, before a normal healing process can be resumed."—**Impaired Health**, Vol. I, 271.

These children, should be left alone and not allowed to talk. No questions should be asked them which require answers.

No drugs of any kind are to be tolerated. These lessen the chance of recovery.

Although comparatively few who come in contact with this "disease" develop it, it is considered highly contagious and, due to the contagion-superstition, these cases are quarantined. The writer has never handled but one case and saw this but once. After the quarantine was slapped on the case he was forced to handle it over the telephone. The child made a rapid recovery with no complications or sequelae.

Food must not be given until the throat is healed. Then fruit juices may be given for two days and then a gradual return to the normal diet.

Death in this "disease" results from suffocation, and from mal-treatment. The exudation into the wind-pipe, with the subsequent formation of the false membrane, chokes the patient to death. In so-called membranous croup this is seen at its worst.

If this can be prevented there is no danger from the "disease." If the above methods are not sufficient to control the exudate in any given case, a certain amount of drugless suppression will form the lesser of two evils. Cold cloths around the neck and ice held in the mouth and applied directly to the inflamed parts will suppress the inflammation and exudate. Dr. Trall treated hundreds, of cases by this method.

Plenty of fresh air and sunshine should be had during convalescense. As diphtheria is most common after the Thanksgiving and Christmas feasts, It is best prevented by avoiding protein decomposition and by maintaining good health.

Major Austin records the care of twelve cases of diphtheria in soldiers in an "outbreak of the disease in the summer of 1909." Due to difficulty in getting anti-diphtheritic serum the twelve men were treated without it. He says: "All the cases were clinically typical of the disease, and in each case the Klebs Loeffler bacillus was found in throat swabs by an experienced bacteriologist."

The Major swabbed the tonsils, soft palate and pharynx of each man daily with a solution of bicarbonate of soda and had them to gargle with a hot solution of the same thing frequently throughout the day. Other than this the men fasted. He says: "Some went four days without nourishment, others longer, the longest period being seven days. In no case was any nourishment given until the temperature was normal and the tonsils, soft palate and pharynx were clear of membrane. Then three pints of milk were swallowed daily, and each man was kept on milk for three to five days, after which ordinary food was allowed.

"During the period of the fast, and whilst on milk, the bowels were moved freely each day by a large saline purge." he tells us that "every one of the twelve cases made an excellent recovery, without any complications whatever, and no sequelae followed," and adds: "I have since tried the method on various occasions with the same excellent results, and I am certain of my facts when I state that the cases of diphtheria thus treated are shortened

in duration and convalescence is more rapid and in all respects more satisfactory than when treatment is carried out on customary lines."

Epidemic Catarrhal Gastroduodenitis

Definition: Gastroduodenitis is a catarrhal inflammation of the stomach and duodenum.

Symptoms: Colic, nausea, loss of appetite, vomiting and sometimes diarrhea are the chief symptoms.

Etiology: Carbohydrate poisoning added to a previous enervation and toxemia is the cause.

Care of the Patient: Fasting and rest. Dr. Weger says: "This disease, prevalent in endemic form some years ago in circumscribed areas of the Middle States, responded quickly to a no-eating regime after medication and other methods had failed. Several hundred cases came under my observation and treatment during the epidemic lasting about three years. A report of these cases appeared in a Mid-Western Medical Journal at the time."

Epidemic Jaundice (Well's Disease)

Definition: This is a rare acute jaundice which occurs in epidemics and develops must commonly in males between the ages of fifteen and thirty,

Symptoms: High fever (103 - 104 F.) develops suddenly with malaise and muscular pains, slight jaundice, enlargement of the liver and spleen, albuminuria and marked nervous symptoms—headache, dizziness, delirium and somnolence. Coma may sometimes develop.

Etiology: It is supposed to be caused by eating spoiled meat or drinking contaminated water. Only toxemic subjects would develop the condition from these causes.

Prognosis: Recovery is the rule. Convalescence is often slow.

Care of the Patient: See acute catarrhal jaundice under "diseases" of the digestive tract.

Epidemic Poliomyelitis

Definition: Known also as acute anterior poliomyelitis and acute infantile spinal paralysis, or infantile paralysis, this condition develops chiefly in young children, rarely in adults. Anatomically it is characterized by inflammation of the gray matter of the spinal cord with destruction of the nerve cells in the anterior horns, and clinically by fever and rapid atrophic paralysis of various muscles.

Symptoms: It begins with slight fever (101 - 103 F.) restlessness, headache, pain in the back and limbs, and muscular soreness. In a few cases there is vomiting or diarrhea, and occasionally convulsions. In the course of a day or two a flaccid paralysis develops. The legs are especially likely to be involved, but all four limbs, the trunk, the lower limbs, one limb only, a group of muscles, or the respiratory muscles may be involved. The paralysis reaches its maximum in a few hours or days, then begins to improve, in many cases very little paralysis remaining at the end of a few weeks or months, in other cases much paralysis remaining. Complete recovery is more frequent than is generally known. Where paralysis persists, permanent deformity often ensues from the failure of growth in the paralyzed parts and the over contraction of the un-antagonized muscles.

The paralysis may be due to changes in the brain or in the spinal cord. Several forms are described, but these relate to location and not to the actual cause or causes of the affection. In addition to the spinal form there are (1) abortive cases, in which the constitutional symptoms are unattended by paralysis and complete recovery occurs in a few days: (2) meningitic cases, in which the early symptoms closely simulate those of epidemic cerebrospinal meningitis; (3) bulbar cases, in which the nuclear centers in the medulla oblongata are involved; and (4) polyneuritis cases, in which pain in the limbs and general hyperesthesia are for a few days the most outstanding symptoms.

Etiology: Those demanding a unitary, specific cause say poliomyelitis is due to a "minute anaerobic organism," but care based on this premise is often worse than the organism itself.

Infantile paralysis is divided into intra-uterine and post-natal classes. Tilden says: "the anti-birth causes are not hereditary; for an influence to cause paralysis to be hereditary would prevent conception; or, in other words, sterility prevents such calamities." Cases developing before birth are due to injuries and poisons. Doubtless most of these cases are due to injuries

received at birth. Cases developing after birth result from infection, either from gastro-intestinal decomposition or from vaccination. Epidemics of poliomyelitis develop at the end of each summer when children are vaccinated. A plethoric state, due to over-eating is described by medical men as a "well-nourished" state. They say that acute epidemic poliomyelitis "appears in children previously well nourished." Such "well-nourished" states are commonly accompanied by intestinal sepsis.

Prognosis: Unless the initial symptoms are very severe or the respiratory muscles are affected, the prognosis as regards life is good.

The death rate under regular care ranges from 5 to 30 per cent. In all cases that live, much of the paralysis disappears and occasionally the improvement is so marked that the usefulness of the affected parts is not seriously impaired. Undoubtedly many cases of death and permanent disability are due to the drugs and serums used in treating the patient in its early or acute stages. I have never seen paralysis develop in a case under drugless treatment of whatever nature.

Care of the Patient: Rest in bed, with plenty of fresh air in the room is essential. Stop all food until all convulsions, twitchings, spasmodic movements, spastic contractions, fever, etc., are gone. After this, feed the child a fruit diet for a week, then feed it normally, Cases that are left with muscular and nervous incoordination require muscular and nervous reeducation in the form of educational gymnastics, for which see Vol. IV of this series. The employment of the "iron lung" in cases of chest paralysis is only a spectacular grandstand play that robs the family of much wealth.

Erysipelas

Definition: This is an acute inflammation of the skin and subcutaneous tissues, accompanied with high fever.

Symptoms: Erysipelas may begin with slight fever, chilliness, malaise, and the tingling in the affected part or, as in many cases, it begins with a sudden chill, followed by pain in the head and limbs and a high, irregular fever—the temperature reaching 104 or 105 F., in twenty-four hours. The pulse is full and rapid, the tongue heavily coated, appetite is absent, the urine scanty and often slightly albuminous, the bowels constipated. In severe cases

the "typhoid condition," manifested by delirium, subsultus tendinum, a dry brown tongue, etc., often develops.

Locally the inflammation usually begins in the vicinity of the nose, and spreads upward and laterally over the head to the neck, where it frequently stops. The first feeling the patient will have is one of stiffness, with gradually, increasing sensitiveness. The affected part is red, swollen and tense and frequently ends in a sharply defined ridge beyond which projections may be felt advancing into the subcutaneous tissue. The surface of the inflamed patch is at first smooth and glazed, but later becomes studded with minute vesicles or blebs. The blebs (blisters) break, discharging a serum-like fluid.

If the condition is severe, the swelling will be very rapid, and the part first affected will be the first to lose the redness and swelling. If it spreads only over the forehead, it advances apparently with an elevated ridge; or there is a sharp line of demarkation between the affected and unaffected regions. If the swelling spreads over much of the head there may be delirium. The glands of the neck become slightly enlarged. If the ears become involved the inflammation may spread to the bone.

Brain and meningeal symptoms are common in depleted subjects—those whose "resistance" has been broken down by the use of tea, coffee, alcohol and sensual habits.

Etiology: In most cases a slight wounding of the skin seems essential to the development of erysipelas, though, in some cases, no injury appears to be required. Toxemia and excessive animal protein lay the foundation for this condition. Sepsis from any source may start up the inflammation in susceptible individuals. A wound that does not drain becomes septic and may develop erysipelas. Dr. Tilden calls erysipelas, septic herpes.

Prognosis: Weger says erysipelas is "readily checked without pursuing its usual round-trip course. Fever absent on third or fourth day, no abscesses or secondary infections."

Care of the Patient: Externally, the strictest cleanliness is of the utmost importance. Bathing with warm water (no antiseptics) at frequent intervals will answer the purposes of cleanliness.

Positively no food but water is to be given. Keep visitors out of the sick room and allow quiet, peaceful rest. Have the room well ventilated and keep the patient warm.

Febricula

Definition: This is a short, acute feverish condition without definite lesions. It is also called ephemeral fever and simple continued fever.

Symptoms: Any fever that develops, lasts but a day and ends, leaving no sequels, may be called febricula. Sudden chilliness, headache, malaise, and fever, which may attain to 1020 or 1030 F., with flushed face, loss of appetite, constipation, scanty, high colored urine, coated tongue, full and rapid pulse, are the common symptoms. Herpes (fever blisters) is frequently seen on the lips. The biogony lasts from one day to two days, ending either by crysis or lysis.

Etiology: In some cases there is nothing to account for the condition except a little indigestion. Excessive heat, undue excitement, etc., are frequent causes. It is seen chiefly in young and sensitive individuals.

Care of the Patient: "There is nothing to do for it, except to, stop feeding," says Tilden.

Fever in Children: Fever means poisoning (not drug poisoning), usually decomposition in the intestine. It means there is a mass of rotting food in the food tube poisoning the body.

It means something else—namely; nutrition is suspended until the poisoning is overcome. It means that no more food should le given to the child until all fever and other symptoms are gone, It means that nothing but water, as demanded by thirst, should be given to the patient.

So long as there is fever and diarrhea, no food, of whatever character, can be of any use to the child. If the child appears to be hungry, it is thirst. Give it water, for food will not relieve thirst.

If food is given to the feverish infant it usually vomits it up immediately; nature refusing food as fast as well meaning, but misguided parents and attendants force it upon the child.

Bear in mind that the food decomposed and poisoned the child because the child's digestive power had been greatly impaired and that to give it more food, under such conditions, is only to add to the poisoning.

The fever will last until the poisons have been eliminated and the decomposing food has been voided. Fever, vomiting and purging are nature's methods of getting rid of the poison and when these cases are fasted and not

fed, such troubles soon end. There is no danger in them. Feeding and drugging are the elements of danger.

Never permit your child to be drugged and do not permit the physician to reduce (suppress) its fever.

When animals, young and old, become sick they instinctively refrain from eating. Warmth, quiet and fasting, with a little water, are all they want. When they take nourishment, it is a sure sign that they are recovering. They eat but little at first and gradually eat more as they grow better. They never worry about calories or protein requirements, either.

Infants call for warmth, quiet and fasting, plus water. They will take nourishment if they are not given water, because they are thirsty. But they are made sicker each time they take it.

The body never performs any of what Tilden calls "Hindoo tricks" in this matter of taking nourishment. It does not digest and absorb food when digestion is suspended and the membranes of the stomach and intestine are exuding matter instead of absorbing it. It is exuding fluid to aid in expelling the mass of putresence in the food tube and to protect the walls of the tube and any irritated surface from the irritation. Sometimes nature even rejects water, expelling it by vomiting, as often as it is forced down. How foolish, in such cases, to continue to force food and drugs on the patient and water into his stomach. Nature is trying to protect herself by this vomiting. She even guards herself against water by creating a bad taste in the mouth that causes the patient to refuse water.

"In all sick stomachs," says Tilden, "especially in typhoid or cholera infantum, there is an irritation due to the bad effects of decomposition, and the nausea and vomiting is a conservative measure and, rightly interpreted mean, * * * a suspension of absorption and a pouring out of the water of the blood and other secretions for the purpose of immunizing and flushing" the stomach and intestine.

Parents, if you are wise, you will never feed your sick children: Be not afraid to let them fast. For, everyday that they fast lessens their illness and their danger. Feeding adds to their suffering and danger and prolongs their illness.

Glanders

Definition: This condition is seen chiefly in horses, but sometimes develops in man. It is characterized by the development of nodules resembling those of miliary tuberculosis, in the skin or mucous membrane of the nose or mouth. When the local lesion is in the nares the condition is called **glanders**; when in the skin, **farcy**.

Symptoms: Acute glanders begins with constitutional febrile symptoms and local inflammatory signs. In two or three days nodules appear on the membrane of the nose and ulcerate, with a mucopurulent discharge. Sometimes these nodules become necrotic adding a foulness to the discharge. The lymph nodes of the neck are enlarged and an eruption—papules which become pustules—appears over the face and joints. Chronic glanders resembles a chronic cold with ulcer of the membrane of the nose. It may last for months.

Acute farcy presents the same constitutional symptoms—fever, malaise, etc.—as other so-called infections, with necrosis of the nodules. Nodules known as farcy buds form along the lymphatic channels and suppurate. Purulent collections may form in the joints and muscles.

Chronic farcy manifests as tumors in the skin of the extremities, which suppurate. There are almost no constitutional symptoms, the process is local, the inflammation is slight and the condition may persist for years.

Etiology: The bacillus mallei is accused of causing glanders. It is supposed to be derived from "infected" horses. We may be sure that, whatever part the bacillus may play in causation, it would be powerless in those of pure blood and full nerve force. Toxemia is basic.

Prognosis: This condition is extremely rare in man and I cannot find any records of any cases cared for by hygienic methods. Medical prognoses run: acute glanders—"death takes place in eight to ten days"; chronic glanders—"some recover"; acute farcy—"death often occurs in ten to fifteen days"; chronic farcy—"death may occur from acute glanders or pyemia."

Care of the Patient: Strict cleanliness is absolutely essential. No food should be given during the acute stage. Sunbaths are indicated for the chronic stage. A diet of fruits and vegetables with no animal foods should be fed. The local lesion should be thoroughly cleansed.

Glandular Fever

Definition: A rare affection o infancy and childhood characterized by pronounced inflammatory swelling of the lymph glands, particularly of the neck.

Symptoms: The condition begins with chilliness, headache and general malaise, followed by moderate fever, slight reddening of the throat and tonsils and pronounced inflammatory swelling of the lymph glands, most frequently of the deep neck glands, behind or beneath the sternocleidomastoid. Rarely the glands suppurate.

Complications: These are few and rare. Nephritis is the most common of these.

Etiology: Putrescent poisoning from gastro-intestinal putrefaction superadded to toxemia.

Prognosis: The condition lasts ten days to four weeks. Recovery is the rule.

Care of the Patient: This condition should be handled as all other acute processes; i.e. rest, warmth, fasting during the acute stage; fruits and vegetables during convalescence.

Gonorrhea

Definition: An acute "self-limited" inflammation of the male urethra (specific urethritis) or of the female vagina and adjacent parts, arising from putrescent infection.

Symptoms:

Male: Two days to two or three weeks after infection, a feeling of uneasiness or an itching is felt at the mouth of the urethra. This feeling increases and merges into pain, particularly while urinating. Soon there appears a discharge of creamy consistency, of a yellowish color and of a thready, slightly adhesive character, which dries upon the clothing and bed linen. This may glue together the lips of the urethra, obstructing urination.

The inflammation and pain, particularly upon urination increase, the lips of the meatus become red and swollen and, where the urine is highly acid, the redness and, swelling increase until rawness and excoriation of the mucous membrane occur. In such cases systemic infection is a possibility. If the urethral passage is normally very narrow, the pain is likely to be especially great.

The fore-skin frequently becomes oedematous, the oedema sometimes becoming so great that it is all but impossible to force the fore-skin back. This interferes with cleanliness making it necessary to wash out the accumulations under the prepuce by means of a syringe.

The swelling and irritation of the urethra extend backward towards the bladder so that in five or six days general urethritis is established. Pain is increased by urination, by erections and by crossing the legs. At this stage erections are quite frequent, particularly while lying down and are very distressing. In very severe cases and in nervous and irritable patients, the erections become extremely painful and obdurate—the penis becoming hard, very sensitive and often more or less curved: "chordee."

The discharge is often streaked with blood and, in some severe cases, the blood flows freely. The discharge, beginning as a whitish to yellowish cream-like mixture of pus and mucus, often becomes greenish. In the acute stage it emits an odor resembling that of decayed codfish 'and, where cleanliness is neglected, becomes exceedingly offensive.

Female: The distressing symptoms of gonorrhea in men are largely due to the obstruction of the urinary passage. Possessed of a larger and shorter urethral passage the female suffers less than the male with an equal severity of inflammation. In the vagina there may be no suffering at all, or there may be slight irritation and pain.

Urethral Gonorrhea in the female presents symptoms very nearly like those of urethritis in the male, except that they are less violent.

Gonorrheal Vulvitis is gonorrhea of the clitoris and its prepuce, the vestibule, the greater or lesser lips and adjacent structures. These alone may be affected. The inflammation may be limited to the mucous membrane of these parts, or it may reach into the glands and tissues invested by these membranes. In some cases the skin adjacent to the genital organs is involved. In fat women erythomatous inflammation of the skin often develops.

Intense heat, redness, swelling, and itching attend this condition. In some cases erosive inflammation develops. Strong sexual desires are present in the early stages with many sufferers. Walking greatly increases the pain of the inflamed parts. Some patients often suffer while sitting. Even where no urethritis exists the discharge of urine may be painful, as the last drops are diffused over the inflamed vulva.

Vaginal and Uterine Gonorrhea is an extension of vulvitis. The vagina may be affected throughout it whole length or only that portion adjacent to the vulva or to the neck of the uterus.

When the uterus is involved the discharge is of a mucous character, and passes from the vagina in thready masses, having a much greater tenacity than when the vagina only is involved.

The acute stage of gonorrhea varies from one to three weeks. The symptoms gradually abate, the discharge becomes less, the erections cease, the inflammation subsides, and recovery follows. Gonorrhea is a "self-limited disease" running a variable course of four to seven weeks, cases rarely recover in less than four weeks and rarely run longer than seven weeks—with or without treatment.

Chronic Gonorrhea: This is a condition described in medical works in which there is no pain and perhaps the only symptom is a single drop of matter which is seen in the morning or at other times if the glans penis is pressed before urinating.

We doubt that it is gonorrhea. If there is such a thing as chronic gonorrhea it must endure in maltreated cases or in patients whose habits are not favorable to recovery.

Complications: Medical writers list a whole collection of complications of gonorrhea such as gleet, stricture of the urethra, prostatitis, sterility, heart disease (pericarditis), "gonorrheal rheumatism," "blood-poisoning," peritonitis, various abscesses, "three quarters of the cases admitted to the wards for female trouble," "many more than half of the cases of blindness of infants," orchitis, and many other conditions.

Gonorrheal septicemia and pyemia represent very serious conditions and can occur where absorption takes place. Death is not uncommon in such cases.

Thousands of women are operated on yearly for "female diseases" resulting from gonorrhea or wrong treatment therefor. Pus tubes, chronic inflammation of the womb, pelvic abscesses, etc., are not uncommon complications in medically treated cases. We do not meet with such cases in hygienic practice, except those who come to us with these conditions already developed.

Abscesses in the male often form and burrow in such a way as to make their way into the bladder, the pus showing up in the urine. Gonorrheal infection of the testes is often followed by gonorrheal rheumatism, a very intractable condition.

Since these complications are never met with in cases cared for hygienically, and since all the complications we have seen were in medically treated cases, we are convinced that they are the results of medical treatment. The writer has seen but one case of mild orchitis in any case treated by him. This man was carrying out instructions rather indifferently until the orchitis developed and scared him into good behavior. The orchitis then disappeared in four or five days.

Tilden says: "I have had cases consult me with fistulous openings back of the glans through which the urine found exit instead of passing out through the mouth of the urethra, caused by ulceration forced by obstructive dressings. Plugging up the meatus with pledgets of cotton held in place by the foreskin, or by rubber or cotton cots frequently causes ulceration and sloughing at the mouth of the urethra, after which there will be more or less obstructive, organized stricture formed; or if a bandage is kept in place by a cord wrapped around the penis oedematous swelling will take place, which of itself becomes obstructive, forcing the discharge back into the deep urethra, infecting the urethra's full length, and causing inflammation of the prostate and even of the bladder."

Etiology: Absorption of septic matter through an abrasion in the mucosa of the urethra or vagina. All so-called "specific infections" are septic or toxic infections. Sepsis is the infecting agent. "Gonorrheal infection" is assumed to come only from a case of gonorrhea. How, then, did the first case of gonorrhea develop? If one case can develop without a prior case, cannot millions do likewise? Gonorrhea is often seen in children and sometimes no possible source of infection can be found.

Prognosis: Recovery occurs in four to six weeks. Women tend to recover earlier than men.

Care of the Patient: There is no other so-called "disease" which so quickly and surely grows worse when indiscretions are indulged, or that so quickly responds to hygienic care. Every symptom may be made better or worse at will by changing the diet, or by other factors. So true is this that when a patient is not progressing we may be absolutely sure that he is not carrying out instructions.

Perfect cleanliness with a sensible dressing to permit drainage are essential. The affected parts should be washed several times daily. Frequent urination will keep the urethra cleansed. Injections of drugs are to be avoided. Douches for women are not advisable.

Dressings of the penis, to catch the discharge, should be loose and should hang from the hips. No obstruction to drainage should be permitted. Tilden says: "the barbaric practice or wrapping or tying bandages on the penis to secure cleanliness causes retention of the discharge and swelling of the penis by interfering with the return circulation. I have seen dangerous infection caused by such interference with the circulation; in one case gangrene, necessitating amputation of the penis."

The immediate employment of the fast in the acute stage is important. If a fast cannot be taken a diet of fruit or fruit juices may be employed. Tilden says: "Unless those who are decidedly autotoxemic are fasted or placed upon a very light diet and taught how to be scrupulously cleanly, the urethral inflammation will become so intense that sloughing will take place, allowing the deeper tissues to become involved; which means that septic infection of the blood is starting up." The fast should last through the whole of the acute stage, preferably until there is no longer a trace of the discharge.

Trall advised that "the dietary should be exceedingly simple and very abstemious. Flesh food of all kinds, milk and all of its products, with seasonings and condiments of all sorts, should be prohibited. During the stage of acute inflammation, but little food of any kind should be taken."

To Trall's dietary proscriptions let us add eggs, bread, cereals, all concentrated starches and proteins, sugars, coffee, tea, cocoa, chocolate, alcoholic drinks, soda fountain slops, tobacco and all drugs.

Hard work, walking, horseback riding, sports, etc., have a tendency to increase the suffering and prolong the trouble. Rest hastens recovery and lessens suffering. Sexual rest is imperative. Impossible during the acute stage, intercourse should not be indulged at any stage prior to complete recovery. Thoughts of sex that tend to arouse desire should be avoided.

Influenza

Definition: Influenza is a blanket term which, like the terms "syphilis" and "rheumatism," is applied to many different symptom-complexes, ranging all

the way from a cold to pneumonia, typhoid fever, sleeping sickness and cerebro-spinal meningitis. The term should be dropped from our language. It is defined as "a contagious epidemic catarrhal fever with great prostration and varying symptoms and sequels; grippe, or La Grippe."

Symptoms: "Influenza" usually begins with fever, sometimes with a chill. The symptoms are those of a severe cold. Indeed we are told that "the difference between influenza and the ordinary cold is the tendency of the former to continue long after 'the time for a hard cold to disappear." The patient complains of being very weak and in some cases the weakness runs on for weeks and the catarrh, which is always pronounced, hangs on continuously. In pronounced cases the mucous membrane is involved from the nose through the entire bronchial tubes; the lungs often become engorged. Pneumonia and pleurisy often develop. Delirium and prostration are often present, where the bronchial tubes and lungs are involved. The so-called nervous forms of influenza are characterized by headache, much pain in the joints and prostration. Other cases "develop in a manner similar to that of typhoid fever." "Intestinal influenza" is marked by much fever and by such "complications" as pericarditis, endocarditis, septicemia, peritonitis, etc.

Complications: Delirium, spasm, peritonitis, pneumonia, pleurisy, heart trouble, sleeping sickness, etc., develop in those cases that are fed and drugged.

Etiology: The different forms of so-called catarrhal fevers—colds, influenza etc.—are one and the same, differing only in degree. Enervation and toxemia complicated by much intestinal decomposition are the causes. The most enervated and toxic have the severest cases and in this class is the highest mortality. Sensualists have the worst cases.

Prognosis: Dr. Weger says of the care of "influenza" cases with hygienic methods: "happy results have been obtained, with rapid decline of all symptoms and abatement of temperature usually within three days. No pneumonia or sequelae have complicated any case." No deaths have occurred under hygienic care.

Care of the Patient: As soon as the first acute symptom appears the patient should stop all eating and go to bed and remain there. Warmth, rest and fasting are the needs and the only needs.

Major Austin says that "during the virulent influenza epidemic in Calcutta in the cold weather of 1918" twenty of his bad cases volunteered to try the

fasting "cure." The fasts in these cases lasted four to six days. "No drugs were administered during the treatment other than a saline purge, which was taken daily during the fasting period."

He says that "within eight to ten days all these cases were fit and strong enough to return to their work, and they all had excellent appetites for even the plainest of meals."

His other cases did not; fare so well. He tells us; "I was not so fortunate, however with other cases of influenza which had textbook diet—milk, beeftea, egg flips, etc.—from the beginning of the disease.

"Few of them escaped the textbook complications—gastritis, bronchitis, pleurisy, or pneumonia—while one got double pneumonia and died. Most of them were unfit for duty for two or three weeks, and some very much longer."

Kala-Azar

Definition: This is known as dum-dum fever, or tropical splenomegaly and is characterized by a rapid enlargement of the liver and spleen. The condition is frequent in India and other parts of the Orient and is attributed to a parasite—Leishmania donovani.

Symptoms: High fever with rapid enlargement of the liver and spleen mark the beginning of kala-azar. The fever usually subsides in from two to four weeks, but recurrences are the rule and, finally, a low, continued fever may develop. Marked weakness, emaciation, and anemia develop, the skin acquires a grayish color and general edema frequently develops. In three-fourths of the cases the skin extends below the navel.

Prognosis: The mortality of 96 per cent under medical care is probably due to "quinine in large doses, and arsenic" which "are believed to be of service in treatment."

Care of the Patient: See Malaria.

Leprosy

Definition: An affection characterized by granulomatous formations in various parts of the body, more particularly in the skin, mucous membranes, and nerves. It is also called lepra and Elephantiasis Graecorum. In ancient

times the term leprosy was applied to a wide variety of skin affections that are now designated by other terms.

Symptoms: Prodromal symptoms, consisting of headache, malaise, irregular periods of fever, and pains in the joints, are sometimes seen. Two clinical forms are recognized:

The Nodular type is characterized by the development of large or small nodular elevations of a dusky-red color, in various parts of the body, especially on the face, the extensor surfaces of the elbows and knees, and hands. After a time these break down, forming ulcers which do not readily heal, or they are transformed into dense scar-tissue, thus producing unsightly deformities. The mucous membrane of the eyes, nose and throat may also be involved.

The Anesthetic type is characterized by lancinating (darting) pains and areas of hypersthesia (excess feeling) followed by the appearance of yellowish macules, which spread peripherally and finally become anesthetic. Sooner or later such tropic changes as milk. white patches (lepra alba), areas of dark brown pigmentation, bulbus (vesicular) eruptions, loss of hair, muscular atrophy, mutilating ulcers, and a one by one disappearance of the phalanges through disintegration and absorption (lepra mutilano). In advanced cases the skin of the face becomes irregularly thickened and nodular (leontiasis), the ears become leathery, the facial hair falls out, the eye lids become everted, and the hands and feet become crippled and deformed.

These two types of leprosy are often mixed.

Etiology: Leprosy belongs largely to tropical and sub-tropical countries. Toxemia and intestinal putrescence are undoubtedly basic causes, but there would appear to be complicating causes superadded to these. The bacillus lepra is claimed to cause this condition.

Prognosis: This "disease" is very chronic, often persisting for twenty or more years and is occasionally "arrested." Spontaneous recoveries occur. The author has cared for but one case. Recovery was complete and speedy.

Care of the Patient: Isolation is practiced although leprosy is said to be "only mildly contagious." Isolation for such long periods undoubtedly works against recovery.

Scrupulous cleanliness, rest, fasting, and a fruit and vegetable diet are the great needs in these cases. Sun bathing is of distinct value. The one case I

cared for fasted eighteen days to recovery.

Malaria

Definition: A biogony characterized by enlargement of the spleen, fever, with periodic intermissions or remissions, chills and fever; known also as chills and fever, fever and ague, and paludism. It is common to divide malaria into five forms, as follow:

Intermittent Malarial Fever: This is characterized by paroxysms of fever occurring at definite periods, each paroxysm consisting of a cold, a hot, and a sweating stage.

The Cold stage is marked by lassitude, aching in the limbs, and great chilliness and pinched features, blue lips, and a cold, rough surface coexisting with a high rectal temperature (105 to 106 F.) Vomiting may occur. The chill may last from a few minutes to an hour or more.

The Hot stage begins when the surf ace temperature begins gradually to rise so that the skin becomes hot, the face flushed, the eyes injected, and the pulse full and rapid. The axillary temperature may rise to 105 or 107 F. Severe pain in the head, back, and limbs, is accompanied by intense thirst. The urine is dark and scanty. This stage usually persists for one to five hours.

The Sweating stage marks the subsidence of the hot stage. The fever gradually subsides, the pains grow less, free perspiration follows and the urine becomes abundant. Within an hour or two the paroxysm is over and the patient falls into a refreshing sleep.

In addition to the recurring paroxysms, intermittent malarial fever presents enlargement of the spleen, anemia, pigmentation of the leukocytes, but no leukocytosis.

Estivo-Autumnal Fever (remittent. fever, continued fever) is seen chiefly in late summer and autumn in temperate zones and at all seasons in the tropics, where it is often most severe.

The symptoms of this form are very irregular, the hot state of the paroxysm often lasting twenty-four to thirty-six hours or longer, and the Intermissions are very short. In many cases Instead of actual intermissions there are simply remissions. The chill and the sweat may be as severe as in. the above described form, but usually they are slight and of short duration. Often there is slight jaundice, giving bilious remittent fever. Mild delirium develops in

some cases causing the condition to resemble typhoid fever. Marked prostration is always present and the spleen is enlarged.

Pernicious Malarial Anemia: is seen in tropical and sub-tropical countries but is rare in temperate regions. The symptoms vary with the local lesions. If the capillaries of the brain and meninges are the seat of the lesion, delirium, aphasia, and rapidly developing coma (comatose type) develop. If the localization is in the digestive tract, vomiting and purging of serous material, cramps, suppression of urine, coldness of the surface, profuse sweating, and fatal collapse (algid type) are the likely symptoms. In some cases, due to sudden and intense hemolysis (disintegration of red blood cells) the paroxysms are accompanied with jaundice, bilious vomiting, and blood in the urine. Bleeding into the subcutaneous tissues and from the mucous membranes may also occur (hemorrhagic type).

Latent Malaria is the term given to a condition in which the supposed malarial parasites are found in the blood, but no symptoms are present.

Masked Malaria is a latent malaria plus symptoms—headache, neuralgia, diarrhea, dysentery—which are not those of malaria.

Hemoglobinuric, or blackwater, fever, seen in Africa, Italy, Central America and our own southern states, is supposed to be a form of malaria.

Malarial Cachexia presents anemia, sallow or muddy complexion, subnormal temperature, and perhaps occasional slight fever. The spleen is greatly enlarged and there are marked weakness and emaciation. Indigestion, flatulency and constipation are common symptoms, while periodic headache, neuralgia, and blood in the urine are seen in some cases.

This condition is the sequel to medically treated malarial levers and does not develop under hygienic care. It is said to also develop insidiously as a primary condition.

Etiology: Malaria is said to be due to a parasite or to three parasites—plasmodium vivax, plasmodium malariae, and plasmodium falciparum—which are introduced into the body by the bite of certain mosquitos (the Anopheles). The mosquito derives the parasite from man. The question: which had the parasite first, man or the mosquito, has never been answered. We are certain, however, that the mosquitos and parasites are harmless to the healthy individual. Only the enervated and toxemic have malaria.

Prognosis: Weger says that "in all stages" malarial fever "yields to eliminative and dietetic treatment, leading to the conclusion that by lifting the

load from the digestive organs, all the power of the body is transferred to the organs of elimination, permitting full use of latent, natural, immunizing forces to overcome the plasmodial influences. * * * No relapses have been reported on return to fever-infested surroundings."

Care of the Patient: During the acute stage the malarial patient should be cared for as in any other acute "diseases"—rest, warmth, fasting. Dr. Weger says: "Rigid dietary discipline must be enforced after fever subsides. No quinine or other medicines are given. * * * Tranquil and cheerful surroundings with little or no visiting will aid materially in maintaining a quiet nervous system."

Malta Fever

Definition: Malta, or Mediterranean fever, so named because it is especially prevalent in Malta, but is seen in other tropical and subtropical countries, may almost be called a chronic acute "disease." It is characterized by periods of fever alternating with periods of normal temperature and may last a year or more.

Symptoms: Fever is the most striking symptom. The temperature usually rises to a maximum of 103 or 104 F., runs an irregular remittent course for from one, to five weeks, then gradually falls to normal for several days then a relapse occurs. This sequence of events is repeated again and again, the duration of the "disease" ranging from eight weeks to a year or more. During the periods of fever there are general depression, profuse sweating, neuralgic pains, especially in the legs, and swelling of the joints. The spleen is always enlarged and, as the "disease" progresses, anemia and debility develop.

Complications: Medical works list bronchitis, peripheral neuritis, orchitis, and arthritis as the most common complications. As medical "treatment is entirely symptomatic" (suppressive), these complications and the two to three per cent mortality are due to the treatment.

Etiology: The rarest "diseases" are the ones of which medical "science" is most certain it knows the causes. They are sure malta fever is due to the micrococcus melitensis, which finds its way into the body by way of the milk of infected goats. As in all other so-called bacterial and parasitic "diseases," enervation and toxemia must come first.

Prognosis: Good. Under hygienic care all cases should recover.

Care of the Patient: Care should be the same as that given for malaria or for typhoid fever.

Measles

Definition: Measles is an eruptive biogony characterized by catarrh of the respiratory tract, moderate fever, and a red papular eruption, which appears on the fourth day and is followed by a bran-like desquamation.

Symptoms: Measles begins with a "cold in the head," accompanied with slight fever and malaise. These last from three to six days during which time the patient feels wretched. Soon there follow headache, nausea, sometimes vomiting, and chilly feelings. The coryza is intense with cough and redness of the eyes and eye lids. The temperature rises and the skin, especially on the face, feels hot and tingling. The tongue is furred. The mucous lining of the mouth and throat is an intense red. Little blue dots may be seen on the inside of the cheeks.

The eruption develops on about the fourth day, starting, usually, on the forehead, then the face, then over the body generally. The eruption begins as little red spots, which increase greatly in number and are gradually arranged in groups, sometimes in crescentric groups.

The fever begins to fall on the fifth or sixth day, and a fine, bran-like desquamation (scaling) of the skin begins, which lasts from a few days to several weeks.

Black Measles (malignant or hemorrhagic measles), is a failure of the rash to "get out," accompanied with hemorrhage under the skin. These cases are said to be usually fatal, perhaps largely as a result of the failure of the eliminative effort.

Complications and Sequelae: Under medical care these are chronic coryza, bronchopneumonia, severe inflammations of the mouth, Bright's "disease," nose bleed, arthritis, meningitis, paralysis, and brain abscess. These must all be the results of suppressive treatment, since they never develop under Hygienic care. One medical author, in discussing the complications of measles, says: "Hot drinks should be given freely as these help to 'bring out the rash.' A sudden chilling sends the blood to the internal organs and may cause a congestion of the kidneys". This is evidence, from an

orthodox source, that complications are due to suppressing the eliminating effort through the skin—the rash.

Etiology: Medical authors consider measles to be "highly contagious" but add "the contagium has not been isolated." We consider it to be due to protein poisoning in a toxemic subject and note that epidemics of measles follow upon the heels of feast days.

Tilden says: "Measles is a crisis—nature eliminating an excess of toxin. A cold is supposed to be the lightest so-called disease. There are light crises taking place at various locations internally. A hoarseness lasting three hours; coughs lasting for a few hours or a day; a headache; many small crises causing discomforts for an hour or two. After these have passed off, the person will declare for the remainder of the twenty-four hours, that he or she never felt better. What is the explanation? Toxin saturation. An unusual draft on the reserve nerve energy may precipitate measles, scarlet fever, diphtheria, or pneumonia. In epidemics where one malignant type develops there will be nineteen light cases ranging from two or three days in bed to so slight an **angitis** (slight irritation or inflammation of the throat) that it will be passed unnoticed. In any epidemic of one hundred pronounced cases there will two thousand so-called infections—a 'fat' chance for serum or vaccine immunization. A strict, restricted diet or a short fast, with stomach and bowel washes, and a hot bath at bed time, will put any old epidemic hors de **combat!** What about the cause? The cause is dirt inside and out. The use of antiseptics is not cleanliness—anything offensive to the nose cannot be benignant. The nose will protect if allowed to do so."

German Measles (Rubella) is described as "having the rash of measles and the throat of scarlet fever."

Symptoms: It begins with slight fever, headache, pain in the back and limbs and coryza. On the first or second day the rash develops, beginning on the face and spreading, in twenty-four hours, over the whole body. The rash, consisting of little pink raised spots, fades after two or three days. The fever is slight, the rash is diffuse and of a brighter color than ordinary measles.

Prognosis: Rapid and uniform recovery without the development of complications is the rule under Hygienic care.

Care of the Patient: Due to the persistence of the contagion-superstition these cases have to be isolated.

The patient should be kept quiet and in bed. The room should be light and airy and fresh air should circulate in the room at all times. Medical authors say, "great care should be taken to keep him (the patient) from catching cold, for broncho-pneumonia is to be feared as a complication of measles, and tuberculosis as a sequel." This fear of "catching cold" from fresh air is more superstition.

The patient should be kept warm and not allowed to chill. Chilling checks elimination and retards recovery. If it is winter time, a hot water bottle, or other means of applying warmth to the body, should be placed at the feet.

No food should be allowed until 24 hours after acute symptoms are gone. All the water desired may be given, but water drinking need not be encouraged or forced on the theory that it flushes toxins out of the body. Anyway, nature has concentrated the toxins in the skin and has adopted unusual methods of elimination. No drugs of any kind and no enemas are to be employed.

A luke warm sponge bath twice a day, for cleanliness, should be given. Antiseptics and alcohol are to be avoided. Do not use oil, on the skin when it begins to scale.

Medical authors tell us that the room should be kept darkened as the light hurts the child's eyes. This I have not found to be so. I always have the room well lighted. I believe that the darkened room is more likely to injure the eyes.

The mouth and throat should be kept clean. Plain warm water, or warm water with lemon juice, or fresh pineapple juice will do for this purpose. Use no antiseptic gargles. Do not try to reduce or control fever.

Convalescence: This is a critical period if the patient has been cared for medically. There is nothing to fear if the patient has been cared for as above directed.

Feeding should begin with orange juice, or grapefruit juice, or fresh pineapple juice, or fresh apple juice. This should be given as much as desired, for the whole of the first day. The second day, breakfast may be oranges or grapefruit or peaches in season. Lunch should be pears or grapes or apples in season. Dinner may be a raw vegetable salad and one cooked non-starchy vegetable. The third day may begin the normal diet, but in reduced amounts. By the end of the first week the patient should be eating normally.

The patient should remain in bed for at least twenty-four hours after all acute symptoms have subsided. Physical activity should be mild at first. Healthful living thereafter will maintain the improved health that has resulted from this house cleaning.

Meningitis, Cerebrospinal

Definition: This condition is also called cerebrospinal fever and spotted fever. It occurs both sporadically and epidemically. It is characterized by inflammation of the brain and spinal cord.

Symptoms: Several forms are recognized as follow:

- (1) Common Form—usually begins abruptly with a chill, followed by vomiting, excruciating pain in the head, back and limbs, and fever. Muscular spasms, especially of the neck and back, cause the head to be bent backward and the back to straighten, or, in severe cases the back may be arched and there is inability to completely straighten the leg. The temperature ranges between 101 and 103, though in some cases it remains nearly normal. The pulse is usually fast, but may be slow, breathing may be affected, the abdomen is often retracted and the bowels constipated. There is usually some delirium and in severe cases stupor and coma are seen. Convulsions often occur. Eruptions sometimes, but not always, occur.
- (2) Fulminant Form—this form, often called the malignant form, begins suddenly with a chill, followed by vomiting, headache, moderate fever, convulsions a. petechial or purpuric (hemorrhagic) rash, and death within twenty-four to thirty-six hours from collapse.
- (3) Abortive Form: This term is applied to those cases that begin abruptly with grave symptoms, but end in recovery in a few days.
- (4) Intermittent Form: In these cases there are intermissions or marked remissions in the fever and other symptoms daily or every other day.
- (5) Chronic Form: this term is applied to those cases in which the patient is in a stuporous state for months, after the acute symptoms have subsided. They ultimately become extremely emaciated despite the "plenty of good nourishing food" and "tonics' so freely given.

Complications and Sequelae: These are largely confined to the nervous system though pneumonia, arthritis and suppurative inflammation of the internal or middle ear develop under medical suppression. The nervous

complications and aftermaths are defective vision, defective hearing, aphasia, palsies in various parts of the body, imbecility, chronic hydrocephalus and persistent headache from chronic meningitis.

Etiology: The inflammation is of putrescent origin. Protein putrefaction in the digestive tract superadded to toxemia is the cause.

Prognosis: This is a dangerous acute inflammation, not because of any peculiar nature of the inflammation, but because of its location in or near vital centers. The high death rate and frequent complications and sequelae seen in meningitis seem to be due largely to the free use of opium in treatment. Under hygienic care-the prognosis is usually good.

Care of the Patient: Fasting, quiet and warmth are the great needs. Indeed the patient needs to be kept hot. It is Dr. Tilden's practice to give a hot bath (100 to 105) every three hours, of a half hour's duration. Heat to the body should serve even better.

Any paralysis or other troubles that may follow should be cared for by active and passive exercise (See Vol. IV), sunshine, proper food and rest.

Meningitis, Spinal (Leptomeningitis)

Definition: This is inflammation of the spinal piamater, a membranous covering of the cord. It may be either acute or chronic.

Symptoms: Acute Form: Acute spinal leptomeningitis alone, without involvement of the cerebral membranes, is rare. It usually occurs as a part of cerebrospinal meningitis. Existing alone it occasionally follows "infectious fevers," injuries, or exposure. In some instances it is tuberculous. The symptoms are the same as those of cerebrospinal meningitis.

Chronic Form: In this condition there is pain in the back, stiffness of the muscles; excessive sensitiveness, morbid sensations, and, rarely, loss of sensation of the limbs; some loss of power and exaggerated reflexes.

Etiology: Same as that of cerebrospinal meningitis.

Prognosis: Medical authors say, "The outlook is grave. Recovery sometimes follows, but rarely without partial paralysis." Dr. Weger says acute or chronic inflammation of the coverings of the brain and cord "are always grave" and are "particularly dangerous."

Care of the Patient: These cases should be cared for in the same manner as described for cerebrospinal meningitis.

Mumps

Definition: Mumps (or idiopathic parotitis) is a symptom-complex characterized by swelling of the parotid gland. It consists of a painful, non-suppurative swelling of one or both parotid glands and often of other of the salivary glands.

Symptoms: The swelling is just below and in front of the ear, and lifts the ear a little. The first evidence of the "disease" may be a sharp pain felt upon swallowing something sour, though the trouble may be preceded by a few days of fever and malaise. For about two days the swelling increases and the submaxillary and sublingual glands may become swollen. For another seven days the patient has a "swell time" and then the fever and swelling begin to decrease. The mouth can scarcely be opened and there is pain on swallowing 'when the swelling is at its worst.

Complications: Most medical authorities declare that mumps do not endanger life and that all fatalities are due to complications. Heart disease, kidney trouble, arthritis and meningitis, are only a few of a formidable list of complications they describe. These are the complications that develop in all the other acute "diseases" of children and are due to suppressive treatment. "It should always be borne in mind," says Harry Clements, N.D., "when thinking of complications, that they "too often wait, not upon the original disease, but upon the treatment of it." The way to avoid complications is to avoid the suppressive and "drastic cure-quick" methods of treatment.

Adults usually have more suffering with mumps than children. In some male patients the disease is said to "go down on them," when orchitis (inflammation of the testicle) develops in one or both testicles. This complication is supposed to result in sterility when both testicles are involved. The complication is due to wrong care. The same is true of vaginitis and the enlargement and tenderness of the breasts, which sometimes complicates the trouble in girl patients. Inflammation of the ovaries is a very rare complication.

Etiology: Enervation and toxemia, the latter, perhaps of carbohydrate origin, are back of this affection. It does not develop in healthy individuals.

Prognosis: Recovery in six to ten days is the rule in those who take proper care of themselves. Pronouncedly toxemic cases, or cases that do not

take proper care of themselves may run fourteen days or longer.

Care of the Patient: Rest in bed with warmth until the temperature is normal and the swelling is gone will hasten recovery. No food and no drugs should be given. There is nothing to the popular superstition that acids should not be taken during this time and if the child refuses to fast, orange juice or grapefruit juice may be used.

As soon as the swelling has subsided, fruit may be fed three times a day for the first three days, after which a gradual return to a normal diet may be made.

The above care will prevent complications, but if these have developed before this care is instituted, the fast should continue until all complications and pain are gone.

Pneumonia

Definition: Pneumonia is inflammation of the lung tissue. There are two forms.

Broncho-pneumonia presents small scattered spots of inflammation in the lungs. This type is the most common in small babies.

Lobar pneumonia is inflammation of the lobe, and even more extensive areas of the lung. It is the more common form in older children and adults.

Pneumonia does not develop in children who are properly cared for. It is more serious in infants than in children from three to twelve years. The mortality in pneumonia in early childhood is lower than during any other period of life.

Symptoms: Pneumonia begins, usually, apparently suddenly, although it may be preceded by a cold or bronchitis, with a severe chill or chills, lasting fifteen minutes to an hour, followed by a sudden rise in temperature. Intensely sharp pain in the lower front part of the chest or in the region of the arm pit develops in a few hours. Breathing is labored. There is a dry painful cough, with scanty, sometimes, blood streaked, mucus. After the first day the sputum becomes orange-yellow or prune-juice color. There is rapid pulse and heart action.

Complications: The most frequent complications that develop in pneumonia are pleurisy, empyemia, endocarditis, acute arthritis, meningitis, and jaundice. Chronic pneumonia, abscess and gangrene, mental

disturbances, including temporary delusional insanity, and tuberculosis often follow as sequelae. These complications and sequelae belong to medically treated cases, not to those cared for hygienically.

Etiology: Intestinal putrescence in the enervated and toxemic is the cause of pneumonia. There does not exist a predeliction of the toxins for the lungs, but pneumonia develops instead of some other biogony because the lungs offer least resistance.

Prognosis: Weger says of both lobar and bronchial pneumonia, that they "have invariably responded in the same even and consistent manner" to hygienic care. Pneumonia is a sharp illness, but short. Alcoholics and the aged present a higher death rate than other groups.

When we know that the common cold has the medical profession hors de combat, we should not be surprised at their sorry record in pneumonia. Tilden says: "If coryza and 'flu' baffle scientific medicine, it is not strange that pneumonia—the most formidable of the three types of respiratory manifestations, of gastro-intestinal putrefaction—would get the profession's 'goat'. * * * In pneumonia the death rate is from twenty-five to thirty per cent. At least fifteen to thirty-five out of every hundred cases of pneumonia are killed; they are as surely and needlessly killed as if they were put out of existence by a firing squad, and, indeed, the murderers, like the individual members of a. firing squad, do not know just how much they had to do with the killing. * * * Pneumonia certainly does baffle the doctors, from their point of view; but, from the writer's point of view, it is pneumonia that is baffled by the doctors. If it were not for the baffling treatment of scientific medicine, pneumonia would end in recovery in ninety-five or more per cent of the prostrations. The truth is that there are few so-called diseases that respond so nicely and quickly to a wise let alone treatment; and there is no so-called disease that is made so formidable by meddlesome medical officiousness as pneumonia. * * * Why shouldn't medical men flounder in their treatment of pneumonia, when they flounder so disgracefully in their treatment of a common cold—coryza? And certainly the reverberations of the death-knells from 1918, sounding the doom of millions who were professionally massacred with 'flu' will not soon die out. * * Possibly five per cent of pneumonia patients will die even when treated correctly. If this is true, should the disease be advertised as very dangerous."

Care of the Patient: Open the windows and doors or take the patient outdoors. Stop all food but water. Keep the patient warm—keep a hot water bottle at the feet. Let him rest. Do not disturb him. Secure peace and quiet for the patient. Let him alone and let him get well.

No drugs, no serums, and no food are to be given.

When the fever is gone and the lungs are clear, and there is no more cough, give the patient orange juice. Keep him in bed for at least a week. Rest is important. Keep him on orange juice for most of this time, after which give fruit and then gradually work up to the normal diet. Nursing infants may be given light breast feedings, instead of fruit, after the preliminary period on orange juice.

Weger says: "Deep heat has some times been used in the form of diathermy in the lung congestions, being easier to apply and less exhausting than the hot tub bath, while giving quick relief from pain and the usual discomforts of respiratory distress and cardiac labor."

The expression "less exhausting" means that deep heat and diathermy are also exhausting. The author has found no need to resort to these measures and would warn against enervating the patient by these and the hot tub bath.

Even the old, the weak, debilitated and sensual—the debauched—who have pneumonia, are better under a let-alone plan of care.

The greatest sources of danger under "regular" care is the methods employed to suppress the pain and cough. Tilden says:

"Lulling the cough of pneumonia is a bid for the swan song. Thousands take the exit in this way every year. * * * The rest breaking cough and the urgent appeal of the patient to be relieved of the cough, will break the will of the doctor unless he is convinced that an anodyne will kill."

Rabies

"Rabies," says Tilden, "is an acute frenzy—a pathological psychology—evolved by a neurotic who suffered most of his life from neurasthenia." The symptoms are due to hysteria. Victims die, when they do, from fear and malpractice. Psychologically, it is not unlike 'wolf madness," a "disease" that long ago went out of fashion. Mob psychology, worked up by an enterprising health commissioner, may easily produce a panic—an epidemic.

The symptomatology and treatment of hydrophobia have changed as the delusion has passed down the centuries. The ancients "cured" their cases by ducking them in the sea. The madstone of grandfather's day "cured" those who had faith in it. Any frenzy-building suggestion, whether auto- or extragenerated, may be counteracted by any "healer" or "healing agent"—fetich, talisman, the moss on a dead Irishman's skull, or a baked toad, etc.—in which the deluded have faith that is sufficiently potent.

Pasteur's hydrophobia delusion is in line with his germ delusion. His antirabies serum is damaging, often fatal.

Dog bites, cat bites, rat bites, wolf bites, etc., are to be cared for as any other wound is cared for. Cleanliness and drainage are the essentials.

Relapsing Fever

Definition: This term is given to a group of symptoms characterized by a definite paroxysm which usually lasts six days and is followed by a remission of about equal length, then by a second paroxysm.

Symptoms: There is apparent sudden development of fever, this sometimes running as high as 104 F. the first day, with intense pains In the back and limbs. Sweats are common. The pulse is rapid, ranging from 110 to 130. Swelling of the spleen may be detected early. There may be delirium. Gastric symptoms and jaundice may also be present.

After three to ten days (usually five or six) of high or in-creasing temperature, it falls by crisis within a few hours to normal or below, with profuse sweating, sometimes diarrhea. Rapid convalescence is followed by a recurrence of all symptoms on the fourteenth day. The second paroxysm is usually shorter than the first; there may be as many as five relapses.

Complications: Pneumonia, nephritis, blood in the urine, rupture of the enlarged spleen, post-febrile paralyses, ophthalmia, and, in pregnant women, abortion, are common under regular care. These do not belong to hygienic care.

Etiology: Though medical men hold a germ responsible for this condition, its other name, famine fever, reveals its true cause. It is induced by underfeeding and overcrowding.

Prognosis: Under hygienic care recovery is rapid and complications do not develop.

Care of the Patient: Fasting is as necessary during the febrile stage of this biogony as during any other. Rest and warmth are equally necessary. The patient should be cared for as directed in the chapter on Hygiene of Dynamic Biogony. When convalescence sets in, feeding and general hygienic care should be the same as that following typhoid fever.

Rheumatic Fever

Definition: This condition is also known as articular rheumatism and may be either acute or sub-acute. It is characterized by inflammation of several joints.

Symptoms: The condition may develop gradually, with malaise and often tonsilitis, though it usually begins suddenly, with pain in one or more joints and fever. The knees, ankles, elbows and wrists are the joints most often inflamed. The affected joints become red, hot, swollen, painful and tender. The temperature' ranges from 102 to 104 F., with dry mouth, hot, flushed skin, coated tongue, which may be moist or dry, increased force and frequency of the pulse, headache, restlessness, sleeplessness, diminished, often high-colored urine, and profuse acid sweats. The symptoms frequently disappear partially, from one joint as they begin in another, developing in several in rapid succession. The temperature varies with equal rapidity and corresponds with the degree of joint involvement. Anemia is marked and progresses rapidly. Defervescense is gradual and the condition may become sub-acute or chronic. Pain and stiffness of the joints last long after defervescence.

Complications: Pleurisy, endocarditis, pericarditis, and myocarditis are common under medical care, perhaps due to salycilates. In children, chorea may precede, accompany or follow the fever. Delirium, convulsions and coma are seen in rare cases, giving rise to the term cerebral rheumatism. Skin affections, especially purpura and various forms of erythema sometimes seen are in all likelihood due to the drugs used in treatment.

Etiology: Some medical authorities blame damp weather for "attacks" of rheumatism. Others blame them upon dry years or a succession of dry years. The fact is that any long continued weather condition that depresses and enervates may help to produce rheumatism. The real cause is toxemia plus

overeating and neglect of hygiene. Overweight children are especially prone to rheumatic fever.

Prognosis: Weger says: "swelling, pain and temperature al-ways subside rapidly and heart complications occur in less than ten per cent of those treated. (Medical treatment presents endocarditis complications in 50 to 60 per cent of cases). In fact, endocarditis was present only in those cases that did not come under care until after the disease had been already well established -for from one to three weeks."

Care of the Patient: Speaking of the care of a case of rheumatic fever Weger says, "in no case in which food was withheld, from the onset did the temperature remain above normal longer than ten days, and recovery was prompt without merging into the sub-acute or chronic stage. Endocardial or myocardial irritations likewise subsided before any marked organic lesion had time to develop and become the major pathology as is so frequently the case in inflammatory rheumatism."

This should supply the key to the proper care of cases. Tilden says, "patients should not take anything internally except water." Other than this rest and warmth are the essentials. Chilling is especially prone to increase the patient's suffering.

The excessive amount of acid sweating necessitates frequent bathing and change of bedclothes. The patient should never be allowed to lie in clothing wet with perspiration.

The bed clothing should be raised so that it will not rest upon the inflamed joints.

After the acute symptoms have subsided the patient may be fed fruit for the first two days and fruits and vegetables thereafter for the first week. No proteins or carbohydrates should be fed during the first week.

Rocky Mountain Fever (Tick Fever)

Definition: This is the name given to a biogony seen in certain valleys of the Rocky Mountains, which closely resembles typhus fever. It is supposed to be "transmitted 'by the bite of a tick," but "the nature of the infectious agent is not known."

Symptoms: The condition develops with a chill, pains in the head, back and limbs, and fever. The fever rises rapidly and may reach 104 F., at the end

of a week. In the milder cases it gradually subsides, reaching normal at the beginning of the third week. The pulse is very rapid (120-140), the bowels are constipated, the conjunctiva are injected and in many cases there is marked jaundice. About the third or fourth day a red macular rash develops on the wrists and ankles, and then spreads over the body. In a few days the macules become purpuric—hemorrhagic. In severe cases, general edema and gangrene of the skin in certain parts are seen.

Etiology: Tilden says: "there is no question but that there must be a septic state." Sepsis, probably of gastro-intestinal origin, superadded to enervation and toxemia is indicated by all the symptoms.

Prognosis: Under medical care the mortality runs from about 5% in Idaho to 70% in Montana and even 90% in Bitter Root Valley. Death occurs most frequently during, the first ten days.

Care of the Patient: Medical "treatment is altogether symptomatic" which accounts for the high death rate. Tilden says: "The disease should yield to the ordinary treatment of fasting, bathing, washing the bowels every day, and absolute quiet."

Scarlet Fever (Scarlatina)

Definition: Scarlet fever is a biogony characterized by sore throat and a diffuse scarlet eruption. This "disease" was not considered dangerous until after the invention of a prophylactic serum, whereupon it immediately became one of the worst scourges of childhood.

Symptoms: The child becomes "suddenly" sick. In most cases there is vomiting and, in children, often a convulsion. The temperature runs up on the first day to 104 or 105. The face is flushed, the skin hot and dry, the tongue heavily coated and the throat is sore. On the second day, often on the first, the rash develops. This appears as tiny red dots on a flushed surface, giving the skin a vivid scarlet color. Beginning on the neck and chest, it spreads rapidly, covering the whole trunk in twenty-four hours. It is not really a "breaking out," but is an intense congestion (erythema, or blushing) of the skin. The skin is swollen and tense and often there is intense itching. The redness disappears upon pressure and disappears after death, as the blood leaves the skin.

One standard medical 'author tells us that "after the use of belladonna, quinine, potassium iodide, or diphtheria antitoxin, there is sometimes a rash closely resembling that of scarlet fever. In septicaemia (blood poisoning) there may be a similar rash." The rash is a means of eliminating the drugs, serums (proteins), and septic matter. A condition so like scarlet fever that authorities can't agree whether it is or not, frequently follows surgical operations.

The tongue, though coated, is very red on its edges. The taste-buds are swollen, producing the "strawberry" or "raspberry" tongue. In severe cases the throat, always sore, is covered with a membrane which greatly resembles that of severe diphtheria. Other symptoms are those common to all fevers.

The rash begins to fade in two or three days and is completely gone in four days to a week. I have never had a case to last over four days. The skin peels off.

Malignant Scarlet Fever is a more severe form. It begins with more severe symptoms with fever that may reach 1080 F., and all symptoms of severe septic poisoning, including delirium, passing into coma.

Hemorrhagic form: is characterized by small hemorrhages into the skin gradually increasing in size, epistaxis (nosebleed) and blood in the urine.

Angionose form: is characterized by early appearance of severe throat symptoms, with membranous exudate which may extend to the trachea, bronchi, Eustachian tubes and middle ear, and presents the appearance of a severe case of diphtheria.

Complications: Nothing condemns the prevailing medical methods like the frequency with which complications occur in this "disease." Acute nephritis develops in 10% to 20% of their cases and is regarded as the starting point for many cases of Bright's "disease" in later life. Arthritis, acute inflammation of the lining and investing membranes, of the heart (endocarditis and pericarditis), otitis media, often resulting in deafness, and other troubles develop so often as a direct result of the suppressive methods employed that it is a crime to permit them to continue. I have never had a complication to develop in a single case I have treated.

Etiology: Scarlet fever is an expression of protein poisoning superadded to systemic toxemia. Medical works say it is due to an "unknown germ."

Prognosis: Dr. Weger says scarlet fever has "invariably responded in the same even and consistent manner." Again: "In the exanthemata or eruptive

fevers, most of which are common in childhood, our routine procedure has given better results than any other treatment we have ever tried. The complications following such a disease as scarlet fever, so frequently observed under ordinary treatment, are sufficiently guarded against by a nofood plan of treatment during the entire active stage."

Properly handled, these cases will be free of all rash in four days to a week. There will be no fever after the third day and the illness will be so light that parents and friends will say the child was not very sick. It requires feeding and drugging to produce serious illness.

Care of the Patient: These cases should be cared for just as advised for measles and smallpox. Flannel gowns employed by medical men, in scarlet fever, are not to be employed. These things belong to the doctoring habit and are of no earthly value.

Sleeping Sickness (Trypanosomiasis)

Definition: This affection, prevalent on the west coast of Africa, is characterized by swelling of the lymph glands, moderate fever, progressive emaciation, increasing lethargy and, finally, death in coma.

Symptoms: The affection is divided into two stages, the first of which lasts from a few months to three or four years. The only symptom of this stage is enlargement of the lymph glands. The second stage usually lasts several months and is characterized by increasing weakness and lethargy, a peculiar apathetic expression, a feeble monotonous voice, tremor of the hands, a rise of temperature (101 to 102 F.), a rapid feeble pulse, lymphocytosis (excess of lymph corpuscles in the blood) and, finally, coma. The temperature is usually subnormal during the last two or three weeks.

Complications: Pneumonia and septic meningitis are frequent complications.

Etiology: The protozoon, gambiense, which is said to gain entrance into the body through the bite of the tse-tse fly, is claimed to cause this "disease." The evidence points to chronic sepsis of animal food origin in a greatly enervated individual as the basic or primary cause. Hundreds of cases of a somewhat similar character have been reported in Europe and America caused by smallpox vaccination.

Prognosis: It is said that "recovery probably never occurs" and that "treatment is of little avail." This is no doubt due to the fact that arsenic and an aniline dye, trypanroth, form the chief reliance in treatment.

Care of the Patient: The digestive tract is doubtless the source of the septic material. A fast, followed by proper feeding should clear this up and remove the soil upon which the trypausomes feed. Certainly there is sufficient time in the three or four years these cases often live to make effective changes in their mode of living. The fast should be accompanied by rest and warmth. Thereafter a fruit and vegetable diet (see Vol. 2), sun baths and exercise will complete the work of recovery.

Smallpox (Variola)

Definition: This is an acute exanthematous affection characterized by an eruption which is successively papular, vesicular, pustular and a crust and by a peculiar febrile course.

Symptoms: The "disease" begins with a chill, or in children, often with a convulsion. This is followed by intense pain in the back and limbs and vomiting. The temperature rises rapidly, to 104 or more, the pulse is rapid and a restless delirium is quite common. A transitory rash, similar to that of measles or scarlet fever, may next appear. On the fourth day the true smallpox rash develops. Bright red spots (macules) appear in the wrist and forehead, and in a few hours on the face, limbs and trunk. They soon become raised and feel like shot in the skin (pepules). When the papules appear the fever abates and the patient feels better. Two or three days after the rash appears the papules develop a cap of clear fluid and thus become vesicles. The fluid becomes yellow as the serum in the viscles becomes pus, forming pustules.

Notice the evolution of this "disease." Chill, perhaps a convulsion, pains, vomiting, rapid pulse, restless delirium and a high fever, and then large quantities of toxin-laden blood thrown into the skin, causing redness. The toxins are collected into circumscribed lumps, after which the temperature returns to near normal and the other symptoms practically cease.

The pustules are surrounded by a narrow area of inflamed skin. The pustules begin first on the face and cover the body by the eighth day. The fever then rises again—the "secondary fever of suppuration"—and the general symptoms return. The pustules dry down to crusts and these gradually

drop off, beginning on the face on the fourteenth or fifteenth day of the "disease." The "secondary fever" may last twenty-tour hours, but it usually is longer. When it ceases, convalescence begins. The crusts may and may not leave scars, "pits," when they fall off.

Discreet Smallpox is the term applied to those cases where the eruptions, are more or less scattered.

Confluent Smallpox is the term applied to cases in which the papules are abundant and soon coalesce. In these cases the extremities are swollen and painful and true pocks nearly always develop in the air-passages and give rise to a fetid discharge from the nose and throat, hoarseness, and cough. Delirium, stupor and subsultus (twitching movements) are frequent symptoms.

Purpuric Smallpox (hemorrhagic or back smallpox) presents hemorrhages under the skin and eyes, and bleeding from the mucous membranes of the mouth, nose, lungs, rectum, and from the kidneys. These cases are severe and often die before the papules develop.

Varioloid is a term applied to mild cases of smallpox in which the eruption is scanty and of short duration and secondary fever is absent. It is often said to be seen in those "who have been partially protected by previous vaccination." However thousands of cases are seen in unvaccinated people while some of the most severe cases of variola are seen in vaccinated and re-vaccinated individuals.

Smallpox is practically unknown in America today. Cases are met with chiefly among Negros, Mexicans and Chinese. There are many conditions, such as ivy poisoning, mosquito bites, chicken pox, amaas, Cuban itch, wisse pocken, etc., that are, frequently diagnosed as smallpox, just as before the time of Sydenham all cases of measles, chickenpox and scarlet fever were diagnosed as smallpox. Today if a case of chickenpox has no vaccination scar it is small-pox; if a case of smallpox has a vaccination scar it is chickenpox. Few cases now reported as smallpox are ever sick enough to go to bed. The mortality from vaccination is much higher than that from smallpox.

Complications: Boils, ulcerative laryngitis, broncho-pneumonia, and inflammation of the eye (conjunctivitis, ulcerative keratitis, iritis) are the most common complications.

Etiology: Smallpox, along with measles, scarlet fever, etc., is commonly referred to in medical works as a "disease of unknown origin." It is assumed to be due to germs, but the supposed causative germs have never been found. Epidemics occur chiefly in winter when germs are less active. Protein excess, foul air and inactivity seem to be its chief causes.

Prognosis: Sydenham, who saw more of the old virulent variola vera than all the now living physicians in this country together have seen, says: "As it is palpable to all the world how fatal smallpox proves to many of all ages, so it is clear to me from all the observations that I can possibly make, that if no mischief is done, either by physician or nurse, it is the most safe and slight of all diseases." Under hygienic care recovery is rapid with little or no pitting.

Care of the Patient: The care of a patient with smallpox is simplicity itself. So long as there is fever, nothing but water should be allowed to pass the patient's mouth. After the temperature is normal, while the eruption is still present, if there is hunger, oranges, or grapefruit or fresh, raw pineapples may be given.

The "disease" is as contagious as ingrowing toenails, and every case must be quarantined. Fear of the "disease" must be kept up in the public, for it is only thus that the present farce can go on.

Place the patient in a well-lighted, well-ventilated room. Make him comfortable, see that his feet are warm and then let him rest. His body should be sponged twice daily with luke-warm or slightly cool water for cleanliness.

Itching will be slight if proper care is instituted at once. Scratching must be discouraged.

Give the patient all the water to drink that is desired. But there is no good to be derived from forced water drinking.

If the patient sleeps but little do not be disturbed over this.

Cared for as above, few cases will ever pit. The subsequent health will be much better than the prior state.

Convalescence: If the patient is properly cared for during this illness, convalescence will be a joy. There will be no dangers. Under proper care there are no complications and sequelae. There is no danger of a relapse.

The diet should be fruit for breakfast, fruit for noon and a large raw vegetable, salad and a cooked non-starchy vegetable in the evening. After the

first week this may be changed to fruit for breakfast, a salad and cooked nonstarchy vegetable and a starch at noon, and a salad, two cooked non-starchy vegetables and a protein in the evening.

Syphilis

"Syphilis, as' described by our present day pathologists," says Tilden, "is an impossible pathological conglomeration that frenzies both doctor and patient, making of the former a syphilomaniac and of the latter a syphilophobe." It is "the deity proteus that can assume the appearance of every disease." It is a nightmare, a myth, a lie. It has been created by years of painstaking effort.

Older medical works describe three stages—primary, secondary and tertiary. More recent works describe early and late syphilis. It is now claimed that the first two stages of the earlier syphilographers may not manifest before the appearance of the tertiary stage.

Though it is claimed to be a "specific disease" due to a specific germ, the "remedies" in use are not serums or autogenous vaccines, but drugs that are pronouncedly toxic and known to affect the system detrimentally. These drugs produce more formidable pathologies than the "disease" for the cure of which they are administered.

Tilden says: "The whole theory of syphilis, its propagation and cure, as described in text-books and medical lecture rooms, is a delusion. I do not doubt that the symptoms shouted to the people by medical fanatics are real, but they are built by the treatment—the loathsome symptoms are mercury and arsenic symptoms plus toxemia."

The eighty or more serologic tests that have been developed to detect "syphilis" are admitted to be unreliable. How can they be otherwise? They are tests to reveal the presence of the non-existent. "Syphilis" exists only in imagination.

Of the chancre, or primary lesion of "syphilis," Tilden says: "The real disease is an ulcer, inguinal gland enlargement, a rash over the abdomen, extreme nervousness and anxiousness—not from physical pain but from fear, resulting for the popular opinion of the dreadful character of the disease. The distressing symptoms come later. Time is needed to develop toxic drug symptoms. Legitimate symptoms will pass away in two to six weeks. If the

victim is greatly enervated from tobacco, alcohol, venery, and gluttony, it will take two months to get back to the normal. The physical state of the patient is not considered at all by the syphilomanic doctors."

Care of the Patient: Fasting and a correct mode of living are the only requirements.

Tetanus (Lockjaw)

Definition: A biogony characterized by toxic convulsions—tetany.

Symptoms: The beginning may be marked by a chill or chilly feelings, but usually it is by rigidity of the neck, jaw and face. This gradually increases to a tonic spasm and extends to the muscles of the trunk and extremities. The body becomes rigid in a straight line or bent forward, backward or laterally. Spasm of the glottis may result in asphyxia. The tonic spasm has frequent exacerbations following any slight irritation and is extremely painful. Temperature, though usually low, may rise very high, especially late in the course of the biogony.

Etiology: Septic poisoning from a pent-up wound.

Prognosis: Only a small percentage of these cases recover.

Care of the Patient: The first essential in these cases is to open and thoroughly cleanse the wound. No food but water should be given. The patient should be kept hot—not warm, but hot.

<u>Tuberculosis (Consumption)</u>

Definition: An adynamic biogony characterized by gradual wasting of the body and the formation of tubercles—nodules or diffuse masses of tissue.

Symptoms: Tuberculosis may develop in many parts of the body and its symptoms vary with the organs involved. What are called its constitutional symptoms—loss of weight, weakness, afternoon rise in temperature and night sweats—are present in all cases.

Pulmonary Tuberculosis (Phthisis) or tuberculosis of the lungs is divided into two chief forms—acute and chronic. The acute form is further subdivided into three other types—acute pneumonic, bronchopneumonic and acute miliary. These distinctions are of no practical importance.

Acute tuberculosis of the lungs closely resembles croupous pneumonia or bronchopneumonia in its early stages. But instead of the symptoms subsiding in ten days to two weeks, they persist and gradually become more or less characteristic. The fever becomes remittent or intermittent, chills and sweats occur, signs of softening and excavation develop in. the affected lung, anemia and emaciation result in from four to eight weeks. In rare cases a certain amount of improvement occurs and the clinical picture slowly changes to that of chronic ulcerative tuberculosis.

Acute General, or Miliary, Tuberculosis: This form is always secondary to a more or less obvious primary tubercular condition somewhere in the body—lungs, lymphatic nodes, joints, etc. It develops gradually and is characterized by loss of appetite, malaise, headache, increasing prostration and fever. The temperature is very irregular, ranges from 102 to 104 F., and is marked by evening exacerbations and morning remissions. Respiration is rapid and the pulse is feeble and rapid—140 to 150. Profuse sweating is common; there may and may not be coughing. As the condition develops typhoid symptoms—dry brown tongue, muttering delirium, subsultus tendinum (twitching movements), carphologia (picking at the bed clothes) and stupor frequently develop. Two forms, pulmonary and meningeal, are recognized. In the first there are difficult and rapid breathing (40 to 60 a. minute), hard cough, mucopurulent and bloody expectoration, and cyanosis. In the second form there are intense headache, convulsions, photophobia, delirium, ocular and facial palsies, stupor, coma, and Cheyne Stokes breathing. Miliary tuberculosis is said to be invariably fatal, death coming in three to four weeks.

Chronic Ulcerative Tuberculosis: is said to begin insidiously and is marked by pallor, gastric disturbance, loss of flesh, and strength, and by a dry, hacking cough that is noted especially in the morning. Undue exposure, overeating and other forms of stress often aggravate the cough. In a few cases the symptoms appear abruptly with hemorrhage or as an acute pleurisy. In other cases the first symptom is gradually developing hoarseness.

Slight fever with acceleration of the pulse develops early. There is a rise of temperature in the afternoon or evening. During the day the eyes are bright, the face flushed and the mind animated. As the pathology in the lungs develops the cough becomes troublesome, the expectoration more abundant, of a greenish gray color, heavy, often, blood-streaked and in coin-shaped

plugs. Pleuritic pains are often present, hemorrhages from the lungs occur in 50 to 60 per cent of cases and in the late stages bleeding is often profuse, though seldom immediately fatal. There is sometimes vomiting excited by coughing, and breathing is accelerated, though there is rarely dyspnea except on exertion.

The final stage presents extreme emaciation, weakness, pallor, anemia, remittent or intermittent fever of a hectic or septic type, and often edema of the feet. The mind is usually clear and peculiarly hopeful till the last.

Chronic Fibroid Tuberculosis: This form, which may last for several years, is marked by gradual loss of flesh and strength, difficult breathing, mucopurulent expectoration, which is at times fetid from retention in bronchial cavities, night sweats, frequent hemorrhages, and marked clubbing of the fingers.

Tuberculosis of the Kidney: The chief symptoms of tuberculosis of the kidney are pain in the lumbar region, (small of the back) which is usually dull, but sometimes sharp like that of renal colic, tenderness on pressure, frequency of urination, dysuria (painful urination), slight, irregular fever, and more or less cachexia. The urine, usually acid, may contain pus, blood, albumen, and cheesy particles, and debris.

Glandular Tuberculosis (scrofula) is usually localized in the cervical, mediastinal, or mesenteric nodes, most commonly the cervical.

Cervical Scrofula is common in poorly nourished children living in badly ventilated or crowded rooms. It is common in the negro. Its development is usually preceded by catarrh of the nose and throat and tonsilitis. The submaxillary nodes are usually first to become involved. These are enlarged, smooth, firm and, generally become matted together. Later the skin may become adherent and suppuration occurs, the resulting abscess breaking through the skin and leaving an obstinate, sinus. The posterior cervical axillary, sub-clavicular and bronchial glands may also become involved. Commonly there is also anemia. A protracted course and spontaneous recovery are common, or pulmonary or general miliary tuberculosis may develop.

Mediastinal Scrofula is tuberculosis of the nodes of the trachea and bronchial tubes. Symptoms result by compression of adjacent blood vessels, or there may be pleurisy and pericarditis. A caseous node may rupture into

the trachea, bronchial tube or esophagus. The symptoms otherwise are those general to all forms of tuberculosis.

Mesenteric Scrofula is tuberculosis of the mesenteric and retroperitoneal nodes. The enlarged nodes may often be felt in the abdomen. The symptoms are loss of flesh and strength, anemia, abdominal distention and tympanitis with offensive diarrheal stools. Tubercular peritonitis is often present.

Tuberculous Pleurisy may be primary, but is perhaps most commonly the result of the spread of tuberculosis from the lungs or trachobronchial nodes. It may be acute, and become chronic, though most often. it is chronic or subacute from the start.

Tuberculous Pericarditis (tuberculosis of the investing membrane of the heart) presents the same local symptoms as any other form of pericarditis.

Tuberculous Peritonitis is most often seen as an extension of pulmonary or intestinal tuberculosis, or of tuberculosis of the fallopian tubes.

Tuberculosis of the Larynx may be "primary" or secondary to cervical or pulmonary tuberculosis. Huskiness of the voice, loss of voice, loss of weight and strength and anemia are the chief symptoms. There is a viscid, purulent fibrous sputum.

Tuberculosis of the Alimentary canal may exist in any part of the digestive tract, but especially in the intestines. The symptoms are diarrhea or constipation, some abdominal pain, irregular fever and sometimes intestinal hemorrhage.

Tuberculosis of the Brain is usually chronic and involves both the brain and meninges. The symptoms are those of brain tumor.

Tuberculosis of the Bones presents besides the constitutional symptoms common to all forms of tuberculosis, pain in the bones, swelling, and suppuration with discharge of pus, often containing pieces of bone, through one or more sinuses.

There may be tuberculosis of the skin, joints (tubercular arthritis) and other parts of the body.

Complications: Chief among the complications are bleeding from the lungs, bronchopneumonia, pleurisy, pneumothorax, or pneumopyothorax, gastro-intestinal catarrh, rectal fistula, amyloid degeneration of the viscera and tuberculosis of other parts.

Etiology: In his Medical Diagnosis, Green says (p. 286) "Consumption is an infectious disease, caused by the tubercle bacillus of Koch." On page 390

of this same book he lists under symptoms, "tubercle bacilli, which may be present early, more often late, or in rare instances, be absent throughout."

The intelligent reader will think this is a strange "disease" the cause of which may be present early, but usually is not, but manages to get in late in most cases, while sometimes it allows the "disease" to wiggle along as well as it may without any aid at all from its cause. What are we to think of the good sense and logical reasoning powers of the members of a supposedly scientific profession who write and teach among themselves that a certain bacillus causes a certain "disease," but that the "disease" may commence without the cause; that the cause appears late in the "disease" more often than at the beginning, and in some cases does not appear at all? It is equivalent to a causeless effect.

They also teach that the "tubercle bacillus of Koch" is always with us and that a culture may be made from the throat of almost anybody we meet. Here, then, we have an effectless cause.

On page 389 of above mentioned book, Green tells us in discussing "modes of onset" of consumption, "it should never be forgotten that nearly every case of tuberculosis, whatever its form, or apparent suddenness of onset, gives a history of previous impairment of health." Here is a fact of far greater importance than the presence or absence of the incidental bacillus.

Tuberculosis has a developing stage of several years, beginning with enervation, toxemia, catarrh of the stomach, infection of the glands of the lungs, and finally, tuberculosis. It is the endpoint of an evolutionary process begun with toxemic crises, in those of a tubercular diathesis. As enervation and toxemia are intensified, the gastro-intestinal catarrh and food decomposition become more pronounced, septic infection from this source initiates adenitis; and here is the foundation for tuberculosis—here is the sine qua non for germ development. A subacute lymphangitis or adenitis produced by mercury or arsenic may lead to tuberculosis.

Children may inherit a predisposition to tuberculosis and there is but one prevention; namely, avoid enervation and its consequence, toxemia. Before tuberculosis can develop in those predisposed to it, habits must break down resistance and bring on toxemia; after which glandular degeneration follows, with destruction of life. If the tubercular-diathetic subject never develops toxemia, he will never develop tuberculosis; for so-called "disease" can develop only on a basis of toxemia. The so-called, tubercular germ has about

as much influence in a normal individual, or in a gouty subject, as a feather has in a cyclone.

All the tubercular are functionally disordered and have considerable impairment of the liver and stomach. Years of indigestion have not only robbed their tissues of adequate nutrition, but the intestinal poisoning has resulted in chronic adenitis and, finally, tuberculosis. That calcium deficiency is present in all cases is shown by the fact that all tubercular subjects are dental cripples. A large part of them had rickets in childhood. All of them have lived on denatured diets.

Tuberculosis develops out of an enervated, toxemic and putrescence-infected body soil. Wrong food, overcrowding, foul air, lack of sunshine, and all enervating influences are basic causes of the trouble. Koch's bacillus is a mere incident in its development and course.

Vaccinations and inoculations are frequently followed immediately by tuberculosis. A shock follows the use of every immunizing agent unless it is inert. In all subjects who are very close to toxin saturation a vaccination or a serum inoculation may, and often does, precipitate a case of tuberculosis.

Tilden says, "The digestive secretions are germicidal as well as antidotal to the poisonous alkaloid ptomaine evolved from the putrescense. When putrescence is vaccinated into the body, or injected into the blood in the form of serums, the body-protectors are not quite so successful, and people lacking in vigor and virility, whose blood is toxemic, and whose glandular system is taxed to the limit in holding back putrescent infection coming from the intestines, will develop tuberculosis following the so-called immunization vaccines. The vaccine and serum treatments are 'the last straw' so to speak. This has been the unsuspected, unexpected, subtle experience of tens of thousands of soldiers."

Prognosis: Acute tuberculosis presents an unfavorable prognosis. Chronic tuberculosis is almost always remediable in the earlier stages, but may reach a hopeless stage in all cases. Recovery almost never occurs under the prevailing medical care.

Prevention: Fresh air, an abundance of sunshine, wholesome outdoor play, plenty of fresh fruits and green vegetables, cleanliness and plenty of rest and sleep will prevent tuberculosis. It is largely an outgrowth of the social injustices and economic inequalities of our hypertrophied commercialism.

Children who develop pulmonary tuberculosis have imperfectly developed chests. Imprudent, or unfit, eating causes children of tubercular "hereditary" to develop very early, enlarged tonsils, adenoids, and cervical glands, for which operations are usually advised.

Children of tubercular parents should be taught the great importance of avoiding the parent's mistakes. They should be taught not to follow the same style of living, eating, thinking, and care of the body of the parents. They should be taught moderation and correct care and how to avoid enervation.

Even the weakest child is born with a certain amount of resistance and infancy and childhood constitute the golden age in which to counteract the inherited weaknesses and build a larger resistance. The forces of development will add to the inherited resistance if the habits of life are right; if habits are wrong resistance will decrease. Too often there is no attempt to cultivate good habits: rather the children are trained in all the bad habits and perversities of the parents.

Care of the Patient: The cure for tuberculosis is prevention. Few ever completely recover. When nutrition has become so impaired that tuberculosis develops, the iron grip with which habits hold such patients and the paralyzing fear possessed by most tuberculosis sufferers, prevents the establishment of full resistance and a return of the organism to normal.

Fresh air is necessary for the tubercular. Thanks to the efforts of Drs. Page, Densmore, Lewis and Oswald, this is now everywhere recognized. Dr. Dio Lewis said: "There is a cure for consumption, though I doubt if it will ever become popular. Even in its advanced stages, the disease may be arrested by roughing it; I mean by adopting savage habits, and living outdoors altogether, and in all kinds of weather."

Fresh, pure air will not cure tuberculosis when every other need of the body and mind is neglected. Fresh air plus gluttony and prolonged idleness, plus drugs and fears succeed in killing most cases of tuberculosis.

Low temperature in the open air does not injure the lungs, as experience has shown but, as in all things else, there is a limit to this matter. There is a difference in the resisting power of healthy and "diseased" lungs. The tubercular subject is enervated and possesses no nerve energy to waste in resisting extreme cold. When the temperature is so low, the body must use up all its extra energy keeping warm and has none left for digestion and

elimination. When sub-zero weather kills the tubercular subject it deserves to be classed as a fanaticism.

Harm results to "diseased" lungs when kept from one-third to one-half the twenty-four hours in very cold—zero and below—temperature, when living the remainder of the time in artificially heated houses. Too cold air, if inhaled by those with ulcerated throat or ulcerated lungs, proves to be very irritating and harmful. Because of the irritation, indigestion, and inhibited elimination, pneumonia, bronchitis, or tonsilitis, quincy or a cold may develop. This causes the victim to fly to the other extreme and avoid fresh air and keep himself too warm.

The cold not only irritates the lungs, but it increases the desire for food, while robbing the body of the energy required to digest it. Indigestion thus produces added infection. An abundant supply of fresh air is important at all times, but fresh air need not necessarily be cold.

Medical men, believing tuberculosis to be due to germs, recommend gormandizing for the purpose of keeping up the strength and at the same time to furnish germs with enough food to prevent them attacking the tissues of the body. Plenty of "good" acid-forming foods are forced into these patients to decompose and add to the infection, further decrease the body's lime supplies, produce diarrhea, increase blood pressure and the liability to hemorrhage.

Fasting is beneficial in all these cases, but long fasts are almost never advisable. Instead of the usual diet of meat, eggs, milk, bread and cakes, the diet should consist largely of fruits and vegetables. Tubercular patients should stay away from milk, butter and cream.

Rest is very necessary, but resting becomes rusting when the patient is required to spend months or years in bed on a stuffing regimen. Rest in bed is essential. Forced rest, for the lungs to the point of surgical collapsing of the chest wall is one of the idiocies of present day "scientific medicine."

As essential as rest is exercise. Dr. Page has shown that tubercular patients will make speedier and more satisfactory recoveries if they are given exercise within their capacity to take it.

Sunbathing is also very beneficial in all forms of tuberculosis and should be taken in moderation. The tendency everywhere is to overdo this measure, just as the feeding and resting are overdone. Heroic treatment of any kind is injurious. Stuffing "good nourishing food" to plethory, and enervating the nervous system with excessive sun bathing, cannot but retard the progress of the patient if it does not actually hasten his end.

Tularemia

Definition: This "disease" is said to be primarily a "disease" of wild rodents, especially rabbits, but is "transmissible" to man by dressing infected animals or by the bite of ticks and flies. It is a very rare condition, therefore the germ causing it is well known. Were it a common affection; such as a cold or measles, the germ would still be unknown.

Symptoms: Weakness and loss of weight are prominent symptoms. In about one per cent of cases in man subcutaneous nodules or a skin eruption develop.

Complications: Pneumonia is a frequent complication in the second week of illness.

Etiology: It is probably due to absorption of putrescense from decayed meat. The bacterium tularence is merely adventitious.

Prognosis: Under medical abuse the death rate is only about 5.3%. This should indicate that, properly cared for, all cases will recover. Convalescence is slow, due to the same abuse.

Care of the Patient: Fasting so long as acute symptoms persist, and thereafter a fruit and vegetable diet and general health measures are the requirements.

Typhoid Fever

Definition: This is an acute biogony involving largely the small intestine. The bacillus typhosus is accused by the medical profession of responsibility for this condition. It is our contention that the germ responsible for typhoid fever is named **Medical doctors**. It requires typical textbook treatment to produce a typical case of typhoid fever. The typhoid state" is a state of profound exhaustion, depression, prostration, a term applied to prostration in any "fever."

Trall says: "Medical books also make a useless and groundless distinction between typhus and typhoid fever, on the vague supposition that the latter has its seat more especially in a disease of the mesenteric and Peyer's glands. I reject this distinction as fanciful, if not puerile, and, as the reader will perceive, employ the terms typhus and typhoid indiscriminately."

Symptoms: The "disease" is preceded by a few days or weeks of headache, backache, nosebleed, perhaps, and a period of not feeling very well. There is usually constipation and a coated tongue. The breath is foul and there is often a bad taste in the mouth. For days or weeks the patient is sick and gives no attention to his condition, except, perhaps to drug it. Had he cared for himself properly from the beginning of these symptoms he would be well before any typhoid developed. Dr. Tilden rightly observes: "Typhoid fever (more a disease of adult life) is evolved by feeding and medicating acute indigestion."

After a period as described above, the temperature begins to rise and the patient becomes so weak and miserable that he goes to bed. The fever rises slowly and in from three to seven days reaches 104 to 106. Here it usually remains, under the stuffing and drugging plan, for a week or more, before it begins to fall. It falls and rises for another week or more and finally reaches normal. Under medical care these cases last from two weeks to a few months. The strong man presents a slow, "soft" pulse and the pulse rate is of ten very slow during convalescence. During the first few days of the fever, the headache is very severe, even, at times, terrible. On the seventh or eight day, red spots develop on the abdomen. The abdomen is tender and distended with gas. Gas pressure on the heart often overstimulates this organ.

Complications: Perforation is the most dreaded complication of typhoid fever, and the cause of death in almost a third of the fatal cases. When the slough peels off, the ulcers usually have a very thin base, sometimes as thin as tissue paper, but in about 5 per cent of the cases even this gives way and the intestinal contents pour into the abdominal cavity, at once producing peritonitis. In the very few cases that do recover there is in the abdomen an abscess. A perforation occurs especially during the third week, although it may occur at any time (as we reckon the days), and, since due to almost the same cause as hemorrhage, occurs very often with this.

In mismanaged cases there is swelling and enlargement of the clumps of lymphoid tissue (tonsils) in the intestine, called Peyer's patches, followed by

ulceration and sloughing of these. Hemorrhage from the intestine sometimes follows this sloughing, although the body usually succeeds in sealing the blood vessels before sloughing occurs.

If no feeding has been done there will be no septic material in the intestine to pour into the abdominal cavity and cause peritonitis.

In severe cases "secondary disease" develops in the kidneys or lungs, or spleen, or cerebro-spinal centers. Complications and relapses are quite frequent under medical malpractice. The regular treatment of this disease is an unpunished crime.

After a week or two of heroic treatment plus plenty of milk, eggs, broth and starchy foods, malaria takes on typhoid complications, typho-malaria; pneumonia becomes typhoid-pneumonia; "bilious" cases become typhoid. Some of them will die of hemorrhage of the bowels. The food put into such patients can only rot and develop sepsis. Sepsis, plus the chronic irritation produced by drastic cathartics and other drugs, is enough to produce ulceration and sloughing. The feeding and treatment are quite enough to account for all unfavorable symptoms. Such treatment simply does not allow them to get well. It is scientific murder.

Tilden says "complications never occur except where there is septicemia; and septicemia cannot develop unless there is decomposition taking place in the alimentary canal; and decomposition and sepsis cannot develop in the canal unless the patient is fed. * * * The food taken into the stomach at such a time decomposes, the rotting processes that take place in the bowels cause septic poisoning, and every complication named in the best works on the practice of medicine is produced by this septic condition. If patients are allowed no food at all, no sepsis will occur; hence there can be no complications; in fact, the prospective fever is jugulated and in reality never develops. All diseases threatening to take on a typhoid condition, even typhoid fever itself, will be thus expunged from the nomenclature: for they will never have an existence, if treated properly."

Paratyphoid Fever is the name given to a group of cases that clinically and pathologically resemble typhoid fever. Paratyphoid A and paratyphoid B are terms used. The terms came into use to save the face of the anti-typhoid serum.

Etiology: "It takes a toxemic subject, plus gastro-intestinal fermentation, plus a doctor with a germophobic complex, to evolve a typical typhoid

fever," says Tilden. Imprudent eating by enervated and toxemic subjects starts the chain of symptoms, which, when wrongly managed, culminate in typhoid fever. There will be germs, of course, and the more food is taken the more germs there will be.

Prognosis: Weger says: "The fever can be controlled to run its course in from eleven to thirteen days instead of the usual three weeks. No complications, temperature never rising above 101 F. after the second day following the withdrawal of food. Headache, tympanitis, and other symptoms usually so distressing, become negligible, and recuperation is steady and uneventful." Tilden says, "There should be no typhoid mortality." Fatal typhoid fever requires a foul condition of the intestinal tract plus the worst form of medical treatment. Tilden declares: "In the matter of typhoid fever, the regular treatment is so barbarous that a disease that would never amount to more than a comfortable sickness of two weeks duration is made to last from four weeks to four months, and the patients are often left with such complications as hip-joint disease or disease of the knee, causing lameness for life; and tuberculosis is not an infrequent sequel; besides, there are other diseases I shall not mention."

Dr. Chas. E. Page says: "Many a man, woman and child has died of typhoid fever, after weeks of torturous suffering, when, if the right doctor had been called in at the very onset of the illness, a single visit, or at most two, with strict carrying out of his directions, would have been all-sufficient to take the patient out of his trouble and set him about his affairs. The present writer can truthfully say that in twenty-eight years of very busy practice, no severe or prolonged illness has ever developed in a single case of feverishness in which he has been called at an early stage of the attack. Arid this relates to many scores of cases such as under the prevailing treatment go on and on through the long sieges of typhoid fever."

Care of the Patient: The care of the typhoid patient should now be apparent to the student.

Rest in bed in a well lighted, well ventilated room, with all unnecessary noise and distraction kept away from the patient, and a daily warm sponge bath for cleanliness are essential. If it is winter a hot water bottle should be kept at the patient's feet.

Absolutely no food except water should pass the patient's lips until several days after all acute symptoms are gone.

No drugs of any kind should be employed. No purging; no "sustaining" the heart, no controlling the fever, and no checking of the bowels should be allowed. Hydrotherapy also should be avoided.

Let the patient alone and he will get well. Feed him and drug him and he may and may not pull through. In the first instance he will be comfortable in three days and out of bed in from seven days to fourteen days. In the second instance he will not be comfortable at any time and will do well to get out of bed in several weeks.

When such patients are fasted the stools and urine are germ-free by the time convalescence begins. The more they are fed the more decomposition and sepsis will develop, the higher the fever will run, the more tympanitis, greater suffering and more danger. "A properly treated typhoid fever case can never be a carrier." A return to good digestion and normal resistance means the body refuses hostage to germs and parasites.

As previously pointed out, hemorrhage will not develop, in properly managed cases; that is, unless fed and medicated. Should the case be mismanaged until hemorrhage occurs, the foot of the bed should be elevated and absolute rest and quiet secured. No one should be allowed to speak to the patient and no mad-cap endeavors to restore or "sustain" the patient should be resorted to.

Typhus Fever

Definition: Dr. Tilden says, "never having seen a case, I have been doubtful about its existence. In the middle west there are continued, malarial, typho-malarial, and typhoid fever. In all probability these are different forms of typhoid fever." The Germans call it exanthematic typhus in contrast to typhoid, which they call abdominal typhus.

Dr. Shew says of typhus and typhoid (called also nervous fever, putrid fever, ship fever, jail fever, hospital fever, camp fever, spotted fever, and malignant fever): "Some endeavor to make a distinction between typhus and typhoid fevers; but it is doubtful if there is any real difference. Typhoid means at least like typhus. The treatment is the same in either case. A patient may pass into what is called a typhoid or sinking state, from almost any other disease that is of much consequence."

Symptoms: The symptoms and pathology are those of severe typhoid fever plus the eruption which appears first on the abdomen and upper part of the chest on the third to fifth day, then on the extremities and face. It is complete in two or three days.

Complications: Bronchopneumonia, gangrene of the lungs, extremities, nose or mouth, or pleurisy, meningitis, parotitis, nephritis and septic processes in the subcutaneous tissues and joints, are due to sepsis generated in the intestine.

Etiology: Completely broken resistance in one who has abused his constitution; then he becomes feverish from intestinal sepsis; feeding and drugging do the rest. Typhus is not basically different from any other badly treated continued fever. Typical cases can develop only under medical care.

Prognosis: Children fare better than adults. Under medical abuse the mortality ranges from 12 to 20 per cent.

Care of the Patient: Same as for typhoid fever.

Vaccinia

Definition: Stevens **Manual of the Practice of Medicine** defines vaccinia as "a general disease with a local manifestation resembling the pock of variola, and acquired by inoculation with the virus of cow-pox." In medical works it is listed under "acute infectious diseases."

Symptoms: Vaccinia begins after vaccination with slight irritation at the sight of inoculation. On the third or fourth day the eruption, appears in the form of a red papule, surrounded by a red areola. On the fifth or sixth day the papule becomes a vesicle, being filled with a watery or clear substance, with a distinct central depression (umbilication). By the eighth day the vesicle is perfected and is then surrounded by a wide reddened zone of inflammatory edema, which is the seat of intense itching. By the tenth day the contents are purulent (pus) and the vesicle has become a pustule. The surrounding skin is now much inflamed and painful. About this time the reddened areola begins to fade and dessication sets in with the gradual formation of a thick brown crust or scab which becomes detached and falls off about the twenty-first to twenty-fifth day, leaving an ugly scar. The scar is at first red but gradually becomes paler than the surrounding skin; having a punched-out appearance and is pitted. The evolution of this pathology is accompanied with fever and

constitutional symptoms, malaise, and enlargement of the adjacent lymph nodes.

Complications and Sequelae: Irregular and atypical pocks may form; several vesicles may coalesce, a general pustular rash covering the whole arm or a large part, of the body, and called generalized vaccinia, may develop about the eighth to tenth day, abscess, sloughing, cellulitis, erysipelas, general septic infection, urticarial eruptions, "syphilis," leprosy, tuberculosis, actinomycosis (big jaw), mental "disease," tetanus (lockjaw), paralysis, meningitis, sleeping sickness, etc., may follow. In rare cases the pock may reappear in the same place after it is apparently healed. In some instances the abscess may refuse to heal. I saw one case of this kind where the abscess continued to discharge pus for fourteen years. Sir William Osler says: "In children the disease may prove fatal."

In his Principles and Practice of Medicine, Osler quotes the following arrangement by Ackland of the days on which possible eruptions and complications may be looked for:

- "1. During the first three days: Erythema; urticaria; vesicular and bullous eruptions; invaccinated erysipelas.
- "2. After the third day and until the pock reaches maturity: Urticaria; linchen urticatus; erythema multiformae, accidental erysipelas.
- "3. About the end of the first week: Generalized vaccinia; impetigo; vaccinal ulceration; glandular abscess; septic infections; gangrene.
- "4. After involution of the pock: Invaccinated diseases, for example syphilis."

Under the heading "Transmission of Disease by Vaccination, Osler says, "syphilis has undoubtedly been transmitted 'by vaccination." Under the heading, "Influence of Vaccination upon other Disease," he says: "A quiescent malady may be lighted into activity by vaccination. This happens with congenital syphilis, occasionally with tuberculosis. * * * At the height of the vaccination convulsions may occur and be followed by hemiplegia" (paralysis of one side of the body.) Within recent years it has been definitely proven by the friends of this superstitious practice that vaccination causes sleeping sickness (encephalitis lethargica or encephalomyelitis) and poliomyelitis (infantile paralysis).

Etiology: Vaccination is the criminal inoculation of an individual with septic matter (pus) derived from suppurating (festering) sores on the

abdomen of a previously infected cow. Dr. Richard C. Cabot says, "the other thing that bothers people is the fact that vaccination sores get septic, sometimes when the vaccination is clumsily done and sometimes when it is correctly done. We need not necessarily blame the doctor because the patient has a bad arm. In spite of all precautions, if the patient is in a bad condition, the break in the skin may become septic." In truth the vaccine sore is septic from the start. Vaccine is septic. Vaccination is deliberate septic infection and we do blame the physician.

Prognosis: Most cases recover. Death occurs in a few cases.

Care of the Patient: Vaccinia is best avoided. It is a useless, superstitious rite. The claim that it prevents smallpox is wholly false. Where vaccination is compulsory the vaccine should be thoroughly washed off as soon as it is applied to the arm. If done immediately this will prevent infection. If not done and infection has already taken place, cleanliness and general hygienic care of the body are all that are required. Complications should be cared for as advised under their headings elsewhere in this volume.

Valley Fever

Definition: The medical profession is engaged in mystery mongering. It frequently discovers a new and mysterious "disease" such as parrot fever (psittacosis) and valley fever (cocciciodomycosis).

We are informed that "precise knowledge regarding the ailment is still lacking, but it is believed to be caused by spores of certain types of fungus that attack the lungs, lymph nodes, skin and bones."

In its "early stages, valley fever often is mistaken for severe colds, influenza or bronchial pneumonia. 'In the absence of a cure for the ailment, its victims receive the same treatment as prescribed for tuberculosis," which accounts for the high death rate, sometimes as high as fifty per cent, reported.

Add this new "disease" to syphilis, influenza, rabies, chronic appendicitis, etc., as another myth.

Vincent's Angina

Definition: A biogony closely resembling diphtheria and doubtless thousands of such cases are contained in the diphtheria statistics of all periods.

Symptoms: There is inflammation of the mouth and uvula, less frequently of the mouth and pharynx, or lips, with the formation of a false membrane. In severe cases there is ulceration, extending into the submucosa. The breath is peculiarly fetid, the neighboring lymph glands are enlarged, but the constitutional symptoms are, as a rule, comparatively mild. The average duration is from one to three weeks.

Etiology: The condition represents a mild septic infection derived from gastro-intestinal sepsis.

Prognosis: Weger says Vincent's angina "has invariably responded in the same even and consistent manner."

Care of the Patient: Care for Vincent's angina as for a cold.

Whooping Cough (Pertussis)

Definition: A. symptom complex characterized by a paroxysmal cough followed by a long inspiration, or "whoop."

This trouble is described in medical works as an acute bronchitis. We do not recognize it as a catarrhal affection at all. We regard it as a nervous affection having its origin in "disease" of the cerebrum or the spine.

Symptoms: The symptom-complex derives its name from the long drawn inspiration with a "whoop" which follows a paroxysm of coughing. In ordinary coughing one inhales after each cough. In this condition the patient attempts the impossible task of coughing from fifteen to twenty times during one expiration. Then he draws in the air with a long-drawn inspiration, accompanied with a whoop. But little mucus is expelled and the whole action is evidently nervous.

The trouble begins with a dry, harassing cough with no apparent excuse for existing. For there is no irritation of the throat or lungs. For about two weeks this spasmodic coughing continues when the characteristic whoop develops. The cough comes in paroxysms and is sometimes so hard that vomiting results. The whooping usually lasts about two weeks, then another two weeks are required for the trouble to decline and end.

During the paroxysms the veins swell, the face becomes blue, the eyes bulge out, their whites are "blood-shot," and the child looks as though it must suffocate.

Swallowing, emotions, or even throat irritations may induce a paroxysm. Hearty eating is almost certain to result in a series of paroxysms. The child (it is usually a child) may have but a few or a hundred paroxysms a day. Children who are otherwise in good physical condition appear to be as well as ever when the paroxysm ends.

Complications: The lungs are injured in rare cases by the severe paroxysms of coughing. Sometimes they become emphysematous (distention of the lung tissue with air), sometimes they literally burst. Bronchopneumonia is a frequently fatal complication known only to medical practice.

Hemorrhages into the skin, conjunctivae, or into the brain, epistaxis, hemoptysis (spitting of blood) and tuberculosis are seen in badly treated cases.

Etiology: Putrescent poisoning superadded to enervation and metabolic toxemia.

Prognosis: Weger says: "Whooping cough seldom runs longer than three weeks (under hygienic management) and presents none of the usual alarming symptoms."

The only danger in this condition is the rupture of a blood vessel. The violent paroxysms place a severe strain on the heart and blood vessels. Rupture into the eyes, ears, nose, lungs, brain or skin may occur. The hemorrhage into the brain may result in paralysis or even sudden death. Bleeding from the nose and ears, and occasionally from the lungs, occurs in a few cases.

A child that sinks exhausted, becomes fretful and nervous and seemingly fearful of the paroxysm, and presents red spots on the forehead and in the white portion of the eyes is suffering with congestion of the brain and is in danger.

Care of the Patient: As harassing as this condition usually is and as notoriously unsatisfactory as the paregoric, freely given, protective vaccines, "large quantities of good nourishing food" and "change of climate" of medical methods, the condition can be made tolerable by giving the children proper care.

Tilden says: "If it starts in children who already have deranged digestion, and they are then fed, not allowing them to miss a meal, complications are liable to occur, such as tremendous engorgement of the brain during the paroxysms. The blood-vessels will stand out like whip-cords on the forehead, and when the child is over the paroxysm it is completely exhausted. Unless such a case is fasted, the cough grows more severe, the stomach derangement increases, causing more and heavier coughing, until there is danger of bringing on a brain complication.

How different this is to the wail of the medical man that: "Some children vomit at the end of a paroxysm, and so often during the day that they almost starve."

Weger says: "children do not need to fast in this disease except during the inflammatory or congestive crises with rise in temperature. Such crises are not likely to occur unless the patient is fed in a manner to produce gastric hyperacidity and colonic stasis."

The "disease" is of the nerve centers, the cough being a "reflex cough," and the nervous system of the child must be looked after. He should be put to bed at once and the feet kept warm. He should be given all the fresh air possible and as much water as thirst calls for, but no food of any kind until complete relaxation is secured. Children that are outdoors all day suffer less than those in the house. Whenever possible the bed should be outdoors. Otherwise, put the child by the open window. The rest and warmth will quiet the nervous system. It is questionable whether the whooping stage will ever develop if this "treatment" is instituted at the beginning of the trouble. Complete relaxation should occur in three or four days.

The commonly unrecognized evils of mental over-stimulation of children is usually very evident in troubles of this nature. This should be particularly avoided. Complete relaxation and rest of the nervous system is very important in this condition.

After full relaxation is had, fruit juices may be given morning, noon, and night for two or three days, after which fresh fruit may be used. If the cough tends to increase after feeding, stop the feeding at once. "It is usually observed," says Page, "that the cough grows worse toward evening, and is worst at night. By morning there has bean something of a rest of the stomach, and the cough is easier—perhaps disappears entirely. A full meal is often the exciting cause of a fresh and violent paroxysm. Other things equal, the child

who is oftenest and most excessively fed will suffer most and have the longest 'run'." After the paroxysms have ceased gradually return to a normal diet.

Convalescence: Medical men tell us this is tedious. This is their experience. We don't weaken and kill our patients. They tell us that the child must not be allowed to "catch cold," or overdo. A change of climate and "large quantities of good nourishing food" (meaning by this, meat, eggs, pasteurized milk, puddings, white bread, etc.) are recommended for the chronic cough that so frequently follows in medically treated cases.

We recommend an abundance of fresh fruits and green vegetables, sunshine, fresh air, exercise and rest and sleep. These are the elements out of which health is compounded.

Yaws

Definition: A condition seen in the tropics and almost wholly confined to members of the African races.

Symptoms: It is characterized by numerous and successive yellowish tumors on the skin. These gradually increase from mere specks to the size of a raspberry, one becoming larger than the rest. The slight fever which is less noticeable in adults than in children is thought to be merely irritative. Some medical authorities consider yaws to be a form of "syphilis."

Care of the Patient: Same as for Leprosy.

Yellow Fever

Definition: A severe biogony characterized by jaundice, hemorrhages and albuminuria. Dr. Shew said "yellow fever is only typhus of a severe form complicated with jaundice."

Symptoms: There may be slight prodromal malaise, but the beginning of symptoms is usually abrupt, with chilly feelings, headache, backache, rise of temperature and general febrile symptoms, vomiting and constipation. Early in this development the face becomes flushed with congestion and slight jaundice of the conjunctiva of the eyes. The temperature usually is 102 to 103 F. and falls gradually after one to three days. The pulse is slow and falls while the temperature rises. Simple albuminuria or severe nephritis may be

present. When the temperature falls there follows a stage of calm, followed by a rise of temperature, with increased jaundice and vomiting of dark altered blood—"black vomit." Hemorrhages into the skin or mucous membranes may occur. Mental symptoms are sometimes severe. The severity of yellow fever varies from "great mildness" to "extreme malignancy." Convalescence is usually gradual.

Complications: Abscesses and parotitis are the chief complications.

Etiology: Medical works say, "The specific organism of yellow fever has not yet been isolated." They also say "man is inoculated through bites of certain species of mosquitos * * * The mosquito is infected only by biting a yellow-fever patient during the first three days of the disease." This leaves unexplained which was first infected—man or mosquito.

We consider yellow fever to be another result of septic infection. Sepsis is the only infecting agent in all infections.

Prognosis: Under medical care the mortality varies from 15 to 85 per cent. I can find no records of cases cared for by hygienists.

Care of the Patient: This is one condition where many medical authorities recommend fasting, at least during the first day or two. This is not long enough. No food should be given until all acute symptoms have subsided. The care should be the same as that given for typhoid fever. Medical works say, "remedies have little effect upon the black vomit." Under proper care from the beginning, there should be little or none of this. Trall says: "The black vomit, so alarming to friends and physicians, does not always take place, and when it does happen, I believe it is owing more to mal-medication than to all other causes combined."

Constitutional Affections

Diabetes Insipidus

Diabetes Mellitus

Obesity

Rheumatic Arthritis

Arthritis Deformans (Osteo-arthritis)

Chronic Articular Rheumatism

Gout

<u>Avitaminoses</u>

Beriberi (Kakke)

Infantile Marasmus

Mehlnahrschaden (Meal-Diet-Hurt)

Milchnahrsciiaden (Milk-diet-Harm)

Malnutritional Oedema

Osteomalacia and Osteoporosis

<u>Pellagra</u>

Rickets

Scurvy (Scorbutus)

Sprue (Psilosis)

Xerophthalmia (Keratomalacia)

Famine Ophthalmia

The present chapter will be devoted to a group of symptom-complexes commonly classified as "constitutional diseases and diseases of metabolism." One group of "diseases of metabolism" is called "deficiency diseases." These shall be considered in the last part of this chapter. The reader should understand that metabolic perversions, deficiencies and constitutional disturbances exist in all so-called "disease."

It will be noted that diabetes, which is as much a "disease of the ductless glands" as goitre or acromegaly, is included in the present chapter, while goitre, cretinism, etc., though as much "diseases of metabolism" as diabetes, are not. This will further establish the futility of the efforts at classification.

Diabetes Insipidus

Definition: A chronic symptom-complex characterized by persistent passage of large quantities of normal urine of low specific gravity, and seen chiefly in young nervous males.

Symptoms: Diabetes insipidus develops gradually. Ten to twenty quarts of pale urine is passed daily. The total amount of solids passed is often normal. There is thirst with dryness of the mouth and skin. The appetite and general condition are usually apparently normal, although often feebleness and emaciation are present:

Etiology: Nervous "derangement" is back of the excess urination. Fear and overworked emotions, excitement and any other cause of nervous impairment are causes. Babies at the breasts are prone to diabetes insipidus. Excitement and perhaps excessive fluid intake are to blame.

Prognosis: Full recovery in a reasonable time may be expected in all cases if cared for hygienically.

Care of the Patient: Put the patient to bed and withhold all food. Keep the feet warm using artificial heat if necessary. Give water only when demanded by thirst and see that an excess of water is not taken. When the symptoms have ceased, proper diet, as described in Volume II, of this series, and emotional poise will maintain health.

Diabetes Mellitus

Definition: This is the name given to a group of symptoms that center around an impairment of carbohydrate metabolism. Commonly we are told that it is a disease of the pancreas, but it is coming to be realized that it is a disturbance of the metabolic processes involving the entire organism and not strictly localized in any one organ. It is, in other words, a manifestation of a systemic derangement and, however important the pathology in the pancreas may be, this is secondary to the systemic derangement which has resulted in the "disease" of the pancreas.

Symptoms: The urine is frequently voided, is pale and of high specific gravity unless there is inflammation of the kidneys, in which case specific

gravity is not usually so high. The urine contains varying amounts of sugar and certain acids that are absent from the urine of healthy subjects.

There is great thirst and a ravenous appetite with, commonly, loss of weight. Headache, depression and constipation are common. The breath is sweet, though unlike that of the healthy person. The mouth and skin are dry, even parched, the tongue is red and glazed, and when the "disease" is advanced the teeth usually decay and become loosened. There is a tendency to pyorrhea and bleeding of the gums. Loss of sex power is common, while Bright's "disease" may develop as a "complication." Impairment or loss of vision may occur. Boils and eczema are also frequent. The pathology progresses more rapidly in young patients than in older ones, and it is thought by some Hygienists that children rarely if ever make a complete recovery.

A high medical authority says that "in the present state of our knowledge" "it is not' always possible to make a good clinical distinction between an occasional glycosuria and the serious illness, diabetes." Dr. Tilden says, "The same may quite consistently be said, by all medical authorities, of every other disease; for do we not have simple diarrhea running into the chronic form; a simple cold in the lungs developing into pneumonia, and simple pneumonia passing into tuberculosis? It is not uncommon to have tuberculosis following as a sequel of typhoid fever, and rheumatic arthritis following inflammatory rheumatism. Appendicitis develops in the course of catarrhal inflammation of the bowel; organic disease of the kidneys develops as a sequel of an acute albuminous flux of these organs. Many times abscesses form as a result of middle-ear inflammation, or meningitis; and, neither last nor least, ulcer and cancer develop as sequels of chronic inflammation of the stomach."

Complications: Boils and carbuncles, balanitis or itching of the vulva, less often eczema or gangrene; lobar or bronchopneumonia, pulmonary tuberculosis or gangrene; arteriosclerosis, peripheral neuritis often with ataxic gait, or paraplegia, occasionally herpes zoster, perforating ulcer of the foot, often loss of sex power (conception rare, usually abortion), cataract, optic nerve atrophy, rhetinitis, sudden blindness, neuritis, and diabetic coma are among the common complications.

Hirshfeld's "Disease": This is a form of diabetes which is supposed to run its course in about three months and end in death. Three months afford

ample time to stop the killing habits. Only fools think they can get well while practicing habits that build pathology.

Etiology: The islands of Langerhans may be described as little organs within the pancreas or sweetbread. These structures produce an internal secretion commonly known as insulin, which is essential to the oxidation of sugar. When they fail to secrete sufficient insulin an excess of sugar accumulates in the blood and is eliminated by the kidneys in the urine. Hence sugar in the urine (glycosuria) is the principal symptom of what the layman calls sugar diabetes. But it is a subordinate symptom and is valuable chiefly as a criterion of the progress of the condition.

The condition of the pancreas in diabetes has been thoroughly studied after death and the destructive changes therein found have been carefully catalogued. But the patient may have had diabetes ten or more years before death and the pathologist, studying the endpoint of the pathological process after death, gives us a false picture of the condition of the pancreas in any save the terminal stages of the "disease." Thus the hopeless view of diabetes taken by medical men.

There is no destruction in the pancreas when the "disease" first begins and the destructive changes take place slowly against the weakened resistance of the body. Enervation (fatigue) of the islands of Langerhans is the probable beginning of diabetes. It is toxemia that produces the pathology (the destruction) in the pancreas. Toxemia produces first a mild, chronic pancreatitis which may persist for a long time before marked damage to the pancreas occurs.

It is true that there are many cases, of diabetes in children and youth and it is quite possible that there is marked larval endocrine deficiency in all such children. There may even be a lesser degree of larval endocrine deficiency that establishes the tendency to diabetes in adults. The time of life at which carbohydrate tolerance breaks down may be considered an index to the larval endocrine imbalance in the individual. But we must not overlook the fact that of two individuals with the same degree of larval endocrine deficiency, the one that subjects his body to the most enervating influence and consumes the greatest amount of carbohydrates will break down his carbohydrate tolerance first.

In those cases developing after the thirty-fifth or fortieth year we think the larval deficiency may be considered negligible and think that the cause is a

decidedly over-crowded general nutrition in which carbohydrate consumption has been excessive throughout life. The islands of Langerhans have merely been overworked through the years.

Worry, anxiety, grief, shock—fright, accidents, surgical shock—will so impair the function of the pancreas that sugar shows up in the urine immediately. In many cases of diabetes, emotional stress is the chief cause, but it is never the sole cause. Every so-called "disease" is a complex effect of a number of correlated antecedents.

Diet and drink, sex and sleep, work and play, and many other factors enter the cause of every so-called "disease." Any form of over-stimulation—mental, emotional, sensory, physical, chemical, thermal, electrical—may give rise, first to functional, and finally, to organic, "disease." Diabetes is a functional disturbance at its beginning.

Diabetes is more markedly on the increase in those countries in which sugar consumption has mounted to such high figures during the past fifty years —France, Germany, Britain and the United States. Every fat person is a potential diabetic. The over-feeding which is responsible for the fat overworks the pancreas and as overwork of any organ results in impairment of the function of the organ, pancreatic failure results. If its causes are not corrected, functional impairment gradually passes into organic "disease."

Carbohydrate excess places a strong stress On the pancreas and when this gland is overworked, by too great an intake of starches and sugars, there will be first, irritation and inflammation, then enlargement, followed by degeneration (de-secretion); after which the body loses control of sugar metabolism and of the excess acidity caused by too much starch and sugar.

But it should not be thought that overeating of carbohydrates alone impairs the pancreas. Anything that produces enervation —tobacco, tea, coffee, chocolate, cocoa, alcohol, soda fountain slops, sexual excesses, loss of sleep, overwork, general overeating, emotionalism, etc.—impairs organic function in general, including pancreatic function.

Sedentary habits added to overeating increase the tendency to diabetes, as they do to all other so-called "degenerative diseases of later life."

From the first cold in infancy to an ending in diabetes, the sufferer has had the so-called children's "diseases" and the "diseases" said to be "peculiar to the decades of life." The majority perish long before the distal end—diabetes—is evolved. Every so-called "disease" that marks the links in life's morbid

chain is a crisis in toxemia. Gradually the stressed organ breaks down and those who live to the end of any given chain are finally overwhelmed by autogenerated toxins. At every link of these chains a "cure" has been made—drugs, surgery, and hundreds of "cures" have had their inning and encore.

Prognosis: Recovery depends upon the amount of functioning tissue left in the pancreas. Fortunately, the pancreas, like all other organs of the body, possesses a great excess of functioning power over that needed for the ordinary activities of life, so that even after part of the Islands of Langerhans have been destroyed, the remainder will be able to function sufficiently to meet the regular needs of life provided the impairing causes are removed and they are given opportunity to return to a state of health.

When organs are not destroyed beyond repair, rest, poise, self-control, and a restricted, proper diet will restore normal functioning. In diabetes, rest and proper food, with diet restricted to the patient's digestive capacity, and full cooperation will result in dependable health in a few years. Failure is for all those who are not willing to carry out instructions.

Care of the Patient: All enervating influences and habits must be corrected or removed. Sufficient rest for restoration of nerve energy is imperative. A fast, not merely to give the pancreas a rest, but of sufficient duration to free the body of its load of toxins, must be followed by a diet that is designed to produce all possible regeneration in the pancreatic gland. Feeding: that is designed merely to cause the disappearance of sugar from the urine may speedily kill the patient. Until pancreatic function is restored, sugar is not tolerated very well. Sugars must be introduced into the diet in small quantities and increased cautiously. After health is restored the patient must be taught to live within his compensating capacity.

Obesity

Definition: This is an excessive deposit of fat in portions, or in all parts of the body.

Etiology: Popular and professional opinion has it that some cases of obesity are hereditary, while other cases are supposed to be due to glandular troubles. In truth, obesity is due to overeating and under activity—that is, eating more food than is used up in work. This type of eating is almost universal while only a small percentage of those who so eat become obese.

Certain internal factors, of which glandular imbalance may be one, incline some to obesity. Sexual deficiency seems to incline the deficient individual to obesity. It occurs most frequently in middle-aged women and in children.

The over-consumption of fats, starches and sugars tends to put on fat. Drinking malt liquors tends to produce fatty degeneration. Few fat people will acknowledge that they overeat: the fat just jumps on them in the dark. In fact, many of them do eat less than their thin friends and relatives.

Fat increases in all its normal locations and the heart and liver are often large and fatty. Dilatation or rupture of the fat-infiltrated heart may cause death. Fat lowers resistance to all pathogenic influences, reduces vigor, detracts from beauty, lowers working efficiency, and shortens life.

Care of the Patient: Care is dietetic and gymnastic. See Volume IV of this series. Few fat people ever reduce, for the indulgence and indifference that have resulted in the accumulation of the unrendered lard also prevent them from carrying out instructions long enough to recover full health.

Rheumatic Arthritis

Definition: Arthritis is inflammation of a joint and may result from a number of causes. In this place we are confined to a consideration of gouty or rheumatic arthritis—arthritis in those of the gouty diathesis. Several forms are recognized. We shall discuss them in alphabetical order.

Arthritis Deformans (Osteo-arthritis)

Definition: This condition, also called rheumatoid arthritis, is a chronic, supposedly incurable, condition. It may be chronic throughout or may be punctuated with frequent acute crises, and may lead to more or less permanent deformity of the joints.

Symptoms: When osteo-arthritis first appears as an acute crisis it is likely to be confined to the smaller joints, especially those of the hand, neck or jaw, the inflammation rarely shifts to other joints, the temperature seldom exceeds 102 F., the pulse-rate is increased out of proportion to the fever and there is a marked tendency to structural changes in the joints, and muscular atrophy.

When it appears first in the chronic form, inflammation develops in one or two joints and then, it develops in joint after joint, tending to become general. For a time the chief symptoms are pain, swelling and impaired mobility of the joints, but eventually, signs of structural changes develop. These comprise rigidity, deformity and crepitation (grating) on movement. Muscular atrophy always develops and often contractures and partial dislocations add to the deformity. In advanced cases the joints may be fixed in a flexed position, though the terminal rows of phalanges. In the hands may be extended. Acute exacerbations are very common. Anemia, profuse sweating about the hands and feet, irregular pigmentation and rapid pulse are sometimes observed.

In old people arthritis may develop in only one joint (mon-articular form), usually in either the hip or shoulder, presenting persistent pain, impaired mobility, and muscular atrophy.

Arthritis deformans of the spine (spondylitis deformans) may exist alone or other joints may be involved. Its chief symptoms are pain in the back and limbs, especially the legs, limited motion, and ultimately extreme stiffness or fixation of the spine ("poker spine"), exaggerated reflexes, gradual muscular wasting, and, in some cases, spinal curvature of some form.

Small nodules that develop at the sides of the terminal phalanges of the fingers are called Heberden's nodes. They are rarely painful but are sometimes the sole expression of arthritis deformans.

Prognosis: Medical works say, "a complete cure is exceptional." Our experience refutes this. Complete recovery is the rule when cause is removed before deformity is great.

Chronic Articular Rheumatism

Definition: A standard medical work says: "The many cases of polyarthritis with a tendency to chronicity and to permanent structural changes in or about the joints, which are usually referred to as chronic articular rheumatism, had better be regarded as examples of rheumatoid arthritis." "There is no proof, * * * that rheumatism ever passes into a distinctly chronic condition or ever becomes a chronic affection."

So-called chronic articular rheumatism (rheumatic arthritis) is said to be "one of the most common, intractable, and disabling of diseases and one of the most resistant to all forms of treatment." Various classifications of

rheumatic arthritis, all of them more or less arbitrary, are made by various authorities."

Hypertrophic Arthritis is the term applied to enlargement of the bones, cartilaginous structures, and periarticular tissues. There is swelling, redness, pain, and later, deformity of the joints. Ankylosis, which is at first fibrous and later bony, is common. There is a great degree of perversion of nutrition due to deficient nerve supply, and there seems to be an abnormal retention of calcium.

Atrophic Arthritis presents a picture that is in many respects opposite to the above. There seems to be calcium deficiency in these cases. In hypertrophic arthritis calcareous deposits are the rule, while in atrophic arthritis the X-ray shows a honeycombed condition of the articular surfaces, indicating decalcification.

Degenerative Arthritis: which may be confined to one joint, but is frequently polyarticular, is common in women especially at the menopause. Manifesting frequently with grating (crepitation) of one or both knees, accompanied by increasing stiffness and pain, it successively involves other joints, including the wrists, elbows, ankles, hips, shoulders, fingers, hands, feet, and spine. There are recurrent acute exacerbations (crises), muscular atrophy, decreasing mobility, suffering, mental and physical depression, anxiety, contraction of the flexor muscles and tendons with consequent drawing up and tension fixation of the parts, and eventually, in most cases, the wheel chair and such permanent and hopeless invalidism and deformity as to require constant attendance.

Prognosis: Possibility of complete recovery depends upon how early in the course of the pathology proper care is instituted.

Gout

Definition: This is a form of arthritis characterized in its typical form by deposits of sodium biurate in the joints and other structures, and by recurrent arthritic crises.

Symptoms: Two varieties are described, which may be acute or chronic.

Acute Gout is usually preceded by certain prodromal symptoms—restlessness, insomnia, moroseness, irritability, dyspepsia, and changes in the urine. This is followed by the sudden appearance in the early morning hours

of pain and swelling in the ball of the great toe. The inflamed joint is so tender that the slightest pressure causes agony. It is of a reddish-purple color, the overlying veins are full and distinct and its surface is glazed. The pulse is quickened and temperature rises to 101 to 102 F. Toward daylight the pain subsides and the patient falls asleep. He is comparatively comfortable during the night, but there are severe exacerbations for several successive nights. At first the crises may be a year apart, but as they multiply, the interval grows less, until finally the sufferer is seldom free from pain.

Retrocedent Gout is the term applied to a condition in which the arthritic crisis suddenly subsides and grave gastric, cardiac, or cerebral symptoms follow. It is probably due to suppression.

Chronic Gout: One by one, the joints become stiff, irregularly enlarged and deformed. Chalk-stones (tophi) form and are sometimes discharged through the skin by ulceration. Similar deposits are often found along the tendons and in the helix of the ear, or on the underside of the eyelid.

Non-articular Gout (uric acid diathesis, latent gout, goutiness, lithemia) is a term applied to a group of symptoms in which no gout is present. It resembles a case of severe, chronic indigestion.

Complications and Sequelae: Chronic interstitial nephritis, arteriosclerosis, hypertrophy of the heart, angina pectoris, apoplexy, chronic bronchitis, chronic eczema, urticaria and psoriasis, are the chief complications.

Etiology: We will consider the cause of these various forms of arthritis together, for they are all related and grow out of the same causes. Fundamentally, toxemia is at the base of all these conditions. Uric acid is suspected of playing a leading role in all these affections, but its office in their production is not well understood. We agree with Dr. Weger, when he says, uric acid, instead of being the sole cause of rheumatism, is only one of the many acids an excess of which leads to trouble and internal dissention. No one knows just how many subtle chemical toxins are involved in the arthritic process. There may be hundreds or even thousands. Many years will elapse before we are able to isolate the compounds which the amino acids alone are capable of forming with one another and with other byproducts of both the protein and carbohydrate families. We may safely assume that no single, harmful chemical poison is alone and independently responsible for rheumatism. Neither shall we be able for many years, if ever, to isolate and

designate any one particular toxic substance that causes cancer or Bright's disease or hardening of the arteries."

Excesses of all kinds build the toxic state back of these symptom-complexes. Carbohydrates, especially the sugars, seem to give most offense in causing rheumatism.

Prognosis: "Acute cases respond very readily and recurrences occur only in those who return to their old habits of living and eating," says Dr. Weger. Chronic gout responds more slowly.

Care of the Patient: Fortunately, it is not necessary to know which, if any, single toxin causes arthritis, or any other "disease," in order to eliminate it. Nor, do we need such knowledge in order to eliminate the causes of enervation.

Fasting, rest and a corrected mode of living soon eliminate toxemia and restore normal nerve energy. Dr. Weger says: "Experience has proved that a change from acid-forming to base or alkali-forming foods is followed by the most wholesome reactions. We have also convinced ourselves and others that there is no remedial agency that even approximates a complete fast in either acute or chronic rheumatism. Metabolism is most rapidly altered by fasting, and the body is thus more readily reconciled to accept a gradual chemical change in the fluids and secretions. Fasting relieves pain more effectively than drugs and with less risk of general harm."

Arthritics do not handle sugars and starches well, due to metabolic disturbance. However, best results are obtained, not by a mere reduction of carbohydrates, but by a general reduction of the diet, for the carbohydrates are not alone to blame. The toxemia present is the result of long abuse with a redundancy of foods of all kinds and in wrong combinations.

Not a mere reduction of foods, but abstinence from all food, will most rapidly remedy the gastro-intestinal catarrh which represents the starting-point of all cases of rheumatoid arthritis. But to this must be added a correction of the whole mode of living and sufficient rest for the restoration of full nerve force.

Avitaminoses

Avitaminoses is a term often used to describe what are otherwise called "deficiency diseases." Due to preoccupation with and overemphasis on

vitamins, there is a strong tendency to limit the term "deficiency" to conditions that are supposed to grow out of vitamin deficiency.

We are so afflicted with science madness that we are hardly able to discern between tomfoolery and science. We were swept from the calorie insanity into the vitamin insanity. It is inconceivable, in the light of the well established law of the minimum (see Vol. II) that any diet that is inadequate in any of its essential constituents can give rise to a deficiency of any one food essential. We must cease looking' for unitary causes and recognize the complexity of cause in all conditions.

Besides the "definite diseases" which are diagnosed by "characteristic signs" and by changes in the organs and structures of the body, there is a vastly greater number of less clearly distinguished ailments, functional weaknesses, or health impairments, which are suspected of deficiency bases. Some forms of goitre, anemia, etc., are blamed on deficiency, while there is definite deficiency in tuberculosis. The obvious fact is that there is deficiency in all so-called "disease." In our present considerations we shall confine ourselves to the "definite deficiency diseases," taking them up in alphabetical order.

Beriberi (Kakke)

Definition: Beriberi, or multiple neuritis or endemic multiple neuritis, occurring endemically in tropical and subtropical countries, is characterized by disturbances of circulation, motion, and sensation, and great loss of weight. The "disease" is prevalent in Japan, China, India, the Philippine Islands, and parts of South America.

Symptoms: Four general forms are described—namely:

- (1) Acute pernicious form, of rapid onset with grave circulatory disturbances and death in a few days from heart failure and edema of the lungs.
- (2) The wet form in which there is marked edema and often edema into the serous sacs:
- (3) The dry form characterized by pronounced muscular atrophy and little edema;
- (4) Rudimentary cases, in which leg weakness, palpitation and paresthesia are the only symptoms.

The usual symptoms are paresis, especially in the lower extremities, paresthesia, hyperesthesia, pains, tenderness of the nerve-trunks, loss of deep reflexes, muscular atrophy, palpitation, venous congestion, weakness of the pulse, difficult breathing, and, in many cases, more or less edema of the feet and legs.

Etiology: Berg says: "We have already learned that beri-beri in human beings and polyneuritis in other animals are not solely associated with an exclusive rice diet, but may accrue when various other nutrients are given in conjunction, and when they are given (of course in preponderant quantities) in association with nutrients that have a curative effect on polyneuritis, polyneuritis will ensue, as happened in the case of the British troops in Mesopotamia, and as was observed by Dugougere in French Guiana. Lovelace reports a case of beri-beri observed by himself in which the patient had been taking a mixed diet. Dickensen, and also Smith and Hastings, noted the occurrence of this disease in persons taking an extremely varied diet which seemed to comply with all the hitherto accepted essentials of an adequate nutrition."

Beri-beri was formerly thought to be contagious and this superstition was given up with great reluctance, especially by the Japanese authorities, if indeed it has yet been wholly abandoned. It is now commonly associated with a diet of polished rice, although British soldiers in Mesopotamia, during the first World War, developed the trouble on a diet of corned beef and superfine white flour bread. "Acidosis" plays a notable part in the development of the condition and anything that adds to the "acidosis" hastens the "disease."

Cases of beri-beri have been reported in which whole and not polished rice was eaten. It is assumed that in such cases, the rice had been kept too long in storage. Sterilized meat will produce the "disease" in cats in proportion to the time the meat has been stored.

The addition of carbohydrates to the diet of victims of polyneuritis has a very deleterious effect. This is assumed to be due to the weakened state of digestion arising out of a vitamin-free diet. Much carbohydrate in the diet gives rise to acid fermentation and the production of organic acids which, being absorbed by a debilitated organism unable to effect their speedy and complete combustion, produce well-marked acidosis. Sugar and denatured starch added to the diet increase the rapidity of the "disease," sugar more so

than starch. The reduction of carbon dioxide in the respiratory output in such cases is taken as evidence that the combustion of organic acids is crippled in this "disease."

Fats, which contain an excess of acids, tend to increase the "disease." Butter added to the diet of monkeys suffering from the "disease" hastens death.

The "disease" is attributed to different causes by different investigators. Lack of vitamin B, potassium and phosphorus deficiency, spoiled rice, lack of protein, poison in rice analogous to that in cotton seed, bacterial toxins, and oxalic-acid intoxication originating in the intestine, are among the supposed causes. The "disease" has been observed among persons living on a mixed diet.

Berg says: "When beri-beri occurs in persons taking a mixed diet, it will be found: (a) that some of the important nutrients have been subjected to a preserving process involving exposure to excessive or unduly prolonged beat; or (b) that the cereals in the diet have been subjected to too extensive a hulling process in the mill; or (c) —that other important constituents of the food have, in preparing for the table, been boiled and that their vitamin content has passed into the cooking water and been thrown away.

The "disease" is seen chiefly in young adults and is predisposed to by bad hygiene, overcrowding, exposure to cold, hard work and other factors that produce an added need for food.

Prognosis: In the early stages recovery is rapid. In advanced stages recovery is slow or absent.

Infantile Marasmus

In Germany, technical differences are made between mal-nutritional states developed in infants fed on milk and cereal diets and those developed in infants fed on other diets. There are no English equivalents for the German terms, English and American students not having differentiated the two conditions from other forms of nutritive disorders, and usually include them under the term atrophy or infantile marasmus—wasting or emaciation.

These two conditions are probably far more common in this country than we are aware of; not perhaps, in their extreme states, but in all of the various stages from mild to severe, which these two states of malnutrition assume.

The type of feeding upon which they develop is all too common here, even among child-specialists or pediatrists.

Mehlnahrschaden (Meal-Diet-Hurt)

Definition: This is a malnutritional condition that develops on a diet that "has consisted mainly of gruel, mush, or porridge of some kind, to which sugar and fat are often added to promote energy."

Symptoms: According to Berg, this condition, noted in infants-in-arms, presents "a nervous hyperirritability which may lead to tetanoid spasms. Again at an early stage of mehlnarhschaden, the little patients suffer from moderate meteorism. By degrees, the nutritive condition grows worse, unless ultimately a markedly atrophic state arises. In the last stages there may be edema. To complete the picture, it is necessary to add that acute gastro-intestinal disorder is a frequent complication. There is also a notable increase in the susceptibility to every kind of infection." The muscles are hard and hypertonic (contracted).

Etiology: The diet of these infants, even assuming that they are fed on whole grains, is deficient in the organic salts, particularly in sodium and calcium, and "is poorly supplied with organically combined sulphur and with bases generally." It contains an over-abundance of the "inorganic" acid-formers and of potassium. The proteins are inadequate, being especially poor in lysin and cystin. Vitamins A, B and C are deficient. Fermentation is inevitable on this diet, not alone because of the absence of A and B, which absence is supposed to impair the functions of the digestive glands, but also, and largely, because of the absence of starch-splitting enzymes in the infant s digestive juices and because the starches are consumed soaked or boiled. These deficiencies are all the more marked where the foods are of the refined or denatured kinds.

Prognosis: Good in average cases.

Milchnahrsciiaden (Milk-diet-Harm)

Definition: This is a malnutritional state seen in infants fed upon pasteurized or diluted milk.

Symptoms: Berg's description of the condition is as follows:

"The first symptom of the disorder is that sleep is greatly disturbed; the infant is overtired, and manifests its discomfort by fits of crying. The skin becomes pale and turgid, and is morbidly sensitive to injury. The tonicity of the tissues and the blood-pressure decline; the stools contain large quantities of fatty soaps; and there is marked meteorism. For a time there is an arrest of weight, and then the weight actually falls until extreme atrophy has been established. Marked intolerance of fat is displayed, especially when cream is added to the milk in the hope of improving the nutritive condition. Nervous symptoms have not been noted, but the disease may sometimes be complicated with infantile scurvy."

Etiology: According to Berg, milchnahrschaden, "which is a rarer disease than mehlnahrschaden," is a result, of the hand-feeding of infants, especially on cow s milk. Ordinarily, in this form of artificial feeding, the milk is greatly diluted and is also pasteurized or at least scalded.

The dilution of the milk in the diet of these infants lowers the mineral content with respect to all of its minerals. Iron, sodium, calcium, and the bases generally are rendered inadequate. This induces an "acidosis." The dilution of the milk also lowers its vitamin content. All of this in addition to the evils wrought by scalding or pasteurization.

Prognosis: Rapid recovery may be expected in most cases.

Malnutritional Oedema

Definition: Malnutritional oedema is a passive oedema, an extravasation of blood serum into the tissues, due to an insufficiency in the arterial walls, with a consequent swelling, of these tissues, seen in malnutritional states.

The condition is an old one and has many names, as "famine dropsy," "ship beriberi," "prison dropsy," etc. The crew of the Kronprinz Wilhelm, suffered with "ship beriberi." Berg says the "description of ship beriberi seems a mere plagiarism from the description of famine dropsy. There: can be no doubt that prison dropsy, ship beri-beri, and the malnutritional edema of the war years and of the Indian famines, are one and the same disease."

Symptoms: The condition may range all the way from small local edemas to general edema resulting in death. In advanced states the transuded serum accumulates in the various body cavities ---- cardiac, pleural, peritoneal and joint cavities. This, condition develops quite frequently in deficiency

"diseases" and may become so severe as to overshadow all other symptoms.

: In severe cases of beriberi and scurvy the passive edema may pass into cardiac edema, due to the failing of the overtaxed heart.

Etiology: The authorities are as much confused about the cause of malnutritional oedema as of other "deficiency diseases." "Morgulis says of the hypothesis that the condition is due to vitamin A deficiency: "The experiments of Kohman showing that the edema is the product of a complexity of circumstances involving general malnutrition together with a very low protein intake dispense with this hypothesis."

Berg says in writing of the malnutritional oedema of the first World War: "Opinions are diametrically opposed concerning the nature of the pathogenic diet. There is hardly an assertion in respect of this, which is not disputed by some rival authority. It is obvious that the personal bias of the various writers has played a considerable part in dictating their respective assertions. What one describes as an abundance is referred to by another as a quite inadequate quantity. Most observers are agreed in stating that the caloric contents of the pathogenic diet is too low; but according to Schittenhelm and Schlecht, this has not always been the cause. We are often told that the supply of protein has been too small, the daily amount ranging in these instances from to 41 to 74 grammes. According to Liebers, however, the protein content of the diet was sufficient; in peace time the amount of protein in the hospital diet has been 77.33 grammes; in 1916, it fell to 50.53 grammes; in 1917, it was 60.26 grammes; and in 1918, it was 71.05 grammes.

"Many authorities incline to regard an excess of carbohydrates in the diet as injurious, but Jansen reports a cure by a liberal supply of carbohydrates. Others consider that the fats in the food were deficient. According to Burger, it is not always possible to demonstrate that the supply of inorganic salts was inadequate.

"German writers in general are agreed in insisting that there seemed to be no lack of complettins in the diet; whereas the British authorities refer to the lack of accessory food factors; and according to Burger, the complettin content was primarily low, and the deficiency was often exaggerated by faulty methods of preparation. Kohman and Nixon stress the disproportion between the richness of food in water and its lack of solid constituents. Kohman, working alone and also in collaboration with Denton, saw dropsy

arise in cases in which carrots were being consumed in conjunction with an abundance of fat or starch, but in which a cure resulted on the administration of casein and calcium salts. The report of H. de Waele and Burger contain typical instances of diets leading to malnutritional edema. According to de Waele, in a French almshouse, the diet consisted of soup and bread, or soup and potatoes, with beans and fat twice a week. In Burger's cases the pathogenic diet was composed of bread, vegetables, and a small quantity of potatoes, with a little lard, and small amounts of pickled or salted meat."

Prognosis: Recovery is often rapid following improved dietary.

Osteomalacia and Osteoporosis

Definition: Osteomalacia is a progressive softening of the skeleton with resulting deformity. Adults and pregnant women are most liable to the condition. It is characterized by rarification of the osteoid tissue, which may be reduced to the thinness of paper near the epiphyses and by a more or less complete disappearance of the spongy tissue. (Osteoporosis is a decreasing density due to the development of a porous condition of the bones) Osteomalacia is attended with "rheumatic pains."

Etiology: Berg says that "during the latter years of the war, osteomalacia and other forms of osteopathy, were frequent, and in the large towns sometimes assumed epidemic proportions." Osteomalacia, osteofragilitis (fragility of the bones, also called osteopsathyrosis) and osteoporosis developed in whole communities, and especially in Vienna, during the first World War. Softening of the bones with innumerable spontaneous, fractures followed upon the lack of fruits and vegetables.

Berg and others consider the condition to be due to a lack of complettin A. Some consider it to be due to a lack of calcium and phosphorus. Amenorrhea in adult women and a failure of menstruation to begin in girls at puberty are often seen associated with the condition. Tetany and other spasmodic troubles are sometimes present.

Prognosis: Complete recovery is possible only in the early stages and before deformity has developed.

Pellagra

Definition: Pellagra—is defined as "an endemic chronic disease characterized by digestive disturbances, erythematous roughness of the skin, especially of the exposed surfaces and symptoms referable to widespread degenerative changes in the brain and spinal cord."

Symptoms: Pellagra begins with stomatitis (inflammation of the mouth), pains in the abdomen, vomiting and diarrhea. The skin eruptions appear in spring and disappear in winter. Headache, irritability, hallucinations and profound mental depression comprise the usual nervous symptoms. In severe cases the mental disturbances assume the forms of melancholia, dementia or mania, and in rare cases, paresis (slight paralysis) and ataxia of the spastic type.

Etiology: Pellagra is due to a lack of meat, to spoiled corn, to germs, vitamin deficiency, etc., etc., depending on who is doing the experimenting. Some of the worst cases reported in this country were in people whose diet contained no maize (Indian corn) at all. All is confusion.

Prognosis: "Pellagra," says Weger, "is a more obstinate condition and requires a very rigid dietetic and general disciplinary regimen. The most difficult problem in advanced cases is the psychic depression, and much tact is needed in bringing about a better mental state. It usually requires from three months to a year to overcome the depraved condition of the mucous membranes of the entire digestive tract."

Rickets

Definition: Rickets is a "deficiency disease" in which there is softening of the bones with a predominant loss of calcium salts. The deformities are usually permanent. There is often enlargement of the liver, spleen and the glands of the mesentery.

Symptoms: The "disease" develops most commonly between the sixth month and the third year of life. The head is relatively large, the fontanelles do not close at the normal age, parts of the occipital and parietal bones may be thin and yielding, the chest may be flattened and the sternum thrust forward (pigeon-breast); bony enlargement, or beads, often form at the junction of the osseous and cartilagenous portions of the ribs, curvature of the spine is frequent, bow-legs or knock-knees is quite common, while the pelvic

outlet may be much narrowed, a serious thing in females who are later to be mothers.

The teeth erupt late, are irregular, small and defective, there are gastrointestinal disturbances, pallor, emaciation, flabby muscles, excessive feeling, restlessness at night, a disinclination to and excessive sweating especially, about the head.

The bone-ash in a case of rickets contains an abnormal preponderance of magnesium salts. These, changes occur more particularly in the bones of the extremities. There is a marked increase of cartilage at the end of the bones, the bones are irregular, sometimes much deformed and bent.

Complications: Green-stick fractures, broncho-pneumonia, convulsions, involuntary passage of urine, tetany, and laryngismus stridulus are the chief complications that sometimes occur.

Etiology: Rickets, of which I have described an extreme case, results from poor nutrition of the mother, faulty diet in the child, lack of sun light, fresh air and poor general hygiene. The experts disagree as to its cause. Osborn and Mendel think it is due to a lack of vitamin A. Rohmann thinks it is due to lack of calcium in the diet or to a failure to absorb calcium from the intestine. McCollum, Simmonds, Parsons, and Dalyell, think it is caused by a lack of vitamin B or vitamin C, and a lack of calcium salts and phosphorus. Mackay thinks a lack of vitamin A has nothing to do with causing the disease. The United States Public Health Service considers that it is due solely to a lack of sunshine. Mann thinks it due to several factors chief of which is lack of fat.

Dr. Hess reported a number of cases of children who had rickets even though the diet included an abundance of fat-soluble A. He also reported perfectly normal children whose diet included little or no vitamin A.

Morgulis says: "The American students of this problem, both Hess and McCollum with his co-workers, find no evidence for the hypothesis of the relation between rickets and vitamin A starvation." McCollum "considers the disease to be caused by a complex dietary deficiency, which involves the calcium and protein factors."

But why go on; they can't agree on anything, unless it is that cod-liver oil will prevent and cure the trouble. The question comes up: Why do children fed on this oil develop rickets, and, why does cod-liver oil so often fail to

result in a cure? Fortunately whole milk, fruit juices, sun shine and good general hygiene will both prevent and remedy the condition.

Prognosis: Weger says "rickets presents no difficult problem and can be overcome in a relatively short time by diet plus hygiene, sunshine and favorable environment. We have had no personal experience with the more recent additions to the pharmocopeia of irradiated foods, drugs, and oils which have come into high medical favor. These diseases (he includes in this also sprue and scurvy) respond readily to proper diet without artificial concentration—of vitamin D or other active substance."

Scurvy (Scorbutus)

Definition: Scurvy is defined as a "constitutional disease."

It is frequently associated with beriberi and also with sprue. The "disease" is one of the oldest known to man in north latitudes;—the people of northern Europe, in particular have been sufferers from it. Berg says: "In summer the Eskimos, who live almost exclusively on flesh and fat, often suffer a mild form of the hemorrhagic diathesis, being affected with bleeding from the gums, nosebleed, hemorrhages from the other mucous membranes, and severe extravasations of blood in the subcutaneous tissues upon comparatively slight provocation, while in winter, under the combined influence of famine and unsuitable diet, typical scurvy is apt to arise, sometimes carrying off entire tribes." In western Asia, northern Japan, and on the old time sailing vessels this "disease" was quite common.

Symptoms: Scurvy is characterized by marked weakness, a spongy condition of the gums, anemia, hemorrhages from the mucous membranes and into the skin, gums, muscles, joints, and internal organs. There is great lassitude, constipation, fetor of the breath, a craving for acid fruits, loosening of the teeth, brawny induration of the muscles in various parts of the body, due to blood exudated into the muscles, and in the worst stages, spontaneous fracture of the bones.

Infantile Scurvy (Barlow's "disease") is seen in children fed on condensed milk, pasteurized milk and proprietary foods—drug-store foods. It is characterized by pallor, tenderness or pain in the legs or back on handling, slight swelling, especially about the shaft of the long cylindric bones, pseudoparalysis (immobility of the legs), hemorrhages into the tissues,

subperiosteal hemorrhages, especially of the long bones, and blood in the urine. The gums are not affected if the teeth have not erupted.

Etiology: The cause of scurvy is still in dispute. Furst excluded acidosis and infection as possible causes. McCollum and Pitz advanced the theory that the "disease" is due indirectly to a microbe. Prolonged retention of feces, in the bowel, with putrefaction and toxemia resulting therefrom, they think causes the "disease." Harden and Zilva denied this. Hess and Unger showed that keeping the bowels cleaned out does not prevent the "disease." Rohmann thought protein insufficiency causes the affection. Howe refers its etiology to vitamin C deficiency, others to a lack of vitamin A or vitamin B. Drummond declares it is due to a lack of "water-soluble G." Florence thinks both scurvy and infantile scurvy are due to a lack of sulphur. Whatever it is in food that protects against scurvy is destroyed by prolonged boiling and by drying.

Prognosis: Scurvy presents "no difficult problem," says Weger, "and can be overcome in a relatively short time .by diet plus hygiene, sun light and favorable environment."

Sprue (Psilosis)

Definition: This deficiency is seen largely in the tropics, and chiefly among European residents.

Symptoms: Sprue begins with slight digestive disorders, which resemble the common digestive disorders, which come and go. Isolated patches of inflammation on the tongue appear from time to time, but completely disappear. Time passes and the digestive disorders grow more frequent and the inflammation of the tongue becomes more severe and lasting. The inflammatory patches on the tongue finally merge (coalesce), the skin of the tongue disappears and small suppurating vesicles or extremely sensitive circumscribed minute ulcers are seen on the tongue. The muscles of the tongue atrophy, the tongue becomes small, deeply furrowed, thin and covered with an overgrowth of connective tissue.

The gums and lining of the mouth may become inflamed, sometimes salivation, sometimes a dryness of the mouth ensues. The sense of taste is impaired and the saliva becomes acid. Inflammation of the throat and other portions of the upper alimentary tract make swallowing painful and difficult. There is flatulency, eructations, "heart burn," and in rare cases, vomiting.

Numerous other symptoms and changes occur, such as diarrhea, increased appetite at first, with later, decreased appetite, intense thirst, atrophy of the liver, distended abdomen, emaciation, flaccid and wrinkled skin and, finally, death.

Etiology: Berg says: "The pathological anatomy of this disease does not furnish any etiological explanation, for the pathological changes are no more than the results of the abnormal fermentations in the intestine." There is nothing new or strange about this. We have long known that "dead men tell no tales." Causes are never discovered at the necropsy. The medical profession has the bad habit of going to the dead-house (the morgue) to discover cause. We should not follow in their footsteps.

Prognosis: Weger says sprue presents "no difficult problem and can be overcome in a relatively short time by diet plus hygiene, sunlight, and favorable environment."

Xerophthalmia (Keratomalacia)

Definition: This is a dry, thickened condition of the conjunctiva, which is seen in certain dietary deficiencies. It occurs quite often in Denmark and is regarded as the chief cause of blindness in Danish children. The condition usually passes rapidly into keratomalacia, a softening of the cornea. It may even culminate in blindness. In experimental animals in which these conditions have been induced, hemorrhagic and even purulent discharges from the eyes are seen. Softening of the cornea may be followed by the subsequent destruction of the eyeball.

Etiology: Here again the "authorities" are at odds over cause. Some declare these conditions to be due to a lack of vitamin A. Others declare that calcium deficiency is the cause and that recovery is more rapid if the calcium in the diet is increased along with the vitamin A. Bloch reported several cases in the eyes of babies artificially fed on separated milk. Beginning with dryness (xerosis) of the conjunctiva, the condition progressed to severe affections, with involvement of the cornea and,—in several babies, resulted in complete blindness. He fed a diet of whole milk and cod liver oil and the eyes returned to normal.

McCollum was led by his investigations to the conclusion that the animal organism has stored up in its fat and glandular organs a sufficient reserve of

"fat-soluble A," the absence of which is said to cause xerophthalmia and keratomalacia, to supply its immediate needs, when this vitamin is lacking in the diet.

Night-blindness, seen among Eskimos and Chinese and Japanese coolies, is also attributed to deficiency of vitamin A. A diet of carrots, lettuce and other raw green vegetables is said to restore normal night-vision.

Prognosis: These conditions rapidly disappear under proper general care and correct feeding.

Famine Ophthalmia

Definition: Purulent inflammation of the eyes and blindness are frequent aftermaths of famine. Even long after a famine has passed, children suffer with purulent inflammation of the eyes.

Care of the Patient: In dealing with these "deficiency diseases" we have departed somewhat from our regular order in this book in that we have not discussed "care of the patient" under each separate deficiency. This seemed advisable from the very nature of the affections.

The "authorities" cannot agree on the causes of the various nutritional "diseases." If the experimenters and research workers are hopelessly confused about the causes of these deficiency "diseases" they are no less so when they come to their treatment. What Funk and Segawa find will cure beriberi, for instance, Williams and Schaumann find does nothing of the kind. The marasmus which Segawa regards as a secondary symptom in beriberi, Berg regards as the first and most fundamental, with pareses and paralyses superadded as further characteristics.

What one investigator can accomplish with vitamins, another cannot, but requires the aid of salts, another does with protein, another with carbohydrates and still another with fats. One investigator discovers that beriberi develops in men fed on polished rice and is cured by adding the polishings to the diet. Another reports cases of beri-beri in individuals living on whole rice.

Fortunately for us, malnutritional "diseases" are remedied by rest in bed, fasting, followed by proper diet and good general hygiene. Lamps, irradiated food, cod-liver oil, yeast, etc., etc., are not to be considered.

Dr. Tilden says "the symptom-complex of faulty nutrition embraces all diseases because all diseases are of a nutritional character." It is impossible to separate poisoning (toxemia) and malnutrition. They always co-exist. Malnutrition must always lower function and produce toxemia and it must always decrease resistance to poisons, and poisoning must always impair and pervert nutrition. Every so-called "disease" is a combination of these factors and many of the symptoms described in "deficiency diseases" are toxic symptoms. Toxemia and malnutrition are Siamese twins.

Berg says of these so-called "deficiency diseases": "There is all the more reason for the use of such a collective designation, inasmuch as it is somewhat exceptional to find one of these morbid processes in a pure form." There are common factors in all of them. From what we know of the interrelationships of the food elements we could not logically expect a deficiency in one food element without a co-existent and consequent deficiency in other elements. The "deficiency diseases" are all related not alone one to another, but to other pathologies. .

There seems to be no doubt about the relationship of sprue, pellagra and those milder forms of mucous membrane depravity that do not break down the resistance of tissues in so profound a manner. The differential diagnosis of sprue and pellagra is not easy and cases are seen where one day the patient presents a typical picture of sprue and a day or so later the case is more like pernicious anemia or pellagra.

Berg tells us: "Zambrazycki regards malnutritional oedema, scurvy and beriberi a nutritive disorders which have a kindred etiology. He says that the same symptoms are common to all three diseases, the difference being the extent to which this or that symptom predominates. In beriberi the pareses (paralysis) are most conspicuous; in scurvy, the symptoms of the hemorrhagic diathesis give the specific character to the disease; and the most notable feature of malnutritional oedema is, of course, the anasarca (general dropsy) "

It is our view that the conclusions arrived at by Goldberger in his researches in pellagra are faulty. We hold that a constitutional impairment, enervation and toxemia and their effects, exist in sprue and pellagra prior to the appearance of nutritional imbalance. The toxic state it seems to us, is the larger factor in these cases, and the mineral and vitamin deficiencies are secondary to this.

Latent deficiency "disease" is prevalent among the so-called intelligent and among the well-to-do, for malnutrition is developed by the typical American meals of denatured, badly prepared and wrongly combined foods. Normal blood and healthy tissues cannot be built on a diet of white bread, denatured cereals, white sugar, pasteurized milk, muscle meats, mashed potatoes, canned fruits and vegetables, cakes, cookies, pies, candies, spices, condiments, coffee, tea, cocoa, chocolate, ice cream, soda fountain slops and drugs. The addition of a small quantity of "protective foods" to such a diet will not render it adequate.

Food deficiencies are not noticeable at the beginning. They develop slowly at first and then with increasing speed. Berg says: "Aaron, and also Erich Muller and other specialists in the diseases of children, observed that in children that were supposed to be thriving, to supplement the diet by fresh vegetables, extract of green vegetables, extract of carrots, or extract of bran, could always bring about a further increment of growth. These observations show how defective the nutrition of our children must be in contemporary life, even under what appears to be favorable conditions."

Plant-feeders will always consume green vegetables if they can procure them and in the green parts of plants, vitamins and minerals are present in their active state and in favorable quantities. So-called gramnivorous animals become ill, breed badly, and rear fewer young, if they cannot get green leaf food in addition to grains. Even carnivores revert to plant feeding at certain seasons of the year and are rejuvenated thereby.

But it would be a mistake to suppose that food deficiencies arise wholly from faulty or inadequate diet. Any weakening of the nervous system through whatever cause (shock, overwork, extreme exposure, over-stimulation, emotional strain) lowers physiological efficiency—lowers digestive and assimilative power. Thousands of overfed individuals are suffering from dietary deficiency because of their inability to digest and appropriate the food they eat. Anything and everything which makes a special claim upon the activities of the body predisposes to "disease," unless the diet is of a character to adequately meet the demands. Even vigorous growth, if not met with the needed food elements, will result in deficiency. Work, exposure and other factors which make special demands upon the body, worry, anxiety, nervous strain, etc., by crippling nutrition, may result in deficiency. Indigestion is a common cause of deficiency.

Natural elements needed for the nourishment and repair of, the body are not present in drug-store preparations and patent-foods, vitamin extracts, vitamin concentrates, mineral concentrates, cod-liver oils, etc. I defy any doctor who goes to the laboratory to find iron, iodine, vitamins, pepsin, and all such drugs that appeal to the profession, to get the results I obtain with fruits and vegetables.

By attempting to extract vitamins from their natural media and to administer them medicinally, instead of insisting upon the consumption of whole foods, the medical profession lends both passive and active support to the food spoilers, food-fakers and manufacturing chemists, to the greater profit of both and loss, both in health and pocket, to the unfortunate consumer.

A thing torn from its natural environment—a vitamin divorced from its related nutrients—is no longer the same thing. A vitamin in a bottle, dissociated from its symbiotic partners is quite different from a vitamin in oranges.

Patients and parents annually waste millions of dollars in filling prescriptions for vitamins "when none are needed, for these are altogether adequate in natural—unprocessed, unrefined, uncooked—foods. Indeed, prescribing expensive vitamins even where there seems to be a real need for them, without at the same time teaching the patient how to get along without the patent-foods, by improving his diet, is to fail in your duty to the patient.

Vedder says that "crude vitamins" used as remedies for polyneuritis, are from 20 to 30 times less effective than the foods from which they were derived. The same thing is true of all deficiency "diseases." After the present enthusiasm for the new saviour has died down, it will be clear to all that man must still subsist on whole foods and not extracts or tinctures or fusions or other drug-like derivatives. It is quite natural, of course, that medical men should look for means to employ parts of foods as drugs.

Affections of the Digestive Organs

Affections Of The Mouth

Affections Of The Tongue

Affections Of The Salivary Glands

Affections Of The Pharynx And Tonsils

Affections Of The Esophagus

Affections Of The Stomach

Affections Of The Digestive Organs

Affections Of The Intestines

Affections Of The Liver

Affections Of The Bile Passages And Gall-Duct

Affections Of The Pancreas

Affections Of The Peritoneum

There are so many "diseases" of the digestive tract, it is difficult to decide just how to begin our discussion of them. We shall follow the regular routine of taking up the various symptom-complexes that present themselves in the various parts of the digestive system in alphabetical order. It is thought wise to again caution the reader against regarding these symptom-complexes as specific "diseases."

Digestive "diseases" range all the way from a "cold" to cancer. The stomach is the most abused organ of the body. Almost immediately after birth the child is enervated from fondling and overfeeding. Meddlesome midwifery enervates both mother and child, rendering the mother's milk, if there is any milk at all, unfit as food. When a child becomes enervated, elimination is checked producing toxemia; and when the accumulation of toxin is great enough to arouse resistance, compensatory elimination is instituted at some point of the mucous membrane made sensitive by indigestion or constipation.

Very soon after birth, due to enervation and overfeeding, symptoms of indigestion appear in the child, and as often in the mother, which automatically starts a cinema of infant-feeding and care that competes in exquisite torture with those described in Dante's Inferno. Here is laid the

foundation for the gastro-intestinal catarrh that extends on and on, involving more or less all the mucous membranes of the body, becoming the mother of all the "diseases peculiar to children," all the "diseases" recognized as catarrhal.

The stomach being the most abused organ of the body, indigestion, or catarrh of the stomach—gastritis—is one of the first toxemic crises—biogonies. Indigestion is not often repeated before the mucous membranes of the mouth, throat, intestine, etc., begin to suffer crises. In time the submucous tissues and glandular system become affected. The various symptom-complexes that arise in this gradual spread of pathology, are named according to their locations.

When organs, because of defective anatomism, or organic change due to inherent weakness, or because of being stressed either by the habits of living or by frequent crises, fail to function properly and undergo structural changes, we have what are called "organic diseases"—ulcer, cancer, etc.

Affections Of The Mouth

Ludwig's Angina (Angina Ludovici)

Stomatitis

Pyorrhea Alveolaris

Rigg's Disease (Alveolodental Periostitis)

<u>Ludwig's Angina (Angina Ludovici)</u>

Definition: A grave and acute phlegmonous inflammation of the tissues of the floor of the mouth and sides of the neck.

Symptoms: Painful inflammation of the floor of the mouth and neck, with difficulty in talking and swallowing, and fever, are followed by break-down and suppuration of the glands of the mouth and neck.

Etiology: It may occur in the course of various so-called "specific fevers," or it may result from traumatic injury, or it may be caused by carious processes at the roots of the teeth. It is obviously of septic (putrescent) origin.

Prognosis: Under Hygienic care practically all cases recover. Under regular care cases frequently end in abscess-formation or gangrene, and

frequently lead to general septicemia.

Care of the Patient: Dr. Weger says "usually the pus must be surgically drained. It is a rather infrequent disease and the under-lying toxic state must be adequately treated." This means all causes of enervation must be corrected and all food withheld until the toxemia is eliminated.

Stomatitis

Definition: Sore mouth, aphthae, thrush, canker stomatitis, is inflammation of the mouth and is divided into seven different kinds of stomatitis; these kinds representing degrees of severity.

Symptoms: Catarrhal stomatitis is a simple inflammation of a part or of the entire surface of the mouth. It occurs most commonly during the period of the first dentition and results from wrong feeding and uncleanliness. It may also be present in fevers, and is quite commonly present in gastro-intestinal disorders. The mouth is dry, hot and red with an Increased flow of saliva. The tongue is coated, there is constipation or diarrhea, thirst, and slight fever. Nursing is quite painful and should be omitted. The condition lasts from three or four days to a week.

Aphthous stomatitis is a little worse stage of catarrhal stomatitis. There is hyperemia (excess of blood) in the mucous membrane of the mouth, with the formation of small, yellowish-white vesicles commonly called feverblisters. It is a self-limited affection and is caused by bad hygiene, improper feeding and lack of cleanliness.

Ulcerative stomatitis differs from the above only In that it is severe enough to produce ulceration. Ulcers may form anywhere in the mouth, but form chiefly on the gums. The gums are red and swollen and there is considerable pain. There is a profuse flow of acid, irritating and offensive saliva (salivation), a foul breath and hemorrhages from the mucous surfaces on pressure. This condition develops in scurvy and other severe types of malnutrition, and in the so-called infectious "diseases." Mercury is a potent cause, improper feeding, and uncleanliness are chief causes where mercury can be excluded.

Gangrenous stomatitis (noma, vancrum oris) is a still more severe type of the above condition and develops in greatly debilitated children and in maltreated cases of "infectious" fevers. In these cases there is gangrenous

destruction of the tissues of the cheeks and perhaps also of other adjacent structures.

Gonorrheal stomatitis is a gonorrheal infection of the mouth occasionally seen in children who have been infected at birth and in adults addicted to cunnilingus.

Symptoms: The condition is marked by catarrhal inflammation and the formation of a whitish deposit on the tongue, gums and cheeks.

Cleanliness of the mouth and general care of the body are all that are required. The condition speedily clears up.

Parasitic stomatitis (Thrush) is a catarrhal inflammation of the mouth and tongue. The membrane is dotted with flake-like patches which are claimed to be due to the presence of a vegetable parasite (a mold fungi) called by such good English names as Saccharomyces albicans and oidium albicans. It is due to faulty feeding and lack of cleanliness.

Mercurial stomatitis, commonly called salivation, is inflammation of the mouth, tongue, and salivary glands, due to calomel or other forms of mercury taken internally through any channel.

Its symptoms are fetid breath, swollen and spongy gums, sore and loosened teeth, a profuse tenacious saliva, Inflammation of the membranes of the mouth, a strong metallic taste in the mouth, headache, insomnia and emaciation. Severe cases go on to ulceration of the jaw bone and the falling out of the teeth. Gangrenous stomatitis is frequently due to mercury.

Tilden says: "I began to practice my profession long enough ago to witness little children pick their own teeth out of their sloughing gums, made so by the use of calomel." He tells us that "fear of water drinking by sick people was developed in those days" and that "water was forbidden all fever patients because their systems were filled with mercury (calomel)—and when mercury is in, water must stay out if not, salivation—mercurial poisoning—takes place." All of this is the result of "curing one disease by producing another," and of the principle that "our strongest poisons are our best remedies." The destructive effects of mercury are not confined to the mouth.

Etiology: "Diseases of the mouth or any part of the gastro-intestinal tract may be looked upon as representing much more than a local condition," says Dr. Weger. "Almost invariably mouth diseases are indicative of a constitutional disturbance having its origin in the digestive tube lower down.

No child or adult with a sweet stomach and healthy bowel ever developed catarrhal, aphthous, or ulcerative stomatitis. The same may be said of thrush, gangrenous, and mercurial stomatitis.

"In the latter disease we have, in addition to a disordered digestive tract a mercurial poisoning which must be considered accidental even though the drug be used for a definite purpose with -this contingency in mind."

Prognosis: Dr. Weger says: "diseases of the mouth prove to be conditions of relatively minor importance when treated rationally by withholding food for a short time and then feeding according to individual needs as determined by previous food excesses or deficiencies."

Care of the Patient: All forms of stomatitis are to be treated alike, with assurance that all cases, except perhaps many cases of the gangrenous type, will recover. Many cases of mercurial poisoning will leave the teeth permanently loosened and injured. Many cases of pyorrhea are due to mercury.

The mouth should be frequently cleansed with plain water or with diluted lemon juice. The calomel and alkaline mouth washes, boric acid and sodium salicylate, mouth washes made of salicylate of sodium or hydrogen dioxide, advised in the various stages of stomatitis should be religiously avoided, as should, also, potassium chlorate, commonly administered internally.

All, food should be withheld until the inflammation has completely subsided. In mercurial poisoning little or no water should be taken.

If there is fever or malaise, the patient should be kept in bed and made comfortable.

Follow this with a fruit diet for a few days after which, return to a normal diet. Fruit juices are the best remedies for the dyscrasia back of the sore mouth.

Pyorrhea Alveolaris

Definition: Pyorrhea means a flow of pus. Pyorrhea alveolaris is a purulent inflammation of the dental periosteum. There is usually more or less involvement of the gum tissue as well.

Symptoms: It begins with inflammation of the dental periosteum and gums and an accumulation of tartar at the base of the teeth. The gums recede causing the teeth to appear longer. In the next stage the bony processes begin

to recede and pus pockets form. As the degeneration advances, the pus pockets grow larger and the bony processes break down, so that the whole jaw may become almost one continuous pus pocket. The bony processes of the jaw which hold the teeth may waste away until there is not enough left to support the teeth which become loose and even fall out. It has been estimated that a man with a bad case of pyorrhea may lose as much as a gallon of blood in a year by leakage through the gums. As much as a pint of pus may be produced in this time.

Etiology: A prominent cause of pyorrhea is mercury, taken as medicine, or absorbed in work. Loosening and rotting of the teeth and jaw bones and destruction of the gums was a frequent result of the mercurial courses of our fathers' and grandfathers' days.

A chief cause of pyorrhea is a deficient diet and indigestion. Injury to the jaws may start up pyorrhea in the heavily toxemic. Pyorrhea should be recognized as being merely part of a systemic condition. Abuse of the teeth either during mastication or by accidental stress, or by nervous grinding of the teeth, cannot cause immediate break down of tissue and subsequent infection. If this could occur, the slightest trauma anywhere would lead to dire results. Injury plus toxemia, plus sepsis, leads to pyorrhea.

Prognosis: Recovery may be expected in all cases if proper measures are employed before the destruction has gone beyond repair. Loosened teeth will become fixed again; though little or nothing can be done to rebuild the receded gums.

Care of the Patient: Locally, cleanliness is essential. The pus may be expressed by gentle pressure upon the gums, care being taken not to bruise these. The tooth-brush should be discontinued at once.

Fasting should be continued until toxemia is eliminated. It is the rule that the pus clears up and the teeth become fixed in their sockets during the fast. After the pus and inflammation have cleared up, proper food and good general care of the body will prevent & recurrence.

Rigg's Disease (Alveolodental Periostitis)

Definition: This is a progressive necrosis of the dental periosteum—meaning death of the outer covering of the teeth.

Symptoms: The process is most active under the margin of the gums and, therefore, the accumulating pus drains badly and is not readily cleansed by ordinary measures. The gums recede and the teeth become loose. The condition is practically identical with pyorrhea.

Etiology: The cause of Rigg's "disease" cannot be entirely local. There exists an appallingly tragic ignorance of the constitutional derangement leading to pyorrhea and Rigg's "disease." For that matter, we need not confine our statement to these conditions, since they are but two of twenty thousand names for local states growing out of toxemia and gastro-intestinal decomposition.

Care of the Patient: same care as for pyorrhea.

Affections Of The Tongue

Glossitis
Leukoplakia Buccalis
Syphilis Of The Tongue
Ulceration Of The Tongue

Glossitis

Definition: This is inflammation of the tongue.

Symptoms: Redness, swelling and painfulness with difficulty of movement of the tongue.

Etiology: Inflammation of the tongue is always associated with digestive derangements, often with such secondary conditions as pyorrhea, abscessed teeth, tonsils, sinusitis, chronic catarrh, septic bronchitis, etc. Back of all of these are enervation and toxemia.

Prognosis: Rapid recovery follows removal of the basic causes.

Care of the Patient: Local measures, mouth washes, etc., are only palliative. Attention should be directed to the removal of cause. This is comparatively easy for those who are willing to forego some of their pet table indulgencies and give proper consideration to the hygiene of the entire digestive tract. Fasting should rule until the inflammation has subsided.

Leukoplakia Buccalis

Definition: This is chronic glossitis marked by whitish patches on the surface.

Symptoms: There are slightly elevated, smooth, opaque, whitish plaques on the mucous membrane of the tongue and often of the mouth. There is no pain or other subjective symptoms.

Etiology: "Excessive" smoking is a common cause. It is sometimes associated with chronic affections of the skin, notably psoriasis. Digestive derangements are basic.

Complications: Epithelioma of the tongue or mouth is a not uncommon sequel.

Prognosis: This is good in the early stages.

Care of the Patient: Care must be directed toward the removal of the cause. A fast, followed by good intestinal hygiene—proper food, properly combined, eaten in moderation and under proper conditions—will result 1n recovery.

Syphilis Of The Tongue

This may be anything from a "fever blister" to an ulcer on the tongue. If there is such a thing as syphilis, there is no way of knowing it. Conditions labeled syphilis should be cared for as for all similar conditions with no thought of syphilis.

Ulceration Of The Tongue

Ulcers of the tongue are likely to be small and painful and are associated with digestive derangements. Intestinal hygiene will prevent and remedy them.

Affections Of The Salivary Glands

Hypersecretion of Saliva is marked by excessive flow of saliva and drooling.

Hyposecretion of Saliva is marked by a lack of saliva and dryness of the mouth.

Etiology: These conditions are never local, but are always symptomatic of conditions elsewhere in the body.

Drooling, for instance, may occur as part of the symptom-complex of Parkinson's "disease" or in other nervous affections. Dryness of the mouth may be due to emotional -or psychic conditions.

Prognosis: Recovery depends on correction of general derangements.

Care of the Patient: Dr. Weger says "a normal blood chemistry can be relied upon to effect a cure in these abnormalities which are dependent almost entirely upon conditions other than local." Blood chemistry is normalized by fasting, rest, natural food, exercise and sunshine.

Affections Of The Pharynx And Tonsils

Acute Pharyngitis
Pharyngitis—Chronic
Retropharyngeal Abscess
Tonsillar Affections
Ulceration Of The Pharynx

Acute Pharyngitis

Definition: an acute catarrhal inflammation of the membrane of the pharynx, soft palate, and uvula frequently associated with tonsilitis (tonsillitis) and laryngitis.

Symptoms: Chilliness, slight fever, stiffness and tenderness of the muscles of the neck, soreness of the throat, pain upon swallowing, dryness and tickling of the throat and a hacking cough are the chief symptoms. The throat is red and the membrane swollen.

Complications: Extension of the inflammation to the larynx may cause hoarseness; to the ear through the Eustachian tube may result in deafness.

Etiology: Gastro-intestinal indigestion superimposed, upon a primary of metabolic toxemia gives rise to this catarrhal crisis. It often follows exposure to cold or to wet, and to other influences that overtax the enervated and toxemic.

Prognosis: Speedy recovery follows in all cases cared for hygienically.

Care of the Patient: These cases need rest and toxin elimination. Nothing gives more prompt results than fasting. There is no need for the antiseptic gargles commonly employed. Gargling the throat is at all times a practice based on delusion.

Pharyngitis—Chronic

Definition: This is a chronic "sore throat" which follows upon repeated acute crises. Chronic "disease" is due to chronic provocation.

Symptoms: Two forms are described—namely; (1) **hypertrophic** and (2) **atrophic**.

In the hypertrophic form (glandular sore throat, clergyman's sore throat, chronic follicular pharyngitis) the throat membrane is thick, swollen, traversed by dilated veins, and studded with numerous elevations which correspond to distended follicles and overgrown lymphatic tissue.

In the atrophic form (pharyngitis sicca) the membrane of the throat is pale, smooth, glossy and dry.

In both forms the voice is husky, its use is followed by distress; secretion (mucus) is increased, so that there is a constant desire to clear the throat, and there are frequent disagreeable sensations, such as fullness and tickling.

Etiology: This is an extension of chronic gastro-intestinal catarrh and indigestion and, follows upon, the heels of repeated acute crises. Irritation of the throat from overuse or wrong use of the voice, tobacco smoke, alcohol, etc., predispose the membrane to affection.

Care of the Patient: As in all other affections, the removal of the cause —toxemia and indigestion—is of primary importance. All sources of local irritation—smoking, use of the voice, mouth-breathing, irritating eructations from the stomach—must be corrected or removed. The practice of hawking and scraping to clear the throat is very irritating and should be forbidden.

Fasting, a discontinuance of all enervating practices, and the adoption of healthful habits will result in early recovery.

Retropharyngeal Abscess

Definition: This is a suppurative inflammation of the paryngeal lymphatics, and is often called Retropharyngeal Lymphadenitis.

Symptoms: Pain in the throat, inability to swallow (dysphagia) difficulty in breathing (dyspnea), alteration in 'the voice and a swelling projecting from the back pharyngeal wall are the chief symptoms.

Etiology: This condition develops usually as a complication of follicular tonsilitis, suppurative rhinitis, otitis media, caries of the cervical vertebrae, or one of the "specific fevers." It occurs largely in children. It is of septic origin.

Prognosis: This is good.

Care of the Patient: The abscess will usually drain spontaneously but may be surgically drained. Otherwise the care should be the same as for all other acute, suppurative processes.

Tonsillar Affections

Adenoids
Tonsilitis
Quincy

Adenoids

Definition: this is the popular name for enlargement (hypertrophy) of the pharyngeal tonsil. Adenoids are also frequently referred to as "adenoid growths" and "adenoid vegetations."

Symptoms: Adenoids usually accompany chronic follicular tonsilitis. The membranes of the nose and throat are passively congested and thickened. Besides the enlargement of the pharyngeal tonsil, there is a concomitant swelling of the thousands of lymph nodes and nodules adjacent to the tonsil.

In young children (under fifteen) "adenoids" are frequently so much enlarged that they obstruct the nasal passage, resulting in the habit of breathing through the mouth. Due partly to the interference with oxygenation, but largely to the systemic condition that gives rise to this condition, such children are flat-chested, thin, anemic and often mentally dull. The nostrils are pinched and coughing commonly accompanies the condition. Sleep is

interfered with and these children become dull, listless, and chronically tired. Frequent "attacks" of bronchitis are not uncommon concomitants.

Prognosis: The "adenoids" normally shrink in size after puberty and are seldom the seat of trouble thereafter. They rapidly shrink under Hygienic care.

Tonsilitis

Definition: This is inflammation of the tonsils and may be either acute or chronic. Any or all of the tonsils—faucial, pharyngeal, tubal, lingual and larnygeal—may be involved.

Acute Fossulitis, erroneously called **Acute Tonsilitis**, is inflammation of the mucous membrane which covers the outer surface of the faucial tonsils and dips down into and lines the tonsillar crypts or fossulae. This is the most common form of tonsilitis or "sore throat."

Chronic Fossulitis, or chronic follicular tonsilitis, is a persistent, low grade catarrhal inflammation. The condition is characterized by the constant presence of dirty gray or yellow plugs of "cheesy" matter hanging from the fossulae. When these are thrown out they have a foul taste and a foul odor.

Hypertrophy of the Tonsils: This is the term applied to enlarged (as distinguished from) large tonsils. It accompanies chronic catarrh of the throat.

The Lingual Tonsil (the tongue tonsil) seems to be inflamed less commonly than the faucial, and pharyngeal tonsils, though this may occur more often than is generally supposed. When it becomes in-flamed the whole base of the tongue sometimes becomes inflamed also. The tongue becomes tender on pressure and both talking and swallowing become difficult. Breathing may even be affected.

The Tubal Tonsils often become enlarged and inflamed. This is usually accompanied with the swelling of the thousands of nodes and nodules in the immediate neighborhood, and also by a passive, non-inflammatory swelling of the mucous membrane lining the cavity back of the nose and this may, in turn, partly close the Eustachian tube resulting in catarrhal deafness. This catarrh may even extend up into the Eustachian tube and into the middle ear. Most such cases are remediable by the plan of care later to be described.

Symptoms: Acute fossulitis (follicular tonsilitis) usually sets in suddenly with a rapid rise of temperature which may range from 101 F. to as high as 104 F. The throat is sore, hot, dry, scratchy and swallowing is difficult. The tongue is coated and the breath foul. The tonsils enlarge, the surrounding tissues become congested and inflamed, the glands under the jaw and down on to the throat become swollen and sore. One or more gray or yellow spots or patches form on one or both tonsils. These spots are composed of a cheesy matter in the crypts or fossulae. They are not composed of pus. Headache, backache, etc. may be present.

Quincy presents these same symptoms, often aggravated, plus the formation of the abscess.

Inflammations and enlargements of the various tonsils are usually associated with other conditions of the mouth, nose and throat, such as catarrh, colds, sinus inflammation, inflammation in the antrum and posterior nares, abscessed teeth, etc.

Etiology: These troubles develop in children and adults who suffer with gastro-intestinal indigestion and who habitually overeat on milk, bread, cereals, and other starches, sugar, cakes, pies, preserves, syrups, pancakes, candies, ice-cream and the like. Add these factors to faulty elimination and such persons will develop trouble every time a drop in temperature, an unusual exposure, or an environmental stress places a heavier tax upon their nervous energies and, thus, puts an added check to elimination. "Adenoids" are less frequent in the breast-fed than in bottle-fed infants. Cereals with milk and sugar, fruits with starches and sugar; frequent between-meal eating—these will cause enough digestive derangement to produce tonsilitis.

A primary catarrhal condition, due to toxic saturation, is always in evidence preceding tonsillar troubles. Recurrent acute crises of catarrhal laryngitis, pharyngitis, or tonsilitis eventually lead to a depraved or weakened state of the mucous membranes and to chronicity. Scrofulous children, who are constantly in ill health, merging from one septic state to another, have frequent or continuous tonsillar trouble.

Care of the Patient: In acute tonsilitis, quincy, etc., no food should be taken until all acute symptoms are gone, after which a fruit diet should be fed for from three to five days. If the condition is chronic a fast or a diet of juice may be employed until the throat is clean and breathing is free and easy. Thereafter a fruit diet or fruit and vegetable diet should be fed until the

tonsils are normal, after which moderate quantities of proteins and starches should be added to the diet. In enlarged (hypertrophied) tonsils the fast is sufficient to reduce the tonsils to normal. Care should be exercised not to attempt to reduce normally large tonsils.

Quincy

Definition: Erroneously called abscessed tonsil, but really a peri-tonsillar abscess, quincy is an abscess which forms in the tissues surrounding (usually above) the faucials. This may form on one or both sides of the throat.

Symptoms: Quincy begins as common "tonsilitis" or acute or chronic fossulitis and, due to improper care, or to overwhelming of the lymph glands, extends to adjacent and underlying tissues and nodes and nodules, culminating in abscess formation. The abscess usually ruptures into the throat. Thus, these "two diseases" are really one.

Care of the Patient: Surgical removal of the tonsils is the present vogue. It removes affected organs, not the cause of the affection. Dr. Harry Clements, of England, an esteemed friend of the author, remarks in his Children's Ailments: "When parents and guardians become enlightened as to the proper function of the tonsils, they will not turn to surgeons for help, they will turn on themselves with reproach." Rare cases require to be lanced, most cases rupture spontaneously and drain. Care should be the same as for acute tonsilitis.

Ulceration Of The Pharynx

Definition: This is the formation of one or more ulcers in the pharynx.

Symptoms: These are the same as those of pharyngitis plus the presence of the ulcer.

Etiology: Pharyngeal abscess may accompany acute pharyngitis or may be the result of chronic pharyngeal inflammation. Its causes are identical with the causes of these conditions.

Care of the Patient: Same as for acute pharyngitis.

Affections Of The Esophagus

<u>Cancer Of The Esophagus</u> <u>Esophagitis</u> <u>Stenosis Of The Esophagus</u>

Cancer Of The Esophagus

Cancer may develop in the esophagus, as elsewhere in the body. Its chief local symptom is obstruction so that swallowing is interfered with or prevented altogether. Dr. Weger says: "Cancer of the esophagus is invariably fatal and requires palliation before the end." Prevention is possible only by right living. See "Cancer" in this volume.

Esophagitis

Definition: This is a catarrhal inflammation of the esophagus which accompanies catarrh of the throat or of the stomach. It represents merely an extension of catarrh from these other parts and requires no care other than that given for pharyngitis or gastritis.

Stenosis Of The Esophagus

Definition: This is obstruction of the esophagus and is divided into two general forms, as follow:

Esophagismus (spasm of the esophagus) is seen in hysteria and chorea, or it may be due to the irritation of a fissure, or an ulcer. It is often seen alone in neuropathic subjects.

Symptoms: These are difficulty in swallowing which is often paroxysmal or periodic, regurgitation of food, and in a few cases discomfort or actual pain while eating. Dilatation of the esophagus may develop as a result.

Care of the Patient: These cases represent nervous troubles and should be cared for as described under the care of nervous troubles.

Organic Obstruction: Stenosis of the esophagus may result from (1) external pressure produced by a tumor, an enlarged gland, an aneurysm, etc., or (2) by cicatrization (scar formation) of an ulcer produced by corrosive acids or alkalis; or (3) by cancer of the esophageal wall.

Symptoms: Slowly increasing difficulty in swallowing with regurgitation of food, is the chief symptom. The esophagus is often much dilated above the point of obstruction so that food may collect in the pouch thus formed.

Care of the Patient: Constitutional care to remedy the local catarrhal condition, reduce the enlarged gland and the aneurysm, consists of rest, fasting and a strict dietetic regimen. Locally, stretching (dilatation) of the esophagus may be essential. If the tumor cannot be autolyzed it should be removed surgically.

Affections Of The Stomach

Atony Of The Stomach

Dyspepsia (Indigestion)

<u>Gastralgia</u>

<u>Gastrectasis</u>

Gastric Cancer

Gastric Fever

Gastric Ulcer

<u>Gastritis</u>

<u>Gastrorrhagia</u>

<u>Gastroptosis</u>

Indigestion

Atony Of The Stomach

Definition: Also, known as motor insufficiency and myasthenia gastrica, this, condition consists in relaxation of the muscular coat, of the stomach and a lack of its propulsive powers.

Symptoms: As a rule there is neither vomiting nor pain and the sufferer considers himself to he otherwise in good health. He has a good appetite and may habitually overeat. In simple atony a sense of fullness and discomfort after eating, especially if the meal has been large, and frequent belching of gas are the chief symptoms. The severity of the symptoms is often proportioned to the quantity of food taken. Fluids are as likely to cause discomfort as solids. The symptoms cease when the stomach empties itself.

An exact diagnosis can be made only by an examination of the stomach contents.

Complications: Atony frequently leads to gastrectasis. Where there is also atony of the intestines, there is likely to be marked nervous symptoms—headaches, vertigo, and paresthesia—and considerable disturbance of nutrition.

Etiology: Motor insufficiency represents marked enervation of the stomach and may follow upon any profound enervating influence. It often appears in acute form after intense emotional excitement or traumatism. It may follow severe fevers, or accompany adynamic biogonies in which there is much malnutrition. It is often seen in neurasthenics. Intemperance in eating and drinking is a frequent cause. The use of tobacco causes a relaxation of the stomach. It may exist as a complication of gastroptosis, chronic gastritis, nervous dyspepsia, and hypersecretion. In a few cases it seems to be congenital.

Prognosis: This is good in all cases if the patient will follow instructions.

Care of the Patient: Nothing so quickly restores normal tonicity of the stomach as rest. A fast, therefore, is essential in all these cases. Equally important is the correction of all emotional and physical habits that produce enervation. Overeating, drinking, smoking, etc., must be discontinued. The diet must be radically changed. Natural foods should be substituted for the conventional diet of denatured foods. A general health-building regimen of exercise, plenty of rest and sleep, sun baths, etc., should tone up the whole system, for gastric atonicity is only part of a general lowering of tone.

Dyspepsia (Indigestion)

Definition: This is impaired or imperfect digestion. It is divided into acid dyspepsia which is marked by excessive acid formation; atonic dyspepsia in which there is insufficiency of gastric juice or impairment of the gastric muscles; catarrhal dyspepsia in which there is gastritis; intestinal dyspepsia which is due to defective or deficient pancreatic, biliary, or intestinal secretions; nervous dyspepsia which is marked by gastric pain and palpitation.

Nervous dyspepsia is a symptom-complex characterized by pronounced discomfort during the period of digestion, out of all proportion to the

disturbances of gastric secretion or motility and apparently due to excessive irritability of the nerves of the stomach.

Symptoms: The tongue may be heavily coated, though it is often not coated. The appetite varies greatly—sometimes absent, at other times inordinate, sometimes perverted, the subject craving unusual articles of food. A prominent symptom is pain during digestion. In intensity the pain varies from a feeling of discomfort to the most violent distress. The skin over the abdomen is often very sensitive, though tenderness is rare. Acid eructations and gas are complained of by some. The eructations tend to grow more distressing as the condition develops and may even result in disturbed sleep and vomiting. Periodic headache is often seen. Nervous vomiting or spitting of food is common. Pain before meals is often seen.

Complications: Migraine, ulcer, cancer, enlargement of the stomach, intestinal indigestion, colitis, constipation, anemia, palpitation of the heart and other troubles may follow in the wake of dyspepsia.

Etiology: Rapid eating, overeating, the use of tobacco, alcohol, tea, coffee, various drugs, overworked emotions, lack of sleep, over-work—in a few words, exhaustion of the nervous system by too much pleasure seeking—are back of this condition.

Prognosis: This is good if the subject can be taught moderation.

Care of the Patient: Cut out all causes of enervation. Stop all food until complete comfort of mind and body returns. Enjoin rest for recuperation. Feed properly thereafter and build up the general health with a wholesome mode of life.

Gastralgia

Definition: This means pain in the stomach and is applied to violent paroxysmal, or neuralgic, pains in the stomach occurring "independently of any organic disease and any disturbances of secretion or motility."

Symptoms: Paroxysms of intense pain, occurring suddenly and at irregular intervals, radiating to the chest and back, apparently bearing no definite relation to eating, and lasting from a few minutes to several hours, are characteristic of gastralgia. Rarely, there is vomiting. Eating, or pressure over the stomach may relieve the pain. It is essential to distinguish between gastralgia and the gastric pains accompanying gastric ulcer, gastric cancer,

hyperchlorhydia, tabatic crises, angina pectoris, renal colic, biliary colic, and dyspepsia. See these affections for their symptoms.

Etiology: This condition may be a symptom of neurasthenia and is likely to be seen in neuropathic individuals. It is more common in women than in men. Overwork, worry, tobacco, sexual excesses, anemia and reflex irritations help to produce the condition. Basically enervation and toxemia cause the trouble.

Prognosis: This is good if the patient will follow instructions.

Care of the Patient: All enervating influences must be corrected. Emotional poise must be cultivated. Rest until the nerves are quiet is essential. Usually a short fast is sufficient, but if the patient is very toxemic the fast should continue until this is eliminated. Care in eating should be exercised thereafter.

Gastrectasis

Definition: This is dilatation of the stomach. It is not a common condition.

Symptoms: The condition is characterized by nausea and vomiting, which may come on suddenly, surprising the patient by the amount of vomitus ejected. The large amount is due to an accumulation, of material in the stomach. Perhaps the only conclusive evidence of dilatation, except that of X-ray picture, is that found by the doctor upon examination revealed by a splashing of the fluids or contents of the stomach.

Etiology: True dilatation is a chronic condition resulting from years of irritation from overeating, wrong eating, drugs, condiments, etc. The irritation causes a hardening of the tissues and ulceration, producing a strictured condition of the pyloris. In some cases the pyloric obstruction is due to cancer.

Prognosis: Dr. Weger says: "Gastric dilatation almost invariably recovers by proper treatment." This can refer only to those cases not resulting from pyloric cancer.

Care of the Patient: It is first necessary to stop all food until the thickening, irritation and inflammation of the pyloris is removed. This will restore the opening into the duodenum. All enervating habits must be discontinued and correct feeding adhered to after the fast. If the pyloric

obstruction is due to cicatrical stenosis or to cancer, the above measures will not remedy the dilatation. Surgery may be of value in these later cases.

Gastric Cancer

Symptoms: What are the symptoms of cancer of the stomach? For the most part they do not differ from the usual symptoms of the simpler forms of stomach affections—pain, tenderness in the pit of the stomach, vomiting, hemorrhage. These may also be the symptoms of gastric, or, even of duodenal, ulcer.

Etiology: Cancer of the stomach is one of the endings of a chain of symptoms starting with irritation, and followed by catarrhal inflammation, thickening or swelling, induration (hardening), ulceration, and finally, fungation or cancer. Cancer is the end-point in a pathological evolution that started with the first "cold of the stomach" (gastritis) in infancy. Tilden thus traces the evolution of gastric cancer: "The same chain of symptoms precede both ulcer and cancer, except at the end—one ending in ulcer, the other ending in cancer. The ulcer, at its base, may or may not have a slight induration, and drainage of the surface is so thorough that there is no absorption of the septic discharge causing infection. In those cases where there is a tumor-like thickening and the ulcer (necrosis of tissue) strikes deep, drainage is not perfect, and there are absorption and systemic infection, cachexia. In cases of induration and tumor-like enlargement of the pyloris there will be symptoms of obstruction—vomiting of food every few days.

There may not be an ulcer of the surface, but an increasing hardening, which in time chokes the arterial circulation, cutting off nutrition and oxygenation of the tumor after which interstitial tissue decay takes place, and septic absorption, causing septic poisoning—cancerous cachexia. At this stage there is no hope. Pernicious anemia, or cachexia, when established, reigns supreme. This is cancer. It can truthfully, but regretfully, be said that all who enter this stage leave hope behind. Restoration can take place in every stage, from initial cold to ulcer; but when cachexia (the defining symptom of cancer) is reached, the best and poorest treatments are all the same." For further details see chapter on cancer.

Prognosis: Dr. Weger says, "Cancer of the stomach is incurable."

Care of the Patient: This is largely palliative. See chapter on cancer. .

Gastric Fever

Definition: This is irritation and inflammation of the stomach accompanied by fever. It is in reality acute gastritis.

Symptoms: It starts with vomiting of undigested food; the tongue is red and the breath pungent—sometimes called the "ether breath." Fever is not high except in young children.

Etiology: The irritation and inflammation are induced by over-eating, frequent eating and imprudent eating, or it may result from eating spoiled food.

Prognosis: The condition is evanescent and unless added to by more eating will not last more than a few hours to a day or two.

Care of the Patient: Same care as given for gastritis.

Gastric Ulcer

Definition: A circumscribed loss of tissue in the stomach, usually involving both the mucous membrane and the deeper structures. An ulcer differs from a wound in the following ways: A wound arises from some external source; an ulcer has its cause within the body. A wound is always idiopathic; an ulcer is always symptomatic. The tendency of the wound is to heal because its cause is removed: the cause acted but momentarily. An ulcer persists and often enlarges, because its cause persists and often increases. The healing of an ulcer therefore depends primarily upon the removal and correction of the internal condition of which it is but a symptom. This done, the ulcer quickly heals.

Symptoms: Pain, usually paroxysmal, severe and localized, though it may radiate to the back or sides, is usually present. In many cases taking food induces or aggravates the pain and this lasts until the stomach is emptied, either by vomiting or by emptying into the intestine. Localized tenderness is often felt. Vomiting, usually of undigested food and acid fluid, which is quite frequent, usually comes on from one-half hour to two hours after eating. Hemorrhage into the stomach with vomiting of blood occurs in more than half the cases and, is said to cause death in about twenty per cent of all fatal cases of ulcer. There is an excessive secretion of hydrochloric acid (hyperacidity).

Symptoms of indigestion (dyspepsia) precede most cases, though in some cases there are few symptoms until sudden perforation into the peritoneum, pleura, pericardium, or intestine, with hemorrhage, occurs.

Complications: Perforation occurs in from 8 to 10 per cent of cases. General or circumscribed peritonitis results from perforation. The peritonitis is a conservative process resulting in adhesions and walling up of the perforation. Sub-phrenic abscess sometimes follows the formation of adhesions. Stenosis, either of the cardiac or pyloric orifices, or hour-glass constriction of the stomach may result from contraction of the cicatrices—scars. About 20 per cent of ulcers become malignant—cancerous.

Etiology: As gastric catarrh evolves, the catarrh passes to inflammation, from inflammation to induration (hardening), and from induration to ulceration. Stomach ulcer is the end of a chain of stomach disorders beginning with irritation—indigestion from imprudent eating or drinking—which, when very severe, or oft repeated causes inflammation (catarrh); and when the abuse of the stomach is continued, ulceration follows, or induration (hardening), then cancer.

Decidedly nervous individuals who consume much starch—bread, cake and pastry—are more inclined to develop ulcer. Where there is a decided acidity of the secretion, inflammation and ulceration are almost sure to develop. Discomfort and often great pain accompany this condition.

It is not uncommon to see a patient whose stomach is so sour that, on drinking water and vomiting, the returned water and diluted—acid are strong enough to sear the throat and paralyze the epiglottis so it can not close, and an attempt to drink water will cause the water to run into the nose. Even gases eructated from such a stomach burn the membranes of the nose and throat.

Prognosis: This is very favorable in all early cases. Many persist for years, then recover. Relapses, so common under regular care, are due to failure to remove causes. Advanced cases, in the profoundly enervated may end fatally in spite of the best of care.

Care of the Patient: The palliative treatments in vogue are so unsatisfactory that a noted American surgeon recommends that ulcers be removed after they have been cured nine times. As in all other troubles, the first necessity is the removal of the causes—immediate and remote—of the trouble. All enervating habits must be discontinued and sufficient rest in bed

secured to permit of restoration of full nerve energy. A fast, both to hasten elimination of toxemia and to give the stomach an opportunity to heal, is essential. Chronic provocation by food, indigestion and drugs prevent healing. Food also keeps up the excessive gastric secretion. Fasting soon stops gastric secretion so that, while it often increases the pain during the first two or three days, it speedily establishes a state of comfort so that satisfactory healing may proceed. The fast should last until the body is free of toxemia.

Feeding after the fast should be, in most particulars, exactly opposite to the feeding commonly employed in cases of ulcer. Instead of the highly acid-forming diet in vogue, an alkaline diet should be employed. Fruits and vegetables, and these raw, should make up the bulk of the diet. If, at first, there is sensitiveness to the roughage in these foods, raw juices of the fruits and vegetables, and purees and strained vegetable soups may be used. Cooked fruits are never to be used.

Every health building agent—sunshine, exercise, etc.—should he employed as early as possible.

Operations are notoriously unsatisfactory in ulcers. First, the operation does not remove the cause of the ulcer. Second, the ulcer is in a field of inflammation in the mucous membrane, which inflammatory field may be quite limited or may involve much of the gastric mucosa, and an operation will remove the ulcer, but there is always quite an area of inflamed mucous membrane left after the ulcer is removed and this inflamed membrane tends to ulcerate. Two, three, four, five and even more operations are performed for the removal of ulcers, as these persist in developing. There is nothing to restore an inflamed mucous membrane to health when the causes of the inflammation are left operative.

Gastritis

Definition: Gastritis is inflammation of the stomach. It is gastric catarrh and may be either acute (acute gastric catarrh) or chronic (chronic gastric catarrh, or catarrhal dyspepsia).

Symptoms: Acute. The condition may be mild or severe. In mild cases there are anorexia, nausea, a feeling of discomfort, and, perhaps, vomiting. The tongue is heavily coated and the breath foul. In severe cases the nausea

and vomiting are much more marked, there is likely to be moderate fever, thirst, herpes, distention of the upper part of the abdomen, tenderness over the stomach, and considerable prostration. At first the vomitus is composed of sour, fermented food; later, of mucus and bile. Should the catarrh extend to the duodenum and bile-ducts there will be jaundice. If it extends to the intestines there will be diarrhea.

What is called **toxic gastritis** presents more severe symptoms. There is intense burning pain in the throat, gullet and stomach, persistent vomiting of food remnants mixed with blood and mucus. These cases often die. If they do not die there often follows atrophy of the lining membrane of the stomach and obstruction of the openings of the stomach by the formation of the scar tissue.

Chronic: The chief symptoms of chronic gastritis are burning of the tongue, bad breath, lack of appetite, though in some cases there may be an inordinate appetite, discomfort in the stomach, especially after eating solids, belching, eructations, heartburn, constipation, headache, vertigo, and heart palpitation. Nausea and vomiting are not uncommon, if the vomiting occurs upon arising, the vomit consists of frothy mucus; if it occurs after meals it consists of undigested food well mixed with less ropy mucus. The whole of the upper part of the abdomen may be sensitive to pressure.

Chronic gastric catarrh sometimes evolves into **atrophic gastritis** (achylia gastrica) the chief symptoms of which are paroxysmal pain, more or less persistent vomiting, constipation alternating with diarrhea, emaciation, severe anemia, and absence of free hydrochloric acid and of the digestive enzymes from the stomach secretions.

Etiology: Enervating habits, the use of stimulants, excesses in eating and pleasurable enjoyments, using irritating substances like salt, pepper, vinegar, spices, and hot sauces, alcohol, tobacco, cathartics, etc., lack of emotional poise, overwork or any natural or unnatural expenditure of nerve energy beyond the power of recuperation. Chronic gastritis is the culmination of a number of recurrences of acute gastritis with a continuous abuse of the stomach between crises.

Prognosis: These cases will all recover if they can be induced to reform their habits.

Care of the Patient: In acute gastritis all food, even water, should be avoided, until the nausea and vomiting are gone. Feeding may be resumed twenty-four hours after the patient is again able to take water without

producing nausea and vomiting. Feeding should be light—fruits the first day, fruits and vegetables the second day, and full freedom in eating thereafter.

Chronic cases will profit by a longer fast followed by careful eating. The eating habits must be corrected and all enervating habits discontinued. Emotional abuse, lascivious habits, tobacco using, alcoholism, the use of tea and coffee, sugar and candy eating, condiment using, overeating and all other enervating and locally irritating practices must be discontinued at once and permanently.

Gastrorrhagia

Definition: This is hemorrhage from the stomach (hematemesis).

Symptoms: Vomiting of blood and loss of blood through the bowels is the characteristic symptom. The amount of blood lost varies considerably. Rarely there is loss of a quart or more. The blood is usually dark, is often mixed with food, has an acid reaction, and may be fluid or clotted. Acute anemia may develop if the hemorrhage is severe, producing such symptoms as pallor, weakness, vertigo, ringing in the ears, dimness of sight, syncope, and convulsions.

Etiology: Hematemesis is a symptom rather than an affection and may result from (1) traumatism, (2) gastric ulcer or erosion, (3) gastric cancer, (4) acute gastritis, (5) obstruction of the gastric vessels by an embolism, (6) rupture of an aneurysm, (7) blood dyscrasia, as in scurvy, purpura, grave anemia, etc., (8) venous engorgement of the stomach consequent upon enlargement of the spleen, or hardening of the liver. Sometimes it is seen in hysteria and what is falsely called "vicarious menstruation." Swallowing of blood from the nose, mouth or throat is not a gastric hemorrhage, this is commonly listed as a cause of hematemesis.

Prognosis: Hemorrhage from the stomach is rarely great enough to cause death and recovery depends upon recovery from the causative pathology. The most dangerous hemorrhages result from cirrhosis of the liver, aneurysm and splenomegaly.

Care of the Patient: Immediately rest in bed and absolute quiet, without food until the hemorrhage has ceased, are essential. Food, thereafter should be liquid and non-irritating, until the stomach is again able to take regular

food. Care for the causitive pathology as instructed under their various heads—cancer, ulcer, aneurysm, etc., etc.

Gastroptosis

This is popularly known as "fallen stomach" and is due to a general weakening or loss of tone in the whole organism, from enervation and toxemia. It is necessary to correct all causes of enervation. For care see Volume IV, page 240.

Indigestion

Definition: This is a partial failure of the digestive function. Simple indigestion is not much regarded in medical text-books.

Symptoms: Gas, gastric discomfort, or pain, eructations, "heart burn," vomiting, headache, diarrhea, and other symptoms may all be seen in simple indigestion. In infants and young children there may be fever, skin eruptions, convulsions, gastritis, colic, etc.

Pain, fever, nausea, vomiting, diarrhea, foul breath and loss of appetite, with listlessness are the chief symptoms of indigestion in infants and children.

Affections Of The Digestive Organs

It is said that many of the acute "diseases" begin with these symptoms, and so they do; they would also end with these if feeding and drugging were not resorted to. Most serious illnesses are the results of feeding and drugging simple ailments.

Etiology: It is customary to blame indigestion on food—"something I ate." This is rarely true. The subject's own reactions, mental shocks, emotionalism, irritations, supplementary reactions, and eating habits—overeating, eating wrong combinations, eating when fatigued, eating too soon before working, hurried eating, drinking with meals, etc.—and all enervating influences are the chief causes of indigestion.

Infants and children are fed too much and too often, they are fed varieties of food that should not be given to them until they are older, they are fed fried

foods, mushes, soaked cereals, etc. Infants are fed starches before they are two years old. They are handled too much, are excited, overheated and enervated in a variety of ways. All these things result in gastric irritation and a weakening of digestive power. Sugar, candies, cookies, etc., frequently result in indigestion in children as well as in adults. If a child "loses its appetite" know that it is either sick or fatigued. The lack of appetite is a saving measure. Do not coax it to eat.

Care of the Patient: Simple indigestion is an evanescent crisis and will never develop into anything serious if all food but water is withheld until complete comfort is established and its causes are avoided thereafter. This rule applies to infants and children as well as to adults.

Affections Of The Intestines

Appendicitis

Colitis

Constipation

Diarrhea In Children

Duodenal Ulcer

<u>Dysentery</u>

Enteritis

Fistula—Anal

Flatulence

Intestinal Colic (Enteralgia)

Intestinal Indigestion

Intestinal Obstruction

<u>Polyps</u>

Ptomaine Poisoning (Botulism)

Visceroptosis

Appendicitis

Definition: This is an acute inflammation of the appendix vermiformis, a worm-shaped process of the cecum. It is part of typhilitis (inflammation of the cecum) or perityphilitis (inflammation of the investing membrane of the cecum) and never exists alone.

Symptoms: Sudden pain, often generalized at first, but later most marked in the right side, with circumscribed tenderness, most frequently felt over McBurney's point midway on a line between the navel and the anterior superior iliac spine, mark the beginning of the affection. The abdomen is tense and the right thigh drawn up. There is fever ranging from 100 to 103 F. Nausea, vomiting and constipation, rarely diarrhea, are seen.

Complications: Bowel obstruction and peritonitis, due to rupture of the appendicular abscess into the abdominal cavity, are the chief complications. There is likely to be much scar tissue and adhesions left. Rupture of the abscess into the peritoneal cavity has three sets of causes (1) the use of morphine, (2) the use of the ice-bag (3) deep digging into the abdomen by physician and surgeon in making the diagnosis. The first two of these prevent formation of the protective wall nature throws around the evolving abscess; the last breaks down the wall after it is formed.

Chronic Appendicitis: This either does not exist or is so rare surgeons never see a case. Cases operated on for chronic appendicitis prove to he colitis, or neuritis, or neuralgia, or gall stones, or kidney stones, or cystitis, or ovaritis, or metritis, or pregnancy, or a rotated innominate, or other such conditions.

Etiology: Colitis, putrefaction and constipation precede and lead up to the development of every case of appendicitis. It is impossible to imagine a perfectly healthy cecum with a diseased appendix. There is first enervation and toxemia with its consequent gastro-intestinal catarrh. Then much gastro-intestinal decomposition infects the cecum and appendix setting up severe inflammation with possible abscess formation. There is no appendicitis without habitual intestinal indigestion, and this habit is built and continued by overeating, and wrong food preparation.

Prognosis: This is good if hygienic measures are instituted at the outset.

Care of the Patient: Tilden says, "The treatment for appendicitis amounts to a wise letting alone." The patient should be put to bed and a hot water bottle placed at the feet. No food but water should be allowed. If food of any kind is given vomiting will occur and intense pain will follow almost immediately. If food is not taken the patient will soon become comfortable. Anyone who feeds, even a little, in appendicitis will not have the success we do. When we say "do not feed," we do not mean to give the patient a little fruit juice, or an occasional sip of milk, or a little taste of ice-cream, or little

lumps of ice to cool the stomach. Little driblet meals are enough to work havoc.

Cathartics and laxatives induce forceful peristalsis and keep the inflamed part of the colon in agony. Their use is now condemned, even by the medical profession. The violent peristalsis induced by laxatives is likely to cause perforation of the abscessed bowel. In appendicitis, with abscess, the bowel movements are cut off from above by abscess pressure and the muscle fixation that nature provides to protect the parts and prevent rupture taking place in any direction except into the bowels; hence no attempt should be made to move the bowels. Page says: "Never do I badger the bowels, either by physic or enema, since this sort of thing tends to increase inflammation. The bowels will take care of themselves in due time I find."

If pain is intense a hot towel may be placed on the abdomen over the region of pain, but no drugs or ice bag should be resorted to. The ice bag hastens the development of gangrene.

Do not dig into the patient's belly with your fingers, nor allow other doctors to do the same to confirm the diagnosis. If we can get these cases before the examiners have done irreparable damage by their barbarous and unscientific digging into the belly on the pretext of diagnosing the "disease," we do not have any trouble in caring for them.

The tendency of the abscess is to rupture into the colon and the pus passes out in the stools. When nature opens the appendicular abscess she does so in a way to favor drainage into the gut; whereas operation provides for drainage against gravity. In rare cases it ruptures into the bladder. Tilden says: "Nearly every case of rupture of the appendiceal abscess (into the abdominal cavity) has been 'brought about by the surgeon in his zeal to diagnose the disease and determine if the usual tumor-like development—pus sac—can be found."

Dr. Richard C. Cabot, of Harvard, says: "People who cannot get operated on at once for acute appendicitis may get through by starving themselves in the attack." A doctor who is capable of piloting a case of appendicitis to a successful natural cure should be able to teach the recovered patient how to prevent a recurrence.

Colitis

Definition: This is inflammation of the colon. Two types of colitis are described as follow: (1) mucous colitis, a catarrhal condition characterized by colic, diarrhea, and passage of membranous threads in the stools; (2) ulcerative colitis, which is merely the distal end of mucous colitis.

Symptoms:

Mucous Colitis: Colitis may be very mild and somewhat obscure for a long time. The abdominal distress of which the sufferer is conscious, may be attributed to gas and constipation. Colitis may not be suspected until considerable mucus appears in the stools. There may be mucus masses of jelly-like consistency or suspicious-looking ropy shreds, like casts of the bowels, or the feces may be coated with mucus, and it is sometimes streaked with blood.

Constipation, almost always of the spastic kind, is the most outstanding symptom. Indeed there is almost always some colitis in all cases of chronic constipation. In colitis accompanying inflammation of the ilieum, or small bowel (ilieitis) or in ulcerative colitis, there may be diarrhea, or diarrhea alternating with constipation.

Colonic spasm is almost invariably present in colitis and there is almost always a sagging of the colon—enteroptosis. There may be enteroptosis without mucus and there may be mucus without enteroptosis, but, usually, they coexist. Spastic constipation seems to be an unfailing accompaniment of either or both these conditions. The medical opinion that the spastic constipation causes the colitis is as ridiculous as would be the opposite opinion—that is, that the colitis causes the spastic constipation. They are merely two parts of the same condition and both depend upon the same underlying cause.

One of the most prominent features of advanced colitis is the negative or depressive psychosis—the **colon complex**. This **complex**, seen in chronic cases, usually involves the emotions. The depressed mentality seen in these cases is likely to be dismissed as neurasthenia by the average physician, because he does not understand the connection that almost invariably exists between colitis and the mental and emotional depression.

Dr. Weger gave it as his opinion that a chronically diseased colonic mucous membrane forms the basis of more mental and physical derangements than any other single functional abnormality. All of the thoughts of such a sufferer become introverted and center around his digestive tract and his

constipation. No matter how hard he tries he cannot divert his thoughts from their center of interest.

Some try bravely to repress their feelings, while others no longer attempt to conceal their constant state of apathy. They are irritable, grouchy, nervous, excitable and sometimes they border on melancholia or actually become hysterical. As Dr. Weger expresses it: "Few diseases can compete with colitis in developing obsessions."

The subjective symptoms presented by the sufferer from colitis are uniformly consistent. Certain feelings are more marked in some than in others—in one person the digestive disturbances seem paramount; in another nervous symptoms predominate.

Constipation, usually measured in years, is almost always present. The purgatives, laxatives, teas, oils, enemas, diets, etc., that have been used, have seemed to give temporary relief in some cases and have aggravated the condition in others.

All of the sufferers complain of gastric and intestinal indigestion with gas and rumbling in the intestine of a colicy nature. Nausea and uneasiness are common and there is often a sense of fullness. Dull and constant or sharp and recurrent headache is usually complained of. There may be a feeling of stiffness and tension in the muscles of the neck. A sub-occipital pain or drawing sensation is quite common. There is a feeling of extreme exhaustion, and a lack of ambition and initiative.

Objectively these cases are likely to be thin and undernourished, though colitis may be seen in overweight individuals. Most cases appear anemic and dysemic. There is usually a coated tongue, offensive breath and an unpleasant taste. The nausea experienced immediately preceding the expulsion of a large accumulation of mucus is followed by a feeling of great relief. Misery and dejection are written all over the face of the sufferer and this is frequently combined with anxiety.

I quote the following resume of the many objective and subjective symptoms that color the picture of chronic colitis, from. Dr. Weger "insomnia, nervousness, shortness of breath, premonitions of impending evil, disturbing and fearsome dreams, bloating, fullness, gas, reverse peristalsis, loss of appetite, bilious spells with occasional nausea, headache, weakness, cutaneous hyperesthesia, mouth cankers, bad breath, backache, pain and weakness in the legs, varying aspects of malnutrition, pessimism, irritability,

and an unwillingness to think or talk of anything but the ever present misery—intensified, of course, by the never-ending hypercritical speculation and the habit of inspecting the stools. The most trivial intestinal movement or unrest is often seized upon as an excuse for complaining. Pains in the arms, legs, shoulders and chest, even pseudoanginal seizures, often occur in the nervous and hypersensitive type, especially during those periods when large quantities of mucus form."

The reader will understand that all of these symptoms are never present in any one individual and that many of them are present only in advanced or long standing cases. Many cases are mild and often require years to reach the advanced stage seen in the worst cases.

Ulcerative Colitis: A long-standing catarrhal condition in the nose (rhinitis) may culminate in ulceration of the nose; a long-standing catarrhal condition of the stomach (gastritis) may end in gastric ulcer; a chronic catarrhal condition of the colon (colitis) may result in ulceration of the colon—ulcerative colitis. Cancer is the next and final step in this process of pathological evolution.

Symptoms: Constipation, a spastic sphincter, pain upon defecation and blood in the stools are the chief symptoms.

Proctitis: During the course of chronic colitis, the more tense inflammation may be localized in one or more circumscribed areas of the colon. This more acute phase of the inflammation is usually named after the section of the colon in which it is located. Hence, if it is in the sigmoid flexure it is called sigmoiditis; if it is in the rectum it is denominated proctitis. The line of demarkation between sigmoiditis and proctitis is an imaginary one. Such distinctions are misleading.

Etiology: Colitis is an extension of gastro-intestinal catarrh involving usually the sigmoid flexure, cecum and transverse or splenic flexure of the colon. It is a very common condition, nine people out of ten having more or less chronic inflammation of the mucous membrane of some part of the colon. "We are convinced," says Dr. Weger, "that the development of colitis and the retention of the toxic waste in the blood and lymphatic system are concomitant. They go together, belong together, and must be considered and treated together."

Prognosis: This is good if the subject can be taught self control.

Care of the Patient: Complete recovery cannot be expected without physical, mental, sensory and physiological rest. It is best to get away from friends and relatives and from the old environment. It is necessary to cultivate poise and tranquility and to emancipate oneself from the tyranny of symptoms. The gas, mucus, constipation, spasticity, etc., are not the cause and should be persistently minimized. Removal of cause is essential and is not always easy. Old habits must be broken up and new ones cultivated. Accumulated toxins must be eliminated and nerve energy restored. In mild cases of short duration, four weeks of rest are often sufficient. Most cases, being chronic, require from six to eight and more weeks of care. When the development of pathology has covered a period of years it cannot be eradicated and a normal state established in a week or a month. Great care in eating and living is essential after the rest and fasting and this will have to be carried out long enough to fix the good habits so that there will be no return to the old. People troubled with colitis and constipation are always enervated. Rest gives the organism an opportunity to recharge her battery and store up a good amount of energy.

Constipation

Definition: Constipation is sluggish action of the bowels—intestinal stasis—infrequent or difficult evacuation of the feces.

Symptoms: Difficult and infrequent bowel movement, hard, usually foul, stools, gas and occasionally pain or discomfort in the abdomen are the characteristic symptoms of constipation. Sometimes nausea is present. Headaches and other symptoms attributed to constipation are due to other causes. Toxemia antedates constipation and is not caused by constipation. Two general types of constipation are described as follows:

Spastic Constipation, in which the stools are likely to be small, hard, round balls. In this form there is a spastic condition of the muscles of the colon.

Flaccid Constipation, in which there is a loss of tone (flaccidity) in the walls of the colon.

Etiology: Dr. Page says "In common life, it is rare indeed that constipation is the result of a deficient diet, although it often arises from lack of nourishment consequent upon excess, or an unwholesome variety of food,

or both. Usually it may be regarded as the 'reaction' from over-action. The not uncommon experience, in regular order, is this: excess in diet, diarrhea, constipation, physic or enema, purgation, worse constipation, more physic and so on. The term reaction here means simply that the organs involved having been irritated by undigested food, and having by means of increased action cleared away the obstruction, now seek restoration by the most natural method, as the name itself implies—rest. What are commonly called diseases are in reality cures; and the common practice with drug doctors, of controlling the symptoms is like answering the cries of a drowning man with a knock on the head."—The Natural Cure, p. 112.

"Passing Enervation and Toxemia which are basic causes and omnipresent where there is any departure from the normal health standard, overfeeding is first, last and all the time the cause of constipation in children," says Dr. Tilden. Overfeeding is followed by imperfect digestion, flatulency, bowel discomfort, loose movements with curds in the stools. The amount of the curds increases as the digestive impairment becomes greater and, finally, the stools may become hard, dry anti even lumpy. Children that are properly, cared for and properly fed never have constipation.

Care of the Patient: Constipation will end when nerve energy is restored and the causes of enervation are removed. We should keep in mind that it is good health that insures daily movements and not daily movements that insure good health.

There should be no resort to laxative, cathartic or purgative drugs; to force bowel movement. As Tilden puts it: "Nature cleans out the bowels in her own way when she is ready—indeed she often cleans them out with such force and vigor that the human doctoring habit decides they must be checked. If checked it may mean death. Why, then, not be patient when the bowels are not inclined to move of their own volition?"

Physic may produce enough irritation of the bowels to produce a copious outpouring of fluid and vigorous action in expelling the feces and the drug, but this same irritating effect inhibits elimination proper. This is the opposite of what is intended. Irritant drugs further enervate, oppose excretion, and make the constipation worse. Forcing the bowels to move voids what is in the bowels, but it does not secure elimination.

Does the drug cure constipation? No. The supposed beneficial effects of purgatives and laxatives, whether mild or violent, do not extend beyond the

period of excitation; after which the whole digestive tract lapses into its previous inertia. Nothing worth considering has been gained. The hysterical and impatient grab a pill or a bottle as soon as their bowels fail to act, and give them the lash. The drugs, being powerful irritants, occasion rapid, forceful contractions of the muscles of the stomach, intestines and colon, and the pouring out of large quantities of secretions to wash away the irritant drug. The dupes of such practices secure the bowel action they desire, but at a frightful cost. There is now greater need for rest than before the drug was taken. There is now less of the normal lubricants of the intestine and bowel than before. There must, of necessity, be a longer period of rest following such violent activity. But the rest is not allowed. Another dose of the drug is taken, resulting in another period of over-work, necessitating more rest. This process keeps up until chronic constipation results and, if it goes on, permanent weakness, and ultimately, atrophy of the muscles and glands of these organs, with a thickening and hardening of their lining membranes and derangement of secretion.

Dr. Page truly says: "Next to the mistake of resorting to drugs in these cases, is the quite common one of swallowing special kinds of food for the same purpose, and there is some question as to which of the two evils is the least. An excessive quantity of rye mush, wheaten grits, or oat groats, with a generous dressing of butter, syrup, milk or honey to wash it down in abnormal haste, will often purge the bowels like the most drastic poison."—

The Natural Cure, p. 114.

To many doctors and dietitians, the main object of diet seems to be to prepare foods or food mixtures that will increase peristalsis.

This is a misuse of food. It is not the function of the digestive tract to be constantly filling up and emptying out again. The purpose of food is to nourish the body. Overworking the bowels with olive oil, wheat bran, agar agar, psyllium seed, and other bulky and roughage articles of diet robs the organism of part of its nerve energy.

Feeding bulk and roughage secures movement on the well-known principle of the hay bailer—that of pushing one bale of hay out with the one behind. Dietitians push one meal out with the next.

It is well known that the effects of all laxative and cathartic drugs "wear out." The size of the dose must frequently be increased and the drug must occasionally be exchanged for a different one. But it is not generally

understood that the laxative foods also "wear out." One must eat more and more of them; even then they will finally cease to occasion action. Eating quantities of "roughage" or "bulk" will not cure constipation. Of more importance than the thing to be moved (the bulk) is the motive power—the power of movement.

Tired (constipated) bowels need rest, not work; more nerve energy, not more expenditure; better nutrition, not more bulk. Enemas, colonic irrigations, rectal dilators, etc., are every bit as evil in their effects as drugs and roughage and they have no more effect in removing cause than these other things. The same is true of mineral oils.

The chief cause of chronic constipation is the constipation cures. Nobody ever gets free of this functional failing so long as these are employed.

Diarrhea In Children

Children are more inclined to diarrhea than adults; first because they are more inclined to excessive eating and, second, because their digestive tracts have not acquired a toleration for decomposition products. Three forms of diarrhea in children are recognized, as follow:

Simple or Dyspeptic Diarrhea: In this form the stools are offensive and, usually contain undigested milk curds, but little or no visible mucus. Vomiting frequently occurs and fever ranges between 100 and 103 F. There is no marked prostration and emaciation unless the diarrhea is long continued. The diarrhea is likely to be frequent and may lead to ileocolitis.

Etiology: Diarrhea in infants may be due to a number of causes. Overheating, chilling and over excitement are often causes. In such cases the stools are likely to be normal in all other respects except diminished consistency. Diarrhea is, in most cases, the result of indigestion brought on by the stuffing process. An over supply of milk or of some part of the milk will produce a diarrhea. An excess of fat causes stools to be yellow or yellowish green and often to look oily. They are apt to be rancid, and are acid in reaction. They are prone to irritate the buttocks. The stools often contain mucus and soft curds. An excess of sugar (any kind, even milk sugar) causes the stools to be more or less green, and gives them an acid odor. They are acid in reaction and also irritate the buttocks. Mucus and small, soft curds are often present. Diarrheas produced by starch are similar to those

produced by the maltose-dextrines except that they usually do not contain mucus or curds. Protein excess produces brown or yellowish-brown stools, with a foul or musty odor and an alkaline reaction. The curds are plentiful and large. The stools may, but usually do not, cause irritation of the buttocks. Blood and mucus in the stools indicate an acute inflammation.

Ileocolitis: The symptoms are more intense in this form of diarrhea. The stools are numerous, contain much mucus and are sometimes streaked with blood. The abdomen is distended and tender; the temperature ranges from 103 to 105 F. Vomiting often occurs but is usually a less conspicuous feature than in the dyspeptic form. Colicy pains may precede evacuation and often there is pronounced painful straining at stool. Exhaustion and emaciation rapidly ensue and, in severe cases, the child sinks into a state of complete collapse or passes into a marantic state which persists for several days.

Complications: Bronchopneumonia and acute nephritis are not uncommon complications under regular care.

Prognosis: Medical authorities say: "The disease is always a serious one, especially in young infants, and even in favorable cases convalescence is likely to be tedious." "Death is frequently preceded by extreme apathy, stupor or even coma (spurious hydrocephalus)." This is medical experience with feeding and drugging. Hygienic measures produce no such evils.

Care of the Patient: When nature revolts against the digestive abuses to which infants and children are subjected and a diarrhea is instituted to get rid of decomposing food she is heading off convulsions, ptomaine poisoning and a host of other troubles. More feeding in such a state is criminal. Equally as criminal is the use of drugs to check the conservative or protective measure—the diarrhea.

Fasting should be instituted at once and no food should be given until complete comfort has returned. Premature feeding may start up the diarrhea afresh.

If curds appear in the baby's stools, or if the color and consistency are not normal, the amount of food should be reduced. If cutting down the amount of milk, to get rid of curds in the stools, requires so great a reduction that the amount that can be given is too small to support life, it indicates that digestive power is low. Enervation from overfeeding, overexcitement, or other cause is back of this.

If these signs of indigestion have been ignored until diarrhea has developed, all feeding must be immediately stopped. No food should be given to the child until the bowels are normal again. If there is no fever and the child demands food, fruit juice may be allowed. If there is fever, nothing but water should be given to the child. Castor oil, milk of magnesia, soda, enemas, etc. should not be given. Mucus and blood call for perfect rest and quiet and warmth; no food and, neither last nor least, no drugs.

Warmth and rest are the other great needs. The child should be allowed to lie quiet and not be disturbed every few minutes to count its pulse, take its temperature, etc. Proper care and feeding after the symptoms have subsided will prevent frequent necessity for diarrhea.

Cholera Infantum: The third form of diarrhea is an inflammatory condition of the alimentary canal of infants which prevails in the summer months. This disorder was formerly much more prevalent than now and in some localities was the occasion for more, dread and anxiety among parents than any of the "diseases" peculiar to children. The death rate in this "disease" in children between the ages of one and two years was once fearful.

Symptoms: The trouble comes on apparently very suddenly, with great restlessness, fever ranging from 102 to 104 F. There is much diarrhea, the bowel discharges are accompanied with "bearing down," straining at stool, and considerable pain. Preceding the bowel movement, the child will gag or retch.

The sickness of the stomach and all of the other symptoms gradually increase until vomiting becomes frightfully severe. There is very rapid emaciation and parents and friends usually give up hope of saving the little one—not knowing that the rapid emaciation is one of nature's most potent saving measures.

The bowels are filled with gas, the abdomen is very sensitive and, where there is much gas accumulation, there is rapid pulse, rapid, oppressed breathing, and a rise in temperature. There is extreme thirst, which alas, was and sometimes is yet, mistaken for hunger. The stools are yellow or whitish-yellow, or they may be tinged with green at the outset, becoming grass-green, with white lumps of milk curd, as the condition grows worse.

Children may die in twenty-four hours in this condition or the symptoms may abate after the first twenty-four hours and convalescence sets in. Dr.

Tilden says: "Cholera infantum proper is of twenty-four hours duration; after that, if the child remains sick, the disease assumes one of the types given in the nomenclature"—gastro-intestinal catarrh, gastro-enteritis, summer complaint, summer diarrhea, gastritis, entero-colitis, ileo-colitis, diarrhea, dysentery. He also says: "After twenty-four hours, if the disease has spent its force and the child is still alive, the bowel movements continue in frequency and contain more mucus, and at times specks or very delicate streaks of blood, and the fever remains about the same. The thirst is consuming; the child puts anything into its mouth. The restlessness is marked by rolling of the head from side to side and throwing the arms and legs from one place to another.

"Occasionally these cases start with convulsions and quickly sink into a stupor or comatose state, from which they gradually sink into death. Again, stupor may be light, the eyes partly closed, the child becomes more restless and cries at every bowel movement."

Etiology: Cholera infantum is a case of septic poisoning; the putrescence arising from gastro-intestinal putrefaction. It is a ptomaine poisoning brought on by wrong care and wrong feeding.

In health, the body is potentized with "immunizing" power and, can, to a large extent, render innocuous, deleterious substances taken into the stomach. The secretions of the stomach and intestine take care of such substances for us every day that we live. But by wrong eating and poor hygiene we break down the body's resistance and derange digestion and decomposition produces poisons in excess of the "immunizing" power of these secretions.

Babies are often born with a predisposition to digestive derangements. Mothers do not realize, or if they do realize it, they sometimes don't seem to care, that the further they depart from an ideal standard of health, before and during pregnancy, the less resistance their children will be born with.

After birth, with its meddlesome midwifery, babies are handled, too much; fed too much and too often, bathed too much, overclothed, kept in poorly ventilated rooms, over excited, not permitted to sleep enough, subjected to many influences which weaken them and lower their resistance. These are frequently fed from the family table, whatever the older members of the family eat. They are given bad milk from an overworked, overexcited, overfed, sick mother. They are brought up in crowded cities with all their

heat, filth, foul air, constant noise and nervous irritations. They enter a world where almost every influence is opposed to them.

Add to all this, the abuses of treatment to which they are subjected—laxatives, purgatives, castoria, paregoric, drugged milks, serums, vaccines and all the rest of the evil influences of voodooism, and that glorious state of life which we know as health is seldom assured them. They are forced to be content with half-health and lowered resistance.

Against the poisons resulting from the decomposition in the digestive organs in these little children, the body puts up a fight that is all too often a losing fight. When the decomposition overwhelms the "immunizing" power of the digestive juices, the body is poisoned and a real battle begins. The vomiting and purging, so commonly regarded as enemies, are conservative measures. These are nature's means of expelling the decomposing matter. The putrefying contents of the stomach and intestine are not absorbed. The absorbents, instead of taking up the fluid contents of the digestive tract, reverse their functions, and pour a large amount of fluid—blood-serum—into the stomach and intestine to dilute and neutralize the decomposing matter, and wash it away in vomiting and purging. This great quantity of fluid flushes the entire alimentary canal and the, poison is washed out. It is this great pouring out of the great amount of serum that causes the great and rapid wasting of the child and the great thirst.

There is no absorption from the stomach and intestine under such conditions. To feed in these cases is to make the child worse. There is no possibility of nourishing such a child. Digestion and absorption are impossible. No doubt some of the worst of these cases will die under the best of care, but undoubtedly most deaths are due to the murderous methods used in treating these cases. Food to sustain the patient, drugs to relieve pain, dope to make them "rest" and "sleep," calomel and salines to increase the purging followed by opiates and other drugs to check or suppress the diarrhea, drugs to depress the nerves—how murderous!

Prognosis: Many of these cases, particularly if badly treated, pass into gastro-enteritis. This is, or was, particularly true in the middle states where summers are hot. Cases where gastro-enteritis has followed a severe cholera infantum, are liable to relapse if they are not handled very carefully. Such children are sick and are liable to relapses every few days or every week or two. Dr. Tilden says: "The doctors of thirty years to forty years ago (now

longer) did not pretend to cure these children; they congratulated themselves on being very successful if they could keep the little ones alive until the frost came in the Fall."

It was not uncommon in those days to see these miserable little sufferers reduced to veritable skeletons, waiting for frost to come, but often, unfortunately, dying before the weather became cold enough to frost. The "disease," as previously stated, ranges in severity from a light case of indigestion to a severe case that culminates in death in twenty-four hours. They are all the same and distinctions are those of degree only.

Care of the Patient: Stop all food at the first sign of trouble. This is the remedy par excellence. Indeed, it often means the difference between life and death. The parent or doctor who stops all food at once fights a winning fight from the start. Fasting is the great pain killer, sleep producer, and life saver. There is no danger of starvation and no possibility of nourishing the child.

Isolation and quiet will secure rest. Drugs to force rest only depress the nervous system, weaken the body, lower resistance, and assure chronic aftereffects, where they do not result in death. Separate the child from the rest of the family and give it quiet.

Give it all the pure, cool water it desires and it will demand much of this, but never give it food until all acute symptoms are gone and the bowel movements are normal or ceased. Keep the child warm. Never permit a doctor to administer heart tonics (really atonics), for these only help to kill the child. Few people die who are not killed by the efforts to save them.

Dr. Tilden says: "When the child is very sick, with blanched countenance and almost imperceptible breathing, slip the pillow out from under the head, elevate the feet (by raising the foot of the bed), if possible, without disturbance, place artificial heat around the body, secure plenty of air, and let the child alone. Further than this is malpractice."

Children that are sick for days and weeks are fed and drugged. These should be fasted until the stomach and bowels are cleaned out and the decomposing milk curds are gotten rid of, then fed according to their powers to digest.

Dr. Page says of such cases: "Cases are on record where a change in the mother's diet—the avoidance of meat, pastry, spices, hot sauces, tea, chocolate—and the adoption of a generous diet of plain wheat-meal bread

(varied with rye, corn, and oatmeal), milk and fruit has rapidly restored infants dying of cholera infantum without aid from any other source.

The old Frost Cure, was simply a waiting until the passing of hot weather, which favors decomposition, and the coming of cold weather, which checks decomposition. But it allowed many children to die, because it did not correct the cause of the trouble. Even after the frost had come, and the diarrhea had ceased, the real etiological factors were still present and these children frequently died of "diseases peculiar to children" and if they did not die young, but grew up, they later had all the "diseases peculiar to adults." The same general fact is still true for the very obvious reason that no efforts are ever made to correct the real causes of the affection.

Duodenal Ulcer

Definition: This is an ulcer of the duodenum. The term peptic ulcer is given to ulcers of the esophagus, stomach and duodenum—surfaces that come in contact with the gastric juice.

Etiology: As intestinal catarrh evolves, the catarrh of the duodenum passes to inflammation, and from inflammation to ulceration. The cause of duodenal ulcer is the same as that of gastric ulcer.

Complications: See gastric ulcer.

Prognosis: See gastric ulcer.

Care of the Patient: Care for the patient as described for gastric ulcer.

Dysentery

Definition: This is a distressing inflammation of the mucous lining of the colon, an acute colitis, attended with fever of the "typhoid" form. The bowel is affected by an agonizing bearing down sensation, termed tenesmus, and accompanied by bloody stools commonly called flux. Four types are described as follow:

Acute Dysentery: Dr. Tilden says: "This is a disease that is strictly a type of constipation." There is frequent desire for evacuation. The first symptoms are a slight diarrhea with much bearing down. The patient leaves the commode unsatisfied, that is with a feeling that there is more to pass. This sensation is almost continuous, no matter how often evacuation is attempted.

In this acute state the condition is really proctitis. Bacillary dysentery is merely a severe type of acute dysentery.

Amebic Dysentery: This is a form of acute or chronic colitis seen in Eastern countries, Egypt and Europe, but not frequently in this country. It is a "tropical disease" and derives its name from its supposed cause—the ameba (amoebae). It is a very intractable condition and is especially likely to result fatally in greatly enervated subjects.

In mild cases the condition may exist for months before the patient is aware of its existence. There are vague symptoms of headache, tired feeling, weakness, slight pain in the intestines, occasionally diarrhea. In severe cases or in advanced stages there is great suffering and much emaciation. The patient will spend hours out of each twenty-four on the stool; for, though there is great desire for evacuation, there is very little stool. Although the straining at stool proves injurious, desire compels them to attempt evacuation. Rarely is there more than a tablespoonful of mucus at a stool. There are, of course, occasional bowel movements.

Chronic Dysentery: Tilden says: "This is the remains of a badly treated case of acute dysentery."

Diphtheritic Dysentery: This is the name given to a severe type of acute dysentery in which there is much congestion and necrosis of the intestinal membrane. It is often seen as a complication of pneumonia or of chronic heart and kidney affections.

Etiology: This condition is a colitis, or rather, a proctitis and perhaps some sigmoiditis and is produced as all forms of colitis are. Chronic constipation usually precedes and alternates with the periods of diarrhea. So-called amebic (amoebic) dysentery involves more or less of the whole colon, especially the cecum and the sigmoid flexure. Ulcerations, edema of the membrane and more or less sloughing indicate a more virulent type of poisoning and account for the more violent symptoms.

Care of the Patient: Weger says: "As in other intestinal derangements, no treatment can compare with complete physiological rest and suitable diet afterwards. Tubercular diarrhea can be relieved at least seventy-five per cent even in advanced cases in which complete cure is out of the question because of chronicity, general depletion, and constitutional involvement."

In amebic dysentery the subject should be induced not to wear out the nervous system by repeatedly and needlessly going to stool and straining in a futile effort to evacuate when there is nothing to pass.

A bed-pan or cloth will save him much energy while ignoring or mentally repressing the morbid urge will prevent straining.

Enteritis

Definition: This is a catarrhal inflammation of the intestinal mucous membrane. Several forms are described, as acute enteritis, cholera morbus, diarrhea, croupous enteritis, chronic enteritis. The differences between these forms are more imaginary than real. However, we shall discuss them under their respective heads. If confined to the duodenum it is called duodenitis.

Acute Enteritis: This is an acute catarrhal inflammation of the intestinal mucous membrane.

Symptoms: There are frequent stools—three or four to twenty or more a day—which are watery, brownish and, as a rule, more or less offensive. Unless the colon is also affected the amount of visible mucus is not usually great. If the upper part of the small bowel is chiefly involved, undigested food may be present. Colicky pains, abdominal soreness, distention of the abdomen with gas, noises in the bowels, and more or less fever usually accompany the diarrhea. If the stomach is involved (gastritis) nausea and vomiting may be marked. Sometimes the inflammation extends into the bile duct giving rise to jaundice. If the colon is involved (colitis) there will be painful straining at stools.

Cholera Morbus (cholera nostras): This is a very severe form of acute enteritis caused by food poisoning.

Symptoms: Frequent watery stools, persistent bilious vomiting, violent abdominal pains or cramps, marked fever, great prostration, or in extreme cases, collapse, characterize this condition. Death rarely results except in the aged and extremely debilitated.

Croupous Enteritis: This is an aggravated form of acute enteritis and is also known as membranous enteritis. It is characterized by the sloughing off of the intestinal mucous membrane.

Chronic Enteritis: This may follow acute enteritis, after one or repeated crises, or it may develop gradually with little or no acute crisis.

Symptoms: Constipation or diarrhea may, either one, be persistent, or they may alternate. If the colon is also affected much mucus is secreted. In

many cases anemia, emaciation, and various nervous symptoms—depression, hypochondriasis, and neurasthenia—are present.

Diarrhea: This is a frequent discharge of loose, often watery stools. It may precede and accompany serious illness, such as typhoid or typhus fever, cholera, intestinal tuberculosis; or, it may occur independent of other illness.

Symptoms: The characteristic symptom of diarrhea is frequent evacuations of loose, watery stools. In ordinary cases there is little or no colic. There may be mucus or undigested food in the stools. The egesta may be greenish due to presence of bile, or they may be watery, or serous, or fatty, purulent from ulceration, or black from the presence of blood. Diarrhea may be either acute or chronic.

Enterocolitis: This is inflammation of both large and small intestines and presents the symptoms peculiar to both intestines, as described above.

Etiology: Acute or chronic enteritis in any of its forms is a catarrhal inflammation and represents an extension of gastric catarrh into the intestine. Acute, painful crises come on usually after dietetic indiscretions, or copious water drinking, or drinking ice beverages while over heated. Warm weather seems to favor their development.

The diarrhea that always accompanies these crises always represents an intolerance of the digestive tract for substances of an undesirable character—drugs, irritating or decomposing foods—or nerve shock that renders even agreeable foods intolerable. The diarrhea represents unusual activity on the part of the intestines and colon, sometimes even the stomach, in ridding the digestive tract of unwanted substances.

Care of the Patient: Acute enteritis calls for the immediate withdrawal of all food. Rest, quiet, and fasting should be enforced until complete comfort has returned. Chronic enteritis is best cared for in the same manner.

The best remedy for diarrhea is to do nothing—this is to say, cease eating, rest, and let the bowels alone. Dr. Richard C. Cabot, an "orthodox" authority says: "Simple diarrhea' or acute colitis of adults gets well as a rule in a week to ten days. The important remedies are rest, warmth and starvation." No effort should be made to check the bowel action. Giving opiates or other drugs to check the diarrhea or stop the pain is very unwise for these lock the irritants and toxic substances in the bowels, producing more irritation and forcing absorption, thus leading to worse troubles. Bear in mind, too, that cathartic drugs will often close the bowels as tight as a clam.

Fistula—Anal

Definition: A fistula near the anus which may or may not communicate with the rectum. A fistula is a deep sinus ulcer, often leading to an internal or hollow organ.

Symptoms: Pain, especially upon bowel movement, in the rectum, inflammation, pus and the presence of the fistula are the leading symptoms. One or more fistulas may be present.

Etiology: Fistulas develop from abscesses that form as a result of inflammation. They are seen chiefly in colitis (proctitis) and hemorrhoids.

Prognosis: This is usually good.

Care of the Patient: Fistulas heal when the underlying toxemia is removed. Fasting and rest and a corrected mode of living constitute the requirements.

Flatulence

Definition: This is gas in the alimentary canal. It is a symptom seen in many conditions ranging all the way from simple indigestion to cancer of the stomach or rectum.

Etiology: Gases are always present in the stomach from the air swallowed from the CO₂ set free from saliva and from the reaction on sodium carbonate in the pyloric secretions which pass back from the duodenum. Gases also result from decomposition of food. Vegetables give off more gas than animal substances—meat gives off liquid poisons more injurious than gases. Gastro-intestinal decomposition of food is the chief source of flatulence.

Care of the Patient: The remedy is apparent to all who have read these pages—physiological rest until secretions are normal and proper eating and living thereafter.

Intestinal Colic (Enteralgia)

Definition: This is intestinal pain of a spasmodic character. It is also called Tormina.

Symptoms: The outstanding symptom is paroxysmal pain of a cramp-like character which centers around the navel and is relieved by pressure. The abdomen is usually distended. Severe colic may lead to collapse, indicated by vomiting, feeble pulse, pinched features and cold sweats. The paroxysms last from a few minutes to several hours and usually end by a discharge of gas.

Etiology: Overeating, profuse water drinking, irritating food, and fecal accumulations are the chief causes. Any cause of indigestion and gas accumulation may bring on colic. Coffee drinking will do it in some. Colic is also seen in enteritis, dysentery, appendicitis, intestinal obstruction, lead poisoning, locomotor ataxia and as a reflex from pathology in the ovaries, uterus, liver, vertebrae, etc.

Care of the Patient: All that is needed is abstinence from food until the crisis is well passed and proper eating thereafter. If the colic is due to gas, it is possible to hasten the expulsion of the gas by massage of the abdomen.

Colic in Infants and Children: This is a very common complaint in overfed children and causes anxious parents to walk the floor night after night.

Symptoms: The symptoms of colic are pain, flatulence, expulsion of gas, diarrhea, or constipation, green or curdy stools, eructations and perhaps vomiting.

Drawing up the legs when crying is not an evidence of colic in babies. Most babies draw up their legs when they cry from whatever cause and one that is crying vigorously will always draw up the legs and arms.

Have you ever watched the tossing and listened to the agonizing cries of the baby with colic? Have you ever watched anxious parents walk the floor nearly all night with such a baby in their vain efforts to stop its crying? If you have, you know that colic is no laughing matter—at least, not with the child and its parents. Dr. Page says:

"When a vast audience is convulsed with laughter over Mark Twain's witty description of the experiences of parents with colicky babies, it may be well for them to forget, for the moment, the thousands of little audiences of two, or three, or four, gathered about the death-beds of emaciated little ones dying in convulsions, not of laughter, and that provoke no laughter, either on earth or in heaven. More than eight hundred such audiences in one city, in a single week, who can force even a smile to their wan countenances, except it

be, perchance, a smile of resignation to what seems to be a token of the chastening, though loving hand of God."

Etiology: Besides over feeding (the most common cause), colic may be induced by getting cold or over-heated or by any other influence that deranges digestion. Babies that are fed properly, kept dry and warm and not handled too much and not over-heated do not have colic.

It was and is yet to some extent, the custom to cram babies full of milk every two hours and feed them every time they cried between feeding times, and keep them purging and puking, until they finally became constipated, after which they would writhe and shriek with colicky pains. Then mother or nurse or even father would wrap them in hot clothes turn them on their little bellies across the attendant's knees and try to jounce the wind out of them. Paregoric, castoria, cathartics and other forms of drugging are frequently resorted to.

Tilden says: "Feeding starchy foods before the completion of the second year is the cause of stomach derangements. The sugar that is put into cereal foods causes children to fatten; the fermentation from starch and sugar fills the bowels with gas, and is one of the causes of pain in the abdomen, restless nights, the bed-wetting habit, and, in the nervous temperament, chorea or St. Vitus dance; and, neither last nor least, constipation."

Care of the Patient: The remedy for colic is: stop all feeding until comfort has, returned. Thereafter feed and care for the child properly. Relief can usually be induced by resting the infant on its abdomen.

Intestinal Indigestion

Definition: This is a failure of the processes of digestion in the intestine and is often associated with gastric indigestion, though it may exist alone.

Symptoms: The only real symptoms of this condition are gas and distress in the abdomen, with perhaps diarrhea and constipation, and foul stools. The poisoning resulting therefrom is likely to cause symptoms anywhere in the body. Unless the indigestion is great no symptoms are likely to be felt.

Etiology: Gastric neurosis, diminished gastric tone, gastric dilatation, wrong food combinations, and emotional states that impede digestion may start up indigestion in the stomach. A failure of liver or pancreatic function or dilatation and lack of tone in the intestine, intestinal neurosis, emotional states, enervation and toxemia may result in indigestion in the intestine.

Indigestion means fermentation and putrefaction of food in the stomach and intestine. In the digestive tract, as elsewhere, these decomposition processes are results of bacterial activity and give rise to powerful poisons, which, if and when absorbed, cause trouble.

An excess of carbohydrates, if these undergo acid fermentation in the intestine, will give rise to symptoms of acid poisoning. Carbohydrate fermentation, with the formation of organic acids (such as acetic acid) and alcohol, is most likely to occur in the stomach. Lactose and maltose do not ferment so readily as sucrose and glucose. Yeast bacteria possess enzymes that break down the monosacchardies into alcohol, carbon dioxide, acetic, lactic, and butyric acids, and under certain conditions, hydrogen, methane, etc., gases.

Gastric neurosis is the chief cause of eructations, although these may occur from over distention of the stomach and from irritation of the stomach by the products of fermentation.

Protein putrefaction is most likely to occur in the intestine and colon. Putrefactive toxins are more virulent than those originating out of fermentation—the first are septic, the latter are irritative.

Putrefactive bacteria break down proteins into amino acids and then further decompose these into simpler substances which cannot be utilized by the body and some of which are harmful if absorbed in considerable quantity.

Simple and septic infections are the chief results of indigestion. Starvation results from the failure of digestion to properly prepare the food for use. Starvation and Poisoning result from indigestion, whatever its cause.

Care of the Patient: it is necessary to remove and correct every cause of enervation, secure sufficient physical and Physiological rest to restore nerve energy and digestive tone and, thereafter, feed and live properly. Indigestion is usually quickly overcome.

Intestinal Obstruction

Definition: This is obstruction of the intestine or colon. Two forms are described:

Acute Obstruction: This is caused by (1) strangulation, (2) intussusception (a slipping of a portion of the intestine telescope-like into the part immediately below it), (3) volvulus (a twist or knot of the bowel), (4)

impaction of foreign bodies or gall-stones, (5) paresis of the intestine, (6) congenital malformation or stricture.

Symptoms: Sudden, distressing pain in the abdomen, at first paroxysmal, but later becoming continuous, constipation, which soon becomes absolute, vomiting persistent and ultimately of a stercoraceous character, abdominal distention, visible peristaltic waves, collapse, indicated by pinched features, sunken eyes, a cold clammy surface, and a frequent feeble pulse with death in forty-eight to seventy-two hours.

Chronic Obstruction: This may be due to (1) impaction of feces, (2) stricture, (3) tumors of the bowels or neighboring organs.

Symptoms: These usually develop gradually, acute symptoms occurring only when occlusion of the bowel is complete. The chief symptoms are abdominal distention, colicky pains, intractable constipation, and a gradual failure of health. Vomiting is rare. The stools are either ribbon shaped or in bard masses, and are sometimes coated with mucus and blood.

Care of the Patient: Acute intestinal obstruction is a definitely surgical condition or soon becomes so. A few cases are relieved by inflating the bowels with air, or by copious water or oil enemas. Most of them require immediate operation. For, unless the obstruction is speedily removed, death is certain.

Dr. Weger says: "In the chronic form, surprising results may be looked for and cures are of common occurrence when intestinal fermentation and irritation are overcome by well-regulated diet and proper rest, plus exercise." The weight of intra-abdominal fat is an important factor in all obese persons. In such cases reduction of weight is essential to recovery. Fecal impactions may be removed by enemas; their recurrence may be prevented by removing the causes of constipation. Tumors are absorbed by fasting. A tendency of the bowels towards intussusception is overcome by restoration of good general health.

Polyps

These are the same as those seen in the nose in catarrhal states and develop in prolonged chronic colitis. They are the result of chronic inflammation from toxemia. Fasting and a corrected mode of living remedy polyps in the rectum and colon the same as in the nose and vagina.

Ptomaine Poisoning (Botulism)

Definition: Poisoning by an alkaloid or basic product of putrefaction—ptomaine. It is now customary to deny the reality of ptomaine poisoning and to blame germs for the "disease."

Symptoms: These usually start with a feeling of languor, perhaps headache, aching all over, and vomiting. Griping pains in the bowels are sometimes present, at other times there is a real cholera morbus. In some cases there is trembling almost equal to that of ague. There may be difficult breathing, a feeling of faintness and oppression over the stomach area. There are a coated tongue, foul breath, lack of desire for food, prostration and fever.

Etiology: Poisoning may result from taking decomposing food into the body or from decomposition of good food after it is taken in. It results from decomposition of animal foods.

Though ptomaine poisoning is commonly thought to be due to eating spoiled foods, the very best foods, if eaten too rapidly, or badly combined, or in too great quantities, or by one who is fatigued, or when overwrought emotionally, or greatly enervated from eroticism or any form of sensualism, are liable to decompose and produce ptomaine poisoning. It not infrequently happens that when wholesale poisoning follows a banquet, analysis of the food served fails to show anything wrong with the food. In all cases, only part of the eaters are poisoned. In such cases, the wrong food is examined. The spoiling of the food occurs after it is eaten. Autogenerated botulism (intestinal sepsis) is common, but is named something else. A large percentage eat too much, eat wrong combinations and eat when they should not. The resulting food poisoning passes unidentified. Tilden says: "Right combinations, and quantity within digestive limitations, are always safe, even if the food should be tainted. Much tainted food is eaten daily without poisoning; or the poisoning is so slight that it is not thought of. A cold, a slight sore throat, or a diarrhea may be the only inconvenience, and these will not show up except in the toxemic."

Meat Poisoning results from eating spoiled meats, or from decomposition of meat after it is eaten. Sausages, blood-pudding, "ripened" poultry, canned meats, etc., and especially imported sausages, are likely to produce ptomaine

poisoning. Imported sausage has been known to produce death after lying in the bowels for a week after it was eaten. As a rule the poisoning comes on rapidly.

Ice Cream Poisoning: This occurs frequently during the summer months when large quantities of ice-cream are consumed. It is milder than meat poisoning—nausea and vomiting, preceded by a chill, and sometimes diarrhea, are its chief symptoms.

Prognosis: Some cases of ptomaine poisoning are so virulent that the patient dies in a few hours. Most cases will recover if given proper care.

Care of the Patient: If the stomach does not empty itself by vomiting, the stomach pump should be used to empty it. The patient must be kept warm and no food allowed until the symptoms have entirely disappeared. Food given too soon sets up more poisoning, and a relapse, possibly with death, will follow. Or, some vulnerable organ will become chronically impaired. Tilden says, "if feeding is begun as soon as the patient is relieved, the symptoms may lead off into chronic gastro-intestinal disease, which may break down the constitution to such an extent that the patient will die in a year or two."

We have found no need for enemas and other means of "cleansing" the bowels. Discussing a case of ptomaine poisoning in a woman, Tilden says: "attempts at clearing the bowels had been very unsatisfactory until the seventh day; then the movement came because secretions were reestablished."

Visceroptosis

Definition: This is a condition of prolapse or falling of one or more of the abdominal viscera and is sometimes called "Glenard's disease." Prolapse of the intestines is known as enteroptosis; of the colon as coloptosis; of the liver as hepatoposis; of the spleen as splenoptosis; of the kidneys as nephroptosis.

"A pronounced general physical and nervous let-down is present in most cases," says Dr. Weger. "There is a lack of muscle and nerve tone, due to lack of exercise, to dietetic abuse, and incorrect habits of living. Prolapse of the stomach and intestines can be readily overcome when these habits are corrected, the burden of daily excess food lightened, and gaseous distention avoided by properly combining food. Normal tone must first be established by physiological rest."

Faulty positions in sitting and standing allow the organs to sag. Corsets weaken the abdominal support and permit sagging. Tilden says, "those who carry too much fat in the abdomen will after a time cultivate a sagging of all the contents of the abdomen and pelvis. The habits of wearing corsets too-close fitting is one of the leading causes. The habit of eating rapidly, and of too much starchy foods, ends in stomach dilation and depression." The use of laxatives, cathartics and large quantities of bulk in the diet is a cause.

In addition to the measures suggested above and the cultivation of proper posture, the exercises given in Vol. IV of this series should be faithfully followed.

Affections Of The Liver

Abscess Of The Liver

Acute Yellow Atrophy (Icterus Gravis)

Amyloid Liver (Waxy Liver)

Carcinoma Of The Liver

Cholemia

<u>Cirrhosis Of The Liver</u>

Congestion Of The Liver (Hyperemia)

Fatty Liver

Hydatid Cyst Of The Liver

Movable Liver

Syphilis Of The Liver

Abscess Of The Liver

Symptoms: Locally there is usually severe pain in the liver region and right shoulder. A circumscribed bulge may sometimes be seen below the ribs, though the enlargement of the liver is more often upward than downward. The liver is tender. Slight jaundice sometimes develops but is often absent. Constitutionally, chills, remittent or irregular fever, profuse sweating, marked anemia, and leukocytosis result from sepsis. Rupture into the lung is characterized by severe coughing and the expectoration of large amounts of pus, often of chocolate color, often mixed with blood. In some

cases the condition runs a latent course and perforation offers the first symptom.

Complications: Perforation into the lung, peritoneum, stomach, pleura, pericardium or vena-cava, intestine, or externally, may occur.

Etiology: This affection is rare in the United States, as it is seen chiefly in the tropics. It may result from traumatic injury, embolism, or pyemia, the pus being brought to the liver from abscesses elsewhere in the body. Parasites are supposed to pass from the intestine through the gall duct to the liver and cause some cases, while stones give rise to other cases. Probably many cases evolve out of the extension of gastro-intestinal catarrh to the liver. In all cases enervation and toxemia brought on by wrong life, are primary.

Prognosis: Death results from septic poisoning, or from perforation into the lung, peritoneum, stomach, pleura, pericardium, or vena cava. Recovery may follow spontaneous rupture into the stomach, bowels, lungs or externally. Recovery also sometimes follows surgical drainage. Dr. Tilden says he has seen cases discharge "pus through the lungs for fifteen years before they died of pyemia or some other disease induced by pus poisoning."

Care of the Patient: "While it is an up-hill affair," says Tilden, "and takes years, yet, if the patient is not too old when the disease takes hold of him, he may live to see the end of it." We have found that physical, mental and physiological rest bring great relief in these cases, while nothing but benefit comes from efforts to relieve the body of the ever-present encumberance of toxemia. Aside from this, "diet and surgery are the only treatment."

Acute Yellow Atrophy (Icterus Gravis)

Definition: A very rare and grave pathology of the liver characterized anatomically by rapid destruction of the liver tissue.

Symptoms: The early symptoms are those of catarrhal jaundice. Nervous symptoms (cholemia)—severe headache, maniacal delirium, stupor, and coma—soon follow. The urine is scanty, hemorrhages from the mucous membrane and into the skin are common, fever is rare.

Etiology: This pathology develops largely between the ages of twenty and thirty, more often in women than in men, and most often during pregnancy. It appears to grow out of a preceding severe acute inflammation of the liver or

to be grafted onto cirrhosis (hardening) of the liver. Alcohol and emotional disturbances seem to help produce the condition. As it never develops in, a healthy liver we may say the general causes of ill health produce it.

Prognosis: This condition is said to rarely last longer than a week or ten days and recoveries are extremely rare. Weger says, "if the entire organ is not involved in the degenerative process, fairly satisfactory function may be maintained in that part not broken down."

Care of the Patient: Doubtless the suppressive (symptomatic) treatment employed helps to account for the rarity of recovery. It is an "organic disease" and Weger says, "absolute cures are impossible in organic liver disease."

Complete physiological rest is all that can be employed until the symptoms have subsided, then "right living stays the process of degeneration, and comparative comfort and long life may be anticipated by those who recognize and respect their food and other limitations."

Amyloid Liver (Waxy Liver)

Definition: This condition, also, called lardaceous liver, is an enlargement of the liver due to the deposition therein of a peculiar albuminoid substance.

Symptoms: The chief symptoms obvious to the layman are pronounced anemia and emaciation. Jaundice and ascites are rare. The examiner finds the liver to be uniformly enlarged, smooth, firm and pointless, with a rounded edge. The spleen and kidneys almost always share in the degeneration, so that the spleen is enlarged and hard and the urine contains albumen and tubecasts.

Etiology: This condition develops as a complication of some prolonged suppurative process, especially that resulting from tuberculosis, and involving the bones. It is sometimes seen in malarial cachexia.

Prognosis: Recovery depends upon recovery from the suppurative process or the malaria. Recoveries are not frequent.

Care of the Patient: Primary attention must be given to remedying the primary pathology—see tuberculosis, and malaria.

Carcinoma Of The Liver

Definition: This is cancer of the liver.

Symptoms: Digestive disturbances are a prominent feature and usually precede the hepatic symptoms. Jaundice is common, but rarely intense. Cachexia is pronounced and develops rapidly. The liver is enlarged and painful and often presents one or more smooth, hard nodules. Ascites sometimes results from obstruction of the portal circulation. Toward the end, hepatic intoxication manifested by slight fever, delirium, stupor, and coma may develop.

Etiology: See cancer.

Prognosis: In the writer's opinion this is one of the most rapidly fatal forms of cancer. It is also our opinion that fasting in this condition hastens the end.

Care of the Patient: See cancer.

Cholemia

Definition: This term is used to designate a grave intoxication which sometimes develops in severe forms of jaundice and in the terminal stages of pathology of the 'liver, even in the absence of jaundice.

Symptoms: These symptoms are supposed to be due to retention in the blood of poisons that are normally rendered non-toxic by the liver. They may result from intoxication from any source.

Cirrhosis Of The Liver

Definition: This is hardening of the liver due to an increase and thickening of its connective tissue. Several forms are described as: atrophic cirrhosis, which is hardening with wasting of the liver; hyper-trophic cirrhosis, which is hardening with enlargement of the liver; alcoholic cirrhosis, which is hardening caused by alcohol; capsular cirrhosis (chronic perhepatitis), which is hardening of the investing membrane of the liver; "syphilitic" cirrhosis, which is hardening accompanied by the formation of gummata, or little tumor-like masses attributed to "syphilis."

Symptoms: Medical authorities tell us that this, like many other pathologies of the liver often reaches full development without presenting many symptoms; but it is the Hygienic position that the premonitory or primary symptoms have been present for years but have been ignored or unnoticed. For years there have been furred tongue, irregular bowels, occasional vomiting of mucus, gastritis with symptoms of indigestion, engorgement of the blood vessels in the region of the stomach and liver, even hemorrhage from the stomach and esophagus. How can one drink alcoholics for years, or use pepper (which hardens the liver quicker than alcohol) for years without showing symptoms of irritation of the stomach and tumefaction of the liver? Years of over eating of starch, sugar and fat also help to build cirrhosis of the liver and, this form of imprudence always presents symptoms for years before the hardening develops.

Complications: Ascites, general dropsy, hemorrhages into the skin and mucous membranes, hematamesis, enlargement of the superficial abdominal veins, with such symptoms of "hepatic intoxication" as delirium and coma, are common in advanced stages of cirrhosis.

Prognosis: Perhaps all cases end fatally, in one way or another, but the course of the affection may run from five to ten years.

Care of the Patient: Tilden says: "There is not much to be done. Patients may be tapped and water taken off, which will give relief for a short time; but the water certainly will return. The time for curing the case has passed, perhaps many years ago. When the liver is so organically disorganized and the auxiliary organs of the body are so deranged as in these cases, there is nothing to be done, except whatever palliation may be required to give the patient temporary relief." It is obvious he is talking of the late stages of the pathology. It is fortunate, to quote Weger that "if the entire organ is not involved in the degenerative process, fairly satisfactory function may be maintained in that part not broken down. Right living stays the process of degeneration and comparative comfort and longer life may be anticipated by those who recognize and respect their food and other limitations," who give up alcoholics, pepper, etc.

Congestion Of The Liver (Hyperemia)

Definition: Hyperemia of the liver means simply an excess of blood in the liver short of inflammation. Two varieties are described as follow:

Symptoms: Active. This results from an excess of blood being sent to the liver. The liver is enlarged, somewhat tender, there is a sense of fullness or actual pain in the region of the liver and there may be slight jaundice. Such digestive symptoms as nausea, flatulence, anorexia, headache, and pain in the stomach region may also exist.

Passive. This results from obstruction to the venous circulation so that blood is not carried away from the liver fast enough. It is seen in chronic heart and lung affections. The symptoms are much the same as active hyperemia, but frequently there is ascites. The liver is quite large and in extreme cases, such as follow certain heart impairments (tricuspid regurgitation), the liver may pulsate.

Etiology: Active hyperemia may be due to over eating, especially of sugars and fats, gastro-intestinal autointoxication, alcoholic indulgence, etc., or it may be present in "infectious fevers." Passive hyperemia, as pointed out above, depends upon circulatory obstruction by pathology elsewhere. Hence, its basic causes are those enervating factors that produce toxemia and the primary pathology.

Prognosis: In simple congestion (active hyperemia) the prognosis is good. In the passive form the prognosis depends upon the curability of the heart or lung condition.

Care of the Patient: For simple congestion, fasting followed by proper eating and abstinence from alcohol are all that are required. In passive hyperemia care for the patient as described under heart and lung affections.

Fatty Liver

Definition: This is a condition due to fatty infiltration or to fatty degeneration of the liver.

Symptoms: It is said of these that they may be absent and are never marked; but it is highly improbable that this condition can develop without many symptoms preceding and accompanying it. They are probably not recognized for what they are. Stools may be light colored due to lack of bile, but this would not be so in the early stages of the development. There is no

jaundice and only rarely are there signs of portal obstruction. The liver is uniformly and often greatly enlarged.

Etiology: Fatty infiltration is seen in obesity. Fatty degeneration develops in cancerous and tubercular states, or in chronic wasting pathologies, severe anemia, prolonged use of alcohol, and other poisons such as phosphorus, and in acute yellow atrophy of the liver.

Care of the Patient: Since this condition is always secondary to other pathologies, care must be directed to the removal of the causes of these pathologies. See these "diseases" under their own heads.

Hydatid Cyst Of The Liver

Definition: This is a cyst formed around the dog tape worm—taenia echinococcus. The condition is common in Iceland, Australia and certain parts of Europe, but is rare in America.

Symptoms: Small cysts produce no symptoms. Large ones produce an irregular enlargement of the liver with a sensation of weight or fullness in the liver region. Fever, pain, and jaundice are usually absent.

The cyst may become quiescent after attaining, a certain size; or a trifling injury may convert it into an abscess; or it may rupture into adjacent organs terminating either in death or in recovery.

Etiology: The eggs of the worm find their way into the stomach through food or drink, where, if secretion is impaired, they hatch, liberating the embryos in the digestive tract. From here they are supposed to find their way through the gall ducts into the liver, where they are encapsulated and rendered harmless. It is this capsular wall and its worm contents that constitute the cyst.

Prognosis: Good in most cases.

Care of the Patient: Other than general health-building measures to increase resistance, surgical removal of the cyst is all that can be done.

Movable Liver

This condition, seen more often in women than in men, occurs largely as a part of enteroptosis.

Syphilis Of The Liver

According to medical superstitions about this protean monster, "syphilis" "attacks" every tissue in the body. We may ignore this fiction and direct our care of the patient without reference to "syphilis," but to the removal of the causes of all pathology present in his body.

Affections Of The Bile Passages And Gall-Duct

Cholangitis
Cholecystitis
Gall Stones
Jaundice (Icterus)

Cholangitis

Definition: This is inflammation of the bile ducts. Two forms are described as follow:

Catarrhal Cholangitis (catarrh of the bile duct, catarrhal jaundice) may be either acute or chronic.

Symptoms: Acute. Symptoms of gastro-intestinal catarrh —coated tongue, foul breath, loss of appetite, pain in the stomach region, vomiting, perhaps diarrhea—usually precede symptoms of obstructive jaundice which is indicated by yellow skin and conjunctiva, light stools and dark urine. In some cases there is slight fever with swelling and tenderness of the liver.

Chronic. Often jaundice is chronic, usually developing gradually without pain and increasing steadily from week to week, while the gall bladder increases in size, are seen in compression of the common duct by a tumor or by scar tissue. Persistent jaundice of varying intensity, preceded by colicky pains, and accompanied by ague-like paroxysms of fever, chill and sweat is seen in obstruction of the common bile duct by stones.

Etiology: Acute cholangitis is met with largely in young adults as an extension of gastro-intestinal catarrh and after so-called "infectious" fevers. It is, in other words, the outgrowth of toxemia and indigestion. Chronic cholangitis sometimes results from repeated acute crises, but is thought to

more often result from obstruction of the common bile duct by stones, scars, tumors, etc. As these are of toxic origin, we may regard toxemia as the basic cause.

Prognosis: Acute cholangitis usually recovers in two weeks or less. The chronic form may last for years. Recovery depends upon removal of its exciting cause.

Suppurative Cholangitis: This is suppurative inflammation of the biliary ducts.

Symptoms: Fever, chills, sweats, with jaundice, local discomfort or actual pain, enlargement of the liver, perhaps also of the spleen, and emaciation with, generally, distention of the gall-bladder from concomitant cholecystitis, accompany this condition.

Etiology: Suppuration of the gall-duct is generally a sequel to gall-stones or to obstruction of the gall-duct by tumor. It occasionally follows maltreated pneumonia or typhoid or a similar biogony.

Prognosis: This affection is considered grave and surgery is thought to offer the "only chance of cure." This is not Hygienic experience.

Care of the Patient: Cholangitis is, primarily, a catarrhal condition, an extension of gastro-intestinal catarrh, growing out of toxemia, and care should be directed to elimination of the toxemia and clearing up of the catarrhal condition. Fasting, rest and a corrected mode of living will accomplish this. Even suppurative cholangitis will, in most instances, terminate in recovery when the toxic load is taken off the organism and normal metabolism restored.

Cholecystitis

Definition: This is a catarrhal inflammation of the gall-bladder.

Symptoms: In simple catarrhal cholecystitis the symptoms are slight fever, pain in the liver region, tenderness and enlargement of the gall-bladder, occasionally jaundice. In the suppurative form, severe paroxysmal pain, vomiting and fever of the septic type—chills, fever, sweats—are added to the above symptoms.

Etiology: This represents an extension of gastro-intestinal catarrh and is founded on a basis of toxemia.

Suppuration may result from irritation by gall-stones or it may follow or accompany so-called "acute infectious fevers."

Prognosis: Catarrhal cholecystitis ends in from one to two or, at most, three weeks, sometimes leaving adhesions, Suppurative cholecystitis requires longer time for recovery.

Care of the Patient: Dr. Weger says, "Mild cases terminate rapidly under rational treatment. No food should be given. Severe cases may terminate in the formation of an abscess which rarely ruptures. If correctly handled the tendency is toward resolution and recovery." Elimination of toxemia through fasting and rest, followed by a correct mode of living assures recovery.

Gall Stones

Definition: These are stones that form in the gall bladder or gall ducts. They are also called biliary calculi, or cholelithiasis. There may be one or several hundred. Their sizes range from that of a grain of sand to that of a large walnut.

Symptoms: Gall stones may give rise to no symptoms. A large number of people examined at autopsy are found to have gall stones of which they bad never been aware. In other cases there are merely continued or recurring indigestion with ill-defined pains in the upper part of the abdomen.

Most stones cause no trouble; they are small enough to pass out without causing pain. Others, being too large to pass out, remain in the gall bladder. Others, small enough to pass into the bile-duct, but too large to pass with ease are, in consequence of violent expulsive efforts excited by irritation of the gall-bladder, extruded into the intestine, intense pain (biliary colic) marking their passage through the ducts. A stone may easily travel through the common duct, but may be forced, with extreme difficulty, through the small opening of the duct into the intestine. This causes severe pain. As soon as the stone drops into the intestine the pain ceases and the sufferer is sure that it was the last treatment he employed that cured him.

Symptoms of Biliary Colic: Intense pain sets in suddenly and radiates from the liver region to the right shoulder. Tenderness and rigidity are usually present over the gall-bladder. Chill and fever (102 - 103 F.) are often present at the beginning. Anxious face, cold sweat, feeble pulse and vomiting indicate the intensity of the pain. Jaundice may follow obstruction of the gall

duct, but it is often absent. The pain may last from a few hours to several days.

Complications: Stones may become impacted in the cystic duct, or, more often in the lower part of the common duct, causing obstruction. Putrefaction may occur causing the stone to pass into the duodenum, peritoneum, lung, stomach, or kidney, or externally. Perforation into the duodenum is often a cause of intestinal obstruction. The irritation of the gall bladder caused by the presence of stones may result in suppurative cholecystitis or cholangitis. Or, the prolonged irritation may lead to cancer of the bile passages.

Symptoms of Obstruction of the Cystic Duct: The subjective symptoms are slight and there is no jaundice. The chief symptom is a pear-shaped, elastic movable tumor (the gall-bladder), projecting from the lower margin of the liver.

Symptoms of Obstruction of the Common Duct: In typical cases there is chronic jaundice which shows marked variation in intensity, pain, which is also subject to distinct exacerbations, recurrent crises of intermittent fever, chills and sweats. The liver is not enlarged, the gall bladder is rarely distended, but is often atrophied from prior catarrhal crises (cholecystitis). The obstruction may persist for, years and not infrequently leads to suppurative angiocholitis, to obstructive biliary cirrhosis, or to acute or chronic pancreatitis.

Etiology: As intestinal catarrh increases, it extends up the bile duct into the gall-bladder where catarrh, then inflammation of the gall-bladder, develop and then gall-stones form. In the liver and gall bladder as in the lungs, kidneys, pancreas, etc., stone formation is the end-result of inflammation and probably serves some useful purpose.

The patient with gall stones has a general catarrhal state, involving the liver, and perverted digestion and assimilation. The liver function is so impaired that the chemistry of the bile is changed, allowing precipitation of its mineral elements, forming stones. When the liver and kidneys fail in their chemical, functioning and minerals are no longer held in solution or excreted, they are deposited, causing, arteriosclerosis, gall stones, kidney stones, and stones elsewhere in the body. The general health of the person gradually declines, the stomach complains more and more, the skin manifests more and more of the dysemic condition of the blood and, if the condition and its cause

is not recognized in time, a stage of pathology is reached where no care will help.

A mild, but continuous pathological process going on in the liver or gall-bladder may result in the very slow and unrecognized formation of stones—until the gall-bladder is so full of stones that there is no room for more. The inflammation may be so light that there is no attempt to expel them, hence the usual pain may be absent.

A metabolic perversion growing out of wrong life is back of every case of gall stones. People who over-eat and neglect exercise tend to have gall stones. The obese are much more likely to have gall stones than thin persons. Their love of carbohydrates, and especially of sugars, tends to build the catarrhal condition of the gall bladder that forms the local condition essential to the formation of stones. Women past middle life are more likely to develop stones than men, perhaps because they are less active.

Prognosis: In the absence of the above complications the prognosis is usually good.

Care of the Patient: Tilden says: "When the catarrh of the liver is overcome, secretions become normal and stones disintegrate and pass out through the gall-ducts into the bowels, and then out of the body. No treatment, no surgery, is necessary." "A correct treatment," he says, "will be directed to removing the cause or causes of toxemia."

Removing the stones does not restore normal liver function, hence more stones will form after their removal. Draining the gall-bladder does not improve the body's nutrition. Removing the gall-bladder does not correct the catarrhal inflammation that caused the stone formation.

There can be but one cure for gall-stones. This is: restore the normal functioning of the liver so that normal bile will be secreted; then the normal bile will cause the stones to disintegrate and pass out. Correction of the inflammation makes gall-bladder drainage or extirpation unnecessary. Correction of gastro-intestinal catarrh renders surgical exploitation of the whole digestive canal unnecessary. The undesirable finish pictured under etiology may be avoided by correct living. Although physicians and surgeons are so unfamiliar with cause that they believe surgery alone can help and usually recommend this, the great army of post-operative invalids one sees everywhere attests that no real cure comes from this spectacular treatment. Operations leave cause at work, hence more pathology develops.

Weger says: Given proper assistance the chemistry of the body can be so altered that stones soften, disintegrate, and pass out with but slight discomfort. We have treated many cases and. seldom have we found it necessary to resort to surgery. It is a remarkable fact that softening occurs very rapidly on a complete fast. Frequently patients coming for treatment for different ailments develop hepatic colic from the eighth to the tenth day of fasting. In these the presence of gall stones may never have been suspected. The same is true of stones in the kidney. In recurrent attacks there is no treatment in the intervals to equal a diet restricted to fresh fruits, salads and cooked non-starchy vegetables. It can be safely predicted that there will be no recurrences in those patients who follow instructions as to diet and exercise. In most instances if the gall stone is not larger than a small olive it will become soft and pass out without resort to surgery and its consequent risks. The exceptions are in those run-down people who have no reserve vitality or courage left to sustain them for a reasonable time while nature is establishing a normal chemical balance. Extreme caution and conservatism on the part of the physician is necessary in determining the proper course in a given case. The process of recovery may seem slow but it is in reality marvelously rapid, compared with the long time it takes for the stones to form. * * * Without recourse to olive oil, bile salts, and the one hundred and one remedies that are generally prescribed, our percentage of non-surgical recoveries is so high as to warrant a favorable prognosis if the patient cooperates in the removal of the first cause."

Jaundice (Icterus)

Definition: This is a symptom, not a "disease," and consists of discoloration of the skin, conjunctiva and other mucous membranes and the urine and secretions with bile. Four types are described as follow:

Obstructive Jaundice: This is jaundice resulting from obstruction of the gall ducts from within by catarrhal or suppurative inflammation of the wall of the duct, or of the intestinal mucosa at the mouth of the common duct, stricture or occlusion of the duct, gall-stones or parasites, tumors of the wall of the duct, or by pressure from without by tumors of the liver, pancreas, stomach, kidney, lymph nodes, or uterus, or aneurysm, or impacted feces.

Symptoms: The skin and conjunctiva vary from pale lemon-yellow to dark olive or greenish-black. There may be slight or intense itching especially in chronic cases. Sweating, often confined, to the palms, axillae, or abdomen, is common. The sweat and less often the saliva, bronchial mucus, tears and milk may be yellowish, even before the skin and conjunctiva become discolored. If more than a trace of bile is present it colors the urine light greenish-yellow to blackish green. Due to lack of bile, the stools are of a pale slate color, are often pasty, of offensive odor and accompanied with flatulence and constipation or diarrhea. The pulse is slow sometimes 40 or even 20, the respiration is normal, or it may be slowed in proportion to the pulse. Languor, depression, irritability and headache are common.

Complications: Boils, urticaria and other skin affections may develop and, in chronic cases, distention or dilatation of blood vessels in the skin and mucous membranes occurs. In chronic or severe cases hemorrhages into, the skin or mucous membranes are more or less serious. Visual disturbances may occur. In persistent cases coma, convulsions, or delirium may occur.

Etiology: Jaundice is a symptom depending upon a great variety of obstructive causes, as pointed out above. Catarrhal inflammation of the intestine and bile duct may cause enough obstruction to cause jaundice. Stricture caused by inflammation may cause this symptom to develop. The tissues of the entire body are involved in the coloring. Basically it all goes back to toxemia and its forerunner, enervation. When these are removed, most cases of jaundice get well.

Prognosis: Acute cases may recover in a few days or weeks; chronic cases may last for years; Recovery depends upon removal of the obstruction.

Toxemic or Hemolytic Jaundice: This is a form of jaundice due to destruction of the red blood cells.

Symptoms: These are likely to be less marked than in obstructive jaundice, but in some cases cerebral symptoms, jaundice and hemorrhage are intense. Fragility of the red cells may be increased.

Hemolytic jaundice Is blamed upon excess functioning of the spleen, which is supposed to pour out its chemicals in such excess that it results in rapid demolishing of the red cells. The rapid break-down of red cells sets free a large amount of hemoglobin in a short time. The hemoglobin is utilized in producing bile pigment. The spleen is only slightly swollen, but a blood-

check will usually show the red cells to number between one and two million less than normal.

Etiology: Hemolytic jaundice is due to a septic state which develops out of mal-practice. If typhoid fever, yellow fever, malaria, relapsing, fever, pneumonia, scarlet fever, etc., are drugged and fed, septicemia will develop and jaundice will follow as a complication. Arsenic, phosphorus, snake venom, toluylendiamin, and other poisoning will also produce hemolytic jaundice.

Prognosis: This depends upon removing the causitive factor.

Icterus Neonatorum: This is jaundice of the new born, or infant, and often develops within the first week after birth. Approximately twenty per cent of babies develop jaundice in the first week of life. Two types, (1) physiologic and (2) pathologic, are described.

Symptoms: Physiologic. In a day to a few days, from the second to the fifth being the usual time, after birth the baby begins to turn yellow and the parents become alarmed. The eyes become yellow and the urine is discolored. There are rarely other symptoms. The discoloration gradually grows greater, then gradually disappears. Its average duration is three to four days, although it may last longer, even two weeks. The general health of the baby is unimpaired and jaundiced babies fare as well as others.

Prognosis: The condition is not serious, is never fatal and requires no treatment.

Pathologic: This form is very marked and is very frequently fatal.

Etiology: The physiologic type is thought to be due to the passage of a part of the portal blood rich in bile pigments directly into the vena cava, which remains open for several days after birth. It is our opinion that it is a true obstructive jaundice and is due to a catarrhal condition of the bile duct. The pathologic form is due to congenital strictures of the bile duct, or results from septic infection.

Alcholuric Jaundice: This is the term applied to a form of jaundice in which there is discoloration of the skin and conjunctiva but no bile in the urine.

Symptoms: Besides the persistent discoloration there is enlargement of the spleen, moderate anemia, recurrent acute indigestion or abdominal pain, with but little or no enlargement of the liver. The stools are well colored.

Etiology: This condition is thought to be due to increased fragility of the red cells and may first appear in adolescence. The fragility of the red cells must be accounted for and toxemia, perhaps, complicated by dietary deficiency must be back of this.

Prognosis: This condition is rarely fatal, but often very persistent.

Care of the Patient: As jaundice is only a symptom, care must be directed to removing the causes of the pathology that is responsible for the jaundice. Fortunately, in most instances this will effect a cure. In the advanced organic pathologies—cancer, stenosis, abscess, etc.—this is not always possible. Surgery may sometime aid in some cases of obstructive jaundice.

Tilden says: "In gall-stone obstruction the feeding of eliminating foods, such as fruit and raw vegetables, will in a reasonable time bring about a disintegration of the stone in the gall-bladder. Then there will be a passing into the bowels of the sand that results from the disintegration; and, if this style of eating is persisted in, that patient will make a complete recovery. Where the obstruction is due to catarrhal inflammation of the gall-duct, proper feeding will overcome it."

In severe cases, fasting will be necessary. There need be no fear of fasting babies if jaundice is severe.

Affections Of The Pancreas

Cancer Of The Pancreas

Cysts Of The Pancreas

Pancreatitis

Pancreatic Calculi

Cancer Of The Pancreas

Pancreatic cancer is seen most frequently in males past forty. Its symptoms are digestive disturbances, rapid loss of weight and strength, anemia, severe deep-seated pain in the stomach region, and the presence of the tumor. The pain often occurs in paroxysms, especially at night, and may be associated with symptoms of collapse. Frequently there is enlargement of the gall-bladder with progressively increasing jaundice, resulting from pressure upon

the bile duct. Pressure on the portal vein may cause ascites. Sugar is sometimes found in the urine and in some cases much free fat and numerous undigested muscle-fibres are found in the stools. The above symptoms belong to the terminal stages of cancer, at which stage the condition is incurable. See chapter on cancer.

Cysts Of The Pancreas

Cysts of the pancreas are divided into three groups as follow:

Retention Cysts resulting from impaction of a calculus, stricture or tumor.

Traumatic Cysts resulting from hemorrhagic extravastation.

Proliferation Cysts formed by carcinomatus are edenomatous tumors.

Symptoms: These vary. The most common are deep-seated pain in the stomach region, digestive disturbances, vomiting and emaciation. If the cyst presses upon the bile duct, jaundice occurs; if it presses upon the portal vein ascites develops. Sugar is sometimes found in the urine and free fat and undigested muscle fibre may be present in the stools. A smooth, round, fluctuating tumor may often be felt in the upper part of the abdomen.

Etiology: The immediate causes are given in the classification above. Toxemia and chronic pancreatitis are back of these immediate causes.

Care of the Patient: Fasting and a complete revolution in the mode of living will sometimes result in the absorption of the cyst. In other cases it will be reduced and the symptoms end. Where this fails, surgery is the only other recourse. It should be the last, not the first, recourse.

Pancreatitis

Definition: This is inflammation of the pancreas and is divided into hemorrhagic, gangrenous, and suppurative varieties. It may be either acute or chronic. It is comparatively rare.

Symptoms: Acute. Symptoms begin very suddenly, with violent pain, like colic, in the upper part of the abdomen. This is followed by nausea and vomiting. There is distention of the stomach region, localized tenderness and rigidity, vomiting of bile-stained mucus, or occasionally, of bloody material

and symptoms of profound collapse. There is slight jaundice and often diarrhea, though constipation is the rule.

Death usually occurs in from one to three days, but occasionally the severe symptoms diminish and necrosis (gangrene) or suppuration sets in and may last several weeks or months. This change is indicated by irregular fever, progressive weakness and emaciation and a tumor mass in the stomach region. Jaundice and chills may also occur.

Suppurative pancreatitis may develop gradually and for many months the only symptoms may be abdominal pain and digestive disturbances.

Chronic. Symptoms are obscure. Dyspepsia, gas, paroxysmal pain in the stomach region, a tendency to diarrhea, slight jaundice, and progressive emaciation are the usual features. If the Islands of Langerhans are involved symptoms of diabetes develop, otherwise sugar in the urine is rare.

Prognosis: Chronic pancreatitis runs a slow course and, unless complicated with diabetes, may end in recovery.

Etiology: Intestinal catarrh extends up the pancreatic duct into the pancreas giving rise to pancreatitis and, finally, diabetes. Acute pancreatitis is doubtless a septic infection; this is to say, sepsis generated by gastro-intestinal putrefaction sets up severe inflammation in the pancreas. Inebriety and the use of coffee, tea, tobacco, etc., may be considered as causes. It is thought that injury as from a blow on the abdomen may be a cause in some cases. These cases must be heavily toxemic for a blow to result so seriously.

Chronic pancreatitis may also result from extension of intestinal catarrh or pyloric ulcer, it may follow acute pancreatitis, or result from obstruction of the pancreatic duet by stones, from alcoholism, or from sclerosis of the pancreatic arteries. Toxemia and autointoxication are present in all cases.

Prognosis: This is not very favorable. Recovery may occur upon rupture of the abscess into the bowel or it may subside into chronic pancreatitis. Perhaps surgery will be of assistance in a few cases.

Care of the Patient: If fasting does not bring immediate relief from symptoms in acute pancreatitis, a surgeon should be called.

The care in chronic pancreatitis must eliminate toxemia, restore normal nerve energy and correct digestion and assimilation. So long as there is pain and discomfort no food should be taken. After toxemia has been eliminated and comfort has returned, fruits and vegetables should constitute the diet.

It may truly be said of pancreatitis: it is better prevented by right living than cured by any kind of program.

Pancreatic Calculi

Definition: This is stones in the pancreas.

Symptoms: Pancreatic colic, which resembles biliary colic, except that the pain is more likely to radiate to the left and is usually unattended with jaundice, develops when the stone is forced through the pancreatic duct. Sugar in the urine, fatty stools and the discovery of stones containing chiefly carbonate or phosphate of lime in the stools confirm the diagnosis.

Etiology: Catarrh of the pancreatic ducts, an extension of gastro-intestinal catarrh, with stagnation of the pancreatic secretions, results in stone formation.

Care of the Patient: Same as that for gall-stones, which see.

Affections Of The Peritoneum

Adhesions

<u>Ascites</u>

<u>Hernia</u>

Peritonitis—Acute

Peritonitis—Chronic

Adhesions

Definition: An abnormal joining of parts to each other.

Symptoms: Pain and discomfort are the usual symptoms complained of. Most adhesions produce no symptoms.

Etiology: Adhesions result from inflammation. They frequently follow abdominal and pelvic operations in the thoracic, abdominal and pelvic cavities.

Care of the Patient: Every operation for adhesions leaves more adhesions than it finds. Most of the symptoms complained of are due to indigestion and gas. These should be cared for as directed elsewhere. The claim that adhesions may be broken up by massage is not well founded.

Fasting has been known to cause adhesions to end it is well to know that adhesions rarely cause any trouble.

Ascites

Definition: This is an accumulation of serous fluid in the peritoneal cavity—dropsy of the abdomen.

Symptoms: General enlargement of the abdomen, sometimes starting with puffiness of the feet and ankles is the characteristic symptoms. Care must be made to distinguish between ascites and pregnancy and ovarian tumor in women.

Etiology: Ascites is due to blockage of the portal vein by hardening or enlargement of the liver, pressure by tumor or cancer, inflammation, etc. It is a byproduct of pathology of the liver, pancreas, peritoneum, etc. It develops largely at the distal end of these pathologies, hence is usually hopeless.

Prognosis: A reasonable degree of health may be restored only in cases that have not evolved to a desperate stage of Pathology. Others will all die. Where it is due to cancerous extension there is no hope.

Care of the Patient: In non-cancerous cases that have not evolved to a hopeless stage, fasting will give relief; in fact, fasting offers the only hope of restoring health. Surgical drainage of liver abscess, if this is the cause, or surgical removal of tumor or cyst may help to restore health in a few apparently hopeless cases. If due to peritonitis recovery will follow recovery from peritonitis. Opening the peritoneum and washing it out is said to offer small hope if peritonitis is extensive in hopeless cases drawing off the fluid gives temporary relief. The abdomen will fill up again.

<u>Hernia</u>

See Volume IV of this series.

Peritonitis—Acute

Definition: This is inflammation of the peritoneum or membrane lining the interior of the abdominal cavity and surrounding the viscera. The inflammation may be general or localized.

Symptoms: Intense abdominal pain and tenderness are the most prominent symptoms. Breathing is shallow and costal. The features are pinched and the expression is anxious; The abdomen is distended and its walls rigid. To relieve the tension on the abdominal muscles, the subject lies motionless on his back with the legs and thighs drawn up. Moderate fever (102 to 104 F.) with small, rapid and "wiry" pulse, are usually accompanied by constipation, while vomiting and hic-coughing are common. In severe cases rapid collapse, indicated by fall in temperature, rapid, feeble pulse, suppression of the urine and a cold, clammy surface, ensues.

Etiology: Primary peritonitis is very rare and may result from trauma, or a "rheumatic" state, superadded to toxemia.

Secondary peritonitis is an extension of inflammation elsewhere—of any of the viscera of the chest, abdominal cavity and pelvis. Simple inflammation, or abscess, of the liver may extend to the peritoneum. Cancer of any part of the three cavities of the trunk may result in peritonitis. Peptic ulcer, ulcer of the bowels, colitis, muco-colitis, appendicitis, typhilitis, ovarine and uterine inflammation, septic inflammation of the uterus following childbirth or abortion, may extend to the peritoneum. External abdominal wounds may perforate the peritoneum. The condition is also seen in some severe forms of typhoid.

Prognosis: This is usually good in localized peritonitis. In generalized peritonitis the outlook is always grave; perforative cases are particularly grave. Tilden says: "In septicemia, following childbirth or abortion, intense pain in the abdomen, quick pulse, flushed face, preceded by rigor, means a fatal case, unless it is quickly comprehended and the right treatment used immediately."

Care of the Patient: Peritonitis means septic infection of the peritoneum. The general care must, therefore, be the same as for sepsis—infection elsewhere—rest, fasting, warmth. Since peritonitis is almost always secondary to other inflammations, care must be as directed under these other affections.

In general it is felt that perforation by an ulcer of the stomach or intestine, or the rupture of an abscess of the liver or of the appendix into the peritoneal cavity will cause a fatal peritonitis unless the abdomen is opened immediately and thoroughly washed out. In 1927 Dr. Win. Howard Hay wrote me that he had "had nothing but complete recoveries in approximately

250 cases (of appendicitis), which list includes thirteen perforations with abscess," and this without resort to surgery. Weger says of peritonitis, "here again, we emphasize the rarity of such diseases in people who live normal lives, who keep their resistance high and their toxins low."

Peritonitis—Chronic

Symptoms: There is slight, or no, fever; pain is not severe, but is frequently paroxysmal. More or less diffuse tenderness is present. Often there is marked anemia and emaciation. The abdomen is usually distended.

Etiology: Most cases are supposed to be tuberculous or cancerous. Some cases are sequels to acute peritonitis. A few cases result from extension of inflammation in the pelvis. Many cases follow abdominal operations.

Prognosis: Simple peritonitis usually ends in recovery, especially in children. Tuberculous peritonitis often recovers. Cancerous peritonitis is always fatal.

Care of the Patient: Care must depend on the primary trouble—cancer, tuberculosis, uterine and ovarine inflammations, etc. See these affections.

Affections of the Respiratory System

Affections Of The Nasal Passages

Affections Of The Larynx

Affections Of The Bronchial Tubes

Affections Of The Lungs

Affections Of The Pleura

Affections Of The Respiratory System

With the first "snuffles" (cold) or indigestion of infancy there begins a series of crises that follow one upon another at more or less regular intervals. As enervating habits are continued and nerve-energy is more and more lowered and the toxemia becomes greater, more mucous surface is required through which to excrete the toxemia. Inflammation develops in more and more parts of the body.

At first indigestion and diarrhea may be sufficient to control the mounting toxemia. But as the toxic saturation progresses the respiratory organs will be forced to assist in the work of elimination. The catarrh, manifesting first as coryza, or gastritis, or diarrhea, extends to the throat, nose, sinuses, ears and lower respiratory organs.

Affections Of The Nasal Passages

Epistaxis
Hay Fever
Rhinitis
Sinusitis

Epistaxis

Definition: This is nose-bleeding.

Etiology: When not due to a blow on the nose, nose bleeding is due to an excess of blood in the nose (hyperemia), or to nasal catarrh, or to high blood pressure, dysemia, anemia, uremia, fibrin deficiency in the blood, etc.

Young people who have nasal catarrh with irritation pick at the nose and scratch the nasal membrane with their finger nails. In time ulceration develops often causing necrosis of a blood vessel and profuse bleeding.

Nose bleeding often acts as a safety valve in apopletic subjects. The bleeding relieves some of the blood pressure and lessens the danger of a cerebral hemorrhage.

Care of the Patient: See Rhinitis and High Blood Pressure.

Hay Fever

Definition: This is an acute, usually recurrent, and distinctly seasonal inflammation of the nasal mucous membrane sometimes extending to the conjunctiva of the eye, and the membranes of the pharynx, bronchial tubes and Eustachian tubes.

Symptoms: While defined as an acute inflammation which is subject to recurrent and seasonal acute exacerbations, the catarrh is continuous but is peculiarly subject to, pronounced increase in severity of symptoms in the months of May, June, July and August. In the South it may last all the year. Nasal obstruction with rhinorrhea and much sneezing are accompanied by congestion of the conjunctive, watering of the eyes, itching of the eyelids, nose and palate. There is headache and lassitude and, occasionally, paroxysms of asthma. It may be described as a severe cold running on day after day, with no let-up, and often growing worse, for the longer it persists in the acute stage, the more sensitive the mucous membrane becomes.

Etiology: Hay fever, being seasonal, develops largely in the spring (rose-cold) and in the autumn (autumnal catarrh) and is said to be excited or evoked by inhaling the pollens of certain plants and grasses—ragweed, goldenrod, cedar, timothy grass, etc. The condition of hypersensitiveness to the toxalbumin of pollen is called anaphylaxis or allergy. Since, however, allergy does not cause itself this theory of cause does not go deep enough. It fails to account for the local hypersensitiveness to normal elements of man's natural environment.

Although it is true that dust, pollen, emanations from horses, cats, dogs, birds, etc., and even cold air, will drive hay-fever sufferers into intolerable suffering, this does not prove them to be causes of hay fever. Anything that

irritates a sensitive mucous membrane occasions a rush of blood to the point of irritation and the pouring out of an exudation to flush away the irritant.

Within recent years enterprising doctors have discovered that some hay fever subjects are allergic to their sweet-hearts and suffer an exacerbation (aggravation) of symptoms every time they visit their lovers. In a few instances the source of irritation was found in the lip-stick, rouge, and face powder, or even in the perfume, but in other instances emanations from the lover's hair were blamed.

The mistake has been made of considering normal elements in man's environment—pollen, and emanations from animals—as causes of hay fever; whereas, the true cause, the basic cause, is the cause of the sensitization of membranes which normally are not sensitive to pollens, etc.

Hay fever is simply a peculiar type of chronic catarrh, which only a small percentage of catarrhal subjects develop. Two people have catarrh to the same extent; one develops hay fever, the other does not. The sensitive individual is neurotic, the other is not. Hay fever is chronic catarrh in a neurotic subject.

Only neurotic individuals—those subject to nervous diseases —will develop the individualizing sensitization that distinguishes hay fever from ordinary catarrh. The non-neurotic sufferer from catarrh will be influenced little or none by the inhalation of dust, pollen, smoke, pungent odors, or cold air. "Hot dogs" are the only dogs of which I know that may help to cause hay fever.

Hay fever rests on a basis of enervation and toxemia. The hay fever sufferer is made highly toxic by his enervating habits which inhibit full elimination of normal body waste. The subject builds his disease daily by keeping his stomach deranged with his meats, potatoes, breads, pies, cakes, pastries, butter, breakfast foods, and even with his luscious fruits covered with cream and sugar. These things over-stimulate him and produce a toxic state of his blood which further adds to his enervation and produces nervousness and sensitiveness as well as catarrh.

Prognosis: Complete recovery may be expected in six weeks or less in the vast majority of cases. A few cases persist longer than this time.

Care of the Patient: Running away from the external sources of irritation is merely a palliative measure. Going to dustless, pollenless, ragweedless, catless, horseless, chickenless, gooseless, sweatheartless and senseless

resorts does not correct the underlying constitutional perversion—toxemia and its resulting catarrh. Hoping for the hurried coming of the old charlatan, practicing without a license, Jack Frost, to put an end to pollens, wastes a lot of valuable time and causes the sufferer to endure a lot of misery. Searing the nose, wearing air-filters, staying all summer long in air-conditioned rooms, going on sea voyages, etc., do not remove cause. Most of these palliatives are for the well-to-do only.

A fast for the removal of toxemia will end the catarrh in a very short time and remove all sensitiveness to pollen, dust, sweetheart, etc. Rest for the nervous system and a healthful mode of living will build up a high degree of health and prevent all future recurrence of hay fever. Following the elimination of toxemia, restoration of normal nerve energy and correction of the mode of living, the evolution into good health is sure and rapid.

Rhinitis

Definition: This is inflammation of the nasal mucous membrane. Acute rhinitis is known as coryza, or colds; chronic rhinitis is known as chronic nasal catarrh. Catarrh is inflammation of a mucous membrane with hypersecretion of mucus.

Symptoms: Three varieties are classified as follow:

Simple Chronic Rhinitis: There are a mucoid or mucopurulent discharge from the nose, nasal obstruction from swelling or thickening of the mucosa or from inspissated secretion, mouth breathing, a nasal intonation of the voice and impairment of the sense of smell. The membrane of the nose is congested, swollen and highly irritable.

Hypertrophic Rhinitis: There is usually a secretion of thick mucus, the mucous membrane is red and the cavities are more or Less occluded from thickening (overgrowth) of the tissues covering the turbinated bones and the lymph-adenoid tissue in the nasopharynx is hypertrophied—adenoids. In advanced cases exostoses (bony growths) from the bones of the nose are seen.

Atrophic Rhinitis (ozena): This form is seen most often in young adults and more often in females than in males. The lining membrane of the nose is pale, dry and glazed. Adherent scabs are usually present. The nasal chambers are large, the secretion is very abundant, thick, and of a yellowish or

greenish color. An extremely offensive odor, probably due to decomposition of retained secretions, is characteristic of this stage. Necrosis of the bones of the nose and sinking of the bones of the nose are seen in advanced cases.

Complications: Symptoms of catarrh of the neighboring chambers are commonly present. Dryness of the throat and hawking from pharyngitis, deafness from catarrh of the middle ear, watering of the eyes from catarrhal occlusion of the tear ducts, and dull frontal headache from sinusitis, are the most common of these symptoms.

Polyps (polypus): This is a smooth growth from a mucous surface, result of a local inflammatory hyperplasia (overgrowth), and is supported by a stem.

Etiology: Catarrh of the nose is one of the earliest manifestations of mucous membrane irritation; beginning in infancy with continuous and progressive changes in. the mucous membrane, it usually lasts throughout life. Enervation and excessive food intake are basic causes. Toxemia and indigestion are always precedent. Catarrh or fermentation in the stomach is always present though there are no digestive symptoms. Excesses of starch, sugars, fats and milk are especially likely to build catarrh. Men have more catarrh than women because they eat more, wear more clothing and dissipate more. Men enervate themselves more and have more toxemia.

Prognosis: Complete recovery in all forms may be expected upon removal of the cause. Polyps are readily absorbed by fasting and do not recur if the causes of catarrh are avoided.

Care of the Patient: This should be obvious. Stop all enervating practices, secure sufficient rest for nervous recuperation, fast long enough to eliminate toxemia and restore normal secretions and follow a healthful mode of living thereafter. Only by rigid adherence to this program can complete recovery be achieved. Only by right living can recurrence be prevented. Polyps will be absorbed during the fast and, if future catarrh is avoided, will not recur. The thickened membranes of the nasal passages will return to their normal thickness and the obstruction to breathing these cause will end. In atrophic rhinitis not all the wasted structures can be rebuilt.

Sinusitis

Definition: This is an acute or chronic catarrhal inflammation of the mucous membranes lining the nasal sinuses. The sinuses, or accessory air chambers, are the hollow interiors of the bones of the face. In the lower forehead just above the roof of the nose, are located the frontal sinuses, along the roof of the nostrils are the ethmoid sinuses; opening at the rear are the sphenoid sinuses; while the antrums open on the sides. All of these sinuses, together with the nose, form a series of communicating air chambers and are all lined with mucous membrane. The membranes of the sinuses are continuous with the Schneiderian membrane of the nose.

Symptoms: In sinusitis there is the same formation of mucus, the same thickening of the lining of the membrane, and the same formation of polyps, that are seen in chronic catarrh of the nose. If the catarrh is in the frontal sinuses there will be a continuous discharge from the nose; if in the sphenoid sinus the mucus trickles down into the throat. In all cases the condition is very annoying, often painful and, as now cared for, apparently hopeless. The sinuses do not drain as well as the nose, so that the mucus tends to remain longer in them and to decompose. Sometimes they actually become obstructed so that all drainage is stopped. Pains, headaches, and other annoying symptoms, result.

Etiology: Sinusitis develops only after frequent toxic crisis, in the form of colds, have developed and the catarrhal condition has spread into more and more of the body's mucous surfaces. It rests on a basis of enervation and toxemia and gastro-intestinal catarrh. Acute sinusitis is often seen in colds as a part of the cold; chronic sinusitis is often associated with chronic catarrh of the nose and throat and is merely part of the same condition. It frequently accompanies hay fever and asthma, sometimes developing in advance of these troubles, sometimes developing subsequent to their appearance, but in all cases being merely part of the catarrhal condition present in the eyes, nose, throat and deeper respiratory structures.

It is nothing uncommon to find patients who suffer with sinus troubles to also have gastritis, or colitis, or metritis, or cystitis. Indeed sinusitis almost never exists alone; there is almost certain to be catarrhal conditions elsewhere. By this we do not intend to convey the impression that the sinusitis causes the colitis or the metritis, or vice versa; but, rather, that all of these local conditions are but successive and concomitant developments out

of a common or systemic condition. They are all caused by the same thing—they do not cause each other.

Prognosis: Recovery is possible in all cases if causes are removed. Rapid recovery is the rule under Hygienic care.

Care of the Patient: Sinus troubles are better or worse as the general condition improves or retrogresses and as living habits vary, but they are never recovered from until their causes are removed or corrected.

Experience and skill are required to ferret out and correct or remove all, of the remote causes for these are legion. To correct a few causes and leave the others in operation will not suffice to remedy the condition. The removal of the immediate cause is accomplished by a cleansing and recuperating plan that only an experienced Hygienist can fit to the needs of each case.

The amount of mucus that accumulates in severe cases is great. A highly congested antrum may give the appearance in the X-ray of pus accumulation and the shadow will be interpreted as an abscess. A few days without food will result in ideal recovery in such cases, whereas cutting into the antrum will produce suppuration of the antrum.

Fasting, rest, sunbathing, diet, etc., should be employed as in any other catarrhal affection. The fast should last until the catarrh of the nose and sinuses is cleared up, unless otherwise contraindicated. Starches, sugar, milk and fats are not well tolerated in catarrhal conditions and should be fed sparingly after the fast.

Affections Of The Larynx

Cancer Of The Larynx
Acute Edematous Laryngitis
Catarrhal Laryngitis
Laryngismus Stidulus
Spasmodic Laryngitis (Croup)
"Syphilitic" Laryngitis
Tubercular Laryngitis

Cancer Of The Larynx

Cancer of the larynx is incurable. See cancer.

Acute Edematous Laryngitis

Definition: Edema of the glottis with inflammation—a rare but serious affection.

Symptoms: Difficult breathing which gradually increases in intensity, strikes fear into the patient and this increases the trouble.

Etiology: It is seen in scarlet fever, diphtheria and typhoid fever that is complicated by kidney impairment and albumen in the urine. It is, therefore, another, outgrowth of toxemia.

Prognosis: There is always danger of death from suffocation until the edema has begun to recede. Proper care should save practically all cases.

Care of the Patient: It is essential to stop all food at once, if this has not already been done. If the edema becomes great enough that suffocation is threatened, ice should be applied to the throat. If this fails, tracheotomy or intubation will be necessary to save life.

Catarrhal Laryngitis

Definition: This is inflammation of the larynx and may be either acute or chronic.

Symptoms: Acute. This may develop with or following a cold; the first manifestation is usually a tickling sensation in the larynx followed by coughing. If the irritation and inflammation are severe there may be loss of voice. The patient will talk in a whisper or in a husky voice. Pain in the throat is increased by speaking coughing, or swallowing. There is slight fever and in children there may be paroxysms of croupy cough and dyspnea which result from spasms of the vocal chords. Expectoration is at first scanty and later mucopurulent. Where there is much edema dyspnea becomes pronounced.

Chronic: Moderate hoarseness, loss of voice after continued speaking, slight cough, and scanty expectoration of grayish mucus tinged with dust or other impurities are the chief symptoms.

Etiology: This is an acute catarrh, a cold, and has the same causes as a cold or other acute catarrh. Over use of the voice in speaking or singing

may help to produce it. It sometimes results from accidental poisoning, and from foreign bodies lodged in the air passages.

Chronic laryngitis may follow repeated acute crises, or may develop gradually from smoking, Indigestion, overuse of the voice, or inhalation of dust and vapors.

Prognosis: This is good in both acute and chronic cases. The acute form lasts four to ten days; the chronic form requires much longer to recover.

Care of the Patient: See Coryza and Bronchitis.

Laryngismus Stidulus

Definition: This is a sudden laryngeal spasm with crowing inspiration (hence, the term "crowing disease") seen in children.

Symptoms: The paroxysms resemble those of spasmodic croup, but are accompanied by a peculiar crowing inspiration, and a lack of catarrhal symptoms, such as hoarseness and cough. It is a spasmodic affection of the windpipe (trachea) which closes the glottis and threatens suffocation. The paroxysms occur at irregular intervals and last but a few seconds, though they may recur frequently. During these periods the patient struggles for breath and seems to be actually suffocating or strangling. In a few cases the struggling terminates in general convulsion. If crying or coughing occurs the paroxysm is ended.

Etiology: This is a pure neurosis and is often associated with rickets. The paroxysms are brought on by emotions, indigestion, or other irritating and exciting influences. Acid gases eructating from fermenting food in the stomach give rise to much laryngeal irritation.

Prognosis: Fatal cases are rare. Recovery may be expected in till cases that are properly cared for.

Care of the Patient: Rest, quiet and warmth are all that are required during the paroxysm. The real care of these children is to correct their diet and general hygiene and get rid of the rickets. (see rickets). The stomach needs attention, the food needs to be changed as to quantity, kind and combinations. The emotional life of the child should be adjusted.

Spasmodic Laryngitis (Croup)

Definition: This is a spasm of the vocal chords excited by catarrh. If the larynx and swelling of its mucous lining. It is a common malady of early childhood.

Formerly croup was divided into membranous and non-membranous or simple croup. Dr. Trall thought the two croups differed only in degree and said "in the former case the exudation which forms on the mucous lining of the wind pipe (trachea) concretes into a membranous covering, and in the latter case, the excreted matter is expectorated without consolidation."

The differences in the behavior of the two exudates show a big difference in their characters, and point to differences in their causes. Simple croup is of a catarrhal nature and results from carbohydrate plethora; membranous croup is of a serous nature and is the result of protein poisoning.

Symptoms: Croup is a very alarming condition, but not serious. To be awakened about midnight from a sound sleep and find your child, whom you had put to bed apparently in the best of health, struggling for its breath, with shrill wheezy Inspirations, perhaps blue in the face, and coughing almost constantly, is enough to frighten any parent. It does not matter how frequently one sees croup, it never falls to produce a feeling of apprehension and terror. However, the, condition soon passes off, the child goes to sleep, and by morning seems as well as ever, giving one the impression that the whole experience was a, horrible nightmare.

Usually there is a little hoarseness and cough during the day, then, at night the child is awakened by a severe paroxysm of suffocative cough. The paroxysm usually comes on about midnight and manifests itself by a sharp, dry, hoarse, barking cough which is associated with evidences of dyspnea—anxious face, dilated nostrils, etc. In severe cases it is difficult for the child to breathe, the child making an apparently superhuman struggle for breath. During the paroxysm the skin is hot and the pulse is tense and rapid.

Etiology: Croup is seen largely in winter. Scrofulous and plethoric children are most subject to it. The fattest children are the ones who have the croup most. Many children have it every winter. But it is not due to cold, or exposure, or to wet feet and similar bugaboos. Croup is always the result of wrong feeding and bad hygiene. Children who are prone to have croup frequently are overfed on bread, potatoes, beans, cereals, sugar, syrup, jellies, jams, cakes, pies, candies, milk, greasy mixtures, fried foods, etc., and are housed in poorly ventilated homes. An overloaded stomach almost

always precedes a paroxysm or croup. Breathing the hot, dry air from stove or furnace, tends to produce the condition. Many cases would never occur if the bed rooms were properly ventilated and stoves kept out of them.

Prognosis: This is always good.

Care of the Patient: There is no care which can do any good during a paroxysm except that of giving the child fresh air. Rot baths or hot cloths applied to the chest are the least harmful of the palliative measures in use, but even these are not necessary and are not curative.

The paroxysms last but a few minutes and the real treatment should consist in a reordering of the living habits and the surroundings of the child so that there will be no subsequent paroxysms. Recurring affections are to be "treated" during the intervals rather than during the recurrences.

All food should be stopped at once and nothing but water given for three full days. This is especially important since an occasional case of croup, which turns out to be the early stage of a fatal diphtheria, may be prevented from reaching a fatal stage by withholding food at once.

When the diet is changed and the home ventilated, croup ceases not to recur again. Children should not be permitted to, overload their stomachs at night, nor at any other time, for that matter. If there is a stove in the room a pan of water should be placed on it to keep the air in the room moist.

Membranous croup. (Croupous laryngitis; true croup; pseudomembranous laryngitis). See Laryngeal Diphtheria.

"Syphilitic" Laryngitis

Chronic laryngitis said to be due to "syphilitic infection" presents the usual symptoms of chronic laryngitis plus, perhaps, mucous patches in the mouth, more or less skin eruptions, and, perhaps a laryngeal ulcer. If the reader can abandon his fear of "syphilis" this condition should be cared for as for any other chronic catarrhal condition. Weger says "in the case of syphilitic laryngitis complete cures have been obtained without specific remedies."

Tubercular Laryngitis

In this condition there are the usual symptoms of chronic laryngitis plus the constitutional symptoms of tuberculosis. It sometimes develops without there being tuberculosis in the other organs of the body, but most frequently it is an extension of pulmonary tuberculosis. The patient should be cared for as described under tuberculosis.

Affections Of The Bronchial Tubes

Bronchial Asthma
Bronchiectasis
Bronchitis
Coughing

Bronchial Asthma

Definition: This is defined as an expiratory dyspnea that appears paroxysmally or intermittently, with wheezing, cough and a sense of constriction, due to spasmodic contractions of the bronchi and a swelling of the bronchial mucous membrane.

Symptoms: Asthma is preceded by chronic bronchitis and often by hay fever and sinus affections. The paroxysms may be preceded by such premonitory symptoms as oppression of the chest, mental depression, dyspeptic or other symptoms, or may come on suddenly, usually at night. The patient is unable to lie down, but is forced to sit up, often before an open window. The dyspnea becomes intense, the face is pale, the expression anxious, there is a great feeling of oppression in the chest and often a dread of suffocation. Though labored, respiration is not usually frequent, due to prolonged expiration. In severe or prolonged paroxysms there is blueness, sweating, cold extremities, small and frequent pulse and drowsiness. Paroxysms last from a few minutes to many hours and may pass off suddenly, perhaps to recur soon or on several successive nights, with slight cough and difficult breathing in the intervals; At first the cough is nearly dry and the sputum very tenacious. At the beginning the paroxysms may last only a few days, and recur at intervals of a few weeks or months, but as the condition grows chronic, the asthma becomes continuous.

Complications: Sinusitis, hay fever, bronchitis and emphysema are common complications. Emphysema develops only in protracted cases.

Etiology: The asthmatic crisis is a toxic storm, which occurs when the machinery of elimination is no longer equal to the load put upon it. From acute asthma the case is hurried to the chronic state. Then emphysema, bronchectasis and tuberculosis are logically expected to follow.

Asthma always means a catarrhal condition. But not all who have catarrh develop asthma. Only those with neurotic tendencies will have asthma. The non-neurotic may develop a severe chronic catarrh and never have asthma.

There should be no difficulty in understanding the condition. The asthmatic is an asthmatic long before the broncho-spasm puts a label on him and if once we grasp the, fact that in every case of asthma there is a preceding history of disobedience of the laws of life, we are in line for rational care and ultimate complete recovery.

By uncontrolled impulses or emotions, business and domestic worries and other worries, lack of poise and self-control, sexual drain, overeating, improper eating, lack of sleep, sleeping without ventilation, overstimulation, etc., a state of enervation is built which checks secretions and excretions, and builds toxemia. Enervation plus wrong eating—too much food, wrong combinations of food, etc.—favor gastro-intestinal decomposition and this adds the enervating influence of auto-intoxication to the prior weakening habits.

Asthma is brought on in the first place from excessive table indulgence, plus many other nerve leaks. The enervating effects of over-feeding and physicking may produce asthma in children. The abominable habit of physicking children during infancy and early childhood is responsible for many other conditions besides asthma.

Most medical writers of the present ascribe bronchial asthma to "protein hypersensitiveness." These writers do not pretend to know the cause of hypersensitiveness, or allergy, as it is called. Asthmatics are roughly divided into two classes:

- (1) Those sensitive to ingested substances—oysters, meat, eggs, etc.
- (2) Those sensitive to air-carried irritants—pollens, emanations from horses, cats, dogs, feathers, dust, etc.

Those sensitive to air-carried allergens rarely absorb a quantity sufficient to give rise to general symptoms; whereas, in sensitization (allergy) to food,

symptoms of general reaction are common. In some, the general sensitiveness to food causes a chronic irritation of all the organs of the body, but that organ or part of the body which is the weakest link in the chain will be the one to develop "disease" first. If the tendency is to asthma, then the chronic irritation produced by allergens will evolve asthmatic symptoms if and when the poison so produced is sufficient to cause reaction.

Protein hypersensitiveness (allergy) is merely another name for protein poisoning, or what amounts to the same thing, protein stuffing, in those of a neurotic diathesis.

Asthma rests on a basis of toxemia and catarrh, and the dog, cat, horse, feather pillow, pollen, etc., have nothing to do with its causation. "Hot dogs" are the only "dogs" we know of that have anything to do with producing asthma.

The immediate cause of the bronchial spasm is an irritation of he nerveendings of the vagus nerve which supplies the bronchi. In some cases even water taken into the stomach will so irritate the vagus nerve in the stomach that a direct reflex irritation of the vagus nerve in the lungs induces an asthmatic paroxysm. In the same way, drugs, some foods, gas and indigestion occasion reflex irritation of the nerve-endings in the bronchi and bring on a paroxysm of asthma. Breathing cold air, dust, pollens, gases, foul odors, and other such things, produces a direct irritation of the nerve-endings in the lungs and brings on the paroxysm.

If water, irritating foods, drugs, indigestion, cold air, dust, pollens, foul odors, gases, etc., were primary and direct causes of asthma, nobody would be free of this condition. The real, the basic, cause of asthma is that which sensitizes the nerves and the bronchial membranes. Asthma rests on a basis of toxemia and gastro-intestinal catarrh. If asthmatics were not enervated and if their bodies were not filled with toxins to the saturation point, they would not be hyper-sensitive to proteins and other substances.

In asthma there is an abnormally sensitive perpheral organ —the ethmoid area of the nose—and this is often operated upon or seared. This abnormal sensitivity should be regarded as an effect of the chronic overload of toxemia and not as a cause of asthma. Crippling the nose does not cure asthma.

Dr. Oswald says: "Any waste of vital power may bring on a fit of spasmodic asthma, and the aggravating effect of incontinence is so prompt and so unmistakable that experience generally suffices to correct a penchant

to error in that respect. Like gout, asthma is a moral censor, but its reproofs do not so often come too late."

Prognosis: ALL cases of bronchial asthma are remediable. Five to six weeks are sufficient time for complete recovery in the average case. More time is required in a small percentage of cases.

Care of the Patient: Eliminate toxemia, restore nerve energy and correct the mode of living. The fast should last until all abnormal breath sounds have disappeared from the lung; preferably, it should last until the tongue is clean. Two to four days of fasting is usually enough in even the most severe and long-standing cases to bring sufficient relief to allow the patient to lie down and rest and sleep.

When the underlying toxic condition is eliminated, all forms of sensitization disappear. When the asthmatic gets rid of toxemia he does not have to worry about sensitization. He automatically gets rid of this when he gets rid of the true cause—toxemia. It is, perhaps, true that all asthmatics will retain to some extent their sensitiveness to certain foods, chemicals, heat, cold, etc., as they originally had that tendency or diathesis when they were born, but by following a few simple rules of right living they may always avoid a recurrence of asthma.

It was pointed out above that the immediate cause of the bronchial spasm called asthma is an irritation, direct or reflex, of the nerve-endings of the vagus nerve which supplies the bronchi. A hyper-tonicity or vagotonic condition is induced by the irritating effect of the poisons of toxemia upon the vagus nerves and in this way the bronchi are thrown into a spasm. The asthmatic sufferer is in a chronic state of delicate balance between absorption and elimination. Anything that helps to throw the balance in favor of elimination helps to relieve him; anything that throws it the other way increases his distress. This is the reason it is so necessary to avoid all those practices that enervate and intoxicate the whole organism. Allowing the feet to become cold is often enough to bring on a paroxysm of asthma, and a paroxysm is often relieved merely by warming the feet. In asthma, tonsilitis, bronchitis, and tuberculosis it is necessary to "temper the wind to the shorn lamb."

Few asthmatics have much idea of their limitations in eating, working, enjoying, etc., and, as a consequence of their over-indulgence, are constantly

adding to their trouble. If they are to get well and remain well, they must learn self-control.

In consequence of the contraction of the finer bronchial tubes and the aircells of the lungs, air cannot be got into the lungs, and the entire volume of blood cannot be sufficiently oxygenated and purified The difficulty in breathing prevents rest and sleep, often making it impossible for the sufferer to recline. The palliative treatment commonly employed adds greatly to enervation and thus to toxemia. The original causes are not corrected. Under such conditions, how can recovery be hoped for?

Bronchiectasis

Definition: This is dilatation of the bronchi.

Symptoms: Paroxysmal cough, dyspnea and copious expectoration are its chief symptoms. The expectoration is characteristic—a large amount of extremely fetid mucopurulent sputum is expelled from time to time, especially in the morning or on a sudden change of position. On standing the sputum separates into three layers:—an under layer of decomposed pus; a middle layer of turbid mucus; a top layer of discolored froth.

Sequa1ae: Abscess or gangrene of the lung, abscesses of the brain and in various locations especially in the body, and amyloid "disease" of the viscera, are common sequels.

Etiology: This is secondary to other pathologies. It follows chronic bronchitis most frequently, due to the weakening of the walls of the bronchi by the prolonged inflammation and the increased pressure from the violent coughing. In children it sometimes follows bronchopneumonia. It is seen in other cases as a sequel of interstitial pneumonia, tuberculosis, chronic dry pleurisy, and in bronchial obstruction by a foreign body, aneurysm, tumor, etc. The intelligent reader will readily see that it is only another link in a pathological chain resting on toxemia.

Prognosis: Perhaps complete recovery is not possible. However, great improvement is possible when toxemia and the primary pathology are removed and a health building regimen is followed.

Care of the Patient: See Chronic Bronchitis and Chronic Pneumonia.

Bronchitis

Definition: This is inflammation of the mucous membrane lining the bronchial tube—the lung tissue itself is not involved. Bronchitis may be either acute or chronic or fibrinous.

Symptoms: Acute. Acute bronchitis (a cold on the chest) presents, as its chief symptoms, rapid breathing, a sharp, dry cough and fever. The temperature runs about 101 to 102 F. In infants breathing may be so rapid and difficult that they become cyanotic (blue); in older children the rapid breathing is not likely to distress them, although there is apt to be a sense of constriction, about the chest, with soreness under the breast bone and pain when coughing. There is chilliness and general malaise. The cough is at first dry and painful but is later accompanied by more or less abundant mucopurulent expectoration.

Chronic: Chronic bronchitis is the result of chronic provocation and the suppression of acute bronchitis. The symptoms differ from those of acute bronchitis but little. Fever is usually absent, there is persistent cough, and often difficult breathing on exertion, due to the emphysema that often complicates this condition. Chronic bronchitis presents the following forms:

- "1. Mucus catarrh, or winter cough, with moderate expectoration.
- "2. Bronchorrhea, common in the elderly, with profuse expectoration.
- "3. Dry catarrh, harsh cough and rawness with scanty expectoration.
- "4. Fetid bronchitis with decomposition of the secretions."

This all represents merely various conditions of catarrh and for practical purposes, these distinctions are useless.

Fibrinous: This is a very rare affection and is characterized by the expectoration of fibrinous casts of certain portions of the bronchial tree. Acute and chronic forms are recognized. The acute form is rare and resembles a severe acute bronchitis, as described above, with time addition of marked dyspnea and fibrinous casts in the sputum. The chronic form is characterized by severe cough, paroxysms of dyspnea, and the expectoration of fibrinous plugs.

Etiology: Bronchitis is an extension of catarrhal inflammation beginning in the nose or upper part of the throat and extending into the large bronchial tube. It is not caused by cold, damp climate, exposure, changeable weather,

etc., but by toxemia. Behind every catarrh is a toxic state. Toxemia is produced by anything and everything that enervates the body. These influences merely add their enervating influence to an already overburdened organism. Dust, irritating gases, or vapors contacted in certain occupations help to produce the condition. Too much starch, sugar, cream, butter, and milk are frequent causes. It often develops as part of the general crisis seen in measles, whooping cough, typhoid fever, etc.

Chronic bronchitis frequently follows repeated acute bronchial crises, or it may develop gradually in association with cardiac, pulmonary, or renal pathologies, gout, or general catarrh. It is a chronic excretory process made necessary by chronic toxemia.

Prognosis: This is good. In all save old and very debilitated individuals complete recovery may be expected in all three forms of bronchitis. If deep-seated it may persist for weeks and months causing much distress, annoyance and disability.

Sequelae: Emphysema, bronchiectasis and dilatation of the heart, especially of the right ventricle are frequent sequels and are due to toxemia.

Care of the Patient: In acute bronchitis warmth, rest, and fasting are all that are required. This care will allow the eliminative process to speedily consummate its work. Right living thereafter, will prevent a recurrence. Chronic bronchitis requires a longer fast, a prolonged rest, sun bathing and a restricted diet with exercise.

In young children rest and quiet are particularly important. Babies should not be disturbed. Looking at the child's tongue, counting its pulse, taking its temperature and similar disturbing ceremonials disturb rest and delay recovery.

Coughing

This is a symptom which may accompany any so-called "disease" of the respiratory tract. Simple coughs are built by feeding a cold. Pneumonia may be built by eating under such circumstances.

When a cough develops without lung symptoms; it means irritation of the stomach. An irritable state of the mucous membrane of the throat, due to a habitual acid state of the stomach brought on by indigestion, produces

coughing. Such a cough is made worse by exercise, hard play, forced breathing, smoking, and chewing tobacco, cold air and mouth breathing.

Such a cough will cease after the bowels have moved and food has been abstained from for twenty-four hours. If the cough persists after the bowels have moved and no food has been taken for two days, there may be pneumonia, or pleurisy, or tonsillar inflammation, or an elongation of the uvula, or some obscure trouble in the ear, nose, teeth, or base of the brain, or heart trouble.

Affections Of The Lungs

Abscess Of The Lungs
Congestion Of The Lungs
Chronic Interstitial Pneumonia
Gangrene Of The Lung
Hemoptysis
Pulmonary Apoplexy
Pulmonary Edema
Pulmonary Emphysema

Abscess Of The Lungs

Definition: An abscess is a localized collection of pus in a cavity formed by the disintegration of tissue.

Symptoms: Rigors, sweats, fever and pallor indicate suppuration. Coughing, difficult breathing and the expulsion of purulent, offensive sputa containing shreds of tissue indicate that the lungs are the locale of the suppuration.

Etiology: Lung abscess is sometimes, though rarely, a sequel of pneumonia. Abscess is frequent in tuberculosis. It may, result from the lodgement of foreign matter in the bronchi or from the extension of suppurative inflammation from the pleura or liver. Some cases are due to blood clots (emboli) and are of common occurrence in pyemia. Embolic abscesses are commonly multiple and are rarely recognized during life. Lung abscess is a terminal symptom in a long chain of pathology that rests upon toxemia.

Prognosis: Embolic abscesses are said to be always fatal. Many abscesses due to other causes recover.

Care of the Patient: Sometimes surgical drainage of the abscess is possible, but in most cases dependence upon good hygiene is the only recourse. The toxic load should be taken off the body by physical, physiological and mental rest. The patient with tuberculosis or liver abscess should be cared for as directed for these affections.

Congestion Of The Lungs

Definition: This is an excess of blood in the lungs. Three forms are described, as follow:

Active congestion: This results from an increased flow of blood to the lungs.

Symptoms: Difficult breathing, a short dry cough, followed by frothy, blood-streaked sputum, and a rapid, full pulse are the chief symptoms. If these are accompanied by chill and fever they indicate commencing pneumonia.

Etiology: It is present in all inflammations of the lungs. Mountain climbing and violent exercise are said to produce it. This must be so only in very toxemic subjects. Inhaling irritating substances, will produce it.

Passive Congestion: This results from obstruction of the flow of blood away from the lungs.

Symptoms: Coughing, dyspnea and the expectoration of blood-stained mucus containing pigmented epithelial cells are the characteristic symptoms.

Etiology: Pathology of the heart—especially weakness of the left ventricle from fatty degeneration or fibroid changes, and lesions of the mitral valve—is the chief cause of passive congestion of the lungs.

Hypostatic Congestion: This is congestion in dependent portions of the lungs occurring in great weakness that necessitates prolonged lying in one position.

Symptoms: These are frequently indefinite. There may be slight difficulty in breathing, slight cyanosis (blueness), cough, and, perhaps, blood-tinged sputum.

Etiology: It is seen in low forms of fever, in heart affections, in old people when confined to bed from any cause, and is likely to develop in any

patient whose suffering is such that he is forced to lie in one position. The blood tends to gravitate to that portion of the lung that is on the under side and acdumilate there.

Care of the Patient: Except in those cases of active congestion following inhalation of irritants, this seems never to be an "idiopathic disease," but is always secondary to pathology elsewhere. Care, therefore, depends upon removing the causes of the primary pathology. Weger says, "nothing will promote recovery so safely and speedily as the first treatment we apply to all cases—such physical, physiological and mental rest as will give the organism free play in correcting its internal disorders."

Chronic Interstitial Pneumonia

Definition: This is a chronic affection of the lungs characterized by an overgrowth of fibrous tissue—fibroid pneumonia. It is also known as cirrhosis of the lungs, pulmonary induration and chronic pneumonia.

Symptoms: The leading symptoms are difficult breathing on exertion and cough. The cough may be dry but is usually accompanied by more or less mucopurulent expectoration. Fever is rare and the patient may consider his general health good.

Etiology: This condition is due either to chronic irritation of the lungs from constant inhalation of irritating dusts, as stone-dust (chalicosis), coaldust (anthracosis), or metal-dust (siderosis); or the result of prolonged toxic irritation of the lung tissue, as in tuberculosis and chronic pleurisy. It is rarely a sequel to croupous pneumonia and bronchopneumonia.

Prognosis: Its course is chronic and it may persist for years. While it is regarded as incurable, this seems to be due to failure to remedy the primary pathology.

Care of the Patient: Where the condition is secondary to pleurisy or tuberculosis the patient must be cared for as described, under these affections. If due to irritating dust it is first necessary to get away from the dust. Fasting and good general hygiene will then accomplish all that can be achieved in the particular case.

Gangrene Of The Lung

This is always secondary to inflammation or necrosis of the lung tissue in such affections as pneumonia, tuberculosis, abscess, bronchitis, infarcts, pressure of morbid growths and is seen almost wholly in greatly weakened (enervated) patients. Putrefaction in the lung itself seems to be the immediate cause. It is a grave condition, but not necessarily hopeless.

Symptoms: Emaciation, irregular fever and persistent, cough are usually present. Spitting of blood is common. The expectoration is profuse and characteristic. It gives off a penetrating and offensive odor and when allowed to stand in a glass vessel separates into three layers:

- 1. a frothy top layer;
- 2. a translucent serous middle layer, through which hang strings of pus; and
- 3. a reddish-green purulent bottom layer. Altered blood may give it a prune-juice appearance.

Care of the Patient: Fasting and rest followed by a fruit, and vegetable diet and good general hygiene are essential. As this is an end point in a long pathological evolution the care of the patient should be that described under the various conditions that are antecedent to the development of gangrene.

Hemoptysis

Definition: This is expectoration of blood and is also known as bronchorrhagia and bronchopulmonary hemorrhage.

Symptoms: The characteristic symptom is the loss of blood. This may be preceded by cough, difficult breathing and tenderness under the sternum, but often there is no warning and the presence of a warm salty fluid in the mouth is the first indication that something is wrong. The blood is generally raised by coughing and is bright red and frothy. Rarely is the hemorrhage profuse unless it results from the ulceration of a large vessel in advanced tuberculosis or from the rupture of an aortic aneurism.

Etiology: Hemoptysis is a symptom and, while it may be due to violent coughing or unusual strain without any preceding pathology, it is in most instances due to rupture of a minute blood vessel in bronchial or pulmonary congestion, ulceration, purpura, hemophilia, tuberculosis, aneurism and traumatism.

Prognosis: It is rarely fatal except in advanced tuberculosis with a large cavity and in aneurism.

Care of the Patient: This is purely symptomatic during the emergency and must be constitutional thereafter. Complete rest and abstinence from hot drinks and all food during the emergency is imperative. Ice to the chest will help to stop the bleeding. Thereafter the patient should be cared for as advised under the above forms of pathology.

Pulmonary Apoplexy

Definition: This is a circumscribed area of necrosed lung tissue infiltrated with blood—hemorrhage infarct of the lung.

Symptoms: If the infarct is large, localized pain, difficult breathing, cough and the expectoration of dark non-aerated blood are the usual symptoms. Small infarcts may produce no signs.

Etiology: The most common cause is obstruction of a branch of the pulmonary artery by a blood clot (embolus) coming from the right heart or the general venous system. Sometimes it is due to the formation of a plug (thrombus) in the vessel at the point of obstruction. This latter is favored by heart weakness. Phlebitis and chronic pathology of the heart are responsible for most of these cases.

Care of the Patient: Nothing can be done for the local condition. Care for the heart trouble or phlebitis as directed under these affections.

Pulmonary Edema

Definition: This is an effusion of serous fluid into the air-vesicles and interstitial tissue of the lungs. It is a very rare condition and may be appropriately called dropsy of the lungs.

Symptoms: These come on suddenly with a feeling of oppression and pain in the chest, rapid breathing which soon becomes difficult and sometimes impossible in any save the upright position. There is blue-ness and an incessant short cough with a copious, frothy, sometimes blood-tinged expectoration, which may be expelled in a gush from the mouth and nose. The face is pale and covered with a cold sweat, the pulse is feeble and the heart action weak.

Etiology: This is almost always a terminal symptom in advanced pathology of the heart, arteries, liver, kidneys, and in many acute and chronic states. It is often part of the general dropsical condition seen in heart affections, Bright's "disease," and malnutritional edema. It is seen in passive congestion of the lungs, and in ether anesthesia and in surgical puncture or tapping of the chest wall. Localized areas of edema are noted around circumscribed lesions of the lungs in tuberculosis, pneumonia, infarct, etc. Edema of the lungs is an end-point in a long pathological evolution growing out of toxemia, enervation and wrong life.

Prognosis: Death may result in a few hours, or the crisis may last twelve to twenty-four hours and then pass off. If it is not too far advanced and the primary pathology can be remedied, recovery may occur.

Care of the Patient: Since pulmonary edema is a complication secondary to Bright's "disease," cardiac decompensation and malnutritional edema, permanent recovery depends upon recovery from these antecedent conditions. Temporary recovery from the edema is often possible, but recurrences are common unless the primary pathology is removed. A physician of Glasgow, Scotland, reported seventy-two recurrences of pulmonary edema in one patient in two and a half years.

Weger says: "We have had gratifying results in a few cases which were treated before the entire lung structure became engorged." No food should be given so long as there is any trace of the edema. Water should be sipped sparingly. All enervating influences surrounding the patient must be removed. It may be necessary to allow him to sit up in bed in order that he may breathe. The windows must be open and the patient must be kept warm.

Tilden recommends a hot bath in water as hot as can be borne, with cool water on the head and cold water to sip, the patient to be returned to the bath every three hours if necessary and remaining in the water as long as possible, until permanent relief is secured. This is a purely palliative procedure intended to relieve the lungs and cannot be given to One suffering with serious heart "disease." If repeated often it becomes very enervating to the strongest patient and should, therefore, be used only where relief is not obtained by fasting, rest and fresh air.

Pulmonary Emphysema

Definition: This is an abnormal distention of the lungs with air. Four varieties are described as follow:

- (l) interlobular emphysema, a rare form resulting from rupture of the airvesicles and escape of air into the interstitial tissue;
- (2) compensatory emphysema, a distention of one part of the lung to compensate for consolidation of another part.;
- (3) atrophic or senile emphysema, a relative increase in the capacity of the air-vesicles due to atrophy of the solid tissue;
- (4) hypertrophic or substantive emphysema, the most common form, due to enlargement of the lungs as a consequence of overdistention of the airvesicles.

The last three forms together constitute a subdivision known as vesicular emphysema.

Symptoms: Although occasionally, emphysema is seen in the young, it is usually found in middle life. At first difficulty in breathing is experienced only upon exertion but as age advances this becomes more or less persistent. There is a disposition to bronchial crises with cough and expectoration upon slight exposure. Cyanosis (blueness) is present and may be extreme during acute bronchitis. Edema of the feet may result from impairment of the heart in advanced cases.

Complications: Bronchitis, asthma, dilatation of the right ventricle of the heart, and, later, tricuspid regurgitation and dropsy are the most important complications of emphysema.

Etiology: Emphysema is supposed to occur only in those who have at congenital predisposition—a weakness of the lung structure, probably a defective development of elastic tissue, The exciting cause may be long continued, forcible inspiration, or mechanical distention as in musicians using wind instruments. Typical cases are often found among professional singers and a few cases have been due to warranted violence in taking deep breathing exercises. Tubercular individuals may bring on the condition by forcible inspiration. Compensatory emphysema develops as a compensation for consolidation as in delayed resolution following lobar pneumonia. Emphysema may develop in asthma and in persistent heavy coughing.

Prognosis: Weger says: "It is extremely doubtful if any case ever makes a complete recovery since the trouble is usually well advanced before it is

recognized. As in many other insidious conditions reforms are often instituted too late."

Care of the Patient: Weger says: "The few cases treated by our methods have improved, and varying degrees of comfort are possible without recourse to any form of palliation. The favorable results in these cases were very likely due to the subsistence of catarrhal secretions rather than to restoration of air-cell tone."

Rest of the lungs and the elimination of toxemia will accomplish all that can be hoped for in this condition.

Affections Of The Pleura

Empyemia (Purulent Pleurisy)
Hemothorax
Hydrothorax
Pleurisy (Pleuritis)

Empyemia (Purulent Pleurisy)

Definition: This is pus in the pleural sac.

Symptoms: Empyemia presents the same symptoms as acute pleurisy, the fever rarely running higher than 102 F. The fever declines, but after a week or two the patient fails to show the expected improvement. Rarely does the patient complain of oppressed breathing until a great quantity of pus has accumulated. There is much oppression, chills, fever, and other indications of pus poisoning. Some cases carry pus a year or two before it is discovered. In such cases the patient will cough up pus.

Etiology: Empyemia may result from acute or chronic pleurisy in those of low vitality; but most cases of empyemia are septic from the beginning. Medical authors say empyemia follows "infectious diseases," particularly scarlet fever. It is the Hygienic view that putrefaction of food in the intestine, with consequent putrescent absorption, is the source of the necessary infection. All so-called septic and infectious "diseases," we hold, are made possible by a decided septic infection of the blood through absorption of putrefaction in the bowels.

Prognosis: This is guardedly favorable.

Care of the Patient: Aside from proper general care, fasting, proper feeding, rest, bathing, etc., in keeping with the patient's general condition thorough drainage is essential. The pus must be removed. This is a surgical procedure—that of aspiration—and should be done by a competent man.

Hemothorax

Definition: This is blood in the pleural cavity.

Symptoms: These are the same as those for hydrothorax.

Etiology: Most cases are due to wounds of the chest-wail, fracture of the ribs, or the rupture of an aneurism. A hemorrhagic pleurisy often develops in cancerous and tuberculous pleurisy and in simple pleurisy in profoundly anemic subjects.

Prognosis: This depends on cause.

Care of the Patient: The exudate should be aspirated. Other care should be that described elsewhere for whatever affection the patient suffers with.

Hydrothorax

Definition: This is dropsy of the pleura. The condition is usually bilateral, though it may be unilateral.

Symptoms: Difficult breathing, blueness, and the physical signs (to be detected by the examining doctor) of a pleural effusion, are the symptoms.

Etiology: Hydrothorax is secondary to general dropsy accompanying Bright's "disease," heart affections, extreme malnutritional states, and anemia; or it may result from emphysema or pressure upon the azygous or pulmonary veins by a tumor, aneurism, or a dilated right auricle. In heart affections the effusion is usually unilateral and on the right side; or if bilateral it is more marked on the right side.

Prognosis: This depends on recovery from the primary pathology.

Care of the Patient: The fluid should be aspirated and the patient cared for as directed elsewhere for whatever affection of the heart, liver, etc., he has.

Pleurisy (Pleuritis)

Definition: Inflammation of the pleura, or investing membrane of the lungs. Pleurisy is divided into primary and secondary; according to extent into unilateral, bilateral, and localized; according to duration into acute, subacute and chronic; according to the exudation into serofibrinous, fibrinous or purulent. These distinctions are unimportant and we shall deal with pleurisy only under the headings of acute and chronic.

Affections Of The Respiratory System

Pneumothorax

Symptoms: Acute. Pleurisy begins with a chill, bone-ache, a sharp pain that nags the patient in the side, making it painful to cough, a dry cough, painful breathing and a rise in temperature. Pulse is rapid and there is a little expectoration that is sometimes frothy and colored. This expectoration indicates lung involvement—pleuro-pneumonia.

Sometimes the pleurisy runs an "insidious form" and ends in abscess. In these cases there is a decline in the first symptoms, but the patient will come to a standstill and remain about the same for a week or two weeks. The symptoms will not be severe, but slight fever will persist. Examination will reveal the presence of a pleuritic abscess.

Chronic. The symptoms of chronic pleurisy are practically the same as those of acute pleurisy except that they are of less intensity and longer duration. The pain is sometimes referred downward to the abdomen or upward to the shoulder.

Etiology: So-called idiopathic pleurisy, that is, pleurisy that is not secondary to some other affection, follows exposure and sudden changes in temperature, but only iii the toxemic. Secondary pleurisy develops as a complication of pneumonia, rheumatism, scarlet fever, tuberculosis, typhoid fever, puerperal fever, etc. Chronic pleurisy may follow one or more acute pleuritic crises, due to unabsorbed exudate, adhesions or a tubercular state.

Prognosis: This is good in all cases except that existing in advanced tubercular states.

Care of the Patient: This depends upon cause. As a rule the exudate is absorbed within a few weeks. Fasting hastens its absorption. In occasional cases, aspiration is necessary. Recovery can be achieved only by correcting

enervating habits, eliminating toxemia, amid ordering the mode of living in conformity with the laws of life. Those with tubercular symptoms must avoid strenuous or exacting activities and learn to live to keep their energies high and their toxins low. Pleurisy that is secondary to other affections requires no care different from that employed for pneumonia, scarlet fever, etc.

Pneumothorax

Definition: This is air or gas in the pleural cavity.

Symptoms: These come on suddenly with localized pain, urgent dyspnea, cough, fall in temperature, feeble pulse, and even a condition of collapse. If the air is confined by adhesions or effusion there may be no special symptoms.

Etiology: Pneumothorax results from perforation of the lung by a tubercular ulcer, lung abscess, lung gangrene, emphysema, or a penetrating wound of the chest. About 90% of cases result from tubercular abscess. The present method of collapsing the lungs in T. B., by artificial pneumothorax cannot be too strongly condemned.

Prognosis: Regardless of cause, these cases are always serious. Death may result in twenty-four hours or in a few days to a few weeks. Tubercular cases rarely recover. Cases due to trauma or to emphysema are more favorable.

Care of the Patient: Removal of the primary pathology is the prime need. Aspiration may remove the air. Dr. Tilden says: "It would be well to put a tube into the pleura and keep it there as long as necessary."

Affections of the Heart and Circulatory System

Affections of the Heart
Functional Defects Of The Heart
Affections Of The Arteries
Affections Of The Veins
Affections Of The Lymphatic System

Affections of the Heart

Athletic Heart

Acute Myocarditis

Aneurism Of The Heart

Angina Pectoris (Stenocardia)

Bradycardia

Calcified Pericardium

<u>Cardiac Hypertropry</u>

Cardiac Syphilis

Chronic Valvular Affections

Chronic Interstitial Myocarditis

Dilatation Of The Heart

Endocarditis (Valvulitis)

Fatty Heart

Hemopericardium

Hydropericardium

Pericarditis

Pneumopericardium

Rupture Of The Heart

The heart is a living, pressure- and suction-pump made up of muscle (myocardium) so arranged as to form a hollow conical-shaped organ, which is divided into right and left divisions, each of these divisions being subdivided into an auricle and a ventricle, with openings provided with valves to keep the blood flowing in the right directions. The heart is lined

with serous membrane (endocardium) and invested with a serous membrane (pericardium). Its structures are supplied with blood, not directly by absorption from its chambers, but by arteries that branch off from the aorta. Blood is carried from the heart throughout the body by arteries and is brought from all parts of the body back to the heart by veins. It may be affected in any one of several ways in any of its parts; hence, is subject to many "diseases."

From the beginning of an established toxemia, evidenced by the first cold, to the fully developed myocarditis or myocardial degeneration twenty, thirty, forty or more years later, many toxemic crises come and go. Catarrhal fevers, so-called zymotic fevers, digestive derangements, with their infections, injuries and many other discomforts develop. Frequent colds, headaches, periods of not feeling well, a tired, lazy feeling in the morning, bad breath, bad taste in the mouth, coated tongue, despondencies and other discomforts, not commonly counted as "disease" or sickness, indicate that toxemia is constant, causing endocarditis and a gradual weakening of the muscle of the heart. Bad habits gradually weaken and overstimulate a good heart and the ultimate end is any one or more of the heart pathologies, finally, death.

Dr. James B. Herrick, writing in the Journal of the American Medical Association, October 2, 1937 (p. 1123), says that the classification and nomenclature of heart "disease" is very unsatisfactory." He adds, "the condition diagnosed aortic regurgitation by one is called by another syphilis of the aorta and aortic valves; by a third aortic leak * * *, etc." When one compares the classifications of the heart affections given in various standard works on the practice of medicine he is at once struck by the great lack of agreement these contain. It is not possible for us to follow any of these classifications in full. We shall pursue our regular policy of listing affections in alphabetical sequence.

Athletic Heart

Definition: An athletic heart, like an athletic arm, is a strong, well-developed and highly efficient heart. It is not a pathological heart.

Symptoms: It is larger, more vigorous more efficient than the non-athletic heart and is capable of greater and more prolonged action than the less well developed heart.

Tradition: Medical tradition has it that athletics strain the heart and produce enlargement (hypertrophy) and result in sudden death from heart failure. Athletes were said to "die young." Man could not indulge in the activities that the lower animals do—indeed, were the medical theory true, he never could have survived the long period of time before he developed labor saving devices.

Any derangements that are thought to be brought on by hard exercise, like weight-lifting running, rowing, swimming, tennis, football, baseball etc., are supposed to be hard to "cure," and, by giving names suggestive of athletics to derangements of the heart and feet, doctors find their patients have more patience with them if they fail to get well in a reasonable time. Actually, this is one of the chief reasons why heart cases often fail of recovery. So long as the doctor is mistaken in the etiology of the case—attributes it to athletics instead of toxins—he will fail to find the true cause and recovery will not occur. A wrong cause leads to erroneous care.

Stop being afraid to use your heart. If some nitwit has warned you not to even attempt to climb a three-step stile, forget it. Stair climbing started moderately and increased prudently, will lead to cure of supposed bad cases of heart weakness. Running started moderately, Indian club swinging, tennis, swimming, weightlifting—any other exercise started moderately and increased prudently, will lead on to heart and lung development and to robust health.

If people will eat more prudently and take more exercise there will be less heart trouble. Running is, without a doubt, the best of all exercises for the heart. It must be started very carefully in cases of weak heart, but after the beneficial strengthening that comes because of it, it may be continued for a hundred years or more. It is certainly better for the heart than strophanthus, digitalis, caffeine, strychnine and the like.

Running is the one universal exercise among the higher animals. It is indulged in by children from a very early period. It has long been known to be the finest "conditioner" that athletes can employ in their training. It so builds up the heart and lungs that it gives staying power in emergencies.

The best means of weakening the heart, to let it grow flabby like the muscles of the arm, is never to give it any vigorous work to perform. A heart that is never called upon to do vigorous work does not grow vigorous and strong. If it always does light work it tends to become soft and flabby. It

needs periods of vigorous work to build up and maintain its maximum strength and ability. If it is not called upon for sustained effort, it will never develop endurance. The athletic heart has greater strength, finer fibers, better quality and more endurance than the non-athletic heart.

Acute Myocarditis

Definition: As the word implies, this is inflammation of the myocardium, or heart muscle. The term is very inaccurate for the condition is really one of degeneration, rather than inflammation of the heart muscle. It is occasionally the part of the heart affected, but in most cases it is associated with endocarditis or pericarditis. More or less parenchymatous or fatty changes in the muscle fibers always accompany the inflammation.

Symptoms: Difficult breathing, precordial discomfort, palpitation, pallor, and weakness, out of all proportion to the severity of the general condition are the important symptoms. There is usually rapid and irregular pulse, but there may be an abnormal slowness of the pulse. The heart may or may not be dilated.

Etiology: Acute myocarditis occurs in such infections as typhoid fever, diphtheria, and scarlatina, and with endocarditis and pericarditis. It seems to be the result of septic infection. Medical literature tells us that modern investigation has not added much to the etiology, pathology, or diagnosis of myocarditis.

Prognosis: Modern cardiology has established the fact that the weakened or damaged myocardium is the crucial factor in all heart pathology. The hope of recovery in every heart affection is in direct proportion to the capacity of the heart muscle. If the muscle can be restored to good condition, life can go on. Fortunately, this is possible in most cases.

Care of the Patient: In the majority of cases myocarditis is a heart trouble resulting from a general septic condition brought on by maltreating intestinal indigestion. Besides physical and physiological rest, the most important factor in the care of these cases is a careful regulation of the diet and general habits of living to the end that intestinal sepsis may end. At the right time exercise should be started and gradually increased as the heart muscle grows stronger.

Aneurism Of The Heart

Definition: This is an aneurism of the coronary artery and really belongs under affections of the arteries. It is a very rare condition.

Symptoms: These are not very definite. Sometimes there is marked enlargement with tumultuous pulsations. The heart may be greatly displaced.

Complications: Pressure upon the chest wall may cause absorption of the bony cage followed by a breaking through of the tumor.

Etiology: It results from weakening by chronic myocarditis, or, occasionally, from endocarditis, and from the usual causes of aneurism.

Care of the Patient: Even palliation is difficult in these cases. A fair degree of comfort may be established and maintained by reducing blood pressure and keeping it down, and by reducing the blood volume. Very light eating is imperative.

Angina Pectoris (Stenocardia)

Definition: This is a "sympathetic" affection of the heart most commonly associated with occlusion or hardening of the coronary arteries and degeneration of the heart muscle. It is characterized by severe paroxysmal pain in the heart region and a feeling of imminent death.

Symptoms: Agonizing pain which radiates from the heart to the shoulder and arm (usually the left), a sense of impending death, difficult breathing and a pale, anxious face, are the characteristic symptoms. The paroxysm may last from a few seconds to several minutes. Strong emotion, effort, gas pressure from indigestion or other tax upon the body may excite the paroxysm.

Hysteric Angina is the name given a pseudoangina (a neurosis) sometimes seen in women. True angina is rare in women, in these there is no organic affection of the heart, the paroxysms are nocturnal, and are of longer duration. Stigmata of hysteria, including emotional outbreaks such as moaning and crying are usually present.

Pseudo-Angina is the term given to a false form of angina that sometimes occurs in association with vasomotor disturbances and from the use of large amounts of tobacco.

Etiology: Angina is strictly an affection of adult life and is a sign of premature aging. Though most cases are associated with arteriosclerosis, Tilden says that it often comes on "from an enervated state of the nervous system from over-indulgence in stimulating foods, stimulating drugs, and excessive venery." Medical authorities tell us that "not infrequently the attacks have been preceded by prolonged mental anxiety." Those who have cultivated an irritable state of mind and are steeped in stimulating habits, are the ones who develop angina. Angina following acute affections is not due to the acute crisis. Toxic anginas embrace those cases supposed to be brought on by tea, coffee, and tobacco.

Prognosis: True angina is always a grave paroxysm. Death may occur in the first paroxysm, or there may be recurring paroxysms over a period of many years. Sudden death may occur at any time. In pseudo angina and hysteric angina, death rarely, or never, occurs. True angina is definitely remediable, at least, in its early stages.

Care of the Patient: The general care must be the same as that given for arteriosclerosis, which, see. All stimulants must be discontinued. Rest in bed is essential and a short fast followed by fruit three times a day, until complete comfort has returned will give immediate, relief. These cases must learn to live abstemiously and moderately and must practice self control. Very few sufferers from heart affection, be they doctors or laymen, fail to note by experience that their comforts depend to a very great extent upon the, care they give the stomach in eating. So-called heart "attacks," from simple acceleration and palpitation to the severe anginas, are, in the great majority of instances, due to indigestion, fermentation and distention of the stomach from overloading it.

Bradycardia

Definition: Slow heart. What is called physiological bradycardia is said to be seen in individuals and families, in the puerperal state and after exhaustion. Napoleon's heart-beat was about forty a minute. Dr. Tilden says: "No doubt the mental strain under which he lived had a depressing effect upon his digestion and heart action. There is no question but that he kept up a constant gastric irritation from the anxiety he must have had concerning his activities. His life was so intense that his nerve energy was drained away

enervating via stomach and bowels." There must have been the same enervation of his heart.

Pathological Bradycardia is seen in convalescence from severe dynamic biogonies; in gastro-intestinal affections, such as chronic gastritis, cancer, ulcer, or dilatation of the stomach; in heart block in affections of the heart muscle or the coronary arteries with severe jaundice; diabetes, chronic nephritis, and anemia; in affections of the brain, medulla and cord; in neuraesthenia, hysteria and insanity; in sunstroke, and in some affections of the sexual organs and skin. It is seen in chronic nicotinism, caffeinism, alcoholism, plumbism, digitalism, and aconite poisoning. It is thought to be due to stimulation of the vagus nerve. Returning to Napoleon's heart, Tilden adds: "when he ate, he did not have the nerve energy to do perfect digesting; hence more or less fermentation, decomposition, and toxin poisoning took place. This produced hardening of the tissues, especially ulceration and cancer of the stomach. This is the price that an ambitious man pays for success."

Care of the Patient: This should be obvious. Correct the mode of living, discontinue all poison habits and care for the patient as directed under whatever affection he has.

Calcified Pericardium

Definition: This is the formation of stone in or around the pericardium. It is a very rare condition.

Symptoms: Its symptoms are those of pericarditis.

Etiology: It follows peritonitis, Particularly the suppurative and tubercular forms. It probably develops only in gouty subjects and represents a perversion of metabolism.

Prognosis: This is not favorable, as this condition represents an end-point in a long-drawn-out pathological evolution resting on chronic toxemia of years standing.

Care of the Patient: The patient should be cared for with a view to restoring normal metabolism. Rest, fasting, proper diet, sun baths, and a corrected mode of life will accomplish all that can be done. However, as a rule these patients have been carried beyond relief by years of abuse of their bodies.

Cardiac Hypertropry

Definition: This is an increased size of the heart with increased weight. The term means overgrowth. Two varieties are described as follow:

Simple Hypertrophy in which the heart muscle is increased in thickness but the cavities remain of normal size.

Eccentric hypertrophy (hypertrophy with dilatation) in which the muscle is thickened and the cavities are increased in size.

Symptoms: There are no symptoms except where the hypertrophy is more than compensatory. "Excessive hypertrophy" may result in distress in the region of the stomach and symptoms of hyperemia (excess blood) in the brain—headache, ringing in the ears, flashes of light, etc. The examiner will find an increase in the area of cardiac dullness, a downward and leftward displacement of the apex beat, heavy impulse, bulging of the precordium, a loud booming first sound, with accentuation of the aortic second sound or of the pulmonic second sound, depending on whether the walls of the 'right 'or the left ventricle are hypertrophied, and a strong, full pulse.

Etiology: Overwork of the heart is the cause of hypertrophy. Stenosis or insufficiency in one of the valves, or over-stimulation from toxemia, auto-intoxication, tobacco, tea, coffee, etc., is the cause. High blood pressure may overwork the heart and cause hypertrophy, as may also abnormal resistance in the circulation of the lungs, as in emphysemia, a cirrhosis of the lungs, or long-continued palpitation or tachycardia, as in exophthalmic goitre, or tobacco heart, and interference with the contractions of the ventricles by adhesion of the pericardium.

It is well to point out that this hypertrophy is merely an increase in the size of the heart muscle from increased work, and is no more pathological than the increase in the size of the arm from work or exercise. It is similar to or identical with athletic heart. The pathology in these conditions is not in the heart muscle, but in the heart valve, or in the arteries, or lungs, or elsewhere. The danger lies not in the increased size of the heart, but in the constant overwork of the heart.

Prognosis: This hypertrophy is not a pathological state and needs not be recovered from. The overstimulation or the antecedent pathologies should be overcome if possible.

Care of the Patient: The hypertrophy requires no attention. High blood pressure should be reduced, the tobacco, alcohol, tea, and coffee habits should be discontinued. Overweight should be reduced. Over-eating should be discontinued and the diet adjusted to the patient's digestive capacity. Rest and fasting will eliminate toxemia, rest the heart and clear up the cerebral symptoms. Aconite, bromids, nitrates, and other drugs should be discontinued.

Cardiac Syphilis

This is a name sometimes given to affections of the heart by those who believe there is a "disease" called syphilis. Writing In the **Journal of The American Medical Association**, of Oct. 2, 1937 (p. 1123), James E. Paullin, M.D., Professor of Clinical Medicine, Atlanta, Ga., says in an article on "cardiovascular syphilis," that "* * In the general detection of syphilitic aortitis, too much reliance must not be placed on the presence of a positive Wassermann reaction or on any other serologic test for syphilis. It is well known that from 10 to 20 per cent, of persons with latent cardiovascular syphilis will give a negative serologic reaction. * * * A patient who has not had rheumatic heart disease, and does not have hypertension, but who does give a history of syphilitic infection and presents any three of the aforementioned symptoms or signs (symptoms that could apply to heart ailment from any cause), even in the absence of a positive Wassermann reaction, should receive the benefits (sic) of anti-syphilitic treatment."

The plain truth is that if there is such a "disease" as syphilis there is no way to demonstrate it and the above quotation reveals that a diagnosis of syphilis of the heart is a mere guess. There are many kinds of poisons, including alcohol, tobacco and arsenic, that affect the heart and it is impossible for the physician to tell that "syphilis" is affecting the heart. So-called "syphilitic" heart is to be cared for as any other affection presenting the same symptoms without reference to "syphilis."

Chronic Valvular Affections

The heart has four valves—the aortic, mitral, tricuspid and pulmonary valves. Each of these valves may present either stenosis or insufficiency.

Stenosis is obstruction of the flow of blood from thickening or adhesions of parts of the valves. Insufficiency is failure of the valves to prevent a return (regurgitation) of the blood back into the heart chamber after it has been forced out and is due to enlargement of the valvular ring or to shrinkage of the valvular leaflets or to rupture of .the leaflet from mechanical strain or ulceration.

Compensation is the ability of the heart by an increase in strength and size of its chambers, to supply the arterial system with a normal amount of blood, notwithstanding obstruction (stenosis) or regurgitation (insufficiency). This ability depends more upon the strength and efficiency of the heart muscle than upon the defect in the valve. The heart is as good as its muscle notwithstanding the condition of its valves, for a good heart muscle will compensate for valvular defects. It is well to emphasize, also, that while there are ways of improving the heart muscle, there is no means of remedying damages to valves. Merely functional insufficiency of valves may usually be completely remedied. How long the heart muscle can continue to compensate for valvular defects depends upon the strength of the cardiac muscle, the nature and extent of the valvular defects, and the hygiene of the sufferer.

Symptoms: During the period of compensation there may be no definite subjective signs of heart impairment and, defects may be discovered only by physical examination, or by a lessened response of the heart to the demands of increased activity.

Decomposition is the inability of the heart to send a, normal supply of blood into the arteries, either because of weakness, atrophy or degeneration of the heart muscle, or increasing damage to the valves, or additional strain thrown upon the heart by increased arterial tension, work, pregnancy and parturition or mental shock.

Symptoms: These are varied but, in general, are due to stasis, local anemia, accumulation of carbon dioxide, toxic complications from associated liver or kidney pathology, or there may be hydrothorax, ascites, or infarct of the lungs. Decompensation may be constant or only upon exertion. In many cases it is worse at night. Cyanosis is of ten conspicuous. Cardiac asthma is often a feature. Many other symptoms in various parts of the body develop but it is not always possible to tell which of these grow directly out of systemic toxemia and which are secondary to circulatory stasis. Dropsy develops in many cases, perhaps in all cases in the worse stages.

Etiology: Rheumatism is given as the most common cause. Rheumatism can no more affect the heart than the tail can wag the dog. The processes that produce rheumatism were busy producing degeneration of the heart and arteries before the rheumatism developed. The same may be said for abscessed teeth, tonsils, etc., which are said to infect the heart. Heart pathologies are produced by toxemia and infection from gastro-intestinal decomposition. Putrefactive toxins are responsible for both rheumatism and heart affections as well as aortic affections.

Prognosis: Only in occasional cases does complete recovery occur. In most cases compensation may be improved and maintained throughout a long and useful life. When decompensation has developed compensation may often be restored. The character and intensity of the murmur is no adequate guide to the gravity of the lesion. The order of seriousness from the most to the least is, in general, as follows: tricuspid insufficiency, aortic insufficiency, mitral stenosis, aortic stenosis, mitral insufficiency. Cases of aortic regurgitation give the most frequent causes of "sudden" death. Unfavorable factors are early childhood, advanced age, marked hypertrophy of the heart, difficult breathing, irregular rhythm, arterial tension, poor general health and bad habits. If bad habits are discontinued and the sufferer will learn to live within his compensating capacity, he may live long and well in spite of an irreparable lesion.

It is now generally conceded that murmurs are unreliable in diagnosing heart affections. They are inconstant and indefinite and their differentiation is often impossible. They are found in conditions other than heart affections, or may be present in well-functioning hearts and absent in badly embarrassed hearts. When markedly present and unmistakably due to structural lesions they are regarded as having no prognostic value. The valve lesion is considered the result of a hidden myocarditis. It is the present view that the most serious conditions of the heart are those which have no necessary connection one way or another with valvular murmurs, or even with valvular defects.

Indications of a toxic or failing condition of the heart muscle, with lesions in the conduction system of the heart, and no murmurs, reveal a much more serious condition of the heart than loud murmurs with good compensation.

Undue attention to and dependence upon murmurs often leads to a wrong diagnosis and to a false sense of prognostic security and mislead the doctor

and patient as to the true situation. A better estimate of the heart's condition may be obtained from the rate, regularity and quality of its beat.

Care of the Patient: First, last and all the time it is necessary to relieve the organism of its toxic overload. Careful watch of the heart is essential during a fast. All stimulant habits must be discontinued at once and permanently. No drugs (heart medicines) should ever be taken. Eating should be moderate and of natural foods.

Regular medical men waste a lot of time and weary their patients in splitting hairs over the diagnosis and guessing about the significance of the various sounds and then, whether the sound means one thing or another, give the patient a "heart tonic"—stimulant. The heart is already overstimulated from toxin poisoning. To stimulate it more, with drugs, is criminal practice. A fast lowers blood pressure and gives the heart a much needed rest.

Chronic Interstitial Myocarditis

Definition: This also represents a condition of degeneration, rather than of inflammation. The heart fibers are replaced by fibrous tissue. The whole or only part of the heart may be involved.

Symptoms: These are indefinite. They may be absent until death "suddenly" occurs. Arrhythmia is common. The pulse may be very infrequent, feeble and irregular, sometimes frequent. There may be difficult breathing, oppression of the heart and paroxysms of angina. The physical signs may be those of hypertrophy and dilatation of the heart.

Etiology: The condition is usually secondary to pathology in the coronary arteries, sometimes to endocarditis and pericarditis. Chronic intoxication—intestinal or alcoholic—is a common cause. It occurs largely after middleage in people subject to the causes of arteriosclerosis.

Prognosis: The condition is always grave and carries with it the possibility of sudden death or death after symptoms of gradual heart failure. If its causes are removed early a long and useful life may be led.

Care of the Patient: The first rule of life should be moderation in everything. Indeed, if this rule were followed from childhood no cardiac pathology would or could develop. The word moderation has valid meaning only with reference to the use of those things that bear some normal or vital relation to life. Abstinence is the only permissible rule with reference to the

use of substances like tea, coffee, alcohol, tobacco, and other drugs, that bear no normal or vital relation to the structures and functions of the living organism.

Only by eliminating toxemia, restoring normal nerve energy, normalizing nutrition and correcting the whole mode of life, can the heart, in this condition, be improved and life prolonged.

Dilatation Of The Heart

Definition: This is a condition in which the heart cavities are increased in size and the muscle is thinned. The walls are said to sometimes become as thin as paper.

Symptoms: The usual signs of cardiac enlargement are present, but the impulse is feeble or imperceptible, the first sound is short and weak (clicking), and often irregular or intermittent, commonly symptoms of venous congestion—difficult breathing, cough, edema, flatulent dyspepsia, and deficient urination—exist. The examiner will hear soft systolic murmurs, the result of relative insufficiency of the mitral or bicuspid valves. Palpitation, irregular, weak pulse, dizziness, headache, sometimes collapse, cowardice and apprehension are the chief symptoms. If the case is severe there will be a puffed face, oppression of the chest and rapid breathing.

Etiology: Dilatation, like hypertrophy, is due to overwork of the heart. It is especially likely to develop in people who have been very fat for years. It is the rule that when the heart is forced to do more work its walls thicken as it grows in size. Degeneration, perhaps fatty degeneration, of the heart muscle would seem to be the explanation of those cases where the walls become thin instead of developing more muscular tissue when more work is placed upon them. It may be possible that in a few cases the heart is so greatly overworked that no development is possible. Back of the overwork of the heart are all the pathological conditions and their antecedent conditions that stress the heart.

It is the prevailing view that "compensatory hypertrophy" does not occur, it is asserted that the normal myocardium has plenty of reserve power to meet the demands of excess resistance, arising out of back-flow and back-pressure in a stenotic heart, without undergoing hypertrophy.

Dilatation and not hypertrophy is the method by which the heart effectively meets such demands, according to present views. It is claimed that the heart does not weaken because it is enlarged, but that it is enlarged because it is weakened, the muscle having been damaged by the same causes that weakened the valves. It is claimed that every enlarged heart (as distinguished from a large heart) is a dilatated heart, so that the size and postural tone of the heart constitutes an index to the seriousness of the valvular defects.

Prognosis: The condition is perhaps never completely overcome but great improvement may be secured in the majority of cases. Tilden says: "the majority can be put right in the course of a few years, if they will fully consent to give up all bad habits of eating, give up all stimulants, such as tobacco, coffee, tea, and live on a very restricted diet. If the patient is in fairly good flesh, a fast of sufficient duration to bring full relief should be given. A very thin patient should be fasted very carefully and for only a short time. Non-stimulating foods—fresh vegetables, salads and fruit—are the proper dietary regimen until the symptoms have been thoroughly brought under control."

Endocarditis (Valvulitis)

Definition: This is inflammation of the lining membrane of the heart. The inflammation is usually confined to the valves and should be called valvular endocarditis. It is divided into simple, malignant and chronic forms.

Symptoms: In many cases of simple acute endocarditis there are no subjective symptoms and the only evidence of trouble is alteration of the heart sound discoverable by the examiner. In other cases there are increase in the fever, overaction of the heart out of proportion to the degree of fever, irregularity of the pulse, difficult breathing and pain in the stomach area.

In malignant endocarditis the general symptoms may be irregular fever, chills, sweats, progressive anemia and emaciation, or the patient may present the appearance of typhoid fever or acute meningitis. Increased pulse rate, palpitation, pain in the stomach region, difficult breathing and murmur at one or more valves, are usually, but not always present. Malignant endocarditis usually lasts from two to six or eight weeks, but in some cases it may last for months.

Chronic sclerotic endocarditis presents the same symptoms as those of chronic valvular "disease," which see.

Complications: Dyspnea, and dropsy are the most common complications. In malignant endocarditis, emboli form and lodge in various parts of the body. Lodging in the lungs they produce hemoptysis; in the brain, aphasia, hemiplegia or monoplegia; in the kidneys, lumbar pain and blood in the urine; in the skin, hemorrhagic eruption; In the spleen, painful enlargement of that organ; in the eye, optic neuritis or hemorrhage of the retina; in the large vessels of the limbs, gangrene and infective aneurysms.

Etiology: Acute endocarditis is a symptomatic affection and is always found in conjunction with other affections. It is the custom to credit rheumatism, tonsilitis, etc., as causes. These affections cause nothing, but are antecedent, concomitant and successive effects of the same toxic state that causes the heart affection. Years of overeating and plethory with the autotoxemic state resulting from absorption of toxins from the intestine produces both the rheumatism and endocarditis. The rheumatism may be severe, or it may be so mild that the patient does not go to bed. It seldom leaves the heart unaffected, indeed the heart is subject to toxin-infection continuously and it is possible for valvular endocarditis to develop without other rheumatic developments.

Tobacco strikes hard at the heart and blood vessels as well as at he nervous system, liver and kidneys. The use of tobacco increases the pulse rate from five to ten beats a minute, and in the case of the man who is continually smoking the increase of the rate becomes permanent. The increased pulse rate is accompanied by a small increase in blood pressure, which sets in a few minutes after smoking is started and persists until the smoking ceases. That the heart of even "moderate" smokers is less efficient under strain is well known to athletes and trainers.

Malignant endocarditis is never primary but results from pus infection from peritonitis, pus absorption, septic poisoning, etc. Gonorrhea is said to often cause it. If so, the gonorrhea must be badly abused in treatment. Pus absorption from an abscess may cause it. Toxemia is back of these developments.

Chronic endocarditis may follow one or more crises of acute endocarditis or it may start as a mild inflammation or degeneration that is not noticeable until extensive changes have occurred. It is never primary, but develops as part, of the general pathology of the body. Alcoholism, lead poisoning, tobacco and chronic nephritis favor its development.

Prognosis: Weger says: "It goes without saying that every heart wears out sooner or later but even the incurably crippled heart can be so greatly relieved by a life of moderation and frugal eating that nature will tolerate the condition and sometimes carry on efficiently for many years. * * * cardiac dropsy, cardiac asthma, and the great mental and physical distress and anxiety that go with heart disease can be relieved, even in many advanced and apparently hopeless cases, by the institution of a short fast and a light diet to follow."

Acute simple endocarditis is rarely fatal but rarely leaves the valves undamaged. Compensatory enlargement of the heart follows under favorable conditions and good health may be preserved indefinitely. Malignant myocarditis is very frequently fatal and recovery usually leaves more or less permanent damage to the heart.

Care of the Patient: In general this consists of two procedures:

- (1) it is necessary to correct nutrition by correcting the mode of living and by fasting and rest, eliminate toxemia and restore nerve energy;
- and (2) all sources of infection must be removed. Abscesses must be drained, gastro-intestinal decomposition must be corrected, proper drainage of the pelvis re-established where it is faulty.

After the worst symptoms have ended light exercise may be indulged and this may be increased as the heart continues to improve.

Fatty Heart

Definition: This is fatty degeneration and fatty overgrowth of the heart.

In true fatty degeneration of the heart there is actual degeneration of the heart muscle. Fat infiltrates the walls of the heart and many of the muscle fibers are turned into fat. These fibers are lost as fat can never be turned back into muscle.

Symptoms: Fatty degeneration of the heart presents very little symptoms at first, but after the condition has progressed the heart often beats too rapidly, but the opposite may also be true. There is irregularity of the heart with decreased mental and physical powers. Sometimes there is angina pectoris and nervous crises. Difficult breathing is common. Sudden death

sometimes occurs. In all cases, if the degeneration is not stayed, the weakened heart will fail.

The chief symptoms of fatty overgrowth is shortness of breath.

Etiology: Pressure upon the heart from excess fat, declining nutrition in the aged and the progressive degeneration of the whole body, as seen in cancer and tuberculosis and alcoholism are common causes of fatty degeneration of the heart. Those who have carried a lot of fat for years are prone to develop fatty degeneration. It frequently follows toxic states, empyemia, or pus absorption from any part of the body may produce fatty degeneration. Arsenic and phosphorus are two drugs that often produce fatty degeneration. Except where due to drugs, fatty degeneration is an endpoint in a toxemic chain.

Fatty overgrowth belongs to the obese. It accompanies corpulency of the entire body. All the cavities of the body are crowded and choked by the large amount of fat. Not only the lungs, but the whole body, pants for more oxygen. Overeating is, thus, the chief cause of fatty overgrowth.

Prognosis: Fatty degeneration may almost always be stayed and the condition of the heart greatly improved. If based on advanced tuberculosis or cancer no recovery can be expected. Fatty overgrowth of the heart is always a remediable condition.

Care of the Patient: In cardiac degeneration the care is the same as that given for chronic endocarditis, plus the care described for tuberculosis, or cancer, or empyemia. The subject must live so that the heart is not overstimulated or forced to work beyond its strength. In fatty overgrowth the remedy is weight reduction of the whole body. For directions see obesity. If these directions are faithfully carried out recovery will be complete.

Hemopericardium

Definition: This is blood in the pericardium. **Symptoms:** These are those of pericarditis.

Etiology: This condition results from trauma, the rupture of an aneurism, or the rupture of the heart itself.

Prognosis: Except in traumatic cases, this condition is a terminal development in long-standing heart and arterial pathology and the outlook is grave. Traumatic cases may recover.

Care of the Patient: See aneurism and myocardial degenerations. As a rule these patients have passed beyond help of any kind except palliation. Years of abuse of their bodies have brought on the trouble.

Hydropericardium

Definition: This is dropsy of the pericardium. Chylopericardium is a very rare similar condition in which the serum is milky white.

Symptoms: These are the same as those of sero-fibrinous pericarditis in the stage of effusion, which see.

Etiology: This is always secondary to general dropsy and is seen in heart "disease," nephritis, malnutrition, etc.

Prognosis: The condition represents a serious state of the body. Recovery depends on recovery from the primary pathology.

Care of the Patient: Care for him as directed under Bright's "disease," heart affections, etc. As a rule palliation is about all that can be done for these patients, for years of self-abuse have brought them so low that no help is possible.

Pericarditis

Definition: This is inflammation of the pericardium—the investing membrane of the heart. It may be either acute or chronic.

Symptoms: There are different forms and the symptoms vary with these. When there is but little exudate into the pericardium, it is called dry pericarditis. If there is much exudate it is called purulent, hemorrhagic, sero-fibrinous, etc., pericarditis depending on the character of the exudate—pus, blood, serum or fibrin.

Pain or discomfort in the stomach region, palpitation, difficult breathing, moderate fever, and weakness are the usual symptoms of acute pericarditis. In some cases the condition is "latent" and is discovered only upon examination. The face may be unduly pale or markedly cyanosed, the veins of the neck may be turgid, and occasionally, if the effusion is large, there may be hoarseness from pressure upon the recurrent pharyngeal nerve, or difficulty in swallowing from pressure upon the esophagus.

Purulent pericarditis presents the above symptoms plus the usual symptoms of sepsis—chills, irregular fever, sweats, pallor—and sometimes edema of the tissues over-lying the stomach.

Etiology: Inflammation of the pericardium is said to be always a "secondary process," except where due to trauma. It is said to be due to rheumatism, chorea, and to extension of "disease" from adjacent structures, such as the lungs, pleura, mediastinal glands, ribs, etc., and is a terminal symptom in chronic "diseases of various kinds," especially nephritis. It is said to be the result of an infective process, but if we try to find out what infective process has brought it about we learn that it has been caused by some "other disease" produced by an "infective process." We get into a vicious circle following a trail of "infective processes" that seem to have no known beginning.

Tilden says, "If the student will bear in mind that, primarily, there is but one source of infection, and that is in the alimentary canal, he will have no trouble in tracing all diseases back to their own origin. Toxin poisoning from putrefaction in the intestine, plus constitutional diathesis, or plus organic diathesis, supplies the origin of all organic diseases, which should be called affections. Infection or autotoxemia starts a process known as rheumatism. The same identical cause will develop pericarditis in a subject who has a cardiac diathesis; and this is the source of the infection that causes this disease."

Prognosis: This is good in the dry and sero-fibrinous cases. In the purulent form the out-look is grave. The fibrinous form may persist for years and is followed by changes in the heart muscle. Weger says, "we have had such unexpected success in the treatment of heart affections that we hardly know where to draw the line and state with conviction in any given case that an attempt to reorganize the living habits would be futile. Everyone is entitled to his chance to improve or recover."

Care of the Patient: In acute pericarditis absolute rest, both physical and physiological, is important. If there is effusion the physiological rest will hasten its absorption. Heart infection, that is infection due to absorption from the intestine of the toxic end-products of indigestion, cannot recover so long as eating and putrefaction continue to pour toxins into the blood-stream. As this infection is always supplementary to toxemia it is essential that toxemia be eliminated also.

Weger says, "regardless of the special form of cardiac disease, the most satisfactory treatment is one that removes every possible tax on the circulation and particularly the burden of toxic poisons. With correct treatment, the body can in most instances be brought to such a high state of efficiency that infections and secondary heart complications can be entirely overcome."

In pericarditis with purulent effusion the death-rate under regular care is about 60 per cent. With proper care it should be much lower. In extreme cases it is well to incise the pericardial sac and establish the freest possible outlet for the pus.

Pneumopericardium

Definition: This very rare condition is air in the pericardium.

Symptoms: These are the same as those of pericarditis, which see.

Etiology: It results from trauma or rupture of an adjacent air-containing organ. Ulceration of the stomach or esophagus, a tubercular abscess, or pneumothorax or trauma may produce the condition.

Prognosis: Except in trauma, this is a terminal development in advanced pathologies and represents a serious state. Recovery depends on recovery from the prior state.

Care of the Patient: Care for the patient as advised under gastric ulcer, tuberculosis, pneumothorax, or whatever other pathology the patient presents. Traumatic cases are to be cared for as directed under surgery.

As a rule these patients have abused their digestion and nutrition so long that they have passed beyond help of any kind except palliation.

Rupture Of The Heart

Rupture of the heart is very rare and occurs, when it does, in dilatation, fatty heart, degeneration of the heart muscle, aneurism, etc. It occurs only in extreme cases of degeneration or indiscretion, or both, and is usually fatal.

Functional Defects Of The Heart

<u>Arrhythmia</u>

Heart Block
Heart Pains
Heart Strain
Palpitation Of The Heart
Weak Heart

These include several forms of deviation from the normal rate and rhythm of the heart, aside from those normal deviations that occur after exercise or during rest, or while fasting, and besides those that occur because of pathology in the heart and elsewhere.

Arrhythmia

Definition: This means absence of rhythm of the heart beat. It is said that "a heart that beats regularly can hardly be a functionally diseased heart," and "one of the first signs of deranged heart is irregularity, which may vary all the way from the apparent missing of beats to auricular fibrillation."

By means of the electrocardiograph some nine or ten different types of arrhythmias have been demonstrated in the heart cycle, but the difference between them are those of detail rather than of kind so that imperceptibly they merge into one another and all consist in the same fundamental pathology. We will here discuss briefly the four arrhythmias most generally recognized in the order of their severity.

Extra-Systoles: These are the simplest and commonest forms of arrhythmia and are sometimes called "premature contractions." They consist of single, relatively infrequent contractions of the heart muscle which are interpolated at intervals into the regular heart cycle. They are not sufficiently numerous or frequent to upset the cycle or to interfere with the pulse, except for their own occurrence. The irregularity can usually be made to disappear with exercise. They do not indicate any impairment of the heart nor, do they add to the gravity of any existing pathology.

Extra-systoles are relatively common in middle-aged persons who are more or less neuro-toxic from intestinal sepsis, wrong metabolism, tobacco smoking, coffee, etc. They disappear when their causative factors are removed.

Paroxysmal Tachycardia: Tachycardia means a rapid heart. Such a condition is seen in goitre, fever, after running and in several other conditions. This is not what is meant by the above term. Paroxysmal tachycardia seems to be a very rapid series of extra-systoles and results from the same neuro-toxic conditions of the body that produce the latter. The paroxysms begin suddenly and end suddenly, the pulse rate ranging between 140 and 220, and may be brought on by emotion, exercise or a change of position. The condition disappears when the toxic condition is overcome.

Auricular flutter and Auricular fibrillations differ from each other only in degree, and from the above two conditions in no essential particular. Sir James Mackenze called it "delirium of the heart," because every semblance of regularity is lost as the auricle of the heart, which can scarcely be said to beat at all, goes into a wild paroxysm of ineffective twitchings. The auricular rate ranges from 200 to 300 a minute in fibrillation. It should be obvious that this wild fluttering cannot long be continued without ending in exhaustion.

While considered as functional disturbances it is thought that no truly sound heart muscle, even under the influence of any save the most virulent toxins, would go into such a wild paroxysm. These severe arrhythmias are, therefore, regarded as indicative of a badly damaged heart muscle, aggravated by overwork and toxemia.

Heart Block

Definition: This is partial or complete interruption of muscular connection between the auricle and ventricle so that they beat independently of each other. It is a loss of coordination. Complete block is known as the Stokes-Adams syndrome. Partial block is sometimes caused by the use of digitalis.

Symptoms: Vertigo syncope and slight epileptic paroxysms are the usual symptoms. The heart beat appears to be very slow—as low as twenty and as high as forty a minute. Cases have been reported of six beats a minute but these are doubtful. It seems rather, that only six beats were forceful enough to be felt at the wrist.

Etiology: Functional disturbances of the heart's action are usually reflex in character; that is, there is nothing intrinsically wrong with the heart itself, but its action is disturbed by reflex irritations originating in other parts of the

body, such as arise out of distention of the stomach and bowels with gas; or out of hyperacidity, stomach irritation, nervous imbalance, shock, fear, excitement, overwork, or out of stimulants and food excess.

Tilden says "A flushing of the skin about the face and neck, coming in patches, indicates sympathetic nervous irritation of the heart. Where this symptom is extreme it is an indication of chronic toxin poisoning from gastro-intestinal indigestion; or it may be due to the use of stimulants—coffee, tea, alcoholics, tobacco, etc." Tobacco causes arrhythmia which usually disappears when smoking is stopped.

Prognosis: This is good in nearly all cases.

Care of the Patient: "Regulating the diet and correcting the life of the patient will usually control the worst forms of this derangement," says Tilden. It hardly seems necessary to add that all stimulant habits must be discontinued, the emotions regulated and toxemia eliminated.

Heart Pains

Heart pains are divided into three classes as follow:

Simple fatigue pains: These are due to fatigue or exhaustion of the muscle of the heart. Fatigue pain is most commonly felt as a dull ache in the region of the apex of the heart and lower precordia. Less commonly, it may be felt at the base of the heart.

Nervous heart pain: This condition is seen in neurotic—nervous and sensitive—individuals and seems to be the result of over-action of the heart. Such individuals are extremely sensitive to organic impressions, just as the subject with nervous dyspepsia is over-sensitive to digestive phenomena. There is the added fact that, such neurotic individuals are inclined to exaggerate the importance of even a slight pain felt anywhere in the region of the heart and this is especially so if they think they have heart trouble.

Paroxysmal heart pain: This term is misleading, as such pains are either fatigue or nervous pains or they are true anginal pain. The term is used to designate both angina pectoris and the so-called pseudo-anginas.

It is well to emphasize that most pains in the region of the heart have no relation to the heart at all. Neuralgia, initis, rheumatism, neuritis, etc., in the chest wall, mere congestion in a muscle, gas pressure, and reflex pains from

the stomach, intestine, liver, spleen and even from the sex organs, account for most of these so-called heart pains.

Restoration of good health by discontinuing all enervating habits will speedily end the pains. In neurotic individuals this is likely to require considerable time due to the mental condition.

Heart Strain

Definition: This is a term formerly applied to a group of heart symptoms following exertion, to which the term "effort syndrome" is now applied.

Symptoms: Breathlessness, palpitation, giddiness, precordial pain, and even fainting; in short, most of the functional symptoms of cardiac embarrassment, are present but there is no actual pathology of, the heart. The symptoms are seen chiefly in young adults as the reaction of the heart to strenuous effort, not, apparently, because of any inherent unsoundness of the heart itself, but because of troubles elsewhere. Even in middle-aged subjects a large proportion of their heart embarrassment is effort syndrome.

Etiology: In medical literature we learn that "in spite of all the work done by all investigators, no one has ventured to make a definite accounting of the condition." In our own practice, we have seen cases that were reflexes of uterine and ovarine pathology. Enervation and toxemia are doubtless the underlying causes in all cases. There can be no doubt that tobacco, tea, and coffee and other drugs help to produce the condition. We are told that "the effort syndrome" undoubtedly has its ultimate explanation in the interdependence between the heart and other organs. The heart itself may be sound, but something is wrong elsewhere in the body, or, perhaps, the mind, when the heart reacts this way to strenuous effort. The ultimate explanation of this functional failure of the heart lies not in the troubles elsewhere in the body, but in the causes of the other troubles.

Care of the Patient: Alternate periods of exercise and rest improve the heart so that the condition ultimately ends. From this fact it has been declared that "the effort syndrome is not a sign of heart disease except where the symptoms fail to disappear, but rather became worse, under exercise." A, small percentage of cases of apparent "heart strain" do grow worse and turn out to be actual cases of heart pathology. For this reason it is not safe to diagnose all cases of breathlessness, palpitation, precordial pain, etc., in

young people as "effort syndromes." Such a diagnosis is justified only after careful examination has eliminated structural or conduction defects.

Rest and exercise are, alone, not enough to remedy the condition. Complete care involves the removal of all the causes of the extra-cardiac troubles. All enervating practices must be discontinued, toxemia must be eliminated and the whole mode of living re-ordered in conformity with the highest interests of life.

Palpitation Of The Heart

Definition: Irregular or forceful heart action perceived by the individual.

Symptoms: Palpitation may last a few minutes to several hours, and may recur after exertion or excitement. There may, be only a sensation of fluttering with that of emptiness or distention of the heart, or there may be flushed skin, violent pulsation of the superficial arteries, rapid pulse, difficult breathing and nervousness. A forcible apex beat may be noticeable by the patient.

Etiology: Palpitation is a neurosis and grows out of over-stimulation of the nervous system from hysteria, violent emotions, the use of tea, coffee, alcohol, or tobacco, and from distention (from gas or overeating) or dilatation of the stomach. It is common in neurasthenia. Indigestion, fright, worry, and overworked emotions are common causes. Sexual excesses are frequent causes. Anemic patients suffer with palpitation. It is sometimes seen in girls coming into puberty and in women going through the change of life; in both these instances it is a nervous phenomenon.

Care of the Patient: Correct the cause. Cut out the stimulants, stop the overeating, discontinue the sexual excesses, control the emotions, restore normal digestion, rest the nervous system. Build up the general health.

Weak Heart

Definition: Weak heart (myocardial affection) is simple weakness of the heart muscle.

Symptoms: The heart is feeble with irregular pulse; there is shortness of breath on exertion, a tendency to cyanosis, and, in extreme cases, edema of the extremities, the dropsy becoming greater as the weakness grows greater.

Examination usually shows an increased area of dullness, a galloping rhythm, or even a tremulousness that almost obliterates, the ordinary heart sounds, and, in some cases, the symptoms will be those of an enfeebled, irregular heart, and signs of dilatation.

Tilden says, "Fatty degeneration, often presents about the same symptoms. The fact of the matter is that there are a great many heart derangements classified which would be very difficult of recognition, and, inasmuch as the heart disease and the variations all come from the same general derangement, the treatment for each and every variation must necessarily be about the same."

Etiology: It is safe, to say that these cases are all due to enervation, toxemia and malnutrition. It is not uncommon to find young subjects with albumen in the urine due to an enervated heart produced by sexual excesses. Heart weakness is also produced by our hurly-burly civilization with its stimulation and its denatured diets. Cowardice, dishonesty and criminality develop as a collateral asset for self-protection. The coward has no show in business life, and this sub-conscious weakness builds a low cunning selfishness. The lack of power causes the use of ponies in class work and the misdirecting of funds in business life.

Prognosis: There is cause for alarm when any organ is failing to function properly and an insignificant cause, so designated by the average doctor, may end in death. These cases may all recover, but if their causes are not corrected they may all end in death.

Care of the Patient: Same as for heart strain, which see.

Affections Of The Arteries

Aneurysm Of The Aorta
Aneurysm Of The Limbs
Arterovenous Aneurysm
Apoplexy
Arteriosclerosis
Embolism
High Blood Pressure
Low Blood Pressure

Aneurysm

Definition: This is a sac formed by the dilatation of a part of an artery, and is filled with blood. Several kinds of aneurism are described but these descriptions are of no practical importance. The enlargement of the artery may vary from a slight enlargement to one of such proportions that neighboring structures, even the ribs and other bones, may, by continuous pressure, soften and break down. Large aneurisms are not common, but minute ones are exceedingly so. The symptoms of aneurysm depend on its location and the condition is not readily discovered except by physical examination. Minute aneurysms give no symptoms. Larger ones present a tumor plus pulsation.

Etiology: Arteriosclerosis is the preliminary state necessary for the development of an aneurysm, unusual exertion or strain may be the exciting cause. Several years of toxemia can cause the arteries to become so hard and brittle that the inner coat of the artery (the intima) may rupture in several places. These ruptures, are small and lead to a bulging and gradual production of a cyst or sac, which would rupture if the body did not protect itself by forming new tissue around the tumor which in this way soon gains a thick wall. Alcoholism, lead-poisoning, excessive muscular work and nephritis are given among the causes. There is no reason why anything and everything that lowers nerve energy and produces toxemia and indigestion will not help to produce it. "Syphilis" is blamed for most cases. No doubt the mercury, arsenic, potassium and iodides used in treatment are the real offenders. Scurvy or malnutrition lays a foundation for aneurysm.

Aneurysm Of The Aorta

The aorta is subject to aneurysm in its entire length, perhaps because it bears the greatest load of pressure. The most common locations will here be noted.

Aneurysm of the Thoracic Aorta: This is most commonly located in the arch, but may be located in the ascending portion. Those in the ascending

portion are often small when rupture occurs.

Symptoms: There are no positive symptoms. Pain is variable, usually paroxysmal, often very severe when the tumor is eroding the vertebrae or perforating the chest wall. On the other hand, the chest wall may give way and no special pain be experienced. The pain comes and goes. It often radiates down the left arm, or up the neck, and without enlargement the condition may easily be mistaken for neuralgia or angina pectoris. If the tumor presses against the bronchial tubes, a very distressing cough is likely to result. If the pressure is on the recurrent pharyngeal nerve the cough may have a peculiar wheezing sound—the so-called "goose cough." There is difficulty in breathing, in some cases loss of voice, in others wheeziness. Hemorrhage may take place into the bronchial tubes and trachea, producing hemoptysis, or into the pleura, producing hemothorax, or into the pericardium, producing hemopericardium. An X-ray examination is usually required to positively diagnose the condition.

Complications: Some of these were mentioned above. Perforation of the chest due to breakdown of bone and other tissue from constant pressure, rupture of the artery externally or into a cavity resulting in bleeding to death, are the most common complications.

Prognosis: The condition is incurable and death is painfully imminent at all times. Usually death comes quickly when it does come. Weger says of the cases handled by him: "while complete recovery was not expected, so much improvement was noted when the circulatory impulse was lessened by moderation in eating that most of the discomfort attributed to the dilatation disappeared in all except the very advanced types in which rupture of the aneurysm seemed imminent. Even in the advanced form, great relief is obtained and life is prolonged by a regimen of moderation in eating." In some cases the blood within the sac clots solidly. In medical circles this is called cure.

Aneurysm of the Abdominal Aorta: About ten per cent of aortic aneurysms are abdominal. This is more easily recognized than in the chest, especially in thin subjects, but in those with thick abdominal walls and lots of fat it may be difficult to diagnose.

Symptoms: The chief symptom is dull pain in the back which sometimes radiates to the sides. Often there is tumor with visible pulsation in the

stomach region. Physical examination reveals a pulsating tumor, usually with a murmur corresponding to the heart beats.

Prognosis: The condition is incurable. Death may result from rupture, obliteration of the lumen of the artery by clots, or by embolism of the superior mesenteric artery or by paraplegia (paralysis of legs and lower parts of the body) caused by pressure.

Aneurysms Of The Limbs

These are small and show on the limbs as small pulsating tumors. The blood tends to harden in them and eventually they become obliterated through absorption. Or they may thoroughly dry out and the artery heals after which the tumor may be removed without injury to the blood vessels. They tend to develop at points of injury to the artery.

Arterovenous Aneurysm

This is commonly known as varicose aneurysm and occurs where an artery and a vein communicate together, forming a tumor. Varicose aneurysms usually develop from injuries. A few cases have been reported where the ascending portion of the arch of the aorta opened directly into the vena cava. The principal symptoms of this condition are cyanosis, edema, and great distention of the veins of the upper part of the body.

Care of the Patient: Aneurysm is not a curable condition. It is best prevented. No one will ever have an aneurysm who has not lived the free and easy life of eating, drinking and being merry, that is all too common. Years of abominable and haphazard living are required to lead to the development of arterial pathology. From fifteen to forty years of chronic toxemia and auto-intoxication always precede the development of an aneurysm. If it were possible to cure the aneurysm, that is, if it could be obliterated in some manner, this would not cure the systemic state back of its development, and sooner or later this constitutional perversion would kill the patient.

All that can rationally be done, once the condition has developed, is to lower blood, pressure and keep it down and avoid the strenuous life that tends to build more pressure. Irritations and stimulations must be avoided. Intense muscular effort must not be indulged. The diet must be corrected and

overeating refrained from. Emotional poise is especially important. These things done, years of moderate comfort may be enjoyed.

Apoplexy

While this is really the rupture of an artery in the brain, it is commonly classed as a "disease" of the nervous system. See chapter on Affections of the Brain and Nervous System.

Arteriosclerosis

Definition: Commonly known as hardening of the arteries, this is a chronic degenerative process of the coats of the arteries, especially of the inner coat, or intima (endoarteritis) and middle coat, with the production of fibrosis or calcification, or both; and with changes in the caliber and length of the vessels. The normal, elastic muscular tissue which constitutes much of the arterial wall, is more or less replaced by tough, inelastic, fibrous tissue, or by deposits of lime salts, or by both. This gives the artery a hard, cord-like, feeling under the examining finger and a tortuosity to its course.

Atheroma is localized hardening of the wall of a blood vessel —a local arteriosclerosis.

Its usual beginning is with abnormal deposits in the internal and middle coats of an artery. At first the coats of the artery become thick. Thickening interferes with nutrition and degeneration occurs. The deposits are soft at first but later become hard. The hardening is often due to an overgrowth of fibrous matter; at other times it results from calcification: lime deposits. The extent of the calcification varies from little to much. Much lime deposit produces a rigid artery. Sometimes we see a vessel that has become one rigid piece of mineral matter. This condition properly belongs to arteriosclerosis.

Symptoms: These vary as the hardening varies and as the different arteries undergo hardening. If the sclerosis is general it may be recognized by the rigidity of the arteries where they pass near the surface, by sluggish high-tension pulse, by increasing pallor and a gradual loss of physical and mental vigor. Heart symptoms may be present. Hardening of the mesenteric vessels may lead to digestive disturbances and occasional abdominal pain. Hardening of the arteries of the limbs results in painful muscular cramps,

sudden lameness (intermittent claudication), neuritic symptoms—numbness, tingling, darting pains, etc.—and in rare cases by red, painful neuralgia—erythromelagia.

Frequently noted symptoms are an early, unnatural pallor of the face; an unusual intolerance of alcohol and tobacco; numbness and tingling in the extremities; and pain along the course of the arteries. Such digestive disturbances as heartburn, belching of gas, etc., are common. There are many nervous symptoms. High blood pressure is present. This is called hypertension and is due to overstimulation from toxemia, plus stimulation from habits. When this state of enervation is reached, one cigar or one cup of coffee irritates the nervous system more than six cigars or six cups of coffee did ten to twenty years previously and the high blood pressure means weakness, not strength. The organism is laboring to overcome obstruction.

Complications: Degenerative changes in the entire organism have preceded or accompanied the hardening of the arteries and it is not always possible to say whether a given development is secondary to or concomitant with the sclerosis.

The unyielding vessels render it more difficult for the heart to send blood through them. Nature, as usual, rises to the occasion and, by strengthening the heart muscle, succeeds in keeping up an efficient blood supply so that for a long time the only symptom may be an increase in blood pressure. For years, the length of time depending on the rapidity of the hardening process and the ability of the system to adjust itself to the changing conditions, the subject may posses what passes for "good health."

As time passes and the arteries grow harder, the lumen narrower and the heart increases in size and blood pressure rises, sooner or later, something must happen. Some weakened part of the arterial wall will give way, resulting in hemorrhage into some important organ—probably the brain: apoplexy. This may mean anything from a slight "stroke," to paralysis of one whole side of the body, to sudden death. Or, the heart may be unable to meet the increasing resistance, and break down, causing serious symptoms, even death.

All the symptoms resulting from arteriosclerosis are due to a disturbance of the blood-supply to the various parts of the body, and are naturally very variable. All the arteries are affected in varying degrees. And in proportion to the degree of hardening of the arteries in the various organs of the body is

the efficiency of these organs impaired. The brain, liver, spleen, pancreas, lungs, the heart muscle itself and the digestive system fail to function to the standard of full efficiency. Malnutrition of the endocrine glands results and these important organs gradually fail in their work. Because of the gradually lessening blood supply to all the tissues of the body the entire body fails and more or less premature dissolution results. Truly, "a man is as old as his arteries."

In hardening of the arteries in the brain the most characteristic symptom, is a gradually progressive mental deterioration, associated with more or less defective memory. The subject's "whole nature may undergo change: thus a quiet-mannered man may become irritable, suspicious, and, in fact, the very opposite of his usual self.

When the arteries that supply the heart become sclerosed, sudden death may result, from thrombosis, angina pectoris, or rupture of the degenerate heart muscle. If the renal vessels harden, interstitial nephritis may develop.

Etiology: Hardened arteries do not come over-night, but there is no method of examination, with or without mechanical aids, that is able to determine when sclerosis begins. It can be detected only after the hardening has reached a certain stage. It is quite easy to say where and how it will end.

Irritation is the first step in the development of arteriosclerosis, no matter how late the stage when calcerous deposits are pronounced enough to be readily detected by feeling of the arteries. The foundation is laid in youth and is added to every day by the modern manner of living. From the beginning of an established toxemia evidenced by the first cold, to the fully-developed arteriosclerosis thirty to eighty years later, there have been many crises of toxemia, digestive derangements, discomforts, etc., with occasional respites of shorter or longer duration, in spite of excess in eating and venery, or overstimulation from rich foods, alcohol, tea, coffee, tobacco, during which people are often heard to say: "I have not been sick in ten, twenty, thirty, or more years." They so easily forget the colds, headaches, discomforts, foul-breaths, coated tongues, bad taste in the mouth, despondencies, the tired, lazy feeling in the morning, and other discomforts which indicate, unmistakably, that toxemia is a constant—that they have not been really well in all these years.

All the years they are "healthy," toxemia has been producing endoarteritis and endocarditis. Hyperemia and hypertension are followed by hard arteries.

As time passes the arteries become harder, their lumen narrower and their walls weaker. In gouty subjects —those who tend to develop gall-stones, kidney-stones, etc. there will be deposits of lime in the arteries and even in the heart. Deposits on the valves of the heart may prevent the proper opening and closing of these.

Like all other conditions of impaired health, arteriosclerosis is caused by anything that establishes and maintains toxemia. The hardening (fibrosis) of the arteries is really an effort of nature to repair the damages caused to the arterial coats by the toxins, and to prevent rupture. The patch is inferior to the original tissue and sooner or later may give way under unusual strain.

In short, overwork of body and brain, long continued worry, overeating, wrong eating, alcohol, tobacco, tea, coffee, various excesses, the stress and strain of modern, life, all bad mental and physical habits certain occupations, such as those of lead-workers, painters, typesetters, etc., and all the many causes of enervation contribute their share to the production of hard arteries. Experimentally it has been demonstrated that nicotine injected directly into the circulation will produce arteriosclerosis. We like to kid ourselves with the belief that hard arteries are due to "old age," whereas, in reality they are due to irritation. How fast the arteries harden will depend upon the quality of the arterial tissues and the wear and tear to which they are subjected, so that a man of thirty, may have the arteries of a man of sixty or vice versa. Hard arteries mean old age at twenty-five or ninety.

Prognosis: The common view is that those who have developed hard arteries are doomed—that they never "come back." It is indeed a Herculean task to remedy heart and arterial lesions once they have progressed to the point of actual degeneration or thickening that destroys their function by fifty per cent. And, so long as cause is unknown or unrecognized, not only will cure be impossible, but the hardening process will be allowed to progress. The early stages of such conditions, when pathology is in the making, are remediable.

Care of the Patient: Knowing the cause of any condition is equivalent to knowing the cure: namely—remove the cause. If a certain mode of living results in arteriosclerosis, the least discerning should be able to recognize that the only treatment needed is to proscribe that mode of living. Whatever produced and maintains the inflammation in the heart and arteries must be discontinued. Overeating, protein and carbohydrate excess, alcohol, coffee,

tea, tobacco and all excess must be given up. All enervating habits must be ended and nerve energy restored by rest. Toxin elimination is essential and nothing permits this to take place like fasting.

Embolism

Definition: This is obstruction of a blood vessel by an embolus. An embolus is a clot or plug which obstructs the blood vessel. It may be blood, fat, air or other body.

Symptoms: These depend on whether or not the embolus lodges in the lungs, liver, kidneys, heart, brain, or elsewhere.

Care of the Patient: The care is entirely constitutional in nature. Whether apoplexy, heart trouble, lung trouble or else has resulted, removing the toxic load from the body and improving the general health is the only "treatment worth while."

High Blood Pressure

Definition: This is an abnormal or pathological increase in blood pressure. To understand what high blood pressure is, It is first necessary to know what normal blood pressure is.

A baby has blood pressure. As the baby, child, youth, grows, blood pressure increases, due to the increase in the size of the body and the greater increase in the size of the heart relative to the increase in the size of the arteries. This increase normally continues from infancy to complete physical maturity, increasing rapidly after puberty. As the arteries continue to grow after the heart has attained full growth there should be a slight lowering after the maximum normal peak is reached.

Blood pressure should be highest when a man is in his physical prime—from twenty-five to fifty. After fifty, due to lessened physical activities, blood pressure should normally decline. From twenty-five to fifty it should be practically stationary, except of course that there are normal or physiological fluctuations due to excitement, physical, effort, etc. Normal blood pressure for the adult, at least until after fifty, should be that of a healthy, unstimulated individual at complete physical maturity. The old medical standard of 100 plus your age is much too high. The blood pressure

of an adult male should average between 115 and 130; that of the adult female between 110 and 120, being higher in larger and lower in smaller individuals.

Symptoms: High blood pressure is divided into a few varieties according to cause, as follow:

Accidental hypertension: This is seen in a ortic Insufficiency, heart block and, occasionally, in hyperthyroidism.

Nephritic hypertension: This is connected with pathology of the kidneys and is thought to be secondary to this. It begins most often about the thirtieth year and is most common in males.

Arteriosclerotic hypertension: This is due to hardening of the arteries. Headaches and disturbances of vision occur. The condition may terminate in cardiac decompensation, coronary occlusion, or apoplexy.

Essential hypertension: This is the most common of the four. It is also the most obscure and most important. It develops in both sexes at about middle age and is not connected with any pathology of the heart or kidneys, while the arteries may remain soft and resilient. As the above forms are dealt with under their associated conditions we are here concerned primarily with essential hypertension. Its symptoms are shortness of breath, pain in the heart, dizziness, headaches, and, of course, the high blood pressure.

Complications: If persistent, high blood pressure becomes a cause as well as an effect. Sooner or later resistance is overcome in the kidneys lungs, brain, in the heart itself, or in the coronary arteries that feed it. This means the ultimate development of Bright's "disease," apoplexy, coronary occlusion, or heart block, angina pectoris, etc. When a precarious condition develops and the heart and circulation begin to waver, very slight causes may produce a crisis, evidenced by neuralgic pains, distress under the sternum, diminished endurance, shortness of breath, puffiness of the skin, edema of the extremities, etc.

As we have repeatedly pointed out, the heart, like most modern machinery, is designed to carry an overload, a thing it does very effectively thousands of times throughout life in meeting the shocks and stresses of violent physical and emotional strain. A leaky valve or dilatation may be compensated, thanks to, the heart's reserve of power, and carried, as a tolerated pathology, for many years, provided its owner will slow down so that the crippled heart may keep pace with him. But, if day and night for months or years, the heart

must overcome the increasing resistance of arterial hypertension, it tires and weakens.

Weger says: "The closing chapter of advanced circulatory disease in middle life is written with the purple ink of cyanosis and faint echoes come to us of incoherent muttering from lips rehearsing the account of an unwise stewardship which Providence has seen fit to terminate at fifty."

Etiology: it must be emphasized that high blood pressure is merely a symptom. It is one of many endings of a series of crises in toxemia, the first of which, was a so-called cold—a catarrhal fever. The cold, according to Hygienic philosophy, is the earliest symptom of an initial pathology, which, if its cause is not removed, leads on and on through many crises, to an ending that may be high blood pressure or any, one of the many chronic so-called organic "diseases"—diabetes, Bright's "disease," tuberculosis, "diseases" of the heart and arteries, paralysis, insanity, cancer, etc. . .

Until the many so-called organic "diseases," from which people die, are recognized as end-points in a progressive pathological evolution, starting in early life and punctuated by frequent crises (acute "diseases") along the way, sanity in the care of the sick can never exist. When these so-called "diseases" are recognized as merely different end-points in one and the same pathological evolution, and not separate and. specific "diseases," when the principle of evolution is admitted into the realm, of pathology, doctors of all schools will recognize the folly of, directing their prophylactic and therapeutic treatments at the end-points of the pathological process and will remove the cause of the pathological evolution long before the end-point has been reached. Hard arteries produce high blood pressure. What do hard arteries mean to the average physician? Nothing," beyond the mere recognition of their presence. What leads up to the hardening, when it has its actual beginning and how it may be overcome—these form a closed book to him.

We need give but little attention here to any form of high blood pressure save that of essential hypertension since the other forms are complications of their related pathologies. High blood pressure before middle life is due in most instances to arterial hypertension, which is equivalent to saying that it is a reflex condition resulting from over stimulation of the nerve centers that cause the arteries to contract. Calcareous deposits come later.

Nerve-irritation always precedes essential hypertension. Such irritation causes the blood vessels to contract and the small capillary vessels are almost shut off from any circulation of blood. Irritation causes the arteries to feel hard, at times almost like whip cord, and no doubt, if it were possible to feel or see the hair-like capillary vessels, we would find them hard and stiff.

Almost any chronic or frequently repeated irritation of the sympathetic nervous system will sooner or later result in high. blood pressure. A mere transitory hypertension may be due to a brain storm (excessive emotion of any kind) or irritation of the suprarenal glands. However, high blood pressure is usually more or less permanent and progressive in character.

The irritation is of toxic, emotional and reflex origins. Most people with essential hypertension are over weight and give a history of stress and strain—prolonged worries, overwork, ungratified and over-weening ambition, frequent eating, overeating, insufficient sleep, the use of stimulants—throughout their lives. Hypertension is one symptom that can be directly attributed to high pressure living and all that this term implies. "The people troubled with high blood pressure" says Tilden; "are those who are going at top-speed to a premature end, enjoying as much as they can, the pleasures of life—the luxuries of high life such as money buys, amid the luxuries of low life common to all. The poor have luxuries that belong to sensualism and there is nothing that can be accomplished so easily as partaking of the tree of knowledge prematurely. Sex-lust stands at the head, but there is also a lustful spirit—an indomitable lust for any or all the things that people desire."

Those emotional and excitable people who lack poise and whose "blood" ran riot in the heyday of life, and those of a grumbling, grouching, fault-finding disposition, stress their heart and arteries, and thus build hardening of the tissue and obstruction to the circulation—high blood-pressure.

Toxic irritation grows largely, if not wholly out of excesses, poison habits and enervating practices.

Warm feet are essential to the highest efficiency of digestion and assimilation of food. This is literally true and forcibly illustrates the correctness of the Hygienic contention that for the recovery of health all enervating influences must be removed. If so apparently trivial a discomfort as cold feet inhibits digestion and assimilation, by producing enervation, it should not require unusual intelligence to be able to understand that other

factors of a more serious import daily influence digestion and nutrition to an even greater degree.

Not merely are the nutritive processes influenced, but the excretory functions are equally inhibited. The unusable and uneliminated waste in the body, left there by impaired elimination, must accumulate somewhere in the circulating fluids and the tissues. In enervated people the accumulation is daily increased.

Perhaps the greatest single cause of high blood pressure is toxemia resulting from checked elimination. Secondary toxemia, such as that seen in nephritis and intestinal autointoxication arising out of gastro-intestinal fermentation and putrefaction, all produce enough nerve irritation to cause high blood pressure.

Any form of excess—overeating, overwork, excessive venery, overenjoying, and overindulgence in anything—taxes the nervous system and brings on enervation, which checks secretion and excretion. Checked secretion produces indigestion with its consequent intestinal autointoxication; checked excretion produces toxemia. Learning one's limitations in expending nerve energy and then respecting these limitations will prevent enervation, guarantee good digestion and efficient elimination, and thus insure health and long life.

High blood pressure may be a symptom of the influence of tobacco on the organism. It may be a symptom of the influence of alcohol, or tea or coffee, or of other poison habits. No one who is addicted to any of civilizations many poison vices is safe from high blood pressure. Salt, pepper and other spices and condiments produce enough nervous irritation to bring on high blood pressure.

Plethory, an abnormal fullness of the blood vessels, is a general hyperemia. It means that there is an excess of blood. This is not an ideal state. Excess tension in the circulatory system due to plethory, increases toxin poisoning.

Plethory is due to excess in eating and drinking. It is an over saturation of the body with food and fluid. Excessive drinking of non-stimulating beverages, even water and fruit juices, may in time produce high blood pressure. Excess fluid is one of the causes of obesity, and obesity always raises blood pressure.

High blood pressure may mean an excessive amount of blood and lymph (plethory), or it may also mean the opposite. For, high blood pressure may sometimes be seen in anemia.

Tilden says: "We have no trouble finding men too stout, whose double chins, thick necks and folds of fat on the back of the neck and head, heavy jaws, red face shading off to purple, heavy abdomen, and the breathing oppressed after a short walk or climbing a few steps. These are suffering with arterial tension, hyperemia, and perhaps high blood pressure, and will die in a few days, weeks, or months, and the best of them in a few years, from apoplexy, heart disease, or kidney derangement."

High blood pressure may result from losing one's temper every day. Suppressing anger or hate may build high blood pressure. Men and women may have high blood pressure, not from carrying an excessive amount of blood, but from too much anxiety, excessive introspection, worry, anguish, trouble, etc. The banker or other business man who is expecting to have his business closed on him at any time is very likely to have high blood pressure. The gambler who is in a constant state of tension, the thief who is afraid of being caught, the liar who is never in a state of poise, the gossip who is always under apprehension—these people are likely to develop high blood pressure.

Besides the immediate nervous tension produced by trouble, threatened loss, lying, gambling, stealing, and all forms of dishonor and dishonesty, these things all produce enervation, and enervation always produces toxemia.

Reflex irritation of the sympathetic, system, such as that produced by pressure by an enlarged prostate may result in increased blood pressure.

Prognosis: In all forms of hypertension the pressure may be brought down to safe limits and held there. Essential hypertension is remediable in all cases.

Prevention: To prevent essential hypertension we must establish a different standard of living and different ideals.. There must be more striving for contentment and less struggle for riches and more cultivation of the spirit of leisure. Sport must be recreation pure and simple and not a passion conditioned on a desire to, win.. A placed regime of living, such as our capitalistic and competitive, society cannot give, will lessen all cardiovascular and renal pathologies.

Care of the Patient: Remove the causes, of which there are many, to remedy high blood pressure. Nature will take care, of the nerve reflexes if we remove the causes of the trouble. Functional and reflex irritations will all disappear when cause is removed. Without a knowledge of cause doctors merely attempt to force blood pressure down in spite of cause.

If removal of the prostate gland is followed by a lowering of blood pressure, does this justify the doctor or surgeon in declaring that enlargement of the gland causes high blood pressure and that all cases should be operated upon? Of course not. A true cure will remove, not the enlarged prostate, but the cause of the enlargement. If the gland is removed and the cause ignored, this cause will evolve another source of nervous irritation and the patient will have to be "cured" all over again.

We consider the elimination of toxins to be of first importance in this condition. Our care, being directed toward the removal of the toxic state, includes first and foremost, complete rest—physical, mental, sensory, and physiological rest. An absolute fast is essential if immediate effects, are desired. Weger says of fasting: "Most cases show immediate and marked improvement, and the results thus obtained justify the procedure and confirm the opinion that toxemia is the outstanding cause. When after a fast of ten to fourteen days very high pressure comes down to 140-90 and remains within such limits of safety under proper restraint and carefully selected diet, it seems justifiable to hold out hope to practically all who are not actually on the border line of dissolution."

Few things can be so easily, quickly and permanently remedied as essential hyper-tension. A world of irritation is removed when the subject goes to bed, refrains from eating, and certainly from worrying, and discontinues his or her poison habits.

Will the condition return as soon as the patient returns to his former habits? Of course it will, just as surely as drunkenness will return to the sobered man who goes back to drinking. The style of living that caused the high blood pressure the first time will produce it all over again.

Rest and fasting do not cure high blood pressure. They remove a load of toxins and irritations and blood pressure falls rapidly. But the real cure is to teach these subjects poise of mind and body; to train them in healthful physical, dietetic, emotional and sexual habits. The real cure is a healthful mode of living. For, to go to bed and fast and reduce, blood pressure, and

then return to the former mode of living—the former excesses and indulgencies, to the poison vices and emotional habits, to the prior sexual excesses, and to dishonesty, gambling, etc.—is to rapidly rebuild the pathological state that produced the high blood pressure.

To see blood pressure fall consequent upon a reduction of weight and then to regain the weight is to see it rise again. If there is excess fluid intake the obesity cannot be cured until the over consumption of fluid is discontinued. It is always necessary to remove cause.

Low Blood Pressure

Definition: Any marked fall of blood pressure below the normal standard. It is not a "disease," but a symptom: it is merely an indication of lowered tonicity of the whole body with an, undue weakness and relaxation of the tissues.. It is doubtful if an adult should ever consider his or her blood pressure to be low if it is above 100.

Symptoms: Low blood pressure is a symptom of relatively minor importance and is significant only in connection with other demonstrable deficiencies and pathologies, which are major issues by comparison. In most cases the indications of low blood pressure are simply those of a chronic condition of subnormal health. There is likely to be weakness and a lack of energy, with a feeble, perhaps, rapid, pulse.

Etiology: Paradoxical as it may seem at first glance, the same mode of living that causes high blood pressure may also be responsible for low blood pressure. We say that low blood pressure is due to the same fundamental cause as high blood pressure. High blood pressure is due to overstimulation of the vaso-constriction centers: the brain centers that control contraction of the arteries. Low blood pressure is due to toxic overstimulation of the vaso-dilation centers: the nerve anti brain centers that control dilatation of the arteries. Chronic autointoxication, resting on a basis of wrong habits, forms the basis of both high and low blood pressure.

Anything that lowers the tone of the body tends to reduce the blood pressure in the beginning. Autointoxication, for instance, may first lower and, later, raise blood pressure. In youth and early adulthood depressing emotions tend to lower pressure. In both early and extreme dementia blood pressure is subnormal.

Low blood pressure is seen in early life in cases of tuberculosis. In later life, low blood pressure is often very pronounced in cancer cases. Heart weakness may also mean low blood pressure. It should be understood that blood pressure, whether high or low, is by, no means the result of uncomplicated heart lesions alone, but that the entire circulatory system—heart, arteries, veins, capillaries, and lymph. channels—is involved.

Care of the Patient: The same correction of cause that reduced tension in cases of high blood pressure will increase pressure in cases low blood pressure. Normal blood pressure depends upon normal living. Blood pressure improves as health improves and as the tone of the general system approaches normal. If there is either tuberculosis, cancer, or heart lesions, care for these as directed under their respective heads.

Thrombosis

Definition: This is the formation of a thrombus, or blood clot. See Embolism.

Thrombo-Angiitis Obliterans

Definition: This is a form of gangrene attributed to thrombo-angiitis. Thrombo-angiitis is inflammation of the inner coat (intima) of a blood vessel with the formation of blood clots.

Symptoms: The first symptom is usually intermittent claudication (lameness). The pain on exercise may be mild, but is usually severe. The calf of the leg is the most common location of pain. It comes on after a certain amount of work and disappears after rest. The amount of effort before pain appears is only about one-sixth that of the so-called normal person: Coincident with or closely following the intermittent lameness, are changes in the temperature and skin of the affected extremities. When the legs are low (dependent) they become reddish and cyanotic. Elevation above the heart results in pallor. The skin temperature is low.

Occasionally the first symptom is sudden occlusion of a peripheral artery. This presents severe pain in the foot and hand, marked coldness, and extreme pallor. This may go on to gangrene, or the pain may cease, to be followed by redness and intermittent lameness.

Superficial phlebitis, often limited to, the valve areas of the veins (the so-called cutaneous nodosites of Buerger), often appear before the other symptoms. The superficial veins below the knee are the ones usually involved. These may remain inflamed and painful for a week to a month. The acute process then subsides, leaving a hard, cord-like thrombosed vein. As the pathology progresses other evidences of disturbed peripheral circulation become apparent, such as edema, trophic changes in the nails, skin ulcers, and eventually gangrene.

Finally, gangrene develops in the extremities. When limbs are amputated because of this affection, most of the larger arteries and veins of the amputated limbs are found to be obliterated over a large extent of their course, all stages of the occlusive change often being represented in the same vessel in different parts of its course.

Incidences: Interesting developments which reveal the resources of the living organism with which to meet unusual emergencies and circumstances, are seen in this condition. Occlusion of the main arteries of an extremity cuts off the blood supply to these parts and unless a collateral circulation is established in the affected limbs to carry blood around the obstruction, death of the part will speedily occur. In the main, the collateral vessels are arteries which are normally present, but which enlarge in response to the demand for increased function. Five methods of establishing collateral circulation are noted, as follow:

- 1. **Anastamosis**, in which a large branch arises from an obstructed artery above the point of obstruction, branches out at right angles, turns downward, and then turns at right angles again to join he parent vessel below the obstruction, to carry the blood around the obstruction.
- 2. **Lateral branching**, in which an artery located near the obstructed vessel sends out small branches in a lateral direction to supply blood to the affected area.
 - 3. **Prolongation**, in which an artery extends beyond its normal limits.
- 4. **Terminal branching**, in which many branches arise from above the occlusion and extend for a considerable distance below it.
- 5. **Network formation**, in which a complicated network of arteries form at the location of extensive obstruction.. (This last seems be a combination of the above types of establishing collateral circulation.)

Etiology: Originally discovered among the Jews of Russia, Poland and Gallica, and for a long time thought to be confined to these, it is now known to develop in all races, although there is still a preponderance of Jewish patients. It develops most often between the ages of 30 and 50 and is seen much more often in men than in women. Indeed so few cases have been seen in women that the theory has been advanced that certain ovarian hormones inhibit its development in females.

Tobacco appears to be the most common cause. It is said to be "not directly etiologic," though the condition occurs only in smokers, a fact which may account for its past rarity in women. Smoking and inhaling cause a marked constriction of the peripheral blood vessels which may last for an hour; If the smoke is not inhaled the constriction lasts only fifteen minutes Less constriction is produced by the "denicotinized" cigarettes. In both men and women smoking two cigarettes results in a drop in the skin temperature of fingers and toes and rise in blood pressure and pulse rate. The drop in temperature is greater among Jewish males than among non-Jews.

The irritation of the circulatory system by tobacco is enough result in a lowering of the resistance of its tissues to toxins and septic matters from the intestines, abscesses, etc. Doubtless the malnutrition suffered by the Russian, Polish and Gallican Jews accounts for their lesser resistance. We see no reason to believe this condition is not another terminal stage of toxemia, complicated by infection and nicotinism.

Prognosis: Removal of: the gangrenous limb was the former treatment. It was often followed by gangrene higher up. Death was the final result. The outlook is now much better.

Care of the Patient: Medical authorities say: "The first indication in the treatment is the absolute interdiction of smoking. So definite are the contraindications to smoking in thrombo-angiitis obliterans, and so unanimous are the opinions of experts in the field, that this rule should not be modified." It is believed by some of them that "the disease is not progressive if tobacco is stopped." So far, so good, but why wait until this condition has developed before ceasing the use of tobacco? The rest of their treatment is "plenty of good nourishing food," drugs, gland and tissue extracts, and amputation.

Our plan would be not merely to eliminate tobacco poisoning, but alcohol, tea, coffee, etc., poisoning, intestinal infection and toxemia. We would forbid

the use of nitrites and other drugs to dilate the vessels as being equally irritating. We would also avoid the alternate hot and cold baths, passive hyperemia, intermittent arterial compression and other forms of monkeywork advocated and employed. A fast, instead of a "phospholipin-free diet, high in carbohydrates and protein," would produce infinitely better results. Rest in bed is essential. Care must be sufficiently prolonged to allow collateral circulation to be established.

Gangrene of the toes is the most frequent, development and most difficult to prevent. The feet should be kept warm, clean and dry, the shoes should fit well and injury to the foot, such as removal of corns, callouses, ingrowing toe nails, incisions, burns, chemical irritations, etc., should be avoided.

Affections Of The Veins

Phlebitis
Varicose Veins
Hemorrhoids (Piles)
Varicocele
Varicose Ulcer

Phlebitis

Definition: Inflammation of a vein. So-called milk-leg is phlebitis of the great veins of the legs.

Symptoms: The vein is inflamed, swollen, hard and painful and much throbbing is experienced. It may be either acute or chronic.

Complications: The circulatory disturbance may lead to coagulation of the blood followed by rupture. An embolus may form and be carried into the general circulation to lodge in some vital organ and cause serious trouble. Pus in the surrounding area of inflammation may infect the stagnant blood and the pus may be carried to other parts of the body.

Etiology: Phlebitis may result from the extension of inflammation from adjacent structures to the vein, it may result from obstruction of the vein by an embolus; but in most cases it is due to septic infection. Sepsis may be absorbed from the digestive tract or from an abscess somewhere in the body. It is a frequent development in suppressed pneumonia, typhoid, etc.

Prognosis: This is good in the great majority of cases. In old and very debilitated subjects recovery is slow or does not take place.

Care of the Patient: Rest of the part is very essential, as is rest of the whole body. Physiological rest will relieve the body of its toxic and septic burden and permit healing. Sun baths after the acute stage is passed are very important. The diet after the fast should be fruits and green vegetables.

Varicose Veins

Definition: A greatly enlarged and contorted vein. The vein is dilated and overfilled with blood. The term is usually applied to a distended condition of the veins of one or both legs. Varicocele and hemorrhoids belong to this symptom-complex.

Symptoms: The first sign of varicose veins is when they stand out in thick, blue, tortuous strands. These may expand until pouch-like oases form within which the blood may coagulate in hard, knotty lumps. There is no pain in the earlier stages, but they may become very painful when advanced.

Complications: A blood clot may find its way into the general circulation and reach the heart, brain, lungs, or other vital spot and cause trouble. As the area of dilatation increases, skin eruptions followed by ulcers (varicose ulcer, or ulcer of the leg), may form. Extravasation of the blood may produce a dropsical condition. The usual consequence is rupture of the distended vein followed by extensive and debilitating hemorrhage which, unless stopped, quickly proves fatal.

Etiology: A general lowering of tone throughout the body, together with interference with circulation from visceroptosis, pressure upon the veins by a tumor, or, in pregnancy, by the uterus is back of varicose veins. Pregnant women who over eat are especially prone to develop varicose veins. Occupations that require long hours of sitting or standing, so that the muscles of the legs are not used, predispose to the development of varicosities. An enervating mode of life is the primary cause in all cases.

Prognosis: In the early stages and in young people this is very good. In advanced stages, or in old people, improvement is possible.

Care of the Patient: All enervating practices must be discontinued and a general program of health building adopted. For corrective care in these cases, see Vol. IV of this series.

Hemorrhoids (Piles)

Definition: This is defined as a vascular tumor of the rectal mucous membrane. It is variouse veins of the rectum.

Symptoms: Piles are generally of slow development and may be present for some time before they make themselves felt. Pain at stool, slight bleeding when the pile is internal, and feeling of soreness or irritation after evacuations attend their development. Frequently there is intense itching. As the condition of the rectum grows worse the piles increase in number, inflammation of the rectum (proctitis) grows worse, the pain becomes intense and bleeding becomes more profuse. The swellings, which at first are the size of a pea, grow to the size of a plum. They tend to be forced out of the rectum with each bowel movement and bleeding may become continuous.

Etiology: Hemorrhoids are not merely "diseases" as is commonly believed. They are local manifestations of a constitutional state based on enervation and toxemia. Chronic constipation with its consequent straining at stool is only a predisposing factor and not the primary cause. They are frequent developments in pregnancy, but it is safe to say that no healthy pregnant woman ever develops them.

Prognosis: In young subjects and in not very advanced cases recovery is easily achieved. In old subjects and in very severe cases complete recovery is rarely attained.

Care of the Patient: Dr Richard C. Cabot says of operation for hemorrhoids, that "it is not always satisfactory," for, "if the cause that produces the hemorrhoids in the first place persists the hemorrhoids will come back again no matter how thoroughly they are operated on the first time." This same is true of the at present popular coagulation treatment. No plan of care that ignores cause can ever be successful.

All causes of enervation and toxemia must be removed., Toxemia must be eliminated. Nerve energy must be restored, through rest. Constipation must be remedied. The tone of the whole body must be improved. The exercises given for this condition in Vol. IV of this series will be very helpful.

When hemorrhoids protrude they must be replaced. If allowed to remain outside the rectum they become irritated and painful and may suppurate. They may and must be kept inside the bowel.

We recommend the use of an occasional enema while fasting if hemorrhoids are present. This will avoid straining and aggravation of the condition when the bowels start moving after the fast is broken.

Varicocele

Definition: This is enlargement of the scrotal and spermatic veins—varicose veins of these parts.

Their causes, symptoms and care are the same as those given for varicose veins.

Varicose Ulcer

Definition: This is an open and running sore resulting from varicose veins. It results from the disturbance of the venous circulation and the preceding toxemia and quickly heals when toxemia is removed. Permanent relief from varicose ulcers depends upon remedying the condition of the veins.

Affections Of The Lymphatic System

<u>Lymphadenitis</u> <u>Lymphangitis</u> <u>Scrofula</u>

Lymphadenitis

Definition: This is inflammation of a lymphatic gland. Retro-pharyngeal abscess, tonsilitis, appendicitis, and inflammation of the glands of the neck and groins (bubo) are familiar examples.

Symptoms: Symptoms often begin with a chill or rigor, followed by vomiting, diarrhea and high fever. Locally there is heat, redness of skin, pain, enlargement of the gland and, if the process runs on suppuration, the symptoms of ordinary abscess develop.

Etiology: Infection, most often of gastro-intestinal origin, but en from external sources and from abscesses, is the cause.

Care of the Patient: Local care is of no value. In rare cases it nay be necessary to drain the abscess. The usual procedures for detoxicating the body—rest and fasting—are all-sufficient.

Lymphangitis

Definition: This is inflammation of a lymphatic vessel and is generally associated with inflammation of the glands.

Symptoms: Tenderness, swelling and pain along the course of the lymph vessel are the usual symptoms.

Etiology: Infection from wounds or bruises, or from bites aid stings, is the most common cause. Intestinal infections and infection from an abscess may also cause the condition.

Care of the Patient: When it results from a wound this should be thoroughly cleansed—drained. Any abscess should be drained whenever possible. Intestinal decomposition must be stopped. Rest and fasting will complete the care.

Scrofula

Definition: This is a tubercular condition of the lymphatic glands and bones. See tuberculosis.

Affections of the Blood

Abnormal States Of The Blood

Anemia

Primary Anemias

Secondary Anemia

Splenic Anemia (Banti's "disease")

Erythremia (Vaquez' "disease")

Hemophilia ("Disease" of Kings)

Hodgkin's "Disease" (Pseudoleukemia)

<u>Leukanemia</u>

Leukemia (Leukocythemia)

Purpura

The blood and the lymph, which is really part of the blood, are products of the functions of certain organs (blood making organs) of the body. Broadly speaking, blood is composed of its lymph, or serum portion; which represents food and water, and its red and white corpuscles. In the lymph are carried the secretions (hormones) of he ductless glands. It is possible that practically every structure in the body contributes to the composition of the blood.

Lymph is the product of the digestive and assimilative functions. The red corpuscles and the white corpuscles are made in the marrow of the bones. The blood is, therefore, a product of the body's own functions and processes and its health or sickness depends upon the efficiency or inefficiency with which the organs of the body carry in their work. Its affections are almost always secondary to failure in other parts of the organism.

Abnormal States Of The Blood

The following abnormalities of the blood are diagnosed by means of the microscope, and are symptomatic of affections elsewhere:

Anhydremia, is a great diminution of the fluid portion of the blood as seen following watery diarrhea, hemorrhage, cholera and excessive drains upon

the system from any cause.

Anisocytosis is inequality in the size of the red blood cells. It is a diagnostic sign in pernicious anemia.

Dysemia is a morbid state of the blood due to deficiency in the organic salts, often associated with toxemia.

Eosinophilia is an increase above four per cent of the cells containing eosinophilic granules. It is seen in leukemia, asthma, trichinosis, skin affections, etc.

Hydremia is an excess of water in the blood with a corresponding decrease in its cellular constituents, observed in anemia, anasarca, and often excessive intake of fluids.

Leucoytosis is an increase in the number of white cells in the blood. It is considered physiological during pregnancy, parturition, infancy, digestion and after physical exertion; and as all aid to diagnosis in inflammatory conditions associated with suppuration.

Leukopenia, is a marked reduction in the white blood cells as observed in pernicious anemia, malnutrition, starvation, etc.

Lipemia is the presence of microscopic fat globules in the blood.

Macrocytosis is larger than normal red blood cells. It occurs in severe and pernicious anemia.

Melanemia is the presence of dark brown or yellow granules in the blood as seen in Addison's "disease," melanosarcoma, etc. It is rare.

Microcythemia or **Microcytosis** is a marked reduction in the size of red cells as seen in severe anemias and toxemia.

Oligochromemia is a deficiency in hemoglobin (red coloring matter) of the blood.

Oligocythemia is a diminution of the number of red cells regardless of cause.

Parasites, both animal and vegetable, are encountered in the blood in certain conditions.

Poikilocytosis is irregularities in the shape of the red blood cells, as in pernicious anemia, chlorosis, etc.

Toxemia is the presence of toxins in the blood. Because in the minds of the profession and the laity it is a vague term, meaning much or little, it is not given the position of importance it deserves.

Etiology: All abnormal states of the blood, whether involving deficiencies or excesses, may be attributed to disturbances of nutrition, either from food deficiencies, or from poisons.

There is good reason to assume that toxins may actually destroy the life of the blood and impair it at its source, or may pathologically alter its normal constituents. The lungs eliminate carbon dioxide and volatile substances. When their function is lowered or when, as in anemia, chlorosis, dysemia, etc., there is oxygen starvation, the neutralization of poisons, which depends upon a sufficient amount of oxygen, fails. Uremia is caused by a failure of the kidneys to throw off toxins from the blood, but for years, perhaps, before uremia develops, there has been a gradually mounting toxemia due to less apparent kidney insufficiency. Cholemia is an intoxication that develops in severe forms of jaundice and in the late stages of liver pathology even in the absence of jaundice. It is supposed to be due to retention in the blood of certain poisonous compounds which the normal liver renders non-toxic. For years before this stage is reached the enervated liver must have been failing to do its full duty. Lactic acid poisoning develops when breathing is shallow, or when there is oxygen starvation from any cause. It is seen also in gastrointestinal affections and in diabetes. Other forms of acid poisoning are seen —acetone, ethyldiacetic, acetylacetic, nitric acid, etc., poisoning—in acetous fermentation in the stomach and intestine and in certain advanced pathologies such, as for instance, diabetes.

Care of the Patient: If more than an evanescent arousing of lethargic metabolism with fleeting apparent benefit is desired, the cause of abnormal blood states must be removed and the deficiencies supplied.

There is no known source of assimilable organic salts needed by the blood except food. Natural foods, especially raw vegetables and fruits, supply the body with all of the needed minerals and vitamins. Patent foods, mineral and vitamin concentrates, etc., are not needed and are not as valuable as natural foods.

Nutritive redundancy causes far more cases of abnormal blood states than food deficiencies. A fast is often the speediest means of remedying these conditions. To relieve the blood of its load of toxins allows the blood making organs to function efficiently.

All causes of functional impairment—all causes of enervation—must be removed. For instance alcohol, tobacco, and strong condiments, overwork

the liver and kidneys and cause their functions to lag. Normal function cannot be restored to these organs so long as they are thus lashed into impotency by overstimulation: toxemia cannot be eliminated and the blood' cannot become normal.

Other than the above the proper selection and combination of food faithfully persisted in will give most gratifying results In simple anemia, chlorosis, pernicious anemia, purpura, hemophilia, and leucocythemia.

Anemia

Definition: This is a deficiency in either the red blood corpuscles, or in hemoglobin or in both, with or without changes in the total volume of the blood. Several kinds of anemia are recognized and these are grouped as **primary** and **secondary** anemias.

Symptoms: Any form of anemia may present, pallor of the skin and mucous membranes, loss of strength, a full, rapid pulse, unnatural pulsation of the vessels of the neck, palpitation of the heart, slight dropsy, beginning in the feet, hurried breathing, dyspepsia, headache, vertigo, disturbed sleep, neuralgic pains, a tendency to syncope (fainting), and discolorations due to extravasation of blood into the skin and mucous membranes and bleeding from the mucous membranes. There is often what is known as a hemic murmur, which is a hum over the jugular vein.

Primary Anemias

Definition: This is a state of anemia which, "in our present state of knowledge, cannot be associated with any conspicuous underlying cause"—cause in this case, meaning some serious pathology in some of the organs of the body.

Chlorosis (green sickness) is a form of primary anemia occurring almost exclusively in young women and characterized by deficiency in hemoglobin. Occasional cases of chlorosis develop in boys and young men.

Symptoms: In addition to the general symptoms of anemia given above, the conspicuous features are a greenish hue to the skin, pallor and weakness without much loss of weight, dyspepsia with perversion of appetite, menstrual disorders, especially absence or menstruation, and a tendency to

hysteric outbreaks. There is usually only a moderate reduction of red cells, but a greatly reduced hemoglobin.

Complications: These are uncommon. Peptic ulcer, tuberculosis, hyperthyroidism, and thrombosis, either of the cerebral sinuses or the veins of the extremities may develop.

Etiology: Toxemia plus septic infection is the chief cause of this condition. Retained menstrual blood, due to a pin-mouth os, or to flexion of the neck of the uterus, is a very frequent source of sepsis. Intestinal sepsis from too much food, too frequent eating and wrong foods, is another source of sepsis. Many chlorotic girls are sugar poisoned. They appear to have lost all desire for all foods except cakes, confectionery, pickles, etc. A real sex neurosis—habitual masturbation—with its retinue of sequels will be uncovered in the majority of these cases if the truth can be secured. Overwork, working in ill-ventilated rooms, wrong foods, and every other cause that breaks down the nervous system will help to break down the blood.

Prognosis: This is good and the relapses, so common under regular care, need not develop if the body is properly cared for.

Pernicious Anemia (Progressive pernicious anemia) is a grave form of anemia characterized by an extreme diminution in the number of red cells, marked changes in the red cells and a decrease in the number of polymorphonuclear neutrophiles.

Symptoms: There is intense anemia with its usual manifestations as previously enumerated; a lemon-yellow tint to the skin, progressive weakness, without marked emaciation, recurrent periods of feverishness lasting a week or two, digestive disturbances with paroxysms of pain in the stomach region, numbness, tingling or other morbid sensations in the extremities, and occasional hemorrhages, especially into the skin and retina, slight or moderate enlargement of the liver or spleen, and symptoms of tabes dorsalis or other symptoms referable to the cord.

Aplastic Anemia is a "rapidly fatal form of pernicious anemia" seen largely in young women. In contrast with the above form of pernicious anemia, aplastic anemia runs an acute course, there is much greater tendency to hemorrhage, the color index is low, there is usually an absence of nucleated red cells, and there is a relatively high percentage of lymphocytes.

The bone marrow is yellow instead of red, the red-cell producing tissue being replaced by fat.

Etiology: We are told that in many cases "no adequate cause is apparent," while "forms of anemia closely resembling pernicious anemia may result from the action of intestinal parasites," and that "the most plausible theory is that the disease is due to the hemolytic (breaking down of the blood corpuscles) action of some poison produced within the body or the result of infection. According to W. Hunter, oral sepsis is the cause of toxemia." The intestinal toxemia, rather than the tapeworm, is the likely cause of the anemia. Hemic infection from intestinal decomposition must in time, destroy the life of the blood, not merely by breaking down the blood corpuscles, but, also, by impairing the blood-making function of the bones.

The iron-deficiency seen in these cases is secondary to toxemia and hemic infection. It is not so much that these patients need iron, as power to assimilate the iron in their food. The mistake commonly made under such circumstances, is that of eating excessively when there is no power to digest and assimilate the food eaten. Over-feeding produces exactly opposite results to those sought.

Prognosis: Victor P. Fleming, M.B., writing of the care of pernicious anemia at the Tilden Health School, says: "Seventy-five per cent of our cases recovered, and they represented the extreme type; that is, the condition had existed for from one to three years, and the blood-count was as low as 2,000,000 red blood-cells on an average. * * * There is no doubt in my mind that practically all these cases could recover if attended to at the beginning of the development of this disease. The deaths which represent the 25 per cent, occurred within a few days of admission to the institution. These cases were so far gone that nothing could be done, and no treatment, was attempted, as they were dying when admitted."

Weger says: "The only cases of pernicious anemia that fail to respond favorably to hygienic methods "are those in which the heart muscle has degenerated and in which a general dropsical condition has existed for a long time, accompanied (as is often the case) by cerebral manifestations or mania and profound hemolytic jaundice. These advanced symptoms indicate that the organism has passed beyond the power of recuperation because of nutritional devitalization."

Care of the Patient: Weger adds: "This state is not due to lack of food. To the contrary, too much food and food of the wrong kind is generally the chief cause. We have records of cases and later reports from patients who were treated ten or more years ago by a preliminary fast for the purpose of freeing the system of toxic waste. These patients are still alive, well, and efficiently carrying on their work. Such results were accomplished without feeding liver or using iron or other drugs."

In the paper quoted from above Fleming says: "What did we do for them? (pernicious anemia cases). If a case was not too weak, a fast was undertaken for at least ten days. During the fast there was an increase in the blood-count of several hundred thousands. This always occurred during a fast in any case of anemia. By the fast toxemia is partly eliminated, and the source of blood-destruction is reduced. The bone-marrow is rested, and also relieved of toxemia, and stimulated to activity once the source of poison (toxemia) is removed, contrary to the stimulation of transfusions, X-rays, drugs, etc., which ends in greater enervation."

These experiences coincide with that of Hay and of the present writer. Rest, fasting, sun bathing and a corrected mode of life accomplish the seemingly impossible in these cases.

Arsenic and iron are useless in pernicious anemia, and can only produce and cause more poisoning and enervation, as they only 'stimulate' and then enervate. Experiments on anemic rats with diets containing drug iron, food ash containing iron, flour to which copper had been added, etc., showed that by no kind of trick or makeshift diet could the anemia be overcome. The rats had to have real foods from Nature's own food laboratory—the plant kingdom—in order to recover.

Secondary Anemia

Definition: This is anemia that is supposed to be symptomatic of some conspicuous primary pathology.

Symptoms: In addition to the usual phenomena of anemia, as previously given, there is a decrease in the number of red cells and a proportionate deficiency in the percentage of hemoglobin. There are other blood changes that need not be listed here.

Etiology: Three general classes of causes are given for secondary anemia, as follow:

- (1) Nutritive insufficiency from inadequate food, chronic gastritis, pyloric cancer, etc.
- (2) Excessive demands upon the blood-making organs, as produced by overwork, hemorrhage, chronic diarrhea. Too profuse, too frequent or too prolonged loss of blood in menstruation will cause anemia. Frequent bleeding from the lungs, as in tuberculosis, or from the bowels, as in ulcer or typhoid, will do the same. Almost fatal hemorrhages from accidents produce marked anemia.
- (3) The hemolitic action of parasites and toxic agents, as in malaria, uremia, cancer, lead poisoning, etc. There is every reason to think that intestinal sepsis will produce anemia as surely as the sepsis generated in cancer.

Prognosis: This depends on cause. In cancer and advanced tuberculosis recovery is not likely. In practically all other cases recovery should follow proper care.

Care of the Patient: It is now considered good treatment to transfuse in almost fatal hemorrhages and in low states of anemia. There are three objections to this: namely—

- 1. The blood transfused is likely to cause more troubles (anaphylaxis) than grow out of anemia itself. Sudden death and fatal hemolysis are possibilities.
- 2. It is as much of a shock to the patient to have blood thrown into the veins as to have it suddenly withdrawn and two shocks are often more than the patient can withstand.
- 3. Nature can make blood out of the tissues of the body as fast as is necessary and this forms the only legitimate source of supply.

Dogs were bled white in experiments. These dogs were fed upon various types of diets to determine what foods produce the most rapid blood rejuvenation. Part of the dogs were given no food but water. The fasting dogs made the most rapid recovery. The most rapid blood regeneration is produced from the organism's own internal resources—if it is allowed to rest and is protected from further shock.

Nothing equals fasting and rest in those cases due to excessive menstrual losses. What besides fasting can assure results in gastritis, diarrhea, etc.?

Rest is the one great need of these patients—physical, physiological and mental rests "They are shocked," says Tilden, "by being tormented with dressing and nurses."

Of course, these cases must be fed properly after the fast and they will require exercise and sunshine. A general health-building regimen should follow the fast.

Splenic Anemia (Banti's "disease")

Definition: This is a form of pernicious anemia with enlargement of the spleen. It is apparently a secondary anemia though exspurts disagree about its classification.

Symptoms: In addition to the above symptoms of anemia, in splenic anemia there is a greatly enlarged and tender spleen—the spleen may increase to ten times its normal size. There is a tendency for the patient to become a bleeder. Fluid may collect in the abdomen. There is weakness and marked pallor and often damage to the liver. Unless the condition is corrected the patient goes down rapidly.

Etiology: Medical men, who always start with an established pathology as cause, say that it is due to misbehavior of the spleen. One of the functions of the spleen is to destroy old red blood cells and save the hemoglobin for reuse by newly formed corpuscles. Over activity on the part of the spleen is supposed to destroy the normal red cells at a rate that results in anemia. They do not attempt to account for the cause of the overactivity of the spleen. Toxemia and intestinal intoxication account for the hyperfunctioning of the spleen.

Prognosis: Unless cause is removed death comes in a short time. With removal of cause recovery follows.

Care of the Patient: Medical authorities say that "the remedy lies in getting rid of the over-active spleen." Hygienists say the remedy lies in getting rid of the cause of the overactivity of the spleen. The condition should be cared for as described under pernicious anemia.

Erythremia (Vaquez' "disease")

Definition: A rare affection characterized by persistent redness, or cyanosis of the skin, certain blood changes, and marked enlargement of the spleen.

Symptoms: Besides the characteristic symptoms mentioned above less common symptoms are high-blood pressure, headache, dizziness, ascites and albumen in the urine. Hemorrhages are of frequent occurrence, especially hemorrhages into the brain.

Etiology: Overactivity of the red cell-producing tissues of the bonemarrow is regarded as cause, but this leaves unrecognized, the cause of the erythroblastic overactivity. Toxic overstimulation is the probable cause.

Prognosis: As a rule the condition is said to last for years, death resulting from heart failure or hemorrhage. Blood-letting, X-ray treatment, saline purges, and persistent ignoring of cause is the cause of death.

Care of the Patient: Same as for Leukemia.

Hemophilia ("Disease" of Kings)

Definition: This is commonly defined as an hereditary constitutional defect characterized by immoderate and persistent bleeding after the most trivial injuries. These patients are called "bleeders."

Symptoms: The leading symptom is the occurrence of profuse, at times uncontrollable, hemorrhages, sometimes developing spontaneously, though usually following slight trauma. Bleeding from the mucous membranes, into the subcutaneous tissues and into the joints (hemarthrosis), the latter resulting in inflammatory changes in the joints resembling rheumatic or tubercular arthritis, occurs. Women so inclined will lose much blood with each menstruation. Such cases will continue to bleed for an indefinite time after a tooth is pulled. The nose bleeds easily and long.

Etiology: Medical authorities say "nothing is known of the causes of the disease beyond the facts that it is strongly hereditary and familial, that it occurs chiefly in males, and that it is transmitted almost exclusively by unaffected females." We place no value upon its supposed hereditary character. This is a superstition that will be outgrown in time.

The blood has lost its power to coagulate, or, at least, to coagulate in normal time and this is thought by some to be due to a deficiency of thrombokinase produced in the walls of the blood vessels and other tissues,

by others, to a decrease of prothrombin derived from the blood platelets. As these deficiencies are part of the pathology, they cannot be regarded as cause.

Hemophilia is seen in very young children and is caused by excessive eating and eating of wrong foods which bring on plethora and blood dyscrasia. Plethora means excess of blood and there is always nasal catarrh with inflammation and ulceration of the mucous membrane. With this condition established, the nose-picking habit develops. Dry scales or scabs form in the nose, causing the subject to dig with his fingers to remove them. This often results in bleeding. Some of these subjects carry so much blood in the head from hyperemia, that when bleeding is profuse, it is made more intense by fear and excitement and the obvious apprehensiveness of the physicians. A congenital tendency to bleeding may result from wrong food, plethora, and toxemia in the mother. The normality, or lack of it, in the embryological food supply depends on the degree of legitimacy by which the aggregate of the mother's nutrition is characterized.

An exactly similar condition as hemophilia may result from poisoning by such drugs as lead, arsenic, mercury, etc. The most common intoxication leading to hemophilia is intestinal sepsis, from over eating, wrong eating and enervation.

Prognosis: While medical works says that "in some instances the tendency is outgrown," they add that the "outlook is unfavorable in most cases," about 60 per cent of all 'bleeders" die before the eighth year, only about 11 per cent, reach maturity. The high death rate is due to failure to recognize and remove cause and to such things as blood transfusions, removal of the spleen, treatment of "infected areas" and "plenty of good nourishing food" in the form of high-calorie diets, much liver, cod-liver oil and meats "to keep up the strength," calcium lactate, antidiphtheritic serum, thyroid extract, etc. Bleeding is a way to get rid of an excess that would kill and the treatment given is quite sufficient to transform the plethora into a malignant blood degeneration. Weger says: "All such cases that it has been our privilege to treat have made satisfactory recoveries."

Care of the Patient: Put the patient to bed and place an oil cloth over the pillow or other part of the bed, and in such a way that the blood will drain into a vessel. Keep the patient still and calm. When physicians become anxious they impart their feeling to their patients. Nervous doctors should be

withdrawn or be fired from any case in which poise is needed. No gossip and meddlesome officious attention should be allowed.

No food and no drink should be given until the full pulse has become soft and the bleeding has stopped. When blood pressure is greater than a weakened blood vessel can resist, the laws of hydraulics demand that the quantity of fluid be reduced, not by phlebotomy (blood-letting), but by stopping the intake.

If there is much thirst a half-glass of water may be given every three hours, if thirst demands. Positively no food is to be given until the subject has lost enough weight to render bleeding impossible, or, in other words, the fast should continue until the volume of blood is lowered sufficient to stop the bleeding from the nose or any other part of the body.

Abstention is Nature's anodyne—it is her means of getting rid of plethora. Fasting speedily restores the coagulating power of the blood. Feeding builds more plethora and more toxemia. Laboratory experiments show that blood regeneration is more rapid during a fast than while on any form of diet known.

Beyond fasting and rest, there is nothing else to do except to build up the general health of the patient with proper food, exercise, and sun baths and stop all bad habits, especially the overeating habit.

Hodgkin's "Disease" (Pseudoleukemia)

Definition: A comparatively rare affection characterized by enlargement of one or more groups of lymph-glands and progressive anemia.

Symptoms: The lymphatic glands in different parts of the body—arms, legs, abdomen, etc.—become enlarged, but painless, the spleen and liver are enlarged and pronounced secondary anemia is present. The condition is commonly preceded by chronic tonsilitis. Pressure of the enlarged nodes upon adjacent structures may give rise to difficult breathing cough, blueness, edema, neuralgic pains, etc., depending on their location. In the early stages there is slight fever but as the condition grows worse, the fever tends to rise in the afternoon. Sometimes a chill precedes the fever and a sweating stage follows its subsidence. In fatal cases pronounced emaciation develops. Dropsy appears about this time, due to exhaustion of the heart and kidneys.

Etiology: "The cause is unknown" says medical authority. "In all cases that I have been called upon to treat," says Tilden, "I have found gastro-intestinal derangement and the bad habit of excessive eating and keeping up putrefaction in the intestine." Chronic tonsilitis and rapid enlargement of the inguinal glands (in the groin) show that there is putrefaction in the intestine and that resistance is broken down. Enervation, toxemia and intestinal sepsis growing out of wrong life cause this affection.

Prognosis: "The disease is invariably fatal and the duration varies from a few months to several years," says medical authority. Since they ignore cause and declare arsenic to be the most valuable "remedy" in this disease, we do not wonder at their uniform failure. "The disease can be controlled, if taken in the early stages," declares Tilden.

Care of the Patient: It Is first necessary to eliminate toxemia and stop the gastro-intestinal putrefaction. Fasting and rest are essential in all cases. A fruit and vegetable diet and no meat or eggs, with proper general care of the body—cleanliness, exercise, sun-baths, plenty of sleep, poise—will restore these patients to health.

Leukanemia

Definition: This is a symptom-complex marked by the blood conditions of both pernicious anemia and leukemia. See these two conditions. It is to be cared for as directed for these two affections.

Leukemia (Leukocythemia)

Definition: A symptom-complex characterized by an overgrowth of the white-blood-cell producing tissues and by an enormous increase in the number of leukocytes (white cells) circulating in the blood.

Varieties: The bone-marrow, spleen and lymph glands are all more or less involved in the excess of white cells. Accordingly, two types of leukemia are described; namely—myelogenic, and splenic, or lymphatic. Lymphoid leukemia may be either acute or chronic. The difference between lymphatic and myelogenous leukemia is slight, the two forms being merely variations of the same condition.

Symptoms: The symptoms of the above forms are practically the same. In myeloid leukemia progressive loss of flesh and strength and abdominal enlargement due to the increase in the size of the spleen are early developments. There is pain in the region of the spleen, the liver is moderately enlarged. Hemorrhages from the membranes and into the skin, retina, or brain are common. Anemia rarely develops early, but usually develops as the condition grows worse. Indeed Tilden says that anemia and leukemia "are two different stages of the same disease." In the later stages pallor, difficult breathing, digestive disturbances, edema, etc., are conspicuous developments.

Lymphatic or splenic leukemia presents the same general symptoms as above. In lymphatic leukemia, the most conspicuous feature is enlargement of the lymph glands—cervical, axillary, inguinal, etc. Indeed before any form of leukemia develops there is always lymphatic involvement because the lymph glands serve to arrest, detain and destroy toxins. Enlargement of the tonsils, which are lymphoid structures, is often an early symptom. The spleen is more or less enlarged in almost every case.

Atypical Leukemia is a term applied to rare cases in which there is no enlargement of the lymph glands, and to cases in which there is a relatively low white blood cell count.

Chloroma is a term applied to cases of atypical leukemia in which greentinted tumor-like masses penetrate the bones (lymphoid infiltrations), especially those of the skull, and invade the surrounding tissues.

Complications: Hemorrhage or leukemic infiltration cause dim-ness of vision if it occurs in the retina or optic nerve; deafness if it occurs in the labyrinth; exophthalmos (protrusion of the eyes) if it occurs in the orbit.

Etiology: Leading medical authorities declare the cause is unknown. They say leukemia "is not primarily a disease of the blood, but of the organs that make the blood—the spleen and bone-marrow. Why these organs fail to produce the proper proportion in the blood is totally unknown." They note that it occurs more often in males than females. We are safe in declaring that without constitutional toxemia and lymphatic involvement no leukemia will or can develop. The primary cause is hemic infection and the cause of this infection is sepsis arising out of intestinal decomposition. Leukemia is most prevalent where sunshine is least abundant. It has greatly increased since the

stuff-em-on-milk-and-cod-liver-oil and shoot-em-full-of-serums practices got well under way.

Prognosis: Medical authority declares, "The disease is always fatal. The average duration of chronic forms is from two to three years. Remissions are not uncommon. Acute cases last from a few weeks to several months." This is the experience of those who ignore cause and abuse the body with treatment. Tilden says of advanced cases, if, they "get well in six months or a year," they are "going very rapidly toward recovery." Weger reports gratifying results in the few cases cared for by him. Our own experience has been limited but satisfying.

Care of the Patient: Tilden says: "The patient is fortunate if living in a warm country where be can stay out of doors all the time."

It has been our observation that sunshine in the form of sun baths is a most potent aid in restoring a normal blood condition.

Of prime importance is the elimination of toxemia and the correction of the intestinal condition so that septic poisoning no longer occurs. The fast, for this purpose, must be of sufficient duration, not merely to reduce the spleen and liver, but to rid the body of its toxic load.

Rest is very essential and daily exercise is important.

Meat must be omitted from the diet. Fresh fruits and vegetables should form the bulk of the diet. Much of the diet should be uncooked.

Purpura

Definition: This is the name of a symptom. It is a spontaneous hemorrhage into the skin and mucous membranes and is always a secondary condition, that is, it is a symptom of some underlying pathology. Since the underlying or primary pathology is not known in "several purpuras," it is customary to speak of a primary or essential type.

Secondary Purpura is seen in anemia, leukemia, "acute infectious diseases," cancer, scurvy, old age, chronic nephritis, whooping cough, hysteria, neuralgia, sciatica, jaundice, snake-bite and drug poisoning, such as poisoning by iodides, antipyrin, salicylic acid, quinine and mercury—drugs commonly used in "acute infectious diseases" and sciatica.

Primary Purpura is divided into several not well-defined varieties, as follow:

Purpura simplex presents successive crops of small hemorrhagic spots on the extremities, especially the legs. Pains in the joints are frequent and when these are severe the name changes to **purpura rheumatica**. Urticaria is common. The condition lasts from a few days to several months.

Henoch's purpura is characterized by recurrences of purpura and paroxysms of abdominal pain, often accompanied by vomiting and diarrhea. Often the discharges are bloody. The condition lasts from two to three weeks to as many months and is often accompanied by erythema, urticaria, localized edema and nephritis.

Purpura hemorrhagica presents bleeding from the mucous membranes, especially of the nose, mouth and genito-urinary tract, as well as into the skin. The average duration is from four to six weeks and relapses are common. Fever develops in more than half these cases, while arthritis and nephritis are frequent developments in severe cases anemia results. In rare cases purpura becomes malignant—**purpura fulminans**—and death follows in two or three days. It occasionally becomes chronic and lasts for years.

Etiology: "The cause of primary purpura is unknown," say medical authorities. It develops in many chronic affections and denotes a most pronounced toxin poisoning. Its frequent development in pyemia, septicemia measles, scarlet fever, small pox, cerebro-spinal fever, arthritis, snake-bite, and drug poisoning indicate its true cause—great poisoning.

Prognosis: Recovery is the rule, except in severe forms. Cerebral hemorrhage, nephritis, or exhaustion are the chief causes of death.

Care of the Patient: it is necessary to emphasize that purpura is a symptom and that no attention is to be paid to it. The first need is elimination of toxemia and thereafter proper feeding and good general hygiene. Weger says: "All such cases that it has been our privilege to treat have made satisfactory recoveries."

Affections of the Ductless Glands

Affections Of The Adrenals
Affections Of The Parathyroids
Affections Of The Pituitary
Affections Of The Spleen
Affections Of The Thymus
Affections Of The Thyroid

Every gland depends upon the cooperation of the others. "Bear ye one another's burdens," is an admonition that has been obeyed by the organs of the body since the beginning of life. We learn of complications in the interrelations of the glands themselves and of the glands and other parts of the body, wherefore, it should be obvious that only a general integrity will avail. Glands are only organs, like the muscles, or the stomach. They have no existence, as such, in nature. They exist only in relation to other parts, or rather, in relation to the whole organism. No doubt the whole endocrine system is an organic unit, as is often asserted, but it is no less so than the body and all of its parts. The glandular system is a unit only in relation to the whole body, apart from which it has no existence. The body functions as an organized unit and not as a mere collection of organs. We cannot separate organs from their reciprocal relations. To rely upon interference with glands and hormones and their relations is to rely upon things concerning which we have merely fragmentary knowledge. We should rely rather upon preserving (or restoring) intact, our integrity. We deal with an organism and its ways of life, not merely with theoretically isolated parts of the organism.

All the glands of the body, be they ducted or ductless, are under the constitutional or federal government under the union of the organism (symbiosis). Whatever amount of individual control or individuality the various organs may have, all are bound together by the blood and nervous system. The fact that the sympathetic nervous system regulates the nutrition and functioning of the tissues and the secretion of hormones, makes difficult the understanding of hormones.

We forget that the conservation of life energy is in our own hands and not in the hands of some clever medical profession which will yet discover the right chemicals with which to treat the glands. We control our metabolism ourselves: the glands being parts of us, take part in the control. We ignore, too, the fact that "the crowded foulness of our body" is due to "rioting joys that fringe the sad pathways of Hell." The oft'heard statement, "It's my glands, doctor," is based on the thought that the glands may go wrong without cause, that glandular malfunction is responsible, for our troubles, instead of us being responsible for the glandular malfunction. "Science" investigates everything except the fact that evolution is determined by nutrition.

Unfortunately as in everything else, instead of trying to understand these glandular functions and instead of searching for the natural conditions upon which normal glandular function depends, the search has been directed to finding substitutes for normal functions.

All the organs of the body, the ductless glands included, are weakened and various affections develop, as their secretions and excretions are molested by continued toxemia and pan-toxemia.

Certain, if not all, of the glands are involved in the body's defense against poisons. The supra-renal cortex and the thyroid gland are especially involved in the toxin defense. The glands react to any intoxication by increased functioning.

Chronic irritation, resulting from chronic protein poisoning, will result in chronic hyperfunctioning of the glands until exhaustion results in hypofunction. Hyperfunctioning may lead to enlargement and consequent change of structure in the gland. Or, a degeneration of the gland's active elements may result, so that often, as a result of "a slight infection of short duration," the organism is permanently thrown out of balance.

The chief cause of intoxication (infection) is protein poisoning, such as that connected with the pernicious habit of meat and egg eating. Man's life and feeding habits are so contrary to the best interests of his body that the ensuing poisoning requires to be specially coped with and provided against by particular glands, the task of which is a very delicate and arduous one, involving frequent fatigue and breakdowns due to overwork, making the task increasingly difficult.

Glands function efficiently or not depending on their nerve and food supply. If the blood is normal, their supply of food is normal; if the nervous system is normal, they are properly energized. With pure blood and normal nerve force, gland function will be normal. These depend upon our conduct our mode of living.

What causes a gland to function? Nerve energy. No doubt inter-glandular reciprocity exists, but over all is a nervous system that furnishes energy for the work. Full nerve energy spells good function. When nerve energy is lowered, functions lag. Glandular function cannot be normal in an enervated body. Glandular malfunctioning is an effect, not a cause. However, "modern medicine" always starts with an established pathology as cause.

The tendency today is to class almost all symptoms as symptoms of endocrine gland 'disease"; to attribute practically all human defects to endocrine disorders. Nowhere is it realized that the endocrine disorder and the defects elsewhere are due to common causes.

We do not intend to deny that malfunctioning of these glands adds to the pathology. We do insist that the glandular dysfunction is not the primary cause and that any program of care that neglects the primary cause cannot produce satisfactory results. Such a program is merely a system of palliation or patchwork.

The regular approach to glandular malfunctioning either remove the glands in whole or in part, or resorts to the use of gland extracts. It is customary to indict the organ and ignore the causes of its malfunction. The poet has well summed up this procedure in these lines:

"And wouldst thou play Creator and Ordainer of things, Be Nature then thy chaos and be thou her God."

Removing the glands deprives the body of their functions and, in the case of certain glands, means speedy death. In the case of all of them it means much additional trouble. The evils following the removal of the ovaries are generally known. Whether the whole gland is removed or merely part of it, this does not touch the cause of the trouble. If part of an enlarged thyroid is removed the remaining portion enlarges, due to the persistence of the cause of the original enlargement, and another operation is deemed necessary. Two and three operations upon the thyroid are not uncommon.

There is probably the same need for a slow uniform delivery of all the internal secretions as there is for that of the adrenal glands. At the same time,

there is evident an increased or decreased delivery as need occasions. It is impossible to adjust external administration of hormones to the varying needs of the body.

Foreign hormones do not behave like domestic productions and their use is often responsible for serious injury, even death. The result of an "overdose" of insulin is now common knowledge. The evil results of an "overdose," or of the continuous use, of adrenalin and of certain ovarin secretions are also well known.

That the use of gland extracts does not remove cause should be apparent to the least discerning. That this form of treatment is highly unsatisfactory is everywhere admitted.

Still another objection to the use of glandular extracts is the fact that after these have been employed for a time, the body seems to learn to destroy them. It seems not to use them. The endocrinologists have reckoned without the body's resistance to assaults upon its glandular equilibrium. It was demonstrated by Prof. J. B. Collip and his associates, of McGill University, that when foreign-gland substances are injected into the body the body manufactures "anti-hormones."

"The result is that, after a time, the effect of new injections is neutralized, and the glandular balance of the body becomes about as it was in the beginning."

Physicians have been puzzled by the fact that glandular cases not only fail to improve under glandular treatment, but become worse. The reason seems to be that the effect of the treatment is nullified by the generation of "anti-hormones," with the result that the patient is worse off than before.

Sokoloff admits that the diagnosis and treatment of separate glands fail to yield satisfactory results. He adds: "What most frequently takes place is merely further disturbance of the endocrine gland system."

When an organ is overworked, enervation follows. Through failing cooperation or reciprocity all the organs are hindered in their functions of assimilation, secretion and excretion. When an enervated gland fails to function a reasonable remedy would be to find the cause of enervation and remove it. When an overstimulated (irritated by toxins) gland functions too much, a logical remedy would be to find the cause of the over-stimulation (irritation) and remove it.

No amount of spectacular stimulation or inhibition of the overburdened glands can be depended on to adequately deal with the poisoning. Only a complete revolution of the mode of living can take the intolerable burden of toxins off the glands and permit a return of normal gland function. Treating the adrenal cortex, for instance, with the intent of increasing its toxin-fighting power is ridiculous when we have it in our own hands, by a wise choice of food, or by temporary abstinence from food, to avert poisoning.

Stimulating and inhibiting overworked glands enervates them still more. No wonder then that, as Sokoloff says, treating separate glands frequently causes "further disturbances of the endocrine gland system."

Knowing that the glands are integral part of an interdependent organism and not the creators of that organism, it should not surprise us to learn that the ductless glands share in the general malnutrition of the body in the so-called deficiency "diseases." Nearly all of them undergo atrophy. Under certain conditions, attributed to a lack of vitamin B, the adrenals undergo hypertrophy.

In polyneuritis, all the glands, except the, adrenals and the pituitary body, undergo gradual atrophy, and these undergo hypertrophy. The occurrence of atrophy is in about the following order: testicles, spleen, ovaries, pancreas, heart, liver, kidneys, stomach, thyroid and brain. The parenchymatous tissues (the vital or functioning tissues) of the glands gradually disappear, and are replaced by functionless connective, or scar, tissue. The spermatozoa disappear from the testicles, while the secretion of saliva, gastric juice, bile, intestinal juice and pancreatic juice declines.

These changes are regarded as results of lack of vitamins and it is asserted that when vitamins are supplied the glands begin to secrete and the atrophic changes gradually disappear. The testicles of young animals, even though they have degenerated so much that their active cells have almost entirely disappeared, return to normal and again produce spermatozoa. The digestive secretions reappear and appetite returns with renewed force.

The adrenal glands are made up of two portions each of which secretes a different substance—the medullary portion, which secretes adrenalin, and the cortical section, which secretes cholin. These two substances are supposed to "antagonize" each other In maintaining blood pressure. In polyneuritis the hypertrophy of the adrenals affects chiefly the medulla, whereas the cortex tends to atrophy.

In pellagra the adrenals are markedly atrophied, the degeneration being especially noticeable in the medulla. These glands may be reduced to one-tenth their normal size. Degeneration is also seen in the islands of Langerhan's of the spleen, in this condition.

In scurvy there is marked glandular atrophy, especially of the digestive glands. The arrest of the digestive secretions is so great that in the severer cases there is complete achylia (absence of chyle, a milky fluid found in the mesenteric vessels during absorption), and a great reduction in salivary secretion, the saliva being, usually, strongly acid in reaction.

A long-continued deficiency of the amino-acid, tryptophan, in the diet causes a degeneration of the endocrine glands. In osteomalacia, there are frequent signs of endocrine disorder, such as amenorrhea in women, and failure of menstruation to begin in. girls at puberty. In malnutrition the milk glands fail and these may even undergo atrophy. The reduction of the secretion of the glands is consequent upon the malnutrition and also upon their atrophy.

In discussing the conditions of growth, Berg says: "As far as the widespread atrophy of the organs is concerned, the main cause of this is doubtless the general failure of nutrition consequent on, the digestive disturbances. But when there is defective nutrition because the diet is quantitatively inadequate though qualitatively adequate, we find general atrophy differing from that characteristic of the deficiency diseases in that the glands continue to function. In the acomplettinoses (vitamin deficiencies), on the other hand, impairment of glandular functioning makes itself apparent at a very early stage. We have seen that this is especially characteristic of a lack of vitamin, of B, and of D."

The knowledge that the glands undergo more or less complete regeneration when proper nutrition is again supplied them is especially important. Such knowledge is particularly valuable in diabetes, where the diet usually prescribed, intended only to secure the disappearance of sugar from the urine, succeeds in this object, but at the expense of the body and the pancreas. The diet adds to the primary pathology in producing a temporary abatement of one of the symptoms. What is needed in this, as in other glandular atrophies, is a regeneration diet, or one at least that will aid in restoring normal function to the remaining functioning tissue in the pancreas. The diets at present prescribed in this condition not only do not aid the

restoration of function, but actually add to the functional as well as the structural impairment.

Uncooked fruits and vegetables are the gland "remedies" par excellence. These contain the complettins and minerals so necessary to regeneration of gland structure and of other structures in the body.

In such conditions as diabetes, Bright's "disease" and heart "disease," tissue regeneration and the re-establishment of functional efficiency are the prime requisites. The chief object in a case of diabetes, for instance, should be the re-establishment of healthy pancreatic function and not merely the disappearance of sugar from the urine. Sugar in the urine is a symptom which, unfortunately, may be controlled by a diet which will at the same time, make the condition of the pancreas (which is the primary pathology), actually worse.

A process of regeneration, which will include a regenerative diet, will also cause the sugar to disappear from the urine, but it will, at the same time, bring about an improvement in the pancreas. The disappearance of glycosuria should be only incidental to the arrest of the primary pathology and the regeneration of the pancreas.

Cure depends upon the amount of functioning tissue that remains in the pancreas. As only a small amount is required to meet the usual demands of life, once that amount has been restored to health and the patient is taught to eat and live within his capacity, he may enjoy a long and useful life.

So, also, in Bright's "disease"—the disappearance of albumen from the urine is merely incidental to the arrest of the degenerative or destructive process in the kidneys. A regenerative diet coupled with other regenerative influences and not the conventional symptomatic treatment is required.

Below we shall take up the glands in alphabetical order and discuss their affections in alphabetical sequence.

Affections Of The Adrenals

Addison's "Disease"

Addison's "Disease"

Definition: A rare symptom-complex "due to inadequacy of the adrenal glands," and characterized by extreme muscular weakness, weakness of the heart and blood vessels, bronzing of the skin and mucous membranes, and irritability of the gastro-intestinal tract.

Symptoms: Profound muscular weakness, said to develop "without obvious cause" and unaccompanied with corresponding emaciation, develops early. Blood pressure is very low and in advanced cases fainting frequently occurs. Brownish pigmentation (bronzing of the skin) which is almost universal, but is especially marked on the exposed parts and genitalia, around the nipples and navel, and wherever the skin has been irritated or compressed, appears sooner or later in almost all cases. In many cases the mucous membranes are also pigmented. Gastro-intestinal irritability, evidenced by pain and discomfort in the stomach region, loss of appetite, recurrent vomiting or diarrhea, is common. The usual changes of secondary anemia are seen in the blood. There is decided hypofunction of the suprarenal glands.

Etiology: To attribute this symptom-complex to hypofunction of the adrenal glands and stop there is not to find cause. To record that it is more common in males than in females and that it develops most often between the ages of twenty and fifty years, does not reveal cause. There must be a cause for the pathology in the adrenal glands and the poverty of their enzymes. That "the causes of tuberculosis in general favor its development" and that "tuberculosis of the adrenals is the common anatomical change" points to toxemia, intestinal sepsis and dietary deficiency as cause.

Prognosis: "The disease is probably always fatal, and, usually lasts from a few months to several years. The course is not uniform but marked by remissions and exacerbations." This is the medical prognosis. Weger says: "The duration of the disease varies from a few months to two years and rarely is a recovery recorded. The few cases that have come under our observation and care have undoubtedly had their lives prolonged by correct living."

Care of the Patient: The first thing to be done in all cases is to relieve the body of its toxic overload and restore nerve energy through fasting and rest. All enervating practices must be discontinued and a general program of health building carried out. Proper feeding will always include abundant quantities of fresh fruits and green vegetables. Meat and eggs should be abstained from.

The hypofunctioning of the adrenal glands is not due to a lack of their secretions and no cure can be reasonably hoped for from the use of adrenal extracts. The physiologist, P. G. Styles, says of the adrenal glands: "Their extracts do not successfully compensate for the lack of living cells; the body seems to need a slow uniform delivery of this internal secretion, and periodic dosing does not prove equivalent to the natural condition."

Affections Of The Parathyroids

Tetany

Tetany

Definition: This is a rare affection characterized by bilateral tonic, intermittent or continuous, spasms, especially of the extremities, and increased irritability of the nerves and muscles, especially in response to mechanical and electrical stimulation.

Symptoms: Tonic spasms beginning in the hands and feet, on both sides, and spreading upward, come on apparently suddenly. The muscles of the face and trunk are rarely involved. Indeed in some cases the hands alone are affected. The spasms usually come on paroxysmally and last from a few minutes to an hour or two; though in very severe cases they may be more or less continuous. Pain sometimes accompanies the spasms. In children laryngismus stridulus is common. Slight fever and edema occasionally accompany the cramps.

Latent tetany which presents very mild spasms may consist of muscular irritability, slight stiffness without spasm and morbid sensations.

Etiology: Parathyroid insufficiency resulting in a lack of calcium in the blood is the standard cause. It develops after removal or destruction of the parathyroid glands. It is seen in certain types of poisoning (ergot, chloroform, etc.) and in handworkers (shoemakers, tailors, etc.) who come in contact with poisons. It sometimes develops in pregnancy, perhaps due to the robbery of the maternal blood of calcium by the embryo and in lactation, probably from the same cause. It sometimes appears in "acute infections,"

and in adults is seen most commonly as a complication of gastrectasis. Poisoning and deficiency seem to be the chief causes of non-operative cases.

Prognosis: Cases last from a few days to several months and relapses are common. The spasms may occur at intervals of hours or days. The general outlook is good. A high mortality is noted in tetany arising in gastrectasis. Removal of toxemia, better food and a re-ordered life will modify the above.

Care of the Patient: Certainly no food should be given during the spasm, nor thereafter until toxemia is removed. All enervating practices should be discontinued and all sources of poisoning removed. A diet of fresh fruits and green vegetables will supply the body with all the calcium and other elements needed. Nothing is gained by feeding lime-rich foods so long as the parathyroids are impaired.

Affections Of The Pituitary

Acromegaly
Giantism
Hypopituitarism

Acromegaly

Definition: A perverted development of the body characterized by overgrowth, especially of the hands, feet, and face, and seen in adults.

Symptoms: The most outstanding symptom is gradual enlargement of the hands, feet and face. The face is elongated, the nose large and bulbous, the Lower jaw massive and prominent (prognathism), and the lips and tongue are thick. Sausage-like fingers stick out from large, spade-like hands, and the feet are similarly affected. There is almost always kyphosis. Very early in its development the male becomes impotent and the female ceases to menstruate. Muscular weakness, excessive thirst, sugar in the urine and mental dullness are frequently noted in advanced cases. Headache and defects of sight (hemianopsia) and other evidences of gross intracerebral "diseases," often develop.

Complications: Affections of the heart and arteries, diabetes, myxedema, and exophthalmic goitre are common associations.

Etiology: This condition is commonly attributed to overactivity of the anterior lobe of the pituitary gland. The overactivity remains to be accounted for. It is probably the same as the cause of overstimulation of all the other organs of the body.

Care of the Patient: Surgery and gland extracts have failed. Removing the general causes of pathology may be valuable. We have had no opportunity to try it.

Giantism

Definition: This is abnormal overgrowth of the whole body or of part of it. It is attributed to excessive secretion by the anterior lobe of the pituitary gland in the young. Giantism and acromegaly are similar conditions We know of no cases that were ever cared for by hygienic means but it is our opinion that toxemia is the most likely cause of the pituitary hyperfunction and that when this is neglected the most forward-looking care for one so troubled is overlooked.

Hypopituitarism

Definition: A symptom-complex characterized by general obesity, atrophy or failure of development of the sexual organs, a lack of pubic hair, sleepiness, and high tolerance for carbohydrates.

Four other closely related conditions are included under the above general head as follow:

Adiposis Dolorosa (Dercum's "disease"): More or less symmetrical deposits of fatty masses in various parts of the body, attended or preceded by pain and frequently associated with loss of strength and mental abnormalities characterize this form.

Ateliosis: A childish facial appearance, diminutive stature, with short, slender limbs, ill-developed muscular prominences, small jaw bones, a thin piping voice, low blood pressure and scanty urination, characterize this condition.

Idiopathic Infantilism (Lorain type): This is a condition in which the characters of childhood persist in adult life. Several forms are described but the distinctions are unimportant. The sex organs are wasted or fail to

develop, the secondary sexual characteristics (beard, broad shoulders, change of voice, etc., in males; breasts, broad hips, etc., in females) never develop. The face remains infantile.

The pubic region is devoid of hair. Often, but not always, there is dwarfness of stature. Marked mental retardation is usual, but, rarely, these individuals are quite bright but likely to be eccentric, egotistical, even egomaniacal.

Progeria: This is a form of infantilism associated with premature senility and hardening of the heart and arteries.

Etiology: These conditions are thought to be due to insufficiency of the pituitary gland, though it is conceded that other glands of internal secretion may also be concerned in the process. Certain, it is, that many of these failures of development follow early removal of the gonads (ovaries and testicles) and there is atrophy or failure of gonadal development in all of these cases.

What causes the pituitary hypofunction? What causes the gonadal failure? What causes the gonadal atrophy? Here must be metabolic perversion, beginning, perhaps, in the mother. Poisoning and the resulting deficiencies must be considered as cause.

Care of the Patient: Perhaps something can be done for these cases if the condition is recognized early and nutrition corrected. Proper food and sunbaths should help. Certainly nothing will be of value after development is far advanced. As the condition is not due to lack of secretion, to supply glandular secretions from without will not normalize the faulty glands.

<u>Affections Of The Spleen</u>

Gaucher's "Disease"

Movable Spleen

Primitive Splenomegaly With Anemia

Rupture Of The Spleen

Gaucher's "Disease"

Definition: Gaudier, after whom the condition gets its name, described it as "primary epithelioma (cancerous growth of the epithelial tissues) of the

spleen," but it is thought to be identical with splenic anemia. Certain it is that it is difficult, if not impossible, to distinguish it from Banti's "disease."

Symptoms: It is seen largely in children, and develops slowly. Because of the enlargement of the spleen there is progressive enlargement of the abdomen which is more noticeable on the left side. This added bulk causes much discomfort. There is anemia and often numerous hemorrhages. Dark areas on the skin are common and these may occur irregularly on exposed parts of the skin with a deposit of yellow-brown patches which are not true jaundice. The bones show a motheaten, or punched-out appearance which is definitely weakening.

It is distinguished from Banti's 'disease" by its "predilection for childhood," its occurrence in families, the early appearance of a brownish-yellow discoloration of the face and hands, a wedge-shaped thickening of the conjunctiva, and by the absence of ascites.

Etiology: Same as Banti's "disease."

Care of the Patient: These cases should be cared for as described under Banti's "disease." Removal of the spleen is not a cure.

Movable Spleen

Definition: This is a very rare condition which, like floating kidney, belongs to visceroptosis. The spleen is sagged down below its normal position and movable.

Symptoms: Displacement and movability of the spleen are the only symptoms.

Etiology: "There is no reason," says Tilden, "why the spleen should not sag down below its normal position, from the same causes that allow the stomach, transverse colon, and other organs in the abdominal viscera to drop below their level. Great enervation, muscular relaxation, and intra-abdominal pressure from gas, etc., may occasionally displace, deform, and put out of their normal position any of these organs." In malarial countries, where there is much enlargement of the spleen, the weight of the enlarged spleen, pulling heavily upon its attachments, may weaken these and displace the spleen downward.

Care of the Patient: If the subject is uncomfortable enough to seek a doctor, it will not be from the "wandering" spleen. It will be from

indigestion, gas in the bowels, etc. Everything, therefore, should be done, to improve the patient's general health. Other than this, care for the patient as directed under visceroptosis in this and Volume IV of this series.

Primitive Splenomegaly With Anemia

Definition: This is described as "a chronic disease of unknown origin, characterized by progressive enlargement of the spleen, anemia of the secondary type, leukopenia, a marked tendency to hemorrhages, and, in certain cases after the lapse of years, cirrhosis of the liver, with ascites and slight jaundice." It is also called splenic anemia and Banti's "disease." We discussed its causes and the care of the patient under "Affections of the Blood" and will content ourselves here with merely adding some more descriptive matter.

Enlargement of the spleen, which may be the only conspicuous feature for years, is pronounced. Hemorrhages are usually from the stomach or bowel and are often profuse. Hepatic cirrhosis, with enlargement or atrophy of the liver, ascites, jaundice, etc., are late developments. The condition often lasts for years.

Early removal of the spleen is said to "frequently effect a complete cure." This is on the principle that decapitation frequently effects a complete cure of headaches, or that removing the toe cures the corn. How can we continue to talk about cure when cause is unknown and not removed. See Splenic Anemia.

Rupture Of The Spleen

Definition: As the term implies, this is actual rupture of the spleen.

Symptoms: Symptoms of sudden collapse are the only new symptoms in these cases.

Etiology: Cases have occurred from great enlargement of the spleen from hyperemia, or engorgement of blood. The spleen may be ruptured by a blow or fall. Abscess of the spleen has been punctured and the intense swelling which followed has caused a rupture at the point of insertion of the needle.

Care of the Patient: This is a purely surgical case. There is nothing to be done except to open the abdomen and do whatever can be done to stop the

hemorrhage.

Affections Of The Thymus

Status Lymphaticus

Status Lymphaticus

Definition: This is a mythical "disease" that is supposed to result from enlargement of the thymus gland and other parts of the lymphatic system. We rarely hear of it, except when a child dies from vaccination or inoculation.

Symptoms: The usual list of symptoms runs about like this: cyanosis, dyspnea, coughing, a crowing inspiration (much like croup), great nervousness, irritableness, proneness to collapse and, occasionally, sudden death.

Etiology: A great majority of youngsters in whom the X-ray shows a large thymus gland display no signs of abnormality, and the small percentage that do show signs of abnormality, show only the ordinary signs of toxemia, intestinal sepsis, or malnutrition. Investigations of sudden deaths attributed to status lymphaticus have shown lung conditions identical with those seen in animals that have died from serum poisoning—anaphylactic shock—and would indicate that, where these deaths are not due to serums and vaccines, they are the result of overwhelming the body with untolerated proteins.

Care of the Patient: Good general hygiene after a period of elimination, is all that these children require.

Affections Of The Thyroid

Acute Thyroiditis
Cretinism
Goitre
Hyperemia Of The Thyroid
Myxedema (Hypothyroidism)

Acute Thyroiditis

Definition: Inflammation of the thyroid gland.

Symptoms: Swelling and pain in all or part of the gland are the chief symptoms. The whole gland, one lobe, or the isthmus may be inflamed. If the inflammation ends in suppuration the gland may be destroyed.

Complications: Exophthalmic goitre is said to sometimes follow.

Etiology: This affection is seen as a sequel of pneumonia, typhoid fever, scarlet fever, mumps, and rheumatic fever. Septic poisoning of the gland is the cause.

Care of the Patient: Fasting and rest are the prime needs. If suppuration occurs, this may require surgical drainage.

Cretinism

Definition: This is a symptom-complex that develops in infants and young children in which there is hypothyroidism.

Symptoms: Arrested mental and physical development, with changes in the skin like those in myxedema with a characteristic deformity of the bones and soft parts are characteristic. The head is large, the features coarse and bloated, the expression stolid or idiotic, the trunk and limbs short and thick, the abdomen protuberant, the sexual organs infantile, and the skin rough and dry. Constipation, imperfectly closed fontanelles, delayed dentition, irregular teeth, deficient muscular development and lack of incentive and initiative, mental dullness, with varying degrees of backwardness, stupidity and, even, idiocy, are present. Children who live beyond the teething period grow up dwarfs with enormous sized joints.

Etiology: To attribute cretinism to thyroid deficiency is to stop at a half-way point. It is to overlook the deficiencies and excesses that are responsible for thyroid hypofunction. Perverted nutrition is responsible for the failure of the thyroid. Tilden says: "the fact that the child can be conceived shows that its state of health is good enough to allow its birth. The fact that the child is born with a derangement of its nutritive system is proof positive that the disease was started since conception. Parents live in such a haphazard way as to pervert their nutrition and pervert the nutrition of the unborn child. After such children are born they are fed improperly and cared for improperly, and naturally develop an infection. The infection takes place in the large intestine from putrescence. Why develop this kind of disease rather than some other?

Because the nutrition of the parents for a generation or more has been perverted in such a way as to favor the developing of a diathesis favorable to the taking-on of this disease. The fact that several in a family can develop the disease is nothing strange. Why should not the same environment, the same thoughts, the same eating, the same habits—in short, why should not the same psychology and the same physiological influences—build' similar derangements?

"The swollen abdomen of the child, if it proves anything at all, proves a perversion of digestion, with the evolution of a great deal of gas. The gas and these toxins are absorbed, and infect the blood. The decomposition in the large intestine is of a putrefactive character; and putrescence will certainly affect the whole system and disturb the nutrition generally, when absorbed."

Care of the Patient: Giving gland extracts does not remove cause. We are dealing here with a perversion of metabolism growing out of a variety of causes, in which the thyroid deficiency is merely a link in a chain, and no attention that is confined to this link can ever hope to be successful.

The whole life and environment of the child must be improved. Feeding must be designed not merely to eliminate indigestion, but also to supply the body with needed minerals and vitamins. Animal proteins should be eschewed and fruits and vegetables fed within the digestive capacity of the child. A fast at the beginning will serve to eliminate toxins and normalize metabolism. Sunbaths are especially desirable in this condition.

Goitre

Definition: Known also a Basedow's "disease," Yorkshire neck, hyperthyroidism, goitre is enlargement of the thyroid gland.

The thyroid gland secretes a substance known as thyroxin, which acts as a catalytic agent in the process of oxidation. The human body contains approximately fourteen milligrams of thyroxin, although the amount varies under different conditions. Thyroxin is active in practically all the cell of the body. It quickens the rate of "transformation of energy" and is a regulator of metabolism. An elevation or depression of one milligram of the thyroxin content of the body results in a corresponding shift of 2.8% in basal metabolism. Hyperthyroidism is the term applied to the physiologic status that obtains when there is an excess of thyroxin in the body.

Symptoms: There are several classifications of goitre, but we shall here employ the one which we consider most simple and, therefore, most easily understood by the layman.

Simple hypertrophic goitre is a simple enlargement of the thyroid gland and may occur without any appreciable disturbance of function. It is frequent in young girls and often disappears at puberty. The voice and swallowing may be affected by pressure exerted by the enlarged gland.

Cystic or colloidal goitre is a thyroidal cyst containing a fluid or colloid substance within its capsule. It may affect, by pressure, the voice and swallowing.

Exophthalmic goitre receives its name from the manner in which the eyes protrude from their sockets—exophthalmia. There is an in. greased pulse rate, frequently running up to 140 and even 160 a minute, often violent palpitation, increased metabolism, nervous and mental symptoms, loss of weight and energy and often there is sugar in the wine.

Medical science (?) would have us believe that all the disagreeable symptoms peculiar to exophthalmic goitre are due to systemic poisoning from excess secretion. That this is not true is obvious from the fact that many of these symptoms precede the hyperthyroidism. The goitre is merely a link in a chain. Hyperthyroidism can exist without goitre and goitre can exist without hyperthyroidism. This being true, it is necessary to carefully weigh the so-called thyroid symptoms to ascertain where they come from.

Etiology: Hyperthyroidism (goitre) results from toxemia, the essential and ever-present first cause of over activity of the thyroid. To us, all goitres are toxic goitres. Supersaturation of the body with toxins from checked elimination, excessive eating of proteins, starches, pies, puddings, etc., and neglect of raw vegetables and fruits, and from various poison habits and the pyramiding of the effects of bad habits, is the cause of goitre.

The secretion of thyroxin seems to depend on an adequate supply of iodine and this has led to the belief that goitre is due to iodine deficiency. As goitre is usually associated with excessive secretion of thyroxin, and as lack of iodine should result in a deficiency of thyroxin, this theory of the cause of goitre would seem to be unsound. Certainly the practice built on this theory of cause has failed; failed both as a preventive and as a cure.

It has been shown experimentally that the thyroid gland may be stimulated into activity by sympathetic impulses and Cannon and others say that a

continuation of such impulses over a considerable period of time produces a condition in animals like exophthalmic goitre in man. Clinical observations indicate that in men and women this condition may result from prolonged nervous strain or even that it may follow a single violent emotional disturbance.

Domestic and social discord, worry, irritation, etc., may easily produce enough sympathetic stimulation of the thyroid to result in exophthalmic goitre. Overwork, the various poison habits—coffee, tea, tobacco, alcohol, etc., habits—too frequent childbearing, or other drains upon the organism, and the various indulgencies common to modern living are factors in the production of goitre. We consider it very significant that among animals in captivity only carnivores suffer from goitre. Vegetarian and fruitarian animals are not so affected.

The thyroid gland is very closely linked with the sex glands. Apparently there is a more fundamental relationship between the female sex organism and the thyroid than between it and the male sex organism. At least disturbances of the sex functions in females have a more profoundly disturbing effect upon the thyroid than do disturbances of the male sex functions.

The sex factor in the development of goitre has not received sufficient consideration. Dr. Weger says that in practically all female goitre patients who have reached maturity and also frequently in girls who have just past puberty there is an intimate association and pathological involvement of the ovaries or uterus or both. "In the majority of cases there exists a small uterine fibroid. * * * In many cases the uterine tissues are themselves in a state of fibrous induration and enlargement. Almost invariably there is found a complicating chronic endometritis or endocervicitis with retained secretions."

Tilden says, "thyroid enlargement is secondary to uterine and ovarian perversion in the female, and gonadal perversion in the male, and the perversion of these reproductive functions is super-induced by over-indulged appetite and passion for the most part by suppressed lasciviousness and salaciousness." Again: "I have never seen a case of goitre in women who have not been troubled with toxemia and who have not been suffering with gastro-intestinal catarrh and a catarrhal state of the womb. I have found drainage from the womb invariably imperfect."

"The thyroid and mammary glands are auxiliary to the reproductive system and anything that perverts the functions of the reproductive organs causes abnormalities of the thyroid and breasts." "Lumps in the breasts," so generally scare-headed into cancer, are invariably associated with the same kind of pelvic derangements as is goitre.

In goitre, the breasts of the female are often enlarged and the glands hard and sensitive. The womb is often enlarged and sensitive with catarrh and even ulceration of the neck or the body of the womb. The imperfectly drained (retained) secretions of the womb undergo decomposition and are highly toxic.

Sexual repression is especially common in females and many of these repressed women are as lascivious as any libertine. If married, they enter the sexual relation without responding, consciously or subconsciously (usually the latter) repressing themselves, and thus helping to pervert the functions of the thyroid.

Prognosis: Dr. Weger says "most hypertrophic goitres can be made to absorb. Absorption of a cystic goitre is a very rare occurrence." Dr. Tilden says: "exophthalmic goitre can be cured just as easily as a fibroid tumor of the uterus can be cured. Indeed, these diseases can be cured even after many of the heads of the surgical profession of our leading cities declare that they cannot be cured without an operation."

Care of the Patient: Complete and ultimately successful recovery can occur only, as Dr. Weger says, if "the patient is put to bed in an environment that will insure absolute physical and mental rest—away from friends and even relatives. The reasons for this are only obvious to those who have had experience in getting nervous patients under control. Outside influence and interference are sometimes insurmountable obstacles and always decided handicaps."

We emphasized above the office of nervous irritation, domestic difficulties, etc., in overstimulating the thyroid. It should be obvious to anyone how necessary it is to get away from the sources of these disturbing factors. Proper rest of the nervous system is not possible so long as they exist. Physical and mental rest are vitally important in goitre cases.

Toxin elimination is best secured by fasting—physiological rest. This will also hasten the absorption of the enlargement. Indeed it often results in a rapid reduction and disappearance of the thyroid enlargement and hardening

in the breasts and womb or ovaries. Dr. Weger adds: "Physiological rest can best be obtained by a complete fast. All foods must be withheld and nothing but water given until the pulse is normal and all active symptoms have subsided."

Hyperemia Of The Thyroid

Definition: This is an excess of blood in the thyroid gland.

Symptoms: Thyroid hyperemia is a transient state that sometimes develops during menstruation. It belongs to a syndrome. The lymphatic glands of the pelvis are more or less affected; there is hyperemia of the ovaries, a tendency to painful menstruation, or flooding, perhaps uterine catarrh, and hyperemia of the breasts with sensitiveness of the nipples. The catarrh in these cases, being due to the hyperemia, is transient.

Etiology: Toxin absorption from decomposition in the intestine is present in all such cases.

Care of the Patient: During the hyperemic stage either no food at all, for one to three days, or nothing but fruit for this time, is best. The condition is permanently eradicated when decomposition is eliminated. This necessitates stopping all improper eating, the eating of candy and other foods between meals, and living in a manner to insure good digestion.

Myxedema (Hypothyroidism)

Definition: Hypothyroidism is the term applied to the condition resulting from deficient function of the thyroid. Myxedema is a symptom-complex attributed to a lack of thyroid secretion and characterized by brawny thickening of the subcutaneous tissues, loss of energy and mental deterioration.

Symptoms: There is a gradual swelling of the subcutaneous tissues, especially on the face and hands and the regions above the clavicle. Unlike edema the parts do not pit on pressure, but are firm and elastic. The skin is dry and harsh; the hair becomes brittle and falls out and the thyroid gland is atrophied (wasted). Characteristic of the condition is a peculiar slowness of speech, thought and movement. Dementia may ultimately develop. There is frequent pulse and subnormal temperature. The special senses are impaired

and such sensory abnormalities as undue sensitiveness to cold, neuralgic pains, and a sensation as if ants are crawling on the body (formication) are common. The sexual functions are impaired.

Etiology: Myxedema is said to be caused by thyroid deficiency. This is due to medicine's habit of stopping at a half-way point in its search for cause. They are so accustomed to starting with an established pathology as cause that they do not go beyond the pathology in the thyroid in their search for the cause of myxedema. The thyroid deficiency is but a link in a chain. The thyroid deficiency does not cause itself. It does not just happen without cause. The deficiency of the thyroid secretion is not the cause of the deficiency of thyroid secretion. The real cause lies back of the deficiency, in the perverted metabolism of the patient. **Operative myxedema** or **cachexia strumipriva** is myxedema following complete removal of the thyroid gland.

Prognosis: Proper care instituted early may result in recovery. The tendency of the condition is to become progressively worse. This, we think, is due to persistence of cause.

Care of the Patient: To give thyroid extract does not remove the cause of thyroid deficiency. It does not restore health to the thyroid gland, nor to the body as a. whole. It will not cure wrong life. Whatever of apparent benefit flows from this procedure is short-lived and can last only so long as the extract is given—given in increasing doses. At best it is only a doubtful palliative.

Only by removing the primary cause—as summed up in enervation and toxemia—can these cases really be restored to health. There is no cure for glandular insufficiency, except to correct the habits of life that are responsible for the enervation which has ended in secretory block. The use of gland extracts in these cases is a failure. The failure of insulin in diabetes is typical of the failure of all other gland extracts. Gland extracts may be used as a crutch by those whose glandular impairment, is too great for vital redemption or for compensation. All others should know that these extracts produce their own damages in the body and also that their use leads to an ignoring of cause.

Affections of the Urinary System

Affections Of The Kidneys
Affections Of The Bladder
Affections Of The Urethra

The kidneys, together with the tubes that convey the urine from the kidney to the bladder (ureters), the bladder and the tube that carries the urine from the bladder to the outside (urethra) constitute the urinary system. The kidneys form one of the two most important eliminating systems of the body and are naturally possessed of strong resistance to poisons and toxins, but when constantly called upon to excrete virulent poisons they break down and various so-called "diseases" result. Toxemia, septic infection and drug poisons are the chief causes of kidney destruction. We will discuss kidney affections in alphabetical order.

Affections Of The Kidneys

Amyloid Kidney

Hydronephrosis

Hyperemia Of The Kidneys

Malignant Tumors Of The Kidneys

Nephritis—Acute

Nephritis—Chronic Interstitial

Nephritis—Chronic Parenchymatous

Nephrolithiasis

Nephroptosis

Perinephritic Abscess

Polycystic "Disease" Of The Kidneys

Pyelitis And Pyelonephritis

Tuberculosis Of The Kidney

<u>Uremia</u>

Amyloid Kidney

Definition: This is a waxy degeneration of the kidney substance secondary to prolonged suppuration in the body, especially of the bones, tuberculosis and cachectic states. It is also called waxy kidney and lardaceous kidney.

Symptoms: There is an increased quantity of urine. This is rich in albumen and of low specific gravity. Most patients appear badly nourished and anemic. Dropsy is frequently present, but uremia is very rare. The liver and spleen are usually enlarged from the same cause. A similar waxy infiltration is seen in the walls of the blood-vessels.

Etiology: It seems to be merely part of a general degeneration of the body from chronic pus poisoning and develops in long, standing suppurating processes—cancer, tuberculosis, chronic Bright's "disease," suppuration of the bones, etc. It is a terminal stage of a long process of pathological evolution which began with enervation and ran on through toxemia with its repeated crises, finally suppuration, and then waxy degeneration of blood vessels, liver, spleen and kidneys. "Syphilis" is listed among its causes. This should mean drugs.

Prognosis: Taken in time, the disease can be arrested," says Weger, "though the usual progress is rapidly downward to a fatal ending." In the early stages its arrest depends on recovery from the suppurative process.

Care of the Patient: In the late stages this is only palliative. In the early stages the care should be directed to removing the causes of the primary pathology—cancer, tuberculosis, etc.

Hydronephrosis

Definition: A cystic condition or overdistention of the renal pelvis with urine, resulting from mechanical obstruction.

Symptoms: Slight distention produces no symptoms. Large cysts are often painful. In cases where the distention is great, a tumor slowly develops in the region of the affected kidney as the urine accumulates. Sometimes the tumor periodically disappears and reappears (intermittent hydronephrosis). The disappearance of the tumor is associated with the discharge of a large quantity of urine, as the pressure exceeds the obstructive resistance.

Etiology: This condition is sometimes seen in infants as a result of a congenital stricture, twisting or other anomaly of the ureter. In adults it results from obstruction of the ureter by impaction of a stone in the ureter,

abdominal tumor compressing the ureter, tumors growing within the ureter, compression of the urethra by an enlarged prostate, or a stricture of ureter or urethra following inflammation. Hydronephrosis is comparatively rare and is usually only on one side. When on but one side it is less annoying and offers less danger than when in both kidneys.

Prognosis: If the cyst is only on one side and of no great size recovery or indefinite prolongation of life are possible. If on both sides a fatal ending as a result of rupture into the peritoneum, secondary pyonephrosis, or uremia, is likely. Unilateral hypdronephrosis may end in death in the first two ways here described.

Care of the Patient: Such conditions as are not spontaneously relieved when the pressure exceeds the obstructive resistance are entirely surgical. These cases require aspiration and surgical drainage. Indeed if there is great degeneration of the kidney or atrophy from pressure, its removal is called for.

If the cyst is unilateral and of no great size, or if it spontaneously empties itself intermittently, it should not be disturbed and care should be directed to improving the general health, normalizing metabolism and taking off as much of the load carried by the kidneys as possible.

Hyperemia Of The Kidneys

Definition: This is congestion of the kidneys; an excess of blood in the kidneys. Two forms—acute and passive—are recognized.

Symptoms: In the acute form there is scanty urine which contains small quantities of albumen, a few blood corpuscles and epithelia and a few cysts. Edema and uremia are absent. Passive hyperemia presents scanty, turbid, urine of high specific gravity, small amounts of albumen, a few blood corpuscles, and a few casts, and such other evidences of venous stasis as edema, enlargement of the liver and difficult breathing. Uremia is absent. These conditions frequently evolve into acute and chronic nephritis.

Etiology: Acute hyperemia is attributed to exposure to cold, "infectious diseases," pregnancy, overdoses of certain drugs, etc. Except for the drugs, no cause resides in these things. Many drugs —turpentine, lead, arsenic, mercury, caffeine, etc. irritate the kidneys and produce this condition. Only toxemic subjects will develop renal hyperemia when exposed to cold. Its

development in pregnancy is due to toxemia, not to pregnancy. Passive hyperemia may result from pressure on the renal vein by a tumor, ascites, a pregnant uterus; or, it may occasionally be due to thrombosis or embolism of either the renal veins or ascending vena cava. It is due to mechanical obstruction of the flow of blood away from the kidneys.

Care of the Patient: Weger says: "Like most other acute localized disturbances, whether due to active or passive congestion, regardless of speculative or assumed cause, this derangement is easily overcome by the methods advocated in all acute illnesses. Whether or not this condition is accompanied by transient albuminuria, bladder irritation, and the symptoms peculiar to inflammations of the urinary tract, the treatment should invariably be rest, no food, increased amount of water, and a simple-non-irritating diet for some days following the fast. A sensible diet afterwards will prevent a return."

Malignant Tumors Of The Kidneys

Definition: This is cancer of the kidneys. Several varieties —sarcoma, hypernephroma, and carcinoma—are seen.

Symptoms: Progressive emaciation, cachexia, blood in the urine (often profuse) and the presence of the tumor which spreads from the lumbar region and inconstant pain, are the common symptoms.

Prognosis: Cancer is incurable. **Care of the Patient:** See Cancer.

Nephritis—Acute

Definition: This is acute inflammation of one or both kidneys involving particularly the epithelium of the tubules and glomeruli. It is known by such other names as acute Bright's "disease," acute diffuse nephritis, acute parenchymatous nephritis, and acute catarrhal nephritis. It is seen chiefly in the young.

Symptoms: In many cases swelling of the ankles (dropsy) with the changes in the urine may be the only indication that something is wrong. The face is usually pale and the eyelids puffy. There may and may not be pains in the back. Sometimes, though not always, there is headache. The sufferer may

continue his regular duties not realizing he is very sick until "suddenly," he becomes so ill he is forced to go to bed.

In some cases, even where the inflammation in the kidneys is not great, the symptoms are very severe. Chills, fever, nausea, vomiting, pains in the back and head, dizziness and weakness may be great in such cases. There is also increased blood pressure. In other cases convulsions caused by uremia may be the first symptoms. In severe cases dropsy, starting with the face and becoming general, and marked anemia, develop. Symptoms of anemia may develop at any stage in the course of the nephritis.

The urine is scanty, and may be wholly suppressed for a day or two. It is highly colored, cloudy or smoky, and of high specific gravity. Upon examination it is found to contain much blood, pus, casts from the kidneys and large amounts of albumen. As improvement proceeds the amount of urine increases and albumen, blood, pus and anemia and dropsy grow less.

Complications: The most important of the many complications that result from the crippling of kidney function in these cases are broncho-pneumonia, pleuritis, pericarditis or inflammation of some other serous membrane, edema Of the lungs, edema of the larynx and dilatation of the heart.

Etiology: Pregnancy, "infectious diseases" and exposure to cold and wet are listed as causes. This is merely the guess of ignorance. Poisons which are eliminated through the kidneys, such as cantharides, turpentine, etc.," are also listed as causes. For once we strike firm ground.

To the kidneys are carried most of the poisons that are produced in the body or that get into the body from without, for excretion. Upon the kidney is thrown the greater part of the burden of keeping the bloodstream sweet and clean. Though naturally very resistant to toxins, they have their limitations and are finally broken down by the continued overwork and irritation they are called upon to bear.

All drugs, vaccines, serums, antitoxins, toxoids, gland extracts, etc., are renal irritants and nephritis is a frequent aftermath of serum inoculations. Tobacco, tea, coffee, chocolate, cocoa, alcohol, soda fountain slops, mercury, lead, arsenic and other drugs are all destructive of kidney tissue and aid in producing pathology in these. Because the average person never checks on the amount and variety of poisons he is deliberately introducing into his body, either as "medicines," or for "pleasure," and the frequency with which these are introduced, he does not adequately realize how much

irritation he regularly subjects his kidneys to. Post-mortem studies, of the kidneys of those who die between the ages of fourteen and eighty years show that practically every kidney has undergone some structural change.

Pus from teeth and tonsils is commonly held responsible for nephritis. The damage a little pus can do is nothing as compared to what the above poisons and the thousands of others given by physicians can do. The wholesale administration of vaccines, serums, and drugs is responsible for the larger share of cases of nephritis.

Sepsis habitually absorbed from the digestive tract is another common cause of pathology in the kidneys. Abstemious livers do not develop nephritis. It is rather a "disease" of "high livers" and gluttons, those whose digestive tracts are constantly full of decomposing food. Protein decomposition is particularly prolific of virulent poisons that reach the kidneys for elimination.

Overeating, frequent eating, eating without relish, eating wrong combinations of food, eating when digestion is impaired or suspended, eating when power to digest is absent—these forms of eating assure gastro-intestinal decomposition and septic infection of the body.

Eating candies, cakes, pies, jellies, jams, sugars, pastries, puddings, and the like, also favors fermentation and putrefaction and leads to intestinal autointoxication.

Perhaps few of the above causes would produce nephritis in those of pure blood and full nerve force. But enervation and toxemia are so nearly universal that the resistance and functioning power of the kidneys are often very low. Enervation and toxemia should be considered as basic or primary causes of nephritis, with the above causes only auxiliary.

Prognosis: Medical authorities tell us that "acute Bright's disease gets well or kills within a few weeks." They say that in most cases of acute nephritis the patient makes a complete recovery, but that in some cases, the patient appears to get well, but the condition continues in the sub-acute or chronic form. It is our contention that these conditions result from maltreatment and from a return to wrong living after apparent recovery.

Care of the Patient: Fasting is most important so long as there is any evidence of kidney inflammation as evidenced by dropsy and the urine changes. The patient must be put to bed at the first signs of trouble and the feet must be kept warm. He may be allowed all the water thirst calls for.

After the dropsical effusion in the extremities and the different cavities has been cleared up, fruit juices may be given for a few days—one week. Fruit juices will be all the fluid needed to cause the kidneys to act. If it is water melon season these may be used —as much as desired at a meal, but no other foods with the melons. After a week on juice there may be a gradual return to a normal diet as given in volume II of this series. Sunbaths and mild exercise may now be instituted also.

Nephritis—Chronic Interstitial

Definition: A low-grade chronic inflammation of the kidney, characterized by a marked overgrowth of its connective tissue elements, and almost invariably associated with general hardening of the arteries and hypertrophy of the heart. It is also known as red granular kidney, contracted kidney, and gouty kidney. It is seen largely in older people.

Symptoms: These are said to develop most insidiously, but this is because we close our eyes to the significance of the "minor" discomforts with which almost everybody suffers from time to time. There is gradual loss of strength, with increasing anemia. Digestive disturbances are common. Thickening of the walls of the arteries, high blood pressure, accentuation of the aortic second sound and hypertrophy of the heart are chief among the vascular symptoms. In late stages heart weakness, edema of the lungs, hydrothorax or uremia may either one cause difficult breathing. Disturbances of circulation or uremia may result in headache, vertigo, or insomnia. Albuminuric retinitis may result in dimness of vision. Dropsy is often absent, or slight and late in developing. Uremia is a very frequent occurrence.

Complications: Albuminuric retinitis, dilatation of the heart, brain hemorrhage resulting from the weakening of the arteries and the increased blood pressure, uremia, inflammation of the serous membranes (often latent), acute pulmonary edema, pneumonia, and bronchitis are the chief complications.

Etiology: It may follow passive congestion of the kidneys, as from a weak heart, or may accompany arteriosclerosis, in which case it is coetaneous with the hardening process. Overeating, indolence, nervous strain, chronic alcoholism and lead poisoning are frequent antecedents. It often develops as a complication of gout and of so-called "infectious diseases." Its causes are

the same as the causes of inflammation and hardening anywhere else in the body—namely, toxemia and its complications.

Prognosis: "The disease is incurable, but may last many years," say medical authorities who treat the patient with drugs that further impair the kidneys and ignore the cause of the pathology. Dr. Weger says "complete recovery is never known to occur. However, we have found that nature tolerates even so serious a pathology for years in some instances when patients learn to live within certain definite and restricted limitations with reference to diet." If they do not live within these limitations acute uremia, and apoplexy are imminent possibilities at all times.

Care of the Patient: Weger says: "Remarkable results have been obtained by dietetic treatment alone." "Such patients," he says, "must give up all enervating habits, including coffee, tea, sweets, liquor, tobacco, condiments, and all foods that have been a determining factor in causation." We have always insisted on a preliminary fast in these conditions and, while we don't think the changes in the kidneys can be removed, we have had gratifying results.

Nephritis—Chronic Parenchymatous

Definition: This is inflammation of the functioning tissues of the kidneys. In this condition the kidney is often large and secretes a small amount of urine; in interstitial nephritis, the kidney is small and contracted and secretes a large amount of urine. It is also known as large white kidney and contracted white kidney.

Symptoms: These are also said to develop insidiously and consist of progressive weakness, marked anemia, general dropsy which is often first noted in the face and eyelids on rising in the morning, digestive disturbances, and sooner or later some degree of hypertrophy of the heart and high blood pressure. Symptoms of uremia may develop at any time.

In the large white kidney there is a lessened amount of urine which is usually turbid and of low specific gravity. It is highly albuminous and deficient in urea. In the contracted white kidney the urine is increased in amount, of low specific gravity and contains a smaller percentage of albumen.

The amount of albumen in the urine varies so greatly in all forms of nephritis that one can never judge by this how mild or severe the case is. An acute case may show so much albumen that when the urine is boiled it solidifies. The more chronic cases have less, and the most chronic cases have the least. The worst cases may show so little albumen that only an expert can find it, while, for months, all albumen may be absent. An acute case which recovers may have the maximal amount, while, a chronic case which dies may present only a trace. Urinalysis may, therefore, be a most misleading index to the true condition of those who go to the doctor for a periodic check-up.

Complications: These are numerous and often lead to the diagnosis. Uremia, extensive dropsy, latent inflammation of the serous membranes, pneumonia, dilatation of the heart, albuminuric retinitis, apoplexy, and acute exacerbations of nephritis are the most common.

Etiology: Tilden says: "This disease is no different from acute Bright's disease, except that the patient has shown a strong resistance, and has also been incorrigible, inasmuch as when better be has been imprudent." Acute nephritis develops occasionally for a short time —perhaps light crises a few months apart—and, finally, becomes chronic; or chronic nephritis may develop "insidiously" following suppressed fevers, badly treated indigestion, or a general systemic impairment from any cause. Only the profoundly enervated and toxemic develop chronic nephritis.

Only rarely, today, does one find typically healthy kidneys. Most people dying from other causes have been, to a large extent, made less resistant to them by the all too common kidney degeneration. Few people realize what a tremendous tax the conventional mode of living places upon their kidneys.

Prognosis: "Chronic Bright's disease never gets well, but may persist with very fair health for ten or even twenty to thirty years," say medical authorities. There is no adynamic biogony that responds so readily or so quickly to proper hygienic and dietetic care as chronic nephritis.

Care of the Patient: When chronic nephritis is regarded as a degeneration resulting from systemic toxemia and the sufferer is cared for with a view of eliminating all sources of toxemia, nephritis is not difficult to remedy. Recovery depends on the amount of functioning tissue left in the kidneys. If there is enough to carry on the essential eliminative function, recovery can occur.

The fear and terror produced in the mind of the patient and members of his or her family by a diagnosis of Bright's "disease" are the results of the regular failure of the prevailing methods of treatment. These methods of treatment are all based on a study of the nature of the changes in the kidneys and not upon a study of the patient's habits of living, eating, and drinking and the relation of the kidneys to the nervous system, the digestive and circulatory organs and to body metabolism in general.

Many destructive and degenerative changes occur in the kidneys and elsewhere in all forms of nephritis, but from a practical viewpoint, these changes concern us far less than do their causes. We are not so much interested in the nature of the degenerative changes as we are in the nature of the changes in the daily living habits of the patient, which are essential to the arrest of the degeneration. The really important question is: what habits of living must be avoided in order to prevent these changes from continuing, once they have begun?

The first step in the care of chronic nephritis should be a correction of the whole mode of living. Tobacco, alcohol, soda-fountain slops, tea, coffee, cocoa, chocolate, salt, condiments, spices, etc., should be wholly eschewed. All stimulating practices must be avoided.

Rest—mental, physical and physiological rest—is essential to the elimination of toxemia and restoration of normal nerve force. The fast should last long enough to relieve the kidneys of their toxic burden and remove most of the dropsy from the tissues. The rest may well be prolonged much beyond this stage. After the first symptoms have disappeared moderate exercise may be indulged. Sun baths are valuable but should not be overindulged.

Fruits and vegetables—fresh and raw—should constitute the greater part of the diet after the fast.

Tilden says: "Those who have once had an attack of Bright's disease, and were fortunate enough to overcome it, should be willing to live moderately and take the proper care of themselves. Many people die of Bright's disease because they prefer a short and merry life, to a longer one if subjected to what they call restrictions and privations."

Nephrolithiasis

Definition: This is the formation of stone or gravel (calculi) in the kidneys by the precipitation of various solid constituents in the urine. It is commonly known as kidney stone, also gravel and renal calculus.

Symptoms: Pain and tenderness in the kidney region are common symptoms. Rough motion aggravates the pain which tends to radiate along the ureter. There is often much irritability of the bladder. The frequent passing of blood, pus and crystals or fine gravel indicates the presence of stone. The presence of stone is not readily detected until it is forced out. The symptoms of nervous irritation that have existed for years are likely to be attributed to other causes. One of our cases which had received a diagnosis of stone after an X-ray, passed eight ounces of pus on the ninth day of a fast. Rapid recovery followed and no stone showed up.

Renal Colic results from the entrance of the stone into the ureter. Small particles are frequently passed with little or no annoyance. The larger ones are extruded with great pain. Renal colic is characterized by intense pain radiating from the kidney downward into the groin, thigh and testicle. The testicle is often retracted. Often there are nausea, vomiting and collapse. The urine usually contains blood and particles of stone after such a crisis.

Complications: Anuria (suppression of the urine) is one of the most serious complications. The stones may obstruct the ureter producing hydronephrosis or pyonephrosis, or where there is complete obstruction, atrophy of the kidney.

Etiology: The gouty diathesis seems to be what is meant when it is said that heredity is a predisposing cause. Sedentary habits also predispose. Its greater frequency in men than in women is probably due to the greater enervation of men.

The stones form by the deposit of uric acid, urates, oxalates, phosphates, etc., around a nucleus, which may be either blood, pus, mucous, or epithelium. Uric acid stones are the most common. They can develop only in chronic pathology of the kidney, hence are one of the many outgrowths of toxemia.

Prognosis: This is good in most cases.

Care of the Patient: Weger says: "Either type (of stone) can be dissolved by fasting and dieting, though in the case of very large stones surgery is needed. * * * The cause and treatment is markedly similar to that of biliary calculi" discussed when treating of affections of the gall bladder.

The pain, which is often extremely agonizing, may last for days and palliatives are usually demanded during the crisis, though some patients prefer to tough it out. Hot applications are the only palliatives we ever permit, and we never encourage the use of these.

Fasting and rest, are all that can benefit during the crisis. After the stone has passed, the mode of living should be reordered to prevent a recurrence.

We do not agree that surgery is always needed in the case of large stones, for we have seen them dissolved and broken up with fasting and orange juice.

Nephroptosis

Definition: Commonly known as "floating" or "movable" kidney, this is a part of visceroptosis.

Symptoms: There are no symptoms that can be positively identified as that of a floating or dislocated kidney. The slight discomforts that accompany it are caused by gas, indigestion, colitis, etc.

Prognosis: In most instances this condition "cures itself" in time.

Care of the Patient: Follow the instructions given for visceroptosis.

Perinephritic Abscess

Definition: This is inflammation of the capsule of the kidney with abscess formation.

Symptoms: These differ little from those of the kidney. Mild fever may be present and, sometimes, pain in the back.

Etiology: Lowered resistance and toxemia constitute the cause.

Care of the Patient: Weger says: "With proper non-surgical treatment, drainage may be established through the ureter. Considering the anatomical structure 'and the impossibility of knowing whether the location of the abscess may be favorable to drainage, expectant treatment is attended by greater risk than surgery."

Polycystic "Disease" Of The Kidneys

Definition: This is the existence of a large number of cysts in the kidneys.

Symptoms: Intermittent blood In the urine, and the urinary and heart and arterial changes seen in chronic interstitial nephritis, and the occurrence of tumor-like masses in both kidney regions are the usual symptoms.

Etiology: The condition is thought to be usually congenital, though it is usually latent until adult life when, doubtless due to the same causes that produce nephritis, the vast number of cysts of varying sizes in the greatly enlarged kidneys increase in size. The condition is usually bilateral and is thought to depend upon some defect of development.

Care of the Patient: There is nothing to do except adopt and stick to a healthful mode of living.

Pyelitis And Pyelonephritis

Definition: Pyelitis is acute inflammation of the pelvis of the kidney and may be catarrhal, suppurative or ulcerative; acute or chronic, and may be present in only one or in both kidneys. Pyelonephritis is inflammation of the kidney and its pelvis and is often suppurative.

Symptoms: These are often vague and as these "two" affections are always secondary to pathology elsewhere, are often overshadowed by the symptoms of the primary pathology. Constitutional disturbances that vary greatly in degree are commonly present in acute cases and in the exacerbations that arise in chronic cases. The most common of these are chills, fever (100 to 104 F. or more), sweats, digestive disturbances, and loss of weight and strength. There may also be local pain, or tenderness in the kidney region, frequent urination, and, should pyeonephrosis develop, a smooth rounded tumor. There is pus and blood in the urine. The urine varies in amount. It is usually diminished in acute cases and, unless both kidneys are seriously affected, increased in chronic cases.

Prognosis: This varies. In mild acute cases recovery may always be expected. Chronic cases involving both kidneys may persist for some time before recovery is complete. If obstruction exists and both kidneys are involved in this, the condition is grave.

Care of the Patient: Acute cases should be cared for as directed under acute nephritis. Chronic cases may be cared for as directed under chronic nephritis.

Weger says: "The results obtained in these cases by fasting and proper diet are really noteworthy. Even where both kidneys are alike affected, making surgical removal out of the question (one can not live with less than one kidney) we have had complete cures in less than two months in people past middle age who have been semi-invalids for five to ten years. Where there is a natural drainage outlet from any suppuration we anticipate the most helpful natural cooperation by the forces for healing within the body."

Tuberculosis Of The Kidney

As a rule renal tuberculosis is secondary to tuberculosis elsewhere in the body and complicates a tubercular condition of the whole urinary tract.

Symptoms: Pain, usually dull but sometimes sharp, like that of renal colic, in the lumbar region, tenderness on pressure, frequent urination, lack of urination, slight, irregular fever, and more or less cachexia, are the chief symptoms.

Prognosis: Chances of recovery or prolongation of life depend on "complications" and the extent of the systemic involvement.

Care of the Patient: See Tuberculosis.

<u>Uremia</u>

Definition: A form of autotoxemia resulting from faulty kidney function.

Symptoms: It may develop in any type of nephritis or as a result of any condition causing complete suppression of the urine. It may develop suddenly and run a rapid course (acute uremia), or it may develop slowly and persist for weeks or months (chronic uremia). The symptoms vary in these two states.

Acute. In this form the most common symptoms are severe headaches intense restlessness and tossing to and fro (jactitation), epileptiform convulsions, muttering (occasionally even maniacal.) delirium, coma, difficult breathing (of the asthmatic or Cheyene-Stokes type) and persistent vomiting sometimes associated with hiccup and diarrhea. Transient blindness may also occur.

Chronic. Dull headache, vertigo, mental and physical fatigue, recurrent nausea, and vomiting (often thought to be "bilious attacks"), continuous

dyspepsia, obstinate insomnia, and various mental abnormalities are the leading symptoms of chronic uremia. Not uncommonly hemiplegia or monoplegia, usually transitory, develops. Less frequently, such symptoms as muscular cramps, twitching of the limbs, ringing in the ears, itching of the skin and erythematous eruptions, are seen.

Coated tongue, foul breath (ammoniacal or urinous), usually scanty urine, or if undiminished of low specific gravity, as a rule subnormal temperature, but sometimes elevated (uremic fever), high blood pressure, unless there is advanced degeneration of the heart muscle in which case it may be low, are present.

Latent Uremia: This is uremia resulting from complete suppression of the urine and characterized by insomnia, difficult breathing, digestive disturbances and progressive muscular weakness, but with the absence of convulsions, and mental clearness, at least in most cases, almost to the end.

Complications: Chronic uremia often ends in peritonitis, pleurisy, meningitis, and pericarditis.

Etiology: No known constituent of the urine has thus far been identified as the causative agent and it is hardly probable that uremia is due to only one urinary constituent. The "modus operandi" of its production has not been discovered but the probable cause is overworked kidneys, enervation or faulty metabolic changes.

It is the Hygienic view that uremia represents inflammation of the kidneys. It is often seen in pregnant women at the end of the period of gestation and it is our view that this represents faulty kidney function.

Weak or inflamed kidneys may be able to do their work very well in the absence of overeating, overworking, overstraining, worrying, anxiety, alcoholism, etc., but any of these will certainly overwork the impaired kidneys and bring on uremic headache. Indeed, unless the cause is understood and removed a pronounced uremic poisoning may be brought on at any time in those whose kidneys are impaired.

Prognosis: Uremia is always a grave condition, though recovery is possible even after the most severe symptoms. Unless the obstruction is removed, death occurs about the tenth or eleventh day in latent uremia. Chronic uremia may persist with varying intensity for months, but acute exacerbations may develop at any time.

Care of the Patient: No food but water should be given. The patient should be kept warm, even hot. Afford every opportunity for rest and keep noises and other disturbances away from the sick room. After the symptoms have disappeared teach the patient how to live to avoid future recurrences.

Affections Of The Bladder

Cystitis—Acute
Cystitis—Chronic
Cystic Calculi
Paralysis Of The Bladder
Spasm Of The Bladder
Tumors Of The Bladder

Cystitis—Acute

Definition: This is inflammation of the bladder—vesicle catarrh.

Symptoms: The symptoms vary in nature and intensity in the various stages of the condition. Commonly these begin with a sensation of tenderness in the region of the bladder. Frequent pains in the neck of the bladder are felt upon urinating. There arise frequent and continuous desire to urinate and even after urination there may be spasmodic contractions of the bladder denoting great irritation of its lining. In some cases there is a persistent and almost uncontrollable urge to empty the bladder. The pain is due to straining, vesicle tenesmus and the scalding or irritation produced by the urine upon the sensitive membranes. The urine is cloudy and is passed in small quantities.

Etiology: In by far the greater majority of instances cystitis is due to an extension of urethritis, prostatitis or gonorrhea, the latter infection being carried into the bladder by catherization.

Prognosis: Acute cystitis readily heals under proper care.

Care of the Patient: Fasting with all the water desired are essential so long as there is bladder irritation. Rest in bed must be enjoined. If pain and tenesmus are great, immersion of the hips in hot water will afford temporary relief with less cost to the system than drugs exact. After all irritation is gone a diet of fruits and vegetables should be eaten.

Cystitis—Chronic

Definition: This is chronic catarrhal inflammation of the lining membrane of the bladder.

Symptoms: Chronic cystitis presents the same symptoms of less intensity as acute cystitis. The condition may go so far as to cause such irritability of the neck of the bladder that urine cannot be voluntarily passed, necessitating the use of a catheter. In severe cases the urine resembles pus and the bladder becomes so distended (saccubated) that some of the urine is retained so long that ammoniacal decomposition occurs, rendering the urine more irritating and increasing the trouble.

Etiology: Chronic cystitis is most common in middle-aged or old men. It may result from repeated acute crises or may result from enlargement of the prostate gland, or an obstructive condition due to stricture or stone.

Prognosis: This is good in the majority of cases. In some cases where the obstruction is not readily removed, non-surgical cure is not likely.

Care of the Patient: Fasting and rest until there are no longer any pain, irritation or obstruction should begin the care of each case. I have had but one case where this failed to bring quick relief. I was forced to send this case to the surgeon. When all the symptoms have subsided proper attention to habits will prevent recurrence.

Cystic Calculi

Definition: This is stone (or stones) in the bladder. They are found in both children and adults but more often in men than in women. They vary in size, color and form; ranging in size from the size of a small gravel to that of a small egg.

Symptoms: The appearance of oxalic acid, uric acid and other crystals in the urine is preceded by a deposit of "brick dust" or white, powdery sediment. Tenderness in the bladder region and sharp stabbing pains immediately after urinating precede the appearance of the stone. In males the pain frequently extends to the head of the penis. Often the urine is tinged with blood, the desire to urinate is frequent and but a small quantity is passed at a time.

Etiology: This is the same as that given for stones in the kidneys and gall bladder. It is preceded by catarrh of the bladder.

Care of the Patient: This is the same as that given for kidney stones.

Paralysis Of The Bladder

This is a condition that usually accompanies inflammation or degeneration in the spinal cord; or it may result from a gradual degeneration of the muscles of the bladder from chronic catarrhal inflammation, or enlargement of the prostate. The paralysis may involve either the expulsive or the sphincter muscles. If the first, the urine cannot be properly voided for lack of expulsive power, and retention results; if the latter, the urine cannot be retained in. the bladder and is constantly dribbling. Palliation is about all that can be done for these cases.

Spasm Of The Bladder

Definition: This is a spasm of the bladder due to irritation at its neck.

Symptoms: The chief symptom is an intense desire to urinate which persists after the bladder is empty. Attempts to urinate result in the expulsion of but a few drops and severe burning pain.

Etiology: It is most commonly a part of cystitis and results from the same causes that cause the bladder irritation. It sometimes follows alcoholic sprees.

Care of the Patient: Same as for cystitis

Tumors Of The Bladder

Growths, (tumors) in the bladder, whether "benign" or malignant, arise out of the same causes that produce tumors and cancers elsewhere in the body. During their early stages they are not distinguished by any clearly defined symptoms. Catarrh is usually present and urinary difficulties sooner or later appear. See Tumors and Cancer.

Affections Of The Urethra

Urethritis

Urethritis

Definition: This is inflammation of the mucous membrane lining the urethral canal, accompanied by pain and a catarrhal discharge. It is divided into simple or catarrhal, and specific or gonorrheal, urethritis.

Symptoms: Itching and smarting of the urethra, especially during urination, is the first symptom of urethritis. As the condition develops there is a discharge of mucus, or, should an abscess form, of pus, with increased pain when urinating. The discharge may sometimes be streaked with blood. The condition may be acute or chronic, the symptoms of the two conditions varying only in degree. There is swelling of the mucous membrane resulting in a hardening of the urethra and a narrowing of the passage. There may be an intense burning sensation produced by urination. Indeed non-specific urethritis resembles gonorrhea and it is often difficult to distinguish between them.

Etiology: We are not here dealing with gonorrheal urethritis as we have dealt with this elsewhere. We pause only to say that the difference between simple and septic urethritis is the difference between simple and septic inflammation anywhere else in the body. Simple infection is due to non-toxic irritation; septic infection is due to sepsis which we recognize as the only infecting agent.

We wholly discount the absurd theories that it is due to "inoculation during sexual intercourse from discharge due to inflammation of the womb or other parts of the female organism" or that "it may arise in a similar way from cohabitation during the menstrual discharge."

Simple, or catarrhal urethritis is due to the same causes that produce catarrh of the nose and throat or of any other part of the body.

Care of the Patient: Fasting to relieve the body of its overload, followed by a healthful mode of living are all that are required.

Affections of the Reproductorium

Affections Of The Male Affections Of The Female

Reproductorium is a generic term covering both the male and female sexual apparatus. The female breasts are also included in this term.

We must learn to view the sex organs as integral parts of the body and not as separate and distinct therefrom. When we have grasped their unity with the rest of the organism, we will be ready to understand that any loss of integrity in their structures and functions is due to the same causes that produce losses of integrity elsewhere in the body. We will then be in line for a rational approach to affections of the sexual apparatus.

We shall here deal with affections of the sex organs alphabetically taking up first, those of the male and those of the female second.

Affections Of The Male

Balanitis

Bubo

<u>Chancre (Hard Chancre)</u>

Chancroid (Soft Chancre)

Chordee

Cowperitis

Epididymitis

<u>Gleet</u>

<u>Hematocele</u>

Herpes Of The Genitals

Hydrocele

Nocturnal Emissions

Orchitis

Paraphimosis

Phimosis

Pimples On The Genitals

Papillomata

Posthitis

Priapism

Prostatic Enlargement

Prostatitis

<u>Satyriasis</u>

Spermatorrhea

Stricture

Balanitis

Definition: This is inflammation of the glans penis and usually of the inner surface of the foreskin (pothitis) often with a purulent discharge.

Symptoms: Simple inflammation may result only in itching and irritation, or but little pain. The irritation may cause handling of the part and lead to masturbation. In the purulent form there is great inflammation, perhaps slight pain, and considerable purulent secretion.

Etiology: A few cases are attributed to gonorrhea. Perhaps most cases are due to lack of ordinary cleanliness. The normal secretions of the corona of the glans and also the cervix call for daily attention, else the retained secretions decompose and produce irritation and inflammation. It is most frequently found in those with a long and tight prepuce, or in cases of phimosis. If the discharge is neglected it may be followed by swelling and contraction of the foreskin and inflammation of the nearest lymphatic glands.

Care of the Patient: Cleanliness is the only requirement. The foreskin should be retracted and the parts thoroughly washed with warm water at least twice a day so long as there is inflammation. Daily cleansing, after healing is complete, will prevent recurrence.

Bubo

Definition: This is inflammation of the inguinal lymph glands and is commonly called "blubore." It is lymphangitis, which see.

Symptoms: Pain and a hard swelling in the groin, with extreme tenderness to touch, inability to move the part without severe suffering, and the usual heat and discoloration of inflammation announce the presence of bubo. If

there is severe inflammation the pain is continuous for from one to three days before suppuration occurs, when the pain may cease and a soft movable lump is felt in the groin. The bubo now becomes dark and livid and, finally, breaks. Drainage is followed by healing and the end of the trouble.

If drainage is faulty the pus may penetrate the surrounding tissues and give rise to other abscesses. Fistulous ulcers may form which heal with difficulty. More or less ulceration and sloughing involving destruction of considerable tissue may result. If ulceration opens a blood-vessel, profuse hemorrhage will result. In rare cases the condition becomes chronic and may finally give rise to septicemia (blood-poisoning) with even fatal results.

Rarely the bubo becomes a tumor that slowly enlarges to the size of a hen's egg. In other cases there is no tendency to abscess formation and there is a lingering affection of the cords and glands, extending into the scrotum with a dull, persistent pain in the testicles.

Etiology: Bubo is due to infection, usually venereal. It is seen in gonorrhea and in hard and soft chancre. It may also result from intestinal sepsis, a sore toe or even an ant bite on the toe. It can come from suppurating inflammation of any part of the penis. It develops in profoundly enervated and toxemic subjects.

Prognosis: This is good.

Care of the Patient: Tilden says: "A suppuration of these glands never occurs in properly treated cases." The first requisite is to clear out the source of infection. Drainage of any suppurating part of the penis, or of a sore toe, etc., must be established. Ulceration of the foreskin brought on from neglect of cleanliness often brings on bubo. Cleanliness is essential.

Other than local cleanliness and drainage, fasting, rest, and the other measures described under lymphangitis are essential.

Chancre (Hard Chancre)

Definition: This is defined as the "primary lesion of syphilis" or "venereal chancre followed by constitutional symptoms."

Symptoms: The hard chancre, as the name indicates, is hard, the sore being indurate and hardened. It first appears as a small, red pimple, and may easily be mistaken for such. It is usually smooth, glazed, red, dry and painless. It "secretes" little or none at all. It often disappears in a short time,

or it may slowly develop into an ugly ulcer. The ulcer is shallow, more or less circular or oval, and is bounded by a hardened edge. It is accompanied or followed by various constitutional symptoms—headache, fever, loss of appetite, languor, malaise, etc.

The chancre may develop into a chancre of greater or less size; it may be attended by much inflammation and sloughing; it may be attended by falling off of parts of the flesh; or may be accompanied by gangrene marked by a tendency to mortification; or there may be "eating" away of the flesh, a so-called phagedenic chancre.

Enlargement of the glands in the groins adjacent to the genitals follows. These are not painful, being hard, movable and entirely insensitive. Chancre may develop on the jaw, lip, tongue, neck, or elsewhere, in which cases the glands nearest the chancre will enlarge.

Complications: Chancre is a skin infection, but if not properly, cared for the blood will become infected producing skin eruptions and various other affections.

Etiology: Tilden says: "The hard chancre is aristocratic; it has class to it; it means the victim of it has lived a life filled with luxury, and has a mind satiated with sexuality in all its aesthetic belongings, up to nerve degeneration." "Those with hard chancres have gone the pace that kills, until their nerve energy is used up and they have lost all resistance, and are just about to develop diseases that come from degeneration of the nerve centers."

The poison of decomposition—sepsis—is at the bottom of all infections. External infection soon spends its force if it is not added to by toxemia and the autoinfection coming from poisons generated in the digestive tract. The more decomposition there is going on in the intestine, as an established habit, the more degenerate the type of skin affection that develops from skin infections.

Infection takes place by contact of an abraded surface with septic matter. The process of infection is identical with that of small-pox vaccination and the ulcer formed in each base is identical.

Prognosis: Chancre lasts from two to five weeks and heals. This should be the end in all cases. However, if there is much intestinal sepsis, or if blood infection has been forced by treatment, secondary skin eruptions will develop just as they often follow vaccination.

Care of the Patient: The first essential is to stop the expenditure of nerve energy and secure rest. Stop all nerve leaks of which fear is the greatest. Cultivate mental poise. Cases we have handled with fasting have not been followed by subsequent eruptions. Fasting corrects auto-infection and allows rapid healing.

The most effective care is to secure rest for the nervous system, fast when in pain or discomfort, stop all stimulants, give a diet of fruits and green vegetables, and put the mind at rest by assuring the patient that complete recovery will not be long in coming. Scrupulous cleanliness of the chancre is essential.

Cut out all tobacco, alcohol, tea, coffee, etc., secure exercise in the fresh air, give daily sunbaths and enjoin strict sexual abstinence; even insist that the patient keep his mind off of sexual matters.

Chancroid (Soft Chancre)

Definition: This is defined as a soft "non-syphilitic" venereal sore. It is an ulcer of the genitals and is the most common venereal infection.

Symptoms: It is an ulcer, round or oval in form, which usually develops on the head of the penis, and which freely discharges a purulent pus. The secretion is highly infectious and if strict cleanliness is not observed, reinfection will take place producing other ulcers of the same kind. The chancroid is soft and very quickly forms pus; it is grayish with an uneven surface and rough edges; is surrounded with a red, inflamed area, is painful and very rapidly enlarges and grows deeper. It may result in the destruction of a large amount of tissue in a short time. It is rarely attended with any constitutional symptoms.

Complications: Chancroid is commonly accompanied by enlargement and tenderness of the lymphatic glands of the groin (bubo). The glands become swollen, tender, hot and painful, often suppurating. If re-infection takes place often enough, due to lack of cleanliness, septic lymphangitis will develop. The chancroid will spread destroying the prepuce or glans, or even the entire genitals, or it may reach the blood vessels resulting in general septic infection and death through blood-poisoning.

Etiology: The condition develops largely in young men, largely in the full-blooded, or plethoric, with an acid state of the alimentary canal; in young

men who have gone the pace, but whose sexual excesses have not yet begun to produce symptoms of nerve degeneration. The infection, which is septic infection, is caused by lack of cleanliness. A man with a long and rather close prepuce who does not wash it frequently, just as he does his face, is liable to have decomposition of the secretions that accumulate under the foreskin. Irritation and inflammation caused by the acidity of the retained secretions result in excoriation and, if cleanliness is not begun at once, ulceration will take place at once.

"Chancroid is invariably the result of contact with an infected woman, and usually with one of the lowest and most unclean type." This is the medical theory. If a plethoric individual, whose resistance is low, has intercourse with a woman who has an ulcer of the uterus or an accumulation of secretions that are undergoing decomposition, and there is an abrasion on his penis he is liable to be infected. It will be septic infection and will produce chancroid.

"Mixed infection" is a professional subterfuge. Hard chancre is said to be "syphilis" while the soft chancre is said not to be "syphilis." If an individual with a soft chancre later develops locomotor ataxia, or other central nervous affection, the physician who treated him for chancroid will declare it to have been a case of "mixed infection" and that there was also "syphilitic" infection.

Prognosis: There is no need for this infection to ever become systemic and it cannot do so unless badly treated. If proper care is instituted from the start, speedy recovery will follow.

Care of the Patient: Cleanliness is the one great need. It should be frequently washed with hot water. All attention to the general health will hasten recovery. This attention is especially important if the glands have become involved. Rest and fasting, or a very light diet, and cleanliness are essential in this stage.

Chordee

Definition: This is a painful deflection of the penis seen in severe cases of gonorrhea. The penis usually assumes a downward curve.

Symptoms: The condition usually develops at night or while lying down. There is erection, with distress and curving of the penis.

Etiology: This may be due either to spasm of the urethral muscles or to the fact that the inflammation along the urethra prevents the corpus spongiosum from becoming as much distended as the corpora cavernosa. If the inflammation extends into the spongy tissue a certain amount of agglutination takes place, and this interferes with the influx of blood and with normal erections. Under these conditions distention takes place irregularly resulting in a bending of the penis in the direction of the inflamed urethra which does not distend.

Care of the Patient: The first consideration should be to hasten the recovery from gonorrhea. Next, every effort should be made to avoid erections. These often come on during sleep and may be so painful that the sufferer will be up and out of bed before he realizes what is disturbing him. Standing or walking result in speedy detumescence. Attempting to "break" chordee may result in bleeding and the formation of stricture. It should be cared for gently. It is asserted that severe chordee may itself rupture the urethra and produce stricture.

Fasting or a fruit diet will lessen the severity of gonorrhea and reduce the tendency to erections. Indeed there will be very little chordee if gonorrhea is cared for properly from the start.

Cowperitis

Definition: This is inflammation of Cowper's glands.

Symptoms: Slight swelling and extreme tenderness develop on one side of the perineum if only one gland is involved, and on both sides if both are affected. If neglected or improperly cared for, abscesses are liable to evolve.

Etiology: Cowperitis is a not uncommon complication of gonorrhea and results from forcing the infection back into the glands.

Care of the Patient: Fasting and rest are of prime importance. Absolutely no food but water should be taken so long as there is any tenderness or enlargement.

Epididymitis

Definition: This is inflammation of the epididymis, or seminal vesicles.

Symptoms: This complication of gonorrhea starts up suddenly. A heavy feeling with sensitiveness to handling is the first symptom. Often in twenty-four hours the swelling will attain the size of a fist and every increase in the swelling adds intensity to the pain in the testicle and back.

Sequels: It is usual for sterility to follow inflammation of both seminal vesicles. The epididymis is left in a more or less hardened condition, which may persist. The fine convoluted tube which forms the epididymis may be obstructed and permanently closed.

Etiology: It is not uncommon for epididymitis and orchitis to co-exist. The condition is almost always due to badly managed gonorrhea. Injections used in treatment carry the infection deeper into the prostate, seminal vesicles and epididymis. Sexual excitement and indulgence, alcohol and the use of instruments under the same conditions may result in forcing the infection into the seminal vesicles and testicles.

Care of the Patient: Fasting and rest are the great immediate needs. If activity and eating are persisted in, sterility is almost sure to result.

This is a condition that will not develop in gonorrhea cases that receive proper care from the start.

Gleet

Definition: This is a term applied to a chronic catarrhal discharge of the urethra, usually following neglected or improperly treated gonorrhea. It is commonly called chronic clap.

Symptoms: There is a discharge from the urethral canal which varies from a thin, colorless fluid of a mucus or albuminous character, to an opaque pus. There is usually no pain, redness or swelling. In some cases the urine contains threads of epithelium. Sometimes the lips of the opening are found glued together upon arising. Rarely the orifice may be so tightly sealed that it temporarily checks the flow of urine, causing a distention of the urethra and a sharp pain. In some cases there is a sense of itching and uneasiness in the deeper structures.

Where there is a yellow or brownish tinge to the discharge, it indicates that there is enough inflammation to cause necrosis of the mucous membrane and that the condition is dangerously near the point where septic infection can occur. All that is needed is that drainage be prevented by dressings or the plugged-up urethra.

Sometimes the discharge is noticeable only in the morning, in other cases it is continuous. It sometimes ceases for weeks or even months and then returns. Dissipation, excess or overwork may cause a return. Sometimes the discharge actually comes from Cowper's gland, the prostate gland, or the seminal vesicles.

Etiology: Although considered to be always an aftermath of gonorrhea, we have seen cases that gave no history of gonorrhea. It is our opinion that chronic inflammation of the urethra, prostate, Cowper's gland or seminal vesicles will produce the symptoms labeled gleet. Even in those cases following gonorrhea the real cause is the enervation and toxemia that perpetuate the inflammation. We do not believe the medical theory that a man suffering from gleet can infect a woman with gonorrhea.

Care of the Patient: The usual procedure to relieve the body of toxins and restore nerve energy—physical, physiological and mental rest—is essential for speedy and satisfactory results. Locally, cleanliness is most important. If there are sensitive spots, along the urethral channel, these may be gently rubbed or squeezed by rolling the penis between the fingers to force pent-up secretions into the urethra so that they can drain and wash away.

Alcohol, sexual indulgence and all forms of dissipation will keep up the inflammation and prevent healing. The man who mixes freely with women and allows himself to be repeatedly sexually excited, even though abstaining from intercourse, will not recover. Indeed abstaining from intercourse under these conditions is worse than if be indulged.

Men who spend two, three or more evenings a week with their sweethearts or fiancees and who keep themselves in a state of sexual excitement and the sex organs in a high state of engorgement will prevent recovery. Indeed this kind of life will often produce symptoms of gleet, with not only an albuminous discharge, but with also a loss of semen.

Hematocele

Definition: This is swelling or enlargement of the scrotal sac due to an effusion of blood therein, as well as into the spermatic cord, testicle and

pelvis.

Symptoms: It resembles hydrocele, which see, except that whereas hydrocele is translucent, hematocele is opaque.

Etiology: It is due to hemorrhage from blows, wounds, violent straining, or otherwise.

Care of the Patient: Rest and quiet are most important. No food should be taken so long as there is discomfort. Very little water should be taken. It often helps to have the patient lie on his back with his hips slightly elevated.

Herpes Of The Genitals

Definition: Vesicles or blisters usually on or about the prepuce.

Symptoms: Vesicles develop on the genitals which are similar in appearance to herpes simplex.

Etiology: They result from irritating secretions.

Care of the Patient: They usually disappear readily as the result of improved health and cleanliness of the parts. See Affections of the Skin.

Hydrocele

Definition: A collection of fluid about the testicles.

Symptoms: The scrotum enlarges; it may become very large and cause great inconvenience, although there is usually not much pain. It usually forms a smooth, ovoid or pear-shaped swelling and the testicle is entirely enveloped or concealed. There is no impulse when coughing.

Etiology: It may be due to an accumulation of a more or less clear fluid in the tunica vaginalis, in excess of the normal secretion of this serous sac, as a result of toxic overstimulation; it may result from obstruction of the veins of the abdomen, or may be part of general dropsy, or of tuberculosis. Congenital cases are seen in those individuals in whom the tunica vaginalis still communicates with the abdominal cavity. In these cases the swelling disappears when the infant lies on its back, and there is an impulse when coughing.

Care of the Patient: Congenital cases usually disappear with development. Care in other cases should be directed to the tuberculosis, venous obstruction, or the cause of the general dropsy.

Nocturnal Emissions

Definition: A nocturnal emission is a loss or discharge of semen while asleep.

Symptoms: Emissions commonly occur during an erotic dream—"wet dreams." The subject usually awakes immediately thereafter and finds the discharged semen upon his body, clothes and the sheet.

Etiology: They are caused by an excessive accumulation of semen. Erotic thinking, whether caused by day dreaming or by stimulating situations, increases the frequency of this overflowing, when the semen is not discharged by normal intercourse. Women may also have erotic dreams accompanied with orgasm.

Nocturnal emissions are not, except in rare cases, a sign of weakness. They represent a perfectly normal method of getting rid of excess material, for which the body has no immediate use. It is possible for emissions to become excessive, due, not to any defect in the process itself, but to overstimulation of the sex glands. What are called physiological seminal losses occur at long intervals and leave no disadvantageous after-effects. A few men seem to have no emissions. Excessive emissions tend to weaken. Worry about them often causes more trouble than the emissions.

When the habitual masturbator abandons his practices he is likely to experience frequent emissions for some time thereafter. The sex glands having formed the habit of producing a certain amount of semen and of discharging it at regular intervals, will not cease this habit at once; but will discharge in nocturnal emissions what was formerly discharged by masturbation. However, these emissions tend to occur less and less frequently as the habit is abstained from.

One of the greatest, if not the greatest causes of nocturnal emissions is nutritive redundancy. Protein excess is especially bad in this particular. Milk, cheese, cereals, meats, eggs, chocolate, and cocoa are among the foods that tend to overstimulate the sex organs.

Care of the Patient: General health-building is the chief need. It is essential to avoid overeating, overstimulation and lascivious thinking.

Orchitis

Definition: This is inflammation of the testicles.

Symptoms: Intense pain, much swelling of the testicles, redness and extreme tenderness of the scrotum, with an aching, dragging sensation along the cord and in the groin are the chief local symptoms. Rarely are both testicles affected at the same time. Usually one becomes affected after the other.

There may be such constitutional symptoms as fever, furred tongue, nausea, or vomiting and constipation.

Orchitis may become chronic, or in scrofulous subjects, strumous orchitis (tuberculosis of the testicle) may develop.

Etiology: Orchitis is due to infection. It is seen as a complication of mumps, typhoid fever and general septic and pus infections and in tubercular conditions. It is the most painful complication forced, on gonorrheal subjects. The employment of astringent injections to "dry up" the discharge often brings on orchitis. Such treatment is criminal and may ruin the patient. Injury will also cause inflammation of the testicle. Sterility may result from orchitis.

Care of the Patient: At the first sign of orchitis the sufferer should stop all food but water and go to bed and be quiet. All activity tends to aggravate the condition.

If the case has been badly managed and suppuration has occurred the pus should be let out through a good-sized opening and perfect drainage provided for. The quicker this is done the better.

Paraphimosis

Definition: This is a retraction of the foreskin behind the glans penis with strangulation back of the corona and results when the glans has been forced through a very narrow orifice of the prepuce. The orifice of the foreskin now forms a tight ring or band around the penis, shutting off circulation in the extremity of the organ much as a ligature would do.

Symptoms: The glans becomes swollen and congested, the pre-puce overhangs it like a swollen ring. Unless the glans can be forced back through the ring, ulceration and sloughing will follow in a few days. The more swollen the, glans becomes the greater is the difficulty of forcing it back.

Care of the Patient: In the early stages reduction can usually be accomplished by thoroughly oiling the parts with olive oil or vaseline, then drawing the prepuce forward while compressing the glans between the thumb and finger. In a few cases it may be necessary to compress the glans by means of a very small bandage tightly applied. If reduction cannot be accomplished in a day or so it will be necessary to secure surgical aid without further delay.

Phimosis

This is tightness of the foreskin which cannot be drawn back over the glans penis. The foreskin is constricted or narrowed at the extremity, sometimes the opening is as small as a pinhole causing difficulty in urination, with distention of the prepuce with urine at the time. In such a case, adhesion of the prepuce to the glans may even close up the opening requiring immediate and radical attention. In all cases there is a likelihood of adhesions.

The condition is usually congenital, although it may result from injury of the prepuce. It tends greatly to restrict the growth of the penis and, due to the difficulty in cleansing the parts, causes irritation and inflammation even infection from decomposed secretions, and sexual excitement. The excitement may lead to some form of masturbation.

Care of the Patient: The usual method of care is to circumcise the child. This is barbarous and unnecessary. Let us say at this point that circumcission possesses none of the virtues claimed for it. It does often result in much harm.

Proper care involves keeping the parts under the tight pre-puce clean and peeling off the adherent prepuce.

To cleanse the prepuce, cervix, corona and glans a small penile syringe may be inserted into the mouth of the prepuce and warm water forced into the cavity between the glans and the prepuce. Holding the orifice tight over the syringe and forcing the water into the cavity affords one of the best methods of dilating the prepuce and slowly peeling off any adhesion. Plenty of water should be used to insure cleanliness. Daily washing and dilatating in this way should be employed.

Instrumental dilatation of the prepuce will hurt a little, but nothing should be used to deaden sensation. The prepuce should be gradually dilated and the adherent foreskin pulled and pushed with the fingers or peeled off by a probe, small sound or grooved director. It is not necessary to overcome the adhesion or constriction at one time. If necessary, carefully manipulate the prepuce a dozen times or more, making a little progress each time. Extreme cleanliness of the hands and instruments is very essential.

Pimples On The Genitals

The appearance of pimples or vesicles of any kind on the genitals usually causes much anxiety lest it may be "syphilis" or chancroid. In most cases it is merely herpes or an ordinary pimple such as may appear on any part of the skin.

Papillomata

Definition: These are cauliflower-like growths that sometimes develop on the genital organs. They are commonly called venereal warts and venereal vegetations.

Symptoms: They are painless, of a grayish color, fragile of texture and slough off easily. They may grow to immense size and often appear to reproduce themselves. They develop upon the end of the male organ or upon the edges of the female genitals.

Etiology: Uncleanliness and irritation from decomposing secretions is the cause of most of these growths. Some are thought to result from venereal infections.

Care of the Patient: Local cleanliness is very essential. A program of detoxication and general health-building is also necessary.

If the warts are not autolyzed by fasting, they may be forced to undergo involution by applying the infra-red rays of the sun to them. This is done by passing the sun's rays through a blue lens.

Posthitis

Definition: This is inflammation of the foreskin. It is seen in gonorrhea and balanitis and should be cared for as directed under these headings.

Priapism

Definition: This is persistent abnormal erection of the penis.

Symptoms: There is persistent abnormal erection which may or may not be attended by sexual desire.

Etiology: It is usually due to some form of irritation, perhaps due to decomposition of pent-up local secretions, or to some abnormal nervous condition, as in satyriasis.

Care of the Patient: First find the cause of the trouble and remove it. If irritation caused by decomposed, secretions is causing the trouble, cleanliness will be enough to remedy the matter. If it is due to gonorrhea, care for as directed for this infection. If due to affection of the nervous system, care for as directed under satyriasis.

Prostatic Enlargement

Definition: This is enlargement or hypertrophy of the prostate gland. Two forms are noted (1) enlargement due to infection and (2) enlargement peculiar to advancing age. For the first of these see prostatitis.

Symptoms: Enlargement is definitely established by digital examination by way of the rectum. The enlargement develops so slowly that it may not be noticed until it has progressed to a considerable extent, causing greater frequency in urination. Often there is serious interference with the voiding of urine, even complete obstruction of the urinary tract. There will be considerable pain upon urination if the enlargement is great. One lobe or the entire gland may be enlarged. It may be complicated by inflammation of the bladder in which case there will be mucus or pus in the urine.

Etiology: Hypertrophy of the prostate may follow chronic inflammation, of the gland commencing early in life, or it may be the result of sexual excesses and over eating. Toxemia is marked in all cases.

Care of the Patient: A fast will bring about reduction of the enlargement. We have seen three days of fasting enable patients to urinate freely, who, before, were unable to urinate and were forced to keep a catheter in the

urethra. The fast should continue long enough to eliminate toxemia. Sexual rest is as essential as physical rest. After the fast it will be necessary to give up the use of tobacco, coffee, tea, and all root vegetables.

Prostatitis

Definition: This is inflammation of the prostate gland. It may be acute or chronic.

Symptoms:

Acute. The prostate gland is situated at the base of the bladder and completely surrounds the urethra, consequently when it is inflamed or swollen it seriously interferes with the voiding of urine. There is frequent desire to urinate with a feeling of pressure in the region of the bladder. Urination produces a painful, scalding sensation and this gradually increases in severity as the swelling in-creases. The prostate is swollen and so tender that bowel movements may be very painful. Backache may be present. If the swelling is great there may be retention of urine, especially, as sometimes is the case, if there is suppuration. A catheter may have to be employed to draw out the urine. Abscess formation is serious. Unusual nervous depression, more or less fever and general constitutional symptoms accompany acute prostatitis. All in all acute prostatitis may be a very painful and distressing ailment.

Chronic. The symptoms of chronic prostatitis are similar to those of acute prostatitis, except that they are mild, perhaps without enlargement of the gland, and little pain. There may be slight pain after urinating and a dull pain extending to the back and thighs. A catarrhal discharge from the prostatic urethra may slightly cloud the urine. There is a discharge of viscid fluid varying in quantity, which is called prostatorrhea. The discharge is particularly noticeable after urinating or straining at stool. Fever is absent, but there is much mental depression, the sufferer morbidly dwelling on his condition and magnifying its seriousness. Neurasthenia is a frequent outcome.

Etiology: Acute prostatitis may follow injury, but in nearly all cases it is due to gonorrheal infection, perhaps in all cases the result of maltreatment. Chronic prostatitis may follow acute prostatitis resulting from gonorrheal infection, or it may result from repeated congestion of the gland due to frequent sexual excitement, retention of semen in incompleted coition (coitus

reservatus), irritating injections, stricture, stones in the bladder, or other locally exciting and disturbing influence.

Prognosis: While proper care results in rapid recovery, if wrongly cared for, acute prostatitis may leave the prostate gland in an injured state which may lead, later on, to enlargement. Chronic prostatitis recovers readily enough under proper care, but may lead on to enlargement if not properly cared for.

Care of the Patient: "Nothing," says Tilden, "will ameliorate, mitigate, or jugulate this or any other disease as will ac complete fast, continued until all discomforts have disappeared." Again, he says: "Infected prostate is very distressing and should be treated by sending the patient to bed and fasting him for, several days, or until he is comfortable and able to retain urine for three hours."

If there is retention of urine due to swelling of the prostate two measures may be employed to start the urine. Hot baths will usually cause the urine to flow. If these fail, and not until they fail, it will be necessary to introduce a self-retaining, soft-rubber catheter and drain, even irrigate the bladder. Irrigation should be done with warm water only. Drugs, even borax, often produce great evil. The bladder should never be irrigated during the active stage of gonorrhea, unless every other palliation has failed, or unless suffering demands relief that fasting, and hot baths will not give. We do not favor hot water drinking in these cases, as the excess of water adds to the distress.

The catheter should be removed as soon as urination becomes possible. Both in introducing and in withdrawing the catheter great care should be exercised not to injure any part of the passages lest infection take place at the denuded point.

Satyriasis

Definition: An unusual and uncontrollable sexual desire.

Symptoms: The uncontrollable and persistent desire is the only characteristic symptom. Other symptoms belong to the related pathologies.

Etiology: Satyriasis is a symptom—a symptom of affection of the prostate or of an inflammatory condition of other parts of the generative system, or of

affections of the brain and nervous system. In these latter cases it is a form of insanity.

Care of the Patient: It is necessary to find out what condition is hack of this symptom and care for the patient as directed under its appropriate heading. Fasting and a corrected mode of living will prove beneficial in all cases.

Spermatorrhea

Definition: This is a gradual loss or leakage of the seminal fluid.

Symptoms: It is manifest by a slight urethral discharge of a viscid character, composed of semen mixed with mucus, which causes a moistening of the extremity of the penis, or by the presence of semen in the urine (seminuria), or by both. Most cases presenting these symptoms are catarrhal conditions. Spermatorrhea is very rare and can be definitely established only by finding the spermatozoa in the urine. This requires the aid of a microscope. Prostatorrhea, due to chronic congestion, or a mild inflammation, of the prostate gland may easily be mistaken for spermatorrhea. Occasional finding of spermatozoa in the urine, probably following intercourse, nocturnal emission, or sexual excitement, means nothing.

Etiology: It may occasionally result from pathology of the brain and cord or of the prostate, seminal vesicles or ejaculatory ducts, or from injury, but most cases are due to weakness of the nerves and muscles of the parts and perhaps sexual overstimulation. These subjects suffer from debility, poor digestion, irritability, mental depression, inability to sleep and other symptoms of "neurasthenia."

Care of the Patient: Cut out all enervating practices and adopt a plan of general health-building. Care must be exercised to avoid sexual excitement.

Stricture

Definition: This is an abnormal narrowing or constriction of the urethral canal, interfering with or obstructing the flow of urine.

Symptoms: The chief symptoms are difficulty in voiding urine and sharp pains experienced while urinating. There is a small stream of urine due to the

narrowing of the lumen.

Complications: Inflammation of the prostate, seminal vesicle, bladder and kidneys, or even rupture of the urethra itself with extravasation of urine or even pus into the submucous tissues, followed perhaps, by abscess or fistula may result. Hemorrhage and general blood infection have been known to occur. When there is much granular thickening of the mucous membrane the urethra loses its self-cleansing power and the canal becomes septic through putrefaction of retained exudates after which auto-infection follows.

Etiology: Three forms of stricture are recognized as follow:

Inflammatory Stricture results from the swelling of the walls of the urethral canal in inflammation and temporarily closes or partially closes the canal. It is caused by anything that produces inflammation of the urethra. Masturbation, rough handling, long retention of the urine, decidedly acid urine such as is seen in those who eat heavily of starch and meat, or anything that irritates or denudes the urethral mucous membrane will cause stricture.

Spasmodic Stricture is largely a nervous phenomenon, it is a constriction of the urethral canal by muscular spasm due to irritation of one kind or another.

Organic Stricture is a narrowing of the urethra from contraction of scar tissue. It is usually the outcome of inflammatory stricture and takes the form of a radical and more or less permanent alteration in the structure of the canal. Or it may be due to pressure from tumors or growths adjacent to the urethra.

Many cases follow injury or are the result of the destructive effects of strong drugs used in injections.

It is claimed that most cases are the aftermath of gonorrhea. Tilden says: "It does not occur except in those cases where the discharge has been held back and forced to take on decomposition—forced to change from a yellow, creamy, non-irritating discharge to a thin, greenish or brownish acrid fluid that is excoriating and highly septic. This discharge is destructive to mucous membrane, especially so when held on it by the usual dressings." Drainage is as essential in inflammation of canals as in wounds and anything that prevents the removal of gonorrheal exudate as rapidly as it is thrown out builds the "perilous" complications the public are so often warned about.

Care of the Patient: Experts tell us strictures are located in the deep urethra. The fact is they may be located anywhere along the urethral canal

and patients often present, one, two, and three strictures in the anterior and middle third and none in the posterior third.

Strictures are soft and easily overcome when properly cared for immediately after or just before the inflammation subsides. In caring for the granulations sequent to inflammation, care should begin as early as the case permits. In all cases of gonorrhea there are sensitive points left along the course of the urethral canal after the discharge has ceased. The presence at these points of granular inflammation is made known by itching and there is an almost irresistible desire to rub the urethra. The patient should be instructed to always rub toward the end of the penis and not back toward the bladder and then allowed to rub as much as he desires, merely avoiding too rough treatment. This external rubbing dislodges and squeezes out retained or pent-up secretions and should be followed by urination to flush the canal of exudate.

Better results may often be obtained by employing an olive-tipped sound in conjunction with the rubbing, stopping the head of the sound at the point of sensitiveness and gently rolling the penis between the fingers which are held over the sound, until the sensitiveness vanishes. The sound is essential where there is scar tissue, as in organized stricture, that must be stretched. This may be done as follows:

Thoroughly cleanse a few olive-tipped sounds, as well as the hands. Have the patient urinate and wash his penis with hot water. Lubricate the sound with white vaseline and introduce it into the mouth of the urethra very carefully, as it is very sensitive.

At the first use of the sound, it should not be inserted more than two inches; then at each subsequent repetition of the treatment, the sound may be introduced a little deeper until it is inserted to where the urethra curves under the pubic arch. It is well not to go beyond this point unless malpractice has forced the infection beyond this limit. If it is necessary to go beyond the point of the curve a curved olive-tipped sound may be used.

Upon introducing the sound rub back and forth, especially at the sensitive points and as soon as sensitiveness ends use a larger sound and a still larger sound until one is used that meets slight resistance. The rubbing should be continued until all sensitiveness has vanished and the treatment should be repeated every other day, until the urethra is normal. At the beginning of treatment there may be a discharge of bloody water or even blood. This

results from the breaking-up of ulcerating folds and pockets and the breaking-down of granulations and is essential to speedy return to normal.

This procedure should be continued until all soreness is gone and the stricture is sufficiently dilated, after which, if necessary, a little of the same treatment may be repeated every six months or every year to prevent constriction of the canal. Organized stricture, like all scar tissue, cannot be removed and treatment should end when this has been dilated enough that no obstruction exists and irritation, sensitiveness, tumefaction and engorgement are gone. If stricture has not reduced the caliber of the urethra more than 25 per cent the treatment need not be given.

Affections Of The Female

Abortion (Miscarriage)

Atresia

Cancer Of The Uterus

Hooded Clitoris

Leucorrhea (Whites)

Menopause (Climacteric)

Metritis

Metrorrhea

Nymphomania

Ovaritis (Oophoritis)

Pin-Mouth Womb

Pruritis

Salpingitis

Uterine Fibroid

<u>Uterine Polypi</u>

Vaginitis

<u>Vaginismus</u>

"Disorders Of Menstruation"

Affections Of The Breast

Affections Of Motherhood

Abortion (Miscarriage)

Definition: Expulsion of a fetus before it is viable, that is before it is able to live or liable to live. It is termed accidental or spontaneous when it occurs from accident, and induced when brought on purposely.

Symptoms: Hemorrhage and pain ("bearing down pains") are the chief or only symptoms. Hemorrhage is likely to develop suddenly in ordinary health with no previous symptoms of any kind. If the hemorrhage is profuse and accompanied with pain, and the pain subsides, to be followed by slow and irregular bleeding, it is safe to diagnose incomplete abortion.

If the subject develops periodic hemorrhages, these occurring monthly, or every two or three months, with a profuse flow lasting ten days to two weeks, and accompanied with more or less discomfort, not amounting to pain, and there is a history of two or three miscarriages at from the third to fourth month, it is safe to diagnose chronic auto-abortion—the abortion habit.

Such cases will often abort fifteen to forty times in the course of five to seven years, each conception being followed in a short time by expulsion with hemorrhage. The greatest number of such abortions any of our patients have suffered has been twenty-eight.

Etiology: An abortion may be brought on by overwork, strain, fright, sexual overindulgence, and by a greatly weakened or devitalized body. Death of the fetus usually precedes abortion.

Care of the Patient: Rest in bed, with the feet slightly elevated and no food but water so long as there is hemorrhage are all the measures we have employed. In incomplete abortion it is generally thought to be necessary to curet the womb. If this is done a skilled surgeon should be employed for the work.

The abortion habit is followed by normal pregnancies and birth of children at full term when good health is restored. These cases respond very favorably to physical, physiological and sexual rest, followed by a proper diet, exercise and other means of building good health.

Atresia

Definition: This is occlusion (imperforation) of the vagina.

Symptoms: Suppression or retention of menses, painful menstruation and sterility are the regular symptoms.

Etiology: Acrid leucorrhea causes contraction of the tissues and destruction of their elasticity. A hardened condition, not unlike that seen in the arteries in arteriosclerosis, develops. Starch in-digestion (fermentation) causing a general acidity of the body is the most likely cause of acrid leucorrhea. Stricture of the urethra seen in a few of these cases shows that the urine is also very acid.

Care of the Patient: It is doubtful if complete restoration of normal elasticity can ever be restored to these tissues. The inelasticity is slow in developing and hard to overcome.

The mouth of the vagina should be gently and frequently dilated. Great care must be exercised as these tissues will tear but will not stretch. Extreme cleanliness is essential. Fasting to remove acidity and clean up the catarrh and a proper diet thereafter are essential.

Cancer Of The Uterus

Cancers of the womb, usually of the cervix are all too common. They develop most commonly about the menopause and result from chronic inflammation of the neck and mouth of the womb growing out of errors of life.

Symptoms: Hemorrhage, pain and discharge are the most pronounced symptoms of uterine cancer, but care must be made in diagnosing cancer from these symptoms, as they are present in other conditions.

Etiology: The overweight ("well nourished") are most likely to develop cancer. Shock, grief, quick temper, irritableness and jealousy predispose the toxemic to develop cancer. Childlessness and one-child celibacy also predispose. No doubt the wide-spread use of irritating chemicals as contraceptives is partly responsible for much of the recent increase in female cancer of all locations.

Cancer of the neck of the womb (cervix) is almost always preceded by years of inflammation—acute, subacute or chronic—often not great enough to attract attention. Usually there is a history of leucorrhea, often slight, and in other cases there has been marked affections of the uterus which have been treated in the usual ineffectual manner; or, lacerations at childbirth, though "repaired," have not fully healed.

Back of all chronic and subacute inflammation is toxemia resulting from careless and haphazard living. There will be indigestion, gas, foul stools and other evidences of impaired function for years before cancer develops.

Care of the Patient: See Cancer in this volume.

Hooded Clitoris

Definition: This is a condition caused by a small fold of mucous tissue surrounding the clitoris, often referred to as a foreskin or pre-puce. When it is too tight or too long, the pent-up secretions become sources of irritation and this results in nervous irritability, excessive sexual stimulation and masturbation in girls.

Leucorrhea (Whites)

Definition: This is a whitish viscous discharge from the vagina and uterine cavity—a catarrhal discharge. It indicates an inflammatory state of the mucous membrane of the neck or body of the womb or both.

Symptoms: The name "Whites" is somewhat erroneous, since the disc is sometimes yellow or greenish-yellow. If the discharge is thin or watery, or thick and cream-like, we may be quite certain it is from the vagina. If it is ropy, gluey or albuminous like the white of an egg, the discharge probably comes from the neck of the womb or from the womb. If pus is present this denotes suppuration. A profuse discharge indicates that a large surface is involved; a slight discharge indicates only the neck of the womb is involved. The intensity of the constitutional impairment has much to do with the amount of the discharge.

Etiology: When occurring in young, unmarried women it is the result of an exaggerated hyperemia of the reproductive organs resulting from overstimulation. The emotional natures of such young people have been fed by a morbid mind; their reading has been of an erotic nature; their company has been unfitted for them; there has been much petting, often precocious sex development has resulted from over-stimulating foods and drinks and salacious suggestions. All this results in an excess of blood being sent to the reproductive organs so that they are engorged. Often the engorgement is great enough and the mucous membrane is so thickened and the submucous tissues

are so engorged that the neck of the uterus is closed and the menstrual flow cannot pass without pain.

The continuous engorgement of the parts and the menstrual-flow exaggeration, added to systemic toxemia, soon develop catarrhal inflammation and, unless the causes are removed, the engorgement will continue and the inflammation will be followed by ulceration.

Leucorrhea is not unlike catarrh of the nose and throat and other mucous tissues of the body and is caused by the same blood and flesh condition that is back of catarrh anywhere else in the body, plus the localizing causes mentioned above. The more imperfect the systemic elimination, the more discharge there will be from the uterus, unless other mucous surfaces are also requisitioned to do vicarious duty. On this stick is grafted all the so-called "diseases" of women treated by gynecologists.

Care of the Patient: Since without infection, it is impossible to establish a local affection unless there is a constitutional derangement of toxemia and enervation, care must be directed to the removal of the constitutional impairment. In other words, the habits of life must be corrected—every mental and physical habit that has helped to produce enervation and imperfect elimination must be given up. Fasting and rest will remove toxemia and restore nerve energy, but only a correction of the mode of living can be depended on to prevent rebuilding the catarrhal condition.

Menopause (Climacteric)

Definition: This is the "change of life" through which the female passes at the end of her child-bearing period. It seems to be peculiar to the human female.

Symptoms: The cessation of menstruation and slow atrophy of the breasts are the only normal symptoms. The vaginal mucosa returns to the thin, ill-developed structure of childhood and the secretions are no longer acid.

It is a great bogy in the lives of women, somewhat like teething in children. Practically all the suffering of women between the ages of thirty-five to fifty are attributed to the change.

If a woman is sick or in poor health between the ages of thirty-five and fifty only inexcusable ignorance will consider "change of life" as the cause

of her ill-health. The enlightened doctor will look for the cause of her sickness and remove it.

Etiology: The "change" is due to the normal cessation of certain functions of the ovaries and to changes in these.

Hot-flashes and other nervous symptoms, high or low blood pressure, mental symptoms, etc., commonly blamed on the change are of toxic origin, the toxemia resulting from enervation growing out of youthful imprudences, wrong food, etc.

Care of the Patient: To correct all devitalizing habits and build good health will remove the symptoms of ill-health. The "change" per se is not pathological and nothing can be done for it.

Metritis

Definition: This is inflammation of the womb. If confined to the lining membrane of the womb it is called endometritis; if limited to the neck it is called endocervicitis. It is all one and the same affection.

Symptoms: An acute inflammation of the womb may be attended by chilliness followed by fever. Faintness, nausea and vomiting are frequent. There is a sense of heat and uneasiness in the pelvic region, with sharp pains in the lower back and in the right or left groin, per-haps darting down the thighs. Coughing or pressure upon the pelvis greatly increases the pain. The womb is exceedingly tender and enlarged, the vagina is hot and sensitive, there is leucorrhea, painful menstruation and often uterine hemorrhage. There is constant headache, constant desire to urinate and painful evacuations.

Cervicitis may go on to ulceration of the cervix. There is much nervous irritation, painful, often profuse, menstruation, general irritability and disturbances throughout the system.

Chronic Inflammation of the Womb is more common than acute metritis, though it often follows an acute crisis. It is most common in married women and first makes it presence felt by pain during intercourse. Later there develops a dull pain in the lower part of the abdomen, a bearing down sensation, discomfort in defecation and urination and a mucus discharge.

Etiology: Primarily there is always the same constitutional impairment serving as the basic cause for all chronic pelvic inflammations. Primarily this is a catarrhal condition. Cases follow tears at childbirth, abortion and

injury from treatment. Tears will heal if the blood is as it should be. Lasciviousness and frequently repressed sexual excitement may predispose.

Care of the Patient: In acute metritis, physical and physiological rest until complete comfort returns is essential. Fasting and rest in bed are also helpful in chronic metritis. In all cases the whole life must be reordered to overcome enervation and prevent the redevelopment of toxemia.

Metrorrhea

Definition: This is a hemorrhage from the uterus usually occurring between the menstrual periods.

Symptoms: Bleeding and pain may be the only symptoms. Often there are symptoms characteristic of cancer, tumors, ulcer, etc.

Etiology: Where fibroid tumor or cancer can be eliminated as "cause," uterine hemorrhage comes from abortion. If it develops suddenly in ordinary health, with no previous symptoms of any kind, it is safe to say, abortion. If a profuse hemorrhage is accompanied with pain and the pain subsides, to be followed by a slow and irregular bleeding, incomplete abortion may be diagnosed. In a few cases a tear in the neck of the uterus or an ulcer may result in bleeding.

Care of the Patient: Care for as directed under abortion, tumor, cancer, ulcer, etc.

Nymphomania

Definition: A. morbid and seemingly irresistible sexual desire, the excitement of the sexual organs so dominating the thoughts and feelings of the individual that her conduct toward the males she meets is openly forward despite her better judgment.

Symptoms: Overpowering desire which is more or less constant, frequent repetition of the sex act, and evidences of nervous instability are present. In one case known to us the young woman did not permit her husband to sleep at night and sought other male companions during the day.

Etiology: Inflammation or irritation of the vulva or internal parts of the sex organs or nervous affections give rise to inordinate and uncontrollable desires. Menorrhagia may lead to this trouble. Such unfortunate girls are

pronounced degenerates and incorrigibles and treated accordingly. Few parents recognize the conduct of such daughters as due to pathology, but believe their conduct is due to viciousness.

Care of the Patient: A slight irritation of the reproductive organs that becomes the exciting cause of nymphomania cannot be remedied by abuse of the girl. If the habit has been established for any time, will is lost and the girl lacks power to do anything except "gratify" her "wants." Operations are often resorted to in these cases. They do no good, but deteriorate the will and the body.

To remove the causes of the irritation and restore the girl to good health and help her regain her control over her body will overcome the nymphomania. Unless the neurotic stress is relieved by removing its cause, no recovery is possible.

Ovaritis (Oophoritis)

Definition: This is inflammation of the ovaries and may be either acute or chronic.

Symptoms: The first and most important symptom of acute ovaritis is pain to the right or left of the womb, with a sense of heat, the pain being greatly increased upon pressure, or exertion. The pain, sometimes intermittent, sometimes constant, is of a dull dragging nature. There may be nausea and vomiting with a rise in temperature and rapid pulse. The ovaries become enlarged and hardened and may suppurate (ovarian abscess). If the inflammation is in the right ovary the condition may be mistaken for acute appendicitis.

In chronic ovaritis the pain is more severe before the menstrual period, though it is usually relieved by a free flow. Standing erect or straightening the thigh may greatly increase the pain.

We would caution the reader against the habit of diagnosing every pain in the right or left pelvis as ovarian "disease." There is a lot of carelessness and ignorance displayed in diagnosing and treating affections of women and it has become a professional bad habit to find ovarian "disease" where there is none. The ovaries are so situated and protected from injury that we doubt that they are affected once in a hundred times when they are said to be. **Etiology:** Acute ovaritis is said often to result from gonorrheal infection. If so, this would indicate that the infection has been forced up into the ovaries by maltreatment. It never develops in hygienically treated cases. "Blood-poisoning" after childbirth is also held responsible. Puerperal sepsis results only in mal-treated cases.

Inflammation may arise in overfed, debilitated and toxic subjects. During menstruation the pelvic congestion amounts almost to inflammation. It is thought that sexual excesses and alcohol may produce it. We doubt that it ever results from roughness in coition.

Sexual excitement from petting, lasciviousness, reading erotic novels, voluptuous self-indulgence, overeating, eating stimulating foods, etc., tend to produce chronic inflammation of the ovaries in toxemic subjects. It may also follow acute inflammation of the ovaries.

Care of the Patient: In acute ovaritis an absolute fast is essential. No food but water should pass the lips until full comfort has returned. Rest in bed is fully as important. If pain is very severe a hot pack may be placed over the pelvis.

In chronic ovaritis, rest and fasting are beneficial. Strict continence and avoidance of all sources of erotic stimulation are essential.

In both conditions a complete correction of the whole mode of living is necessary.

Pin-Mouth Womb

Definition: This is an unusually small mouth of the womb—either internal or external.

Symptoms: These girls are exceedingly nervous and are said to be neurasthenic, a word as meaningless as "biliousness," "hysteria" and "hypochondria." They have much pain in the region of the ovaries, are anemic, dysemic or chlorotic, and always dyspeptic. With rare exceptions they are undernourished, not from lack of food, but from failure of nutrition. The young girls are often troubled with acne of the face, especially around the menstrual periods and more or less pain is experienced in the region of the ovaries during menstruation. If they have no pain, there is always malaise, general excitability, perhaps headache, nausea and a capricious appetite. All of these symptoms or only a few may be present in a given case.

Many will appear to be in near health while others will be badly "run down."

Etiology: The small mouth may be congenital or a result of delayed or arrested development. Imperfect drainage with retention of menstrual and other secretions result and these decompose causing systemic infection when absorbed.

Care of the Patient: Months of care are often required to bring a pronounced case back to full health, but all such cases can recover health if they can be induced to follow instructions long enough for their bodies to undergo a complete physiological readjustment. Radical operations for the removal of the womb or ovaries are crimes in these cases. Dilatation of the neck of the womb may be essential in a few cases, but most cases will get well by adopting a general health-building regimen and sticking to it.

Pruritis

This is itching and is treated under Affections of the Skin. Intense itching of the external genitals, often accompanied with vulvitis is often seen.

Salpingitis

Definition: This is inflammation of the fallopian tubes. It is not an uncommon condition. It may be acute or chronic.

Symptoms: Acute salpingitis may be a very serious affection, especially in its purulent form, causing violent illness. The tubes become swollen, tender and very painful, and the sufferer is forced to take to her bed. The temperature rises, the pulse is rapid, the abdomen is bloated and there is frequent urination. There are marked restlessness and weakness.

If pus forms, and this often happens, we have pyosalpinx or pus-tube. In this case both ends of the tube close up and it becomes distended with its contents, perhaps swelling to alarming proportions for instance, to the size of a child's head, while the pus can find no outlet. If the pus is discharged internally into the abdomen a fatal peritonitis develops.

Chronic salpingitis is of a catarrhal nature and is marked by pain, which, though it may vary in intensity, is almost constant and is increased by exertion, coition and defecation. The pain is usually intense during

menstruation and for a few days before. The menstrual flow is usually profuse and of uncommon duration.

If the inflammation results in closing up, by adhesions, of both tubes, sterility is the result.

Etiology: The mucous membrane lining the tubes is continuous with that of the inner lining of the womb which is, in turn, continuous with that of the vagina. Inflammation of the vagina or womb may extend from these to the tubes and through these even to the ovaries and peritoneum.

The more severe forms of salpingitis result from gonorrhea or from puerperal sepsis following childbirth, or it may be an extension of metritis following abortion. It can develop only in enervated and toxemic subjects—those of low resistance.

Chronic salpingitis results from the extension of catarrh from the womb and is due to the ordinary causes of catarrh.

Care of the Patient: Physical and physiological rest is imperative in the acute stage and helpful in the chronic form. Indeed these are all that are needed during the acute state unless the tubes become pent-up and fail to drain when surgical drainage may be necessary. We have had drainage to occur and complete recovery to follow during a fast in cases that have been told that only an operation can save life. However, if drainage does not occur, the surgeon will be necessary.

Tilden says: "It is doubtful if any form of pelvic abscess will end in death if left entirely alone. The danger in all abdominal and pelvic abscesses is medical and surgical interference. Rough examinations complicate by breaking the pus sac and forcing an extension of the disease into territory that nature has protected by walls of adhesions. Operations following such examinations always show how very necessary the operations were; but if the surgeon's fingers had not been forced through the abscess walls, rupture would not have taken place. If left alone and not interfered with, in due time the pus would have found a safe exit."

Pelvic and abdominal operations outrage one of the most important surgical principles, namely: "always open an abscess at a point where drainage will be perfect." Opening the abdomen in salpingitis, pelvic abscess, appendicitis, etc., forces the surgeon to secure drainage against gravitation. If left alone, ovarian, tubal, cellular and appendicular abscesses tend to open in the line of least resistance and secure drainage with, not

against, gravity. Pelvic abscesses will open and drain through the womb, vagina, or rectum if permitted. If rough handling and bimanual examinations cause the pus to find its way into the bladder or the peritoneal cavity the results are chargeable to "medical science," not to nature.

Uterine Fibroid

Definition: This is a fibrous tumor of the uterus.

Symptoms: Three forms of uterine fibroid are described as follow:

Submucous fibroid develops inside the womb and is accompanied with hemorrhage. If located close to the neck it causes contractions of the uterus — "bearing down" pains. In the course of time this tumor will be forced out of the womb like polypi. If the tumor is located in the fundus it may grow to the size of a large orange with no other symptom than profuse hemorrhage.

Interstitial fibroid develops within the walls of the womb, but when it gets very large, its development will be more on the outside. Though there is less likelihood of hemorrhage in this than in tile preceding form, it may be accompanied by hemorrhages in its early stages.

Subperitoneal fibroid develops on the outside of the womb, under its peritoneal covering. Because it is not restrained by pressure and is not relieved by menorrhagia, this variety attains the greatest size. It may grow to such great size that it will cause discomfort from its weight and press on the bowels and bladder disturbing the functions of these.

Little or no pain accompanies fibroid tumors and most of the symptoms said to be caused by them are toxic symptoms and clear up when toxemia is removed.

Etiology: Tumors are built by irritation and chronic hyperemia. See chapter on Tumors.

Care of the Patient: Fasting will cause speedy autolysis of small tumors and a general health-building regimen will prevent their recurrence. We agree with Tilden that "surgery for the relief of fibroid tumor is the physician's apology for not knowing how to treat the disease."

Uterine Polypi

Definition: Small growths either mucoid or fibroid which develop in the womb and neck of the womb.

Symptoms: Profuse leucorrhea and hemorrhage, or too profuse menstruation are the usual symptoms. If large (size of all egg) they cause more or less "bearing down" pain.

Etiology: As in the nose and rectum, these growths develop out of long continued chronic catarrhal inflammation of the mucous lining of the womb or its neck. The inflammation grows out of toxemia and is chronic because toxemia is chronic.

Care of the Patient: When long enough to protrude from the mouth of the womb they may be twisted or cut away, a simple operation that causes no pain and inconvenience and does not require going to the hospital. But it should be recognized that this removal will be followed by more growths if cause is not removed.

Uterine polypi may be absorbed by fasting and will not recur thereafter if the patient does not return to her former faulty living.

Many physicians make a big fuss over these growths and tell their patients they must go to the hospital. The needless fear and worry thus created enervates, producing nervousness, high pulse and other troubles. Worry and fear kill by overcoming resistance and inhibiting blood-making.

Vaginitis

Definition: This is a catarrhal inflammation of the vagina.

Symptoms: A feeling of heat and fullness is accompanied by pain in the vagina and uterus, a dragging feeling, in the loin, and leucorrhea ranging all the way from a thin watering to a thick catarrhal or whitish-of-egg-like discharge. If the latter, it indicates inflammation of the neck or body of the womb, or both. When the leucorrhea becomes purulent, the discharge is yellowish, or brownish, or bloody.

Etiology: Physical uncleanliness stands at the top as a cause of affections of women. Careless eating, bathing, and clothing, coupled with overworked emotions, lasciviousness, and sexual excitement from any cause evolve a state of the blood and nervous systems that makes the development of local inflammation easy. Resistance is low so that injuries at childbirth, abortion, etc., inflame and ulcerate instead of healing in a normal manner. Vaginitis is

frequently developed in the eruptive "diseases," from the same toxemic cause,

Care of the Patient: Local cleanliness is most important. We do not favor the use of douches, however. Fasting and rest result in speedy decline of the inflammation and cessation of the discharge by relieving the body of its toxic overload. Thereafter a hygienic plan of living will maintain health.

Vaginismus

Definition: This is painful spasm of the vagina seen chiefly in intercourse.

Symptoms: There is tightness (spasm) of the vaginal orifice, pain and conscious or subconscious tensing of the thighs and buttocks when intercourse is attempted.

Etiology: A few cases are due to inflammation of the local parts; hyperesthesia of the vulva. Most cases are due to fear of pain or fear of intercourse. No normal woman who desires coition will experience this spasm.

Care of the Patient: If there is inflammation, local cleanliness and toxic elimination will soon remedy this. If the spasm is due to emotional causes, fear, dread and resentment must be overcome.

"Disorders Of Menstruation"

Amenorrhea

Dysmenorrhea

Irregular Menstruation

Menorrhagia

Vicarious Menstruation

Menstruation is a term applied to the monthly loss of blood suffered by most non-pregnant women between puberty and the menopause. Menstruation does not begin in all girls at the same age, it is said to be "to one's advantage to postpone ovulation (with which menstruation is correlated) by natural life, freedom from excitement and stimulating influences, and plenty of outdoor exercise," as the loss of blood handicaps woman.

While it is generally thought that "normal menstruation means health" it is our thought, based upon experience, that menstruation is, itself, an evidence of pathology. We believe that except for the general and local laxity of tissues, there would be no loss of blood. We hold that all pelvic symptoms, whether considered normal or abnormal, are evidences of deteriorated general health. Geddes and Thomson, in their **Evolution of Sex** concede a moderate, though quite vague, amount of pathological development in the case of menstruation, saying: "Though thus clearly a normal physiological process, it yet evidently lies on the borders of pathological change, as is evidenced not only by the pain which so frequently accompanies it, and the local and constitutional disorders which so frequently arise in this connection but by the general systemic disturbance and local histological changes of which the discharge is merely the outward expression and result.

Menstruation is not universal among womankind, is seasonal among some tribes, is not essential to health and fecundity and constitutes a marked drain upon the resources of the female organism. It is not seen among the lower animals. It is our thought that the loss of blood is coetaneous with the other symptoms of abnormality that so frequently accompany the hemorrhage. In other words, the first "disorder of menstruation" is menstruation. We base this conclusion, not alone upon the above facts, but upon the many instances in which we have seen the restoration of a high degree of vigorous health result in a cessation of menstruation.

Amenorrhea

Definition: This is absence of menstruation. Two forms are recognized as follow:

Primary: in those cases in which it has never appeared. Many of these women enjoy excellent health, rear a family of children and live long, useful lives.

Secondary: in those cases in which it has been established and is later absent or suppressed.

Etiology: Primary amenorrhea may be said to result from two causes—namely: (1) imperfect or arrested development, as evidenced by failure of the breasts to develop, lack of normal fullness and roundness of the body, and in a few cases, absence of ovaries and womb, or even of the vagina; (2) such

excellent health and superior tone of the tissues that no blood is lost. Secondary (retained or suppressed) amenorrhea is seen in advanced tuberculosis, marked anemia, certain nervous and mental states in which cases there is also a failure of ovulation, and in spasm or obstruction of the Cervix. If the decline in health is accompanied by distressing symptoms each month when the flow is expected this is called suppression.

Tilden says of this: "when menstruation ceases, and pregnancy or advanced tuberculosis can be eliminated as a cause, no special concern should be attached; but when tuberculosis is present, amenorrhea indicates conservatism, and that the body needs building; but this symptom per se should receive little attention. If this symptom occurs in other chronic wasting disease, the health impairment, whatever it is, must be corrected; when the health appears normal no treatment is necessary. To attempt to establish the menstrual flow is not wise. All that should be done should be in line with establishing a better general state of health."

Dysmenorrhea

Definition: This is painful or difficult menstruation.

Symptoms: Two-thirds to three-fourths of girls suffer more or less. The average menstrual period lasts four to five days and the amount of pain suffered ranges all the way from slight discomfort to complete disability during this period. The nature of the pain varies with different women. Those of nervous tendencies are likely to suffer keenly, the pain often being of a neuralgic character. Others complain of cramps. If there is much inflammation the pain may centralize in the back. A rare form of painful menstruation called membranous dysmenorrhea is characterized by contractions not unlike "labor pains," the expulsive efforts throwing off shreds of membrane. The bearing-down pains may last three or four days and may be mistaken for a miscarriage.

Etiology: Normal function is painless or pleasurable, never uncomfortable or distressing. No pain should accompany the ovulation cycle at any stage in females. Painful menstruation means chronic toxemia and its resulting chronic catarrh. In such girls the normally increased flow of blood to the sex organs at this time is so intensified that it amounts to congestion. Out of these monthly congestions, inflammation develops, giving rise to

leucorrhea and painful menstruation. The leucorrhea appears a day or two before menstruation and lasts for a few days after. The pain results from the overengorged or congested state of the ovaries and mucous membrane of the womb. The mucous membrane, the submucous tissues and muscular structure of the womb gradually become thickened, infiltrated and hardened and the caliber of the canal of the neck of the womb is lessened. Wrong feeding and wrong care of the body is back of the toxic and catarrhal state that produce this condition.

Irregular Menstruation

Only about half of our girls menstruate regularly. A third menstruate every twenty-five to twenty-eight days, the remaining fifth either do not menstruate or menstruate every forty to sixty days, a few of them every two weeks and an occasional one, once or twice a year.

Menorrhagia

Definition: This is excessive flow—flooding—at menstruation, or prolonged menstruation.

Symptoms: The characteristic symptom is the excessive loss of blood, sometimes amounting to hemorrhage, and the prolonged flow, lasting from seven or eight days to two weeks. Indeed we occasionally meet with a case that flows from one period to the next. These girls have quick pulse, and often a tumultuous heart palpitation. They are nervous, irritable and hard to control. They are easily excited and easily turn against their parents who do not understand the source of their nervous storms.

Anemia frequently results from the loss of blood. Pains in the back, headache, acne, especially of the face, and weakness are common symptoms.

Etiology: Sex neurosis growing out of overstimulation of the sex function by overeating, eating stimulating foods, erotic imaginings and lack of exercise are the chief causes. Overstimulating foods produce violent emotions and sexual excitement. When eating and thinking are of a character to produce irritation and engorgement or congestion of the reproductive organs, this high state of irritation and blood pressure not only produces uncontrollable desire, but a hyper-sensitive state of the reproductive organs and necessitates loss of blood to relieve the engorged organs. If the blood is not lost the girl is likely to become the victim of some man or else the hyperemia will be organized into fibroid growths.

Vicarious Menstruation

Definition: This is a term applied to bleeding from the nose, stomach, bowels, arm pits, nipples, or other organs at menstruation time, without, perhaps any flow from the vagina.

It is our view that it is not vicarious menstruation at all, but a loss of blood through greatly weakened tissue due to the marked rise in blood pressure at this time.

At any rate, when good health is restored the so-called vicarious menstruation ceases.

Care of the Patient: When we recognize all menstrual "disorders" as symptoms of constitutional impairment, correct care suggests itself. Correct the general health is the real remedy. To give drugs to relieve pain; to attempt to force menstruation; to scrape the uterus or to operate is unnecessary, inexcusable and harmful, and not successful.

The effects of overeating, eating overstimulating foods, of violent emotions and sexual excitement, of lack of exercise and of a generally health-impairing mode of life are not to be overcome until these causes are corrected. All bad habits of mind and body must be corrected. A program of right living will do the rest.

If anemia, catarrh, indigestion, or other pathology is present, mental, physical and physiological rest will help these women back to health.

Affections Of The Breast

Abscess Of The Breast
Cancer Of The Breast
Delayed Development Of The Breasts
Lumps In The Breasts
Mastitis
Pagets "Disease"
Retracted Nipples

Abscess Of The Breast

Abscess in the breast sometimes results from injuries—blows, pressure, etc.—but generally it is the consequence of bad management or mal-treatment during the periods of gestation, childbirth and nursing.

Symptoms: it commonly develops in four or five weeks after parturition; suppuration follows in about ten days more, often begin-fling in several distinct parts and forming many separate sinuses, all of which, however, communicate. It opens at one or several points.

Etiology: Trall writes: "This distressing affection is a standing disgrace to the doctor, the nurse, the patient, and all parties concerned. It is produced by the most foolish stuffing, and slopping, and stimulating, and heating and drugging."

Care of the Patient: Rest—physical, physiological and mental —until the inflammation and pain have subsided and the abscess has drained, followed by a fruit and vegetable diet and good general hygiene constitute all the care needed except local cleanliness.

Cancer Of The Breast

As elsewhere, this is an end-point in a pathological evolution with simple beginnings. It starts as a lump, usually painless and in the majority of cases develops in women past forty. Occasionally it is seen in earlier years. It can best be felt by pressing the breast flat upon the ribs with the palm of the hand. These growths often grow outside and become large, ugly, suppurating fungoid masses.

No woman should allow the discovery of a lump in her breast to frighten her as but few lumps are cancerous. Dr. Richard C. Cabot says: "Many non-cancerous lumps in younger women are now removed by surgeons, because the best-informed opinion holds that about ten per cent of them later become cancerous." They need never become cancerous and they need not be removed. It is wiser to remove their causes.

When enlarged glands, and indurations of any kind in the breast are not removed by correcting the general health and the local affections that furnish reflex irritations; but bad habits of living are continued until nerve energy is much reduced and elimination fails to such an extent that nutrition is brought to a low ebb, then any induration of tissue or gland in the breasts may become malignant. If deranging habits of body and mind are discontinued before cancer develops, there is no danger of it developing.

Lumps in the breasts with which so many women are troubled, if they remain enlarged, are certain evidence of ovarian and uterine impairment. We do not mean that there are necessarily any organic changes in these organs, but a hypersensitive condition, due to the causes of catarrh and inflammation. There exists a close relationship between the breasts and the reproductive organs and for this reason ovarian and uterine affections must be carefully studied in all affections of the breasts.

Care of the Patient: Prevention is the only safe and sure cure for cancer of any part of the body. Cure of cancer of the breast is doubtful in all save a few cases, for the same conditions are to be met here that are met and corrected in cancer elsewhere in the body. When removal of the breast is not followed by a return of the growth, it is safe to conclude that it was not cancer. See chapter on Cancer in this volume.

Delayed Development Of The Breasts

In many young women there is very little development of the mammary glands. This delayed development is supposed to represent retarded puberty. Marriage and childbearing usually result in full development of the breasts in these cases.

Lumps In The Breasts

These are commonly scare-headed into cancer. They belong to a syndrome. These glandular enlargements are secondary to inflammation or sepsis of the womb. The womb inflammation is part of a general systemic impairment. It is quite common for the breasts to be sensitive during menstruation. Many women complain of swelling and tenderness during this period, with sometimes a feverish state of the breasts.

Etiology: Inflammation of the breasts develops in toxemic mothers largely as a result of puerperal sepsis. Injury to the breasts may account for a few cases. Injury will not result in suppuration if the mother is not toxemic.

Care of the Patient: Enlarged glands in the breast are due to impaired general health and reflex irritation from affections of the ovaries and womb and disappear when the general health is improved. It is very difficult to convince the victim of one operation that she does not need another. They are full of fear and they doubt the efficacy of anything save the knife.

Surgical removal of these lumps or of the whole breast is criminal. They will disappear not to recur when the general health is improved and drainage of the womb re-established. We have seen them as large as billiard balls disappear completely in three days. We have had many to disappear in a week to two weeks. Some of these had been diagnosed as cancer and removal advised. The rapidity with which they clear up during a fast disproves the diagnosis.

Mastitis

Definition: This is inflammation of the mammary gland or breast. It occurs in five to six per cent of nursing women, is more common in blondes than in brunettes and develops more often after first than subsequent labors.

Symptoms: Acute. Heat, swelling, redness, local pains, increased temperature and pulse rate, and severe general disturbances indicate inflammation of the breast. It is seen chiefly in nursing mothers and commonly results in suppuration and abscess formation. As the pus accumulates the abscess tends to point on the surface and. drain through the skin.

Four forms are described as follow:

Subcutaneous Mastitis: This is the ordinary symptom of inflammation of connective tissue leading to ulcer or abscess. It is usually single.

Glandular (or parenchymatous) Mastitis: This is in the majority of cases a lymphangitis. It is characterized by more pain and more constitutional symptoms than the subcutaneous. It is ushered in by a chill, is often multiple and the gland is hardened.

Subglandular Mastitis (Paramastitis): In this form there is suppuration, persistently high temperature, deep-seated pain, the gland is not hardened and floats on the underlying fluid.

Two or all three of the above forms may co-exist.

Chronic Cystic Mastitis frequently follows the so-called painful breast, the pain being most intense just before and during menstruation. The pain and tenderness are usually in the upper and outer quadrant of the breast, where the tissue feels flat and of increased density. The formation of cysts follows long periods of intermittent irritation, pain and inflammation of the breasts. The increased connective tissue (adenosis) seen in "painful breasts" may grow to the point where it constitutes definite, small nodules or small, snotty masses, usually distributed at the periphery of one or both breasts. The usual end-condition, if allowed to continue, is multiple, small cysts, cysts which result from the cystic papilloma or non-encapsulated adenomatous area of the earlier lumps.

The increase of connective tissue tends to go on to complete fibrosis of the whole lump and the cessation of all secretory activity. If cause is cleared away in painful breasts or in early adenosis, no fibrosis occurs, and complete recovery follows.

Etiology: Poor general health—enervation and toxemia—plus infection, sometimes through the nipples, but more often from uterine sepsis or intestinal sepsis results in these conditions. Milk stasis is thought to cause a few cases, but this seems to be possible only in those of very low health with injury to the milk ducts.

Care of the Patient: Nursing must be discontinued at once. All food but water must be abstained from so long as there is pain, inflammation and fever. Care should be exercised not to injure the tissues of the breast which should be carefully cleansed regularly. In most cases the abscess will open and drain spontaneously; in rare cases this may require to be drained surgically.

Pagets "Disease"

Definition: This is inflammation of the nipple of a malignant type.

Symptoms: Inflammation, pain, suppuration and a retracted nipple are the characteristic symptoms. Otherwise the patient may consider herself to be in good health.

Etiology: Injury may start up a local inflammation in a toxemic subject that refuses to heal, or the inflammation may develop from toxemia and intestinal sepsis without local injury.

Prognosis: This is good if Hygienic care is instituted early.

Care of the Patient: Although considered cancerous, we have had no difficulty in guiding these cases back to good health. Local cleanliness and a fast to eliminate toxemia, followed by a fruit and green vegetable diet, soon reestablish good health.

Retracted Nipples

Retracted nipples result from injury in childhood or from malformation. All pressure should be removed from the breasts and, if necessary, a cupping-glass should be used daily to pull out the nipple. Fat girls frequently appear to have no nipples. The nipples may be short and the great amount of fatty tissue swamps them. These may be cupped enough to elongate them.

Affections Of Motherhood

Difficult Urination
Eclampsia
Hyperemesis Gravidarum
Incontinence Of Urine
Milk Fever
Puerperal Fever
Subinvolution
Swelling Of The Feet
Varicose Veins

Motherhood, or at least pregnancy and childbirth, are given as causes for a number of affections. This is a libel on creation. Nature has placed no penalty on women for being mothers; on the contrary, intelligent motherhood is essential to full and well rounded development of women.

Modern life places a great strain on mothers. They are expected to have the responsibility of the house and home to the day of confinement, cater to the husband's sexual pleasures, and be back at their duties a week or two after delivery. However this strain is not as great as that produced by their eating and other habits and the abominable care and treatment given them by their medical advisors. So-called "complications of pregnancy" are merely co-incidental with pregnancy and not results of pregnancy. Enervation and toxemia growing out of wrong life and wrong care are at the bottom of all the "diseases peculiar to motherhood."

Difficult Urination

Lacerations of the vaginal wall, perineum, rectum, bladder and urethra at childbirth cause difficult urination. The injuries and pressure from displacements are both involved in rendering urination difficult. The breakdown of the vaginal wall permits the rectum to protrude into the vagina causing a tumor called rectocele; or if the bladder prolapses in the same way this forms cystocele. These two conditions are hernias and may cause much urinary trouble and constipation. See Hernia in Vol. IV of this series.

Eclampsia

Definition: A term sometimes applied to a convulsive paroxysm experienced by women in labor, prior to labor, or in the puerperal state, due to a uremic condition. It results from overloading the kidneys from overeating and wrong eating and should be cared for as described under uremia. Tilden says: "If those with weak kidneys are cared for properly from the beginning of pregnancy, there will be no danger of convulsions."

Hyperemesis Gravidarum

Definition: "Pernicious" vomiting during pregnancy. Some medical authorities consider vomiting in pregnancy to be normal, attributing it to normal biological processes, and view with suspicion the healthy woman who does not vomit. This view is opposed by all the facts. These are: (1) the lower animals do not vomit when pregnant; (2) pregnant women among so-called savage tribes are never so afflicted; (3) the condition is seen in less than fifty per cent of civilized women; (4) it is always associated with pathology and ceases when health is restored.

Morning Sickness, which is nausea and vomiting in early pregnancy, occurring chiefly in the morning, though often regarded as a natural outcome

of pregnancy, is only a mild form of hyperemesis gravidarum, and is equally abnormal. Really healthy women do not have morning sickness.

Symptoms: Starting usually early in pregnancy the condition is marked by persistent nausea and vomiting. Vomiting follows the taking of food or water and often there is effort to vomit when the stomach is empty. There is weakness, loss of flesh and, if water is not retained, dehydration of the tissues causing great thirst. Cases are seen where the vomiting continues through the whole of pregnancy and abortion is performed to prevent the woman from dying of dehydration and starvation.

Etiology: Many suspected causes are listed by the ex-spurts. To us, the most significant thing connected with the phenomenon is that it never develops in healthy women. In not a single woman that we have guided into a state of superior health before pregnancy, has any nausea or vomiting developed.

One of the most frequent causes of "sick-stomach" is chronic inflammation of the neck of the womb—cervicitis. This produces the so-called neurotic type of hyperemesis gravidarum. Deranged digestion, from imprudent eating, is the cause of many cases. We hold that vomiting in pregnancy serves a useful purpose, that it is not an effort of the body to commit suicide; but that it is part, of the effort of the body to readjust itself and set itself in order. The more toxemic subjects have the most vomiting.

Prognosis: The condition is "self-limited." Practically all cases get well in a few days, no matter how treated.

Care of the Patient: The woman should go to bed and fast until all nausea and tendency to vomit have ceased. All the water may be taken that is desired. This may be hot or cold, as relished. It often happens that warm water can be retained while cold water cannot, or vice versa. In some cases water can be retained only if taken slowly in small sips. No forced drinking is advisable.

After vomiting and nausea have ended, moderate, eating with plenty of green vegetables and fresh fruits will carry the mother through her pregnancy in health and comfort.

Incontinence Of Urine

Definition: This is inability to hold urine.

Symptoms: Two forms are noted: (1) where there is no desire to urinate; but the patient finds her clothing wet after coughing, sneezing, or making exertion; (2) frequent uncontrollable desire to urinate with inability to hold the urine.

Etiology: These symptoms may result from a very simple, or from a grave, condition. Usually displacement of the abdominal and pelvic organs is the cause. Other cases are due to irritation of the bladder or its neck, perhaps from an acid urine from imprudent eating.

Care of the Patient: The care is only palliative during pregnancy as little can be done to correct the displacement during pregnancy.

The bladder irritation may be overcome by careful eating. A general health-building program will help all cases.

Milk Fever

This is a term given to a slight feverishness sometimes attending the establishment of the secretion of milk. The simultaneousness of the two phenomena is merely coincidental. The fever is due to toxemia or to gastro-intestinal autointoxication. The care should be the same as for any slight feverish condition.

Puerperal Fever

Definition: This is a septic infection and is identical with wound infection seen in surgery. It is known also as puerperal septicemia, metria, and childbed fever.

Symptoms: It is common for the first symptoms to occur on the second or third day after labor, rarely do they appear later than the third day, because granulation of the obstetric wounds have by that time begun and a barrier to infection is formed. The crisis sometimes begins with a chill, but is said to usually start insidiously. A rapid pulse (100 to 140), fever (102° to 104°F.), and fetid lochia are the most conspicuous early symptoms.

Complications: Endometritis, salpingitis, ovaritis, metritis, parametritis, pelvic peritonitis, phlegmous lymphangitis, phlebitis, cystitis, utero-pyelitis, pneumonia, pleurisy, pericarditis, endocarditis, nephritis, arthritis, acute ptomaine poisoning, putrid intoxication, pyemia, and other "diseases" are

common complications of this infection. When these affections develop, the symptoms characteristic of them will be added to the above.

Etiology: No better example of the unity of infection can be offered than the many "diseases" in all parts of the body that may result from the spread of infection, in puerperal fever. There is no difference in the so-called "specific" inflammations of the different organs of the body. If there is any fundamental difference in the infecting agent, the resulting so-called "disease" gives no sign of it. The constitutional effects are the same; the differences in "two diseases"—two infections—are supplied by the differences in the structures and functions involved.

Puerperal fever may result from infection from suppurating wounds, gonorrhea, erysipelas, diphtheria, scarlet fever, typhoid fever, cadaveric and other dead or decomposing animal matter, froth suppuration in the genital tract, or from decomposing lochia of the mother. Does the woman infected by erysipelas or diphtheria develop these "diseases"? No. She develops septic poisoning—septicemia. If infection is from a wound or from gonorrhea, she still develops septicemia. Instead of gonorrhea, or erysipelas, or diphtheria, etc., the woman will develop what is called puerperal fever.

Infection is the same whether generated in a wound, abscess, pent-up duct, ulcerated lung, cancer, or elsewhere. When tissues melt down, in necrosis or decay, they generate a cadaveric poison, a toxic alkaloid, which is the infectious material in all cases. The toxic element in all infections is sepsis.

All secretions, excretions, and exudations are non-toxic until they become toxic through decomposition. In penetrating wounds, if drainage is imperfect and the exudate becomes pent-up it will under-go decomposition and become septic. If obstruction is complete so that absorption is forced, general infection—septic poisoning—will follow so rapidly that often the patient is beyond hope of recovery in twenty-four hours.

Septic infection is virulent in proportion to the amount absorbed. If the position of the womb is such that drainage cannot take place, the pent-up normal discharge becomes putrescent and there follows immediately, symptoms of septicemia. If the true state of affairs is not recognized and drainage established, death follows in two days. If there is imperfect drainage, the discharge may not be held long enough to cause degeneration-changes to produce local infection, resulting in chronic inflammation and suppuration of different parts of the sex organs.

Prognosis: This is good in women of average resistance if proper care is instituted at the first sign of trouble. Tilden says: "It is well to think of all infection following childbirth as septic infection, or even peritonitis, and treat every case with the same care and attention that would be given a real child-bed fever; for, indeed, a little carelessness, mismanagement or bungling treatment may convert a slight infection into a general and fatal type."

Care of the Patient: Cleanliness is the most important requisite. If fever develops soon after childbirth (or abortion) and pain and tenderness are experienced, we may be reasonably sure that there is retention of debris and that cleanliness has been neglected.

Intra-uterine douches of "hot," boiled water given every three hours will loosen up and expel the debris and wash away the septic fluids and gases. At least two quarts, or even four quarts, may be used at each douche. The douches must be given at three hour intervals until the temperature and pulse are normal.

Absolutely no food is to be given until all acute symptoms have been non-existent for at least twenty-four hours. Perfect quiet, plenty of fresh air, and heat to the feet, complete the care. Drugs cannot help, but will enervate the patient and lower resistance.

Curetment may empty the womb if infection has not taken place, but if infection has already occurred, curetment, even with a dull curet, may tear down nature's barriers and probably cause death.

Subinvolution

Definition: Incomplete involution of the uterus. The return of the womb to its original size after childbirth is called involution. The process usually requires about six weeks. If the process is arrested or interfered with and the contraction is incomplete the condition is called subinvolution.

Symptoms: These are few and indefinite. There may be more or less occasional bleeding, continuing perhaps for a few weeks. The actual condition can be ascertained by feeling the fundus of the womb through the wall of the abdomen, above the level of the pubic bones.

Etiology: It is not a condition that ever develops in any normal or healthy woman. It is associated with retention of parts of the placenta, displacement

of the uterus, adhesions, fibroid tumors, and premature resumption of intercourse.

Care of the Patient: All sexual excitement and sexual indulgence should be avoided. The cause—tumor, adhesion, retained placental fragments, etc.—should be ascertained and care directed accordingly.

Swelling Of The Feet

This is a symptom of heart or kidney impairment and should be cared for as described under affections of these organs. It is a dropsical condition and often extends up the ankles and legs.

Varicose Veins

These were discussed under affections of the circulatory system, but a few words about their development during pregnancy will be appropriate here.

The veins of the legs often swell to great size, often to half the size of a man's wrist and the leg or legs from the feet to the body not infrequently swell to double their natural sizes. The veins appear knotted and frequently break and in extreme cases varicose ulcers form on the shins or above the ankles. If the swelling is great there is great suffering.

Enervation is the cause. Added to enervation is the practice of "eating for two" which produces indigestion, gas pressure, and auto-infection. The greater the enervation the less digestive power and the more indigestion. Contrary to prevailing professional opinion, the body is not a machine that can care for a given amount of food under any and all circumstances.

The miserable, lazy makeshift of putting a bandage or rubber stocking on the leg can do nothing more than palliate the condition. To remove the veins, instead of being a "radical cure," is a shameful, inexcusable crime against the patient. It is followed by enlargement of other veins.

The only cure is: "remove the cause." What is the cause? A mode of living that builds enervation and toxemia. All nerve-leaks must be corrected. All causes of enervation must be looked after. The general health must be built up by proper feeding and care of the body. The amount of food eaten should be cut down to the ability to digest and assimilate. In severe cases eating should be discontinued until full relief is experienced.

Affections of the Brain and Nervous System

Affections Of The Cerebral Membranes
Affections Of The Cerebrum
Affections Of The Spinal Cord
Affections Of The Nerves
Functional Nervous Affections

Neurosis, the foundation for neurotic affections—convulsions, paralysis, ataxias, insanity, incorrigibility, delinquencies, and the petty nervous affections to be discussed—is an inborn potential (diathesis) requiring only slight encouragement from abuse and wrong eating to develop the various nervous and mental affections. Psychoanalysis, a modern method of diagnosing and treating neuroses and psychoses, is covered in a practical way by evaluating enervating habits and taking in the influence of toxemia. The brain and nervous system form a very complex system and, hence, are subject to a wide variety of affections, all based on the same general causes and representing the same conditions in different locations.

Affections Of The Cerebral Membranes

Chronic Cerebral Leptomeningitis
Chronic Cerebral Pachymeningitis
Hemorrhagic Pachymeningitis
Tuberculous Meningitis

Chronic Cerebral Leptomeningitis

Definition: Chronic inflammation of the pia mater.

Symptoms: These are persistent, dull headache, mental deterioration, vertigo, muscular weakness, low grade optic neuritis, occasionally nausea, vomiting, and ringing in the ears.

Etiology: Injury, alcoholism, sunstroke and "syphilis" are given as causes. It sometimes accompanies brain abscess and brain tumor and follows acute

leptomeningitis.

Prognosis: Early care may result in recovery, although the outlook is always uncertain.

Care of the Patient: These cases need rest and fasting more than anything else. All stimulation and excitement should be avoided. A diet of fruits and vegetables should follow the fast for a prolonged period.

Chronic Cerebral Pachymeningitis

Definition: Inflammation of the dura mater.

Symptoms: Same as for chronic cerebral leptomeningitis.

Etiology: Seen in severe anemia, chronic affections of the blood vessels, sunstroke, alcoholism, Injury to the bead and insanity.

Prognosis: This is unfavorable.

Care of the Patient: Same as for chronic cerebral leptomeningitis.

Hemorrhagic Pachymeningitis

Definition: A blood-tumor of the dura mater.

Symptoms: In some cases no symptoms are present during life. If the pathology is marked, headache, failure of memory, impairment of intellect, stupor, contracted pupils, local convulsions, or palsies are seen. These symptoms may alternately improve and grow worse over a long period. In severe cases with extensive effusion of blood, the symptoms resemble those of apoplexy.

Prognosis: This is very unfavorable.

Care of the Patient: Same as for leptomeningitis.

Tuberculous Meningitis

Definition: This is inflammation of the membranous coverings of the brain of a tubercular nature.

Symptoms: These are the same as those for chronic leptomeningitis plus tubercular symptoms.

Etiology: It is secondary to tuberculosis elsewhere.

Prognosis: Unfavorable.

Care of the Patient: Same as for tuberculosis.

Affections Of The Cerebrum

Aphasia

Acute Encephalitis

Apoplexy—Cerebral

Cerebral Anemia

Cerebral Embolism And Thrombosis

Cerebral Hyperemia

Cerebral Paralysis In Children

Hydrocephalus

Suppurative Encephalitis

Tumors Of The Brain

Insanities

Dementia Praecox

Melancholia

Paretic Dementia

Aphasia

Definition: This is inability to express or to comprehend ideas in speech or equivalents of speech. Two varieties—motor and sensory—each of which are subdivided into cortical and subcortical, are recognized. Sensory aphasia is again divided into visual and auditory forms.

Symptoms: Motor aphasia is inability to express thought in words. When the brain lesion is in the third frontal convolution (cortical motor aphasia) the power of silent talking and reading are lost as well as power of articulate speech. In the most common forms of aphasia, the lesion is in the adjacent tracts which carry the speech impulses to the articulatory muscles (subcortical motor aphasia) and only the power of speech is lost.

Sensory aphasia is inability to understand written or printed words (word-blindness, or visual aphasia), or to understand spoken words (word-deafness or 'auditory aphasia). The lesion is in that portion of the brain known as the angular gyrus, where visual word memories are stored, or in the first

temporal convolution, where auditory word memories are stored, or in one of the incoming (subcortical) tracts of special sense.

In cortical visual aphasia the patient is unable to read aloud or to himself, nor can he write (agraphia) spontaneously or from dictation. In subcortical visual aphasia he can write spontaneously and from dictation, but is unable to read what he or others write.

In cortical auditory deafness he cannot understand spoken words or write from dictation, and, being unable to understand his own speech, he misplaces words (paraphasia) or talks jargon. Though word-deaf, the patient can speak spontaneously, read aloud and write in subcortical auditory aphasia.

Etiology: may be a transient condition due to sudden fright, brain congestion, migraine, hysteria, epileptic convulsions, and may appear in convalescence from fevers; or, it may be due to organic changes in the brain such as tumor, gumma, abscess, pressure by a depressed fracture, softening of the brain, embolism, thrombus, apoplexy, etc.

Prognosis: In softening of the brain the case is hopeless; after apoplexy, recovery frequently follows; recovery may follow removal of depressed fracture; it follows aphasia due to fright, hysteria, migraine and epileptic convulsions. The outlook is more hopeful in young, individuals.

Care of the Patient: Attention should be given to the causes of the primary pathology. Care for as directed under epilepsy, migraine, apoplexy, etc.

Acute Encephalitis

Definition: This is inflammation of the brain substance—usually of the gray matter.

Symptoms: The symptoms are not well defined and the condition is sometimes mistaken for typhoid fever. The common symptoms are headache, inability to sleep, coma, delirium and vomiting. Paralysis may follow recovery. It is often followed by brain abscess.

Etiology: See Suppurative Encephalitis. .

Care of the Patient: See Suppurative Encephalitis.

Apoplexy—Cerebral

Definition: This is hemorrhage into the brain followed by the formation of a blood-clot. It is popularly known as a "stroke."

Symptoms: Such prodromal symptoms as headache, vertigo, disturbed sleep, ringing in the ears, and, perhaps, a sense of numbness or weakness on the affected side, often precede the hemorrhage. In many cases, however, the patient falls suddenly without previous warning.

The face is flushed, the eyes injected, the, lips blue, breathing stertorous, the pulse full and slow, the temperature, at first subnormal from shock, later rises from irritation and the urine and, feces may be passed involuntarily. Convulsions are frequent and paralysis of some parts of the body accompanies. Even while the patient is comatose, the paralysis may be detected.

The head and eyes may be strongly rotated toward the side on which the hemorrhage occurs (conjugate deviation); one cheek often flaps more than the other, the pupils may be unequal, movements are made only on the unaffected side, when the affected arm is raised and allowed to fall, it drops lifeless; and occasionally the temperature is higher in the axilla of the paralyzed side.

In grave cases the subject does not awake from coma, the pulse grows feeble, respiration assumes the Cheyne-Stokes type, the reflexes cease, mucus collects in the throat producing a rattling sound, the temperature rises to 103° or 104°F. and death follows in a few hours to one or two days.

In some cases either consciousness is not lost or else its loss is very transient; in others paralysis develops immediately but unconsciousness does not become complete for twenty-four hours.

If death does not result, consciousness is usually regained in from twelve to forty-eight hours, and hemiplegia (paralysis of one side) remains on the opposite side of the body. Usually the muscles of the face and upper chest escape the paralysis. The tongue tends to deviate toward the paralyzed side when protruded. There is no tendency to rapid wasting of the affected muscles, and sensation is usually unimpaired. In walking the patient supports the paralyzed arm and swings the leg forward in a rotary movement from the trunk.

In very light cases not all of the above symptoms develop.

Etiology: Degenerative changes in the blood vessels and plethora, due to overeating, or high blood pressure from any cause, result in rupture of a vessel in the brain. Affection of the blood vessels is the immediate cause of

apoplexy. Toxemia covers the ground of cause quite thoroughly. Any sudden increase in blood pressure from anger, excitement, a cold bath, stimulation, effort; or any great enervating influence such as alcohol, loss of sleep, fatigue, etc., may precipitate a hemorrhage.

Prognosis: A "stroke" is not always fatal. Many people have two or more "strokes" before they result fatally. Even in the very aged, if the hemorrhage is small, the outlook for improvement is often good. Many cases recover their powers of locomotion and speech and other faculties that have been impaired, and even outlive the average expectancy. If the clot is, small, the paralysis may completely disappear. More frequently recovery is only partial. Six months to two years are required for all the improvement possible.

Prevention: People who know they are in line for apoplexy should adopt a very moderate regimen of living and lead a very quiet life. The diet should be largely of fruits and vegetables; excitement, great effort and all stimulation, should be avoided.

Care of the Patient: Even in the mildest cases the patient should not get out of bed for two or three weeks and no food but water should be given during most or all of this period. Weger says:

"If a fast is instituted at once and a hands-off policy tactfully pursued, the chances of stopping the hemorrhage and causing absorption of the blood-clot are greatly enhanced. In fact the life of the patient may depend on early treatment of the right kind."

After the fast, the food should be principally fruits and green vegetables. The patient should be fed very little and he must be content to live with a reduced arterial pressure and reduced weight.

What Tilden says about treatment will be of advantage to prevent recurrence. He says: "The treatment should begin months and years before the disease manifests. Those who are heavy eaters, continually carrying a large quantity of blood in the brain, evidenced by flushed face and enlarged veins over the forehead, and other signs of too much blood, such as ringing in the ears, head swimming, etc., should take a hint and reform their manner of living. The time to cure this disease is several years before it manifests. No one can be fooled into knowing he is headed in that direction; for all he needs to do is to look at himself in the glass, and he will find he is altogether too stout and too plethoric-looking, and the face is usually quite flushed. He

should know what his habits are. A man who uses stimulants to excess must know, or should know, that he is bringing upon himself degeneration of the blood-vessels and that the time must come when apoplexy will result. It does not necessarily need to be found in the brain. Apoplexy may take place in the kidneys or any other vital organ."

Cerebral Anemia

Definition: A lack of blood in the brain. It may be acute or chronic.

Symptoms: Acute. Pallor of the face, vertigo, confusion of ideas, ringing in the ears, dimness of vision, dilatation of the pupils, nausea, a tendency to yawn, sometimes fainting, and, occasionally, in extreme cases, convulsions and coma are seen.

Chronic. Vertigo, headache, irritableness, disturbed sleep, failure of memory, lack of ability to concentrate, intolerance to light, a tendency to faint, and extreme lassitude characterize chronic anemia of the brain. These symptoms improve when the patient lies down.

Etiology: Acute cerebral hemorrhage is seen in fainting or syncope following shock, great loss of blood, after sudden withdrawal of fluid from the abdominal cavity, and, in surgical cases, after ligation of the carotid artery. Chronic anemia of the brain is seen in heart affections, especially in aortic stenosis, hardening of the arteries that prevents the blood from reaching the brain, and in general anemia.

Prognosis: This depends on the cause. Most cases of acute anemia are quickly recovered from. Recovery from the chronic form depends on recovery from the heart and arterial pathology and from general anemia.

Care of the Patient: In acute cerebral anemia rest and fresh air are the great needs. Stimulants should not be employed. Care for the chronic case according to whether he has hardening of the arteries, heart affection or general anemia.

Cerebral Embolism And Thrombosis

Obstruction of the arteries of the brain by an embolus or thrombus rarely occurs before the age of fifty. Paralysis and aphasia often result. Embolism may give rise to sudden and severe immediate symptoms, such as headache,

vertigo, disorders of intelligence and sometimes complete insensibility. Emboli occur in hardening of the arteries, aneurysm, heart affections, etc.

Care of the Patient: Same as for apoplexy.

Cerebral Hyperemia

Definition: This is an excess of blood in the brain—congestion of the brain. It may be either acute or chronic.

Symptoms: Acute. The chief symptoms of acute congestion are intense headache, and sleeplessness, or sleep is disturbed by unpleasant dreams.

Chronic. This is characterized by dizziness, dull headache, irritability, disturbed sleep, failure of memory and inability to concentrate. The symptoms grow worse when the patient lies down. The ophthalmoscope reveals hyperemia of the retina. In extreme cases there may be exacerbations resembling apoplexy, in which unconsciousness is followed by paresis. Indeed a common sequel to cerebral congestion is apoplexy which is often preceded by many warnings that pass unheeded.

Etiology: Acute congestion is seen in sunstroke, and often follows the use of alcohol, nitroglycerine, destructive emotions and even prolonged intense mental effort. Chronic cerebral congestion may result from some obstruction to return of blood from the brain, (as by a tumor in the neck), increased heart action, prolonged anxiety, overwork, excesses, etc.

Prognosis: This is good if cause can be removed.

Care of the Patient: For acute congestion, immediate rest and relaxation in a darkened and well ventilated room are essential. The head and shoulders should be slightly elevated. No food but water should be given until complete comfort has returned. In chronic cases find and remove the cause if possible. Avoid all overstimulation, stop or cut down on the food, and institute correct habits.

Cerebral Paralysis In Children

Definition: Hemiplegla, diplegia, or paraplegia appearing at birth or in the first few years of life, and usually associated with wasting and hardening of certain portions of the brain. The condition is also known as spastic paralysis of infants.

Symptoms: Hemiplegia (paralysis of a lateral half of the body) comes on suddenly and is, frequently accompanied by fever, convulsions or coma. These severe symptoms subside after a few hours or days and the child is left paralyzed on one side.

Diplegia (paralysis Involving similar parts on both sides of the body) and paraplegia (paralysis from the waist down) usually date from birth and are characterized by rigidity and loss of power in the arms and legs, or in the legs alone. Children thus affected are generally idiots or imbeciles and are often afflicted with epilepsy.

Etiology: The cause in prenatal cases is not known; in congenital cases meningeal hemorrhage induced by difficult labor is thought to cause the paralysis. Infantile cases result from acute encephalitis, hemorrhage, thrombosis, or embolism.

Prognosis: This is not favorable. In rare cases hemiplegia ultimately disappears and the child regains health, but in most cases it is followed by secondary rigidity and commonly by imbecility, epilepsy, and movements resembling those of chorea, or continuous movements of the fingers and toes follow. The other forms are hopeless.

Care of the Patient: During the convulsive stage no food but water should be given. After convalescence is advanced educational exercises may be helpful. The whole life of the child should be well regulated.

Hydrocephalus

Definition: An excessive accumulation of fluid in the ventricles of the brain—"water on the brain." Two forms are described—acute and congenital or chronic.

Symptoms: Acute. This is a rare condition developing usually in children between the first and fifth years and characterized by an effusion of serous fluid into the cerebral interspaces and ventricles.

It is divided into simple, convulsive and comatose types. Injuries to the head, poor hygiene and eruptive fevers are listed as causes. Teething is also said to cause it, perhaps in the same way that growing hair on the chest at a later age causes acne of the face.

Congenital: This may develop before birth and interfere with delivery; or the child may appear normal for several months before the swelling of the head attracts notice. The head becomes globular, the fontanels and sutures remain open, the face becomes relatively small, the eyes protrude and are directed downwards, the scalp is thin and stretched, the superficial veins are distended, the hair may be scanty. The head becomes so heavy in some cases that the neck cannot support it and it falls forward.

Generally, intelligence is much impaired, but in rare cases there is precocity. Paralysis, exaggerated reflexes, convulsions, etc., may develop.

Etiology: In some cases the effusion appears to result from inflammation of the ventricular ependyma, in others it seems to result from occlusion of the communicating passage's between the ventricles or between the ventricles and sub-arachnoid space.

Prognosis: This is very unfavorable. Congenital cases often die early, but a few cases live for years.

Care of the Patient: Favorable results were reported from Russia a few years ago by fasting. This should cause absorption of the fluid, clearing up of inflammation and, possibly, even removal of occlusion. We have had no experience with the condition.

Suppurative Encephalitis

Definition: This is an abscess of the brain.

Symptoms: Acute. High fever, rigors, headaches, delirium, convulsions, vomiting and coma are the constitutional symptoms.

Chronic. The general symptoms are headache, tenderness of the head to percussion, irritability, vertigo, vomiting, stupor, pallor, loss of flesh and strength, and mental impairment. Temperature is variable.

What are called focal symptoms vary with the location of the abscess. These may be blindness, deafness, word-blindness, rolling of the eye-balls, incoordination, muscular weakness. These are present in both acute and chronic cases.

Etiology: Acute abscess follows injury to the brain. Chronic abscess is secondary to suppurative inflammation of adjacent parts such as caries of the bone following otitis media, or it may result from distant suppuration as in the liver, lungs, or heart, or it may follow "infectious fevers." Chronic abscess is an end-point in a long drawn-out pathological process resting on toxemia.

Prognosis: This is rarely favorable.

Care of the Patient: If the focal symptoms indicate its location in an accessible area of the brain, surgical drainage may help. Otherwise rest and fasting followed by a frugal diet of fruits and vegetables may be helpful.

Tumors Of The Brain

A brain tumor is a growth in the brain tissue, the membranes or blood vessels. It produces pressure. Many kinds of tumors develop in the brain and their symptoms depend upon their location and size. Headache is rarely absent; it is sometimes localized and associated with tenderness on pressure. Vomiting is often unattended by nausea and fails to relieve the associated headache. There is often marked vertigo; convulsions, local (Jacksonian epilepsy) or general, occur in approximately fifty per cent, of cases. Failure of memory, depression of spirits, irritability of temper and emotional states are frequent mental symptoms. Sleeplessness, sugar in the urine and an excessive amount of urine are present.

What are called "focal symptoms" depend upon the location of the tumor and the parts of the brain involved or pressed upon. These need not be discussed here as they are of value only to the expert.

Etiology: This is said to be obscure, but it seems likely that brain tumors are due to the same causes that produce tumors in other parts of the body. Injury, prolonged worry, intense and prolonged mental effort may predispose.

Prognosis: It is a grave condition in which much may often be accomplished or nothing can be done.

Care of the Patient: All errors of life must be corrected. Tobacco, alcohol, tea, coffee, drugs, sexual indulgence, overeating, etc., must be given up. All stimulants must be abandoned. Rest is necessary. I quote the following from Weger:

"A case of brain tumor came under our observation several years ago. The patient had been totally blind for about seven years. The diagnosis was first made by one of the most eminent brain specialists in this country and was confirmed at several of the most renowned American clinics where it was decided that the case was inoperable. After a prolonged fast, succeeded by a very limited diet for several weeks, vision was restored and the patient was able to read the finest news print without the aid of glasses. Two years after

recovery, vision remained unimpaired and no other untoward symptoms have been reported. One can rely entirely upon nature in many such cases and sometimes obtain the most startling results when all other methods of treatment have failed. It is cases such as this that justify the assumption that fasting is a therapeutic agent of the first order. Obviously, it is impossible to predict such a favorable outcome in any given case. However, the end will many times justify the means in cases that seem otherwise hopeless."

Insanities

Time was when the lunatic was considered a separate being, wholly apart from all the regular members of society. Slowly the world is catching up with Sylvester Graham, who declared over a hundred years ago that "even in the worst kinds of madness, the mind is still strictly true to the same general laws that always govern the human mind in all conditions." Insanity is not a definite and fixed state as different and distinct from sanity as black is different from white. It is no more possible to fix upon a precise boundary line between sanity and insanity than it is to place one's finger on the line of demarkation between health and "disease."

The imbecile and the neurotic who becomes insane still possess mind. The behavior of the "abnormal" man is but a lessening or an exaggeration of the behavior of the "normal" man. No man loses his mind. Insanity introduces no new principle of action into the processes of mind. The principle of unity does not forsake us here. And, just, as the evolution of pathology from simple to complex, may be watched in the liver, so may it be watched in mental affections.

Having partially recognized the fundamental unity of nervous and mental "disease," it is now incumbent upon neurologists, psychologists, etc., to recognize the unity of so-called physical "diseases." Once this fact is clearly recognized it will become apparent that these neuropathological conditions depend upon the same cause for their genesis, development and continuity as does pathology of the heart, or lungs, or liver or kidneys. The evolution of pathology in one organ or part of the body is identical with the evolution of pathology in another organ or part.

Various classifications of insanity have been made, but like all other efforts to classify "diseases" these are not satisfactory. Whichever system of

classification is employed we never find any definite lines of cleavage dividing these classes into distinct groups. Maudsley writes: "Insanities are not really so different from sanities that they need a new, special language to describe them, nor are they so separated from other nervous disorders by lines of demarkation as to render it wise to distinguish every feature of them by a special technical nomenclature. The effect of such a procedure can hardly fail to make artificial distinctions where divisions exist not in nature and thus to set up barriers to true observation and inference."

Etiology: Retrograde changes in the mental life of the adult are due to injury to the brain, pathology of the brain, and to reflex irritations in other parts of the body. Shock, mental suffering, emotional stress, etc., may enervate the brain and lower its resistance to the causes of brain pathology. Insanity is seen in certain glandular dysfunctions as shown in the chapter dealing with affections of the ductless glands.

Inflammation and degeneration of the brain tissue is due to the causes of inflammation and deterioration in the liver, lungs, kidneys, heart, or other organ. Hardening of the arteries of the brain, by cutting off the blood supply to the brain, results in a gradual softening and deterioration of its tissues.

A potent source of reflex irritations of the brain is pathology in the sex organs. Inflammation of the uterus or prostate gland or of the ovaries and testicles, or tumors of these same organs, often results in insanity.

Another great cause of insanity is drugs—tobacco, tea, coffee, morphine, heroin, bromids, serums, etc. The habitual or "medicinal" use of drugs, especially hypnotics, anodynes, narcotics, etc., plays havoc with the brain and nervous system.

Changes found in the brain at death represent the endpoint of the pathological process and are not the cause of insanity. Enervation and toxemia and their many emotional, sexual, physical, dietetic, etc., causes constitute the true cause of insanity.

If dementia, for instance, represents the end-point in a long drawn-out pathological evolution, what are its connections with the other pathological conditions of the body which precede it, develop concomitantly with it, and which succeed it? They are all parts of the same pan-systemic pathological evolution and all arise out of the same basic causes. The pathology of the brain and nerves does not differ in its essential character from the pathology found in the other tissues of the body. Nervous and mental affections are all

of a piece with all other affections of the body. They are not set apart from the rest of the pathology of the body.

Care of the Patient: The present care of the insane is not much advanced over that of two thousand years ago. Although much cruelty is still practiced it is not as common nor as open as formerly. Nerve and mind destroying drugs are used and dope has largely supplanted chains, night sticks and strait jackets. Psycho-analysis promised much but failed to make good; indeed many neurologists assert that many patients are made worse by being psychoanalyzed.

It is most important to remove and correct all causes of enervation and give these patients a good physiological house cleaning, after which a diet of fruits and vegetables should be employed. All hygienic factors are important and all drugs should be avoided.

Dementia: This is insanity characterized by more or less complete loss of intellect. Several forms are described, as primary, secondary, terminal, senile and praecox, but these distinctions are of minor importance.

Imbecility: An imbecile (idiot) is one born without normal mental equipment. Perhaps injury at birth or arrest of development after birth account for some causes. There are various forms and degrees of imbecility, ranging from mild cases in which the individual is regarded as backward, to pronounced cases in which the unfortunate is unfitted for anything, is a mere burden on society which, in a more enlightened age, will not be borne by its healthy members.

Insanity: Or a lack of mental soundness, integrity, is divided into acquired, affective, circular, cyclic, climacteric, communicated, confusional, doubting, emotional, epidemic, hereditary, homicidal, ideational, ideophrenic, impulsive, menstrual, moral, perceptional, and periodic forms. These distinctions are of no practical value.

Mania: This is violent insanity with wild excitement. It is divided into alcoholic, a Potu, Bell's, dancing, epileptic, puerperal, religious and transitory manias. Again these distinctions are unimportant.

Psychosis: This is any mental "disease." Anxiety psychosis, exhaustion psychosis, toxic, maniac depressive psychosis, etc., are described. For all practical purposes these distinctions may be ignored.

Dementia Praecox

Definition: This is an adolescent insanity developing usually between the ages of fifteen and thirty.

Symptoms: it is characterized by mental deterioration, emotional apathy, hallucination, delusions, and finally dementia.

Etiology: Hereditary neurotic diathesis, or neurosis resulting from larval deficiencies form the foundation for this condition. Emotionalism, improper food, sexual excesses or repressions, etc., lead to enervation, toxemia and, finally, dementia.

Prognosis: Our experience leads us to believe that proper care from the first will assure recovery in practically all cases.

Care of the Patient: "Patience and time must be stretched to the limit by those who hope to effect a cure." Each case must be thoroughly studied and cared for intelligently. All causes of enervation must be eliminated, even while the fast is in progress. These cases must be gently but firmly disciplined and should be kept busy doing those things they like to do. Rest and a general health-building program are essential. Recovery may be expected in from six months to two years.

Melancholia

Depression: This is a depression of spirits. Eight or nine distinct types are classified, each with special outstanding characteristics.

Symptoms: This presents a variety of symptoms not unlike those included under the term neurasthenia. In melancholia all impressions seem exaggerated and there is most profound mental depression. An abnormal self-consciousness exists and there are delusions and hallucinations. There is, mentally, a state of abject misery and anguish without apparent cause. There is always insomnia, although these cases all sleep more than they think. Duties are neglected and the sufferer is unable to explain his worries or his lack of interest in everyday affairs. Gloomy foreboding and a sense of impending calamity, to himself and family, are present. The sufferer is filled with suspicion, distrust and insane jealousy, though he may retain his usual reasoning faculties. His emotions are easily disturbed and he generally tends

to retire within a carapace of reticence and uncommunicativeness, with either extreme restlessness or apathetic and quiet indifference.

Etiology: Many of these cases are due to organic changes in the brain or nervous system or in other organs of the body. Others are purely functional and are due to the usual causes of functional impairment.

Prognosis: Cases due to organic changes rarely recover. Other cases usually run a protracted course that ends in recovery. The outlook in delusional melancholia is not so favorable, these cases commonly terminating in a pronounced type of insanity.

Care of the Patient: The profound enervation evident in these cases calls for prolonged rest. The evident failure of the gastro-intestinal tract makes attention to feeding most important. A fast not only rests the greatly debilitated digestive system, but permits elimination of toxins. Toxins must be kept low. The environment must be changed and the mind diverted. The whole mode of living must be ordered in conformity with the laws of life. All enervating influences require correction and much patience and time are required.

Paretic Dementia

Definition: This is a chronic inflammation of the cerebral cortex characterized by a change of disposition, failure of memory, mental exaltation, delusions of grandeur, tremors, epileptiform convulsions and paresis. It is also known as general paralysis of the insane,' general paresis, and chronic meningoencephalitis.

Symptoms: Usually beginning "insidiously" with a change in disposition—the industrious becoming slothful; the ambitious, apathetic; the chaste, dissolute; the liberal, parsimonious; the complaisant, churlish; and the truthful, false—there follow loss of energy, failing memory and weakened judgment. A peculiar egotism and mental exaltation accompanies the impairment of the faculties; the sufferer becoming boastful, talkative and easily provoked to furious outbreaks. The use of wrong letters and suppression of syllables in writing reveals failure of memory.

At this stage motor symptoms begin to manifest. The pupils are often unequal, the tongue trembles when it is protruded, the speech is slow, hesitating and indistinct, and the gait is somewhat shuffling.

The most characteristic mental symptom of fully developed paretic dementia is the delusion of grandeur manifested in the subject's magnified estimate of his social or political status, wealth, strength or power of intellect. Although the mind is usually serene and cheerful, periods of profound depression are frequent. The sensibilities are blunted, and the "animal nature" is ascendant. The mind becomes progressively involved; there develops extreme indifference to all that goes on; there is voracious appetite, with bolting of food, and soiling of the clothes with food.

The tremor of the tongue grows, the lips and other parts of the face begin to tremor, speech grows indistinct and "scanning," the pupils fail to respond to light, though still accommodating to distance (argyll-Robertson pupil); and there is usually an increase in the reflexes, though these may be lost. Epilepsy-like and apoplexy-like convulsions are common.

In the final stage the mental power is almost obliterated, health fails, the bladder and, rectum empty themselves involuntarily, the gait is unsteady, and finally, the subject becomes unable to leave his bed. Death closes the scene.

Paresis shows occasional, sometimes continual symptoms throughout all stages of its advancement. In its early stages there are usually "unmistakable signs of queerness." This goes on to "gradual mental break down." The victim's manners, customs, and habits are likely to strike off at odd tangents. He may become egotistical and develop a troublesome attitude toward others. Delusions of grandeur, with extravagance as a likely outstanding characteristic, may develop. Criminal tendencies may result in forgery, embezzlement, murder, revolting sex crimes, etc. Accompanying the odd mental quirks, and varying in, intensity and variety in some cases, are severe, recurring headaches, dizziness, insomnia, memory lapses, nervousness and numerous types of convulsive seizures and paralysis.

Etiology: It is said to be due to "syphilis" and that "the disease centers its attack upon the centers of the brain" while the brain, involvement is supposed to begin "at the very time of the first general invasion of the spirochetes."

Tilden says: "the mental derangements are brought on from venery and fear." He should have added, plus drug poisoning. There can be no doubt that paresis, like all other troubles, is time summation of multiple causes.

The symptoms described are not "specific." They are common in people in all walks of life who eat to excess of deficient and stimulating foods,

imbibe alcoholics, tea, coffee, soda fountain slops, indulge in tobacco, practice excessive venery, who overwork, worry a lot, secure insufficient rest and exercise and who palliate their symptoms with drugs. I cannot see the need for a disease called "syphilis" to produce these symptoms and to finally produce degeneration of the brain. Hardening of the arteries of the brain from any cause may easily produce these symptoms.

Prognosis: This is a form of insanity with paralysis that we get little opportunity to care for; first, because our institutions are not designed to care for the insane; and, second, because these cases are usually sent to asylums. I have had opportunity to care for but two cases, and these in the terminal stages, when there was nothing to do except watch them die. It may be possible to restore these sufferers to health if Hygienic methods are employed in the early stages of the trouble. I know of no logical reason why the early stages of paresis will not yield as readily to Hygienic care as does ataxia.

Care of the Patient: Nothing can be done in the late stages. In the early stages, if fear and drugs are eliminated and all enervating practices are discontinued and a general health-building program carried out, recovery may be possible. A fast will aid in eliminating accumulated toxins.

Affections Of The Spinal Cord

Bulbar Paralysis

Chronic Anterior Poliomyelitis

Hereditary Ataxia

<u>Hypertrophic Cervical Pachymeningitis</u>

Myelitis—Acute

Pseudo-Hypertrophic Muscular Atrophy

Spinal Hyperemia

Spinal Pachymeningitis

Spinal Sclerosis

<u>Syringomyelia</u>

Spinal Tumors

Bulbar Paralysis

Definition: An affection rarely occurring before the fortieth year, due to chronic degenerative changes of certain neuclei in the medulla oblongata, and characterized by paralysis of the lips, tongue, pharynx and larynx.

Symptoms: It begins "insidiously" with difficulty in speaking and gradually evolves into paralysis and wasting of the tongue, lips, palate, larynx, and pharynx. Difficulty in swallowing is alone considered. enough to make a diagnosis.

Etiology: An acute form is seen that results from hemorrhage or from acute poliomyelitis of the medulla. The chronic or progressive form is a chronic poliomyelitis of the bulb and is usually a part of amytrophic lateral sclerosis.

Prognosis: Acute forms end fatally in a few days. Chronic forms last four or five years, but the cases seem hopeless.

Care of the Patient: General care to build up the general health, is all that can be done. The condition should be prevented by right living.

Chronic Anterior Poliomyelitis

Definition: A chronic affection (atrophy) of the nerve cells in the anterior gray horns of the spinal cord, and characterized by progressive wasting of the muscles and a corresponding loss of power, hence its other name, progressive spinal muscular atrophy.

Symptoms: These are said to develop "insidiously." The muscles of the hand commonly suffer first. The muscles atrophy and lose power. The hands assume a claw-like position which is characteristic. Fine tremors or twitchings are almost invariably present in the affected muscles of the shoulder and arm, and then the neck and trunk. The legs are seldom involved until late, and often are not involved at all. Occasionally, however, the first symptoms develop in the lower extremities or back. In the late stages the patient may be reduced to a mere skeleton. Four types are recognized: hand-type, juvenile, infantile facial, and peroneal.

Symptoms of bulbar paralysis develop when the degeneration involves the medulla. The paralyzed muscles are flaccid, the deep reflexes are lost in the affected limb, sensation is unimpaired, though there may be complaints of dull pain or coldness. The sphincters are not involved.

Etiology: Inherent weakness of the cells (abiotrophy) is thought to predispose these to early degeneration as it develops frequently between the ages of twenty and fifty, most often in males. Its real cause is the same as that which causes all other nerve degeneration—enervation and toxemia growing out of wrong life. Sexual excesses and alcoholism doubtless are the real predisposing factors.

Prognosis: The course of the degeneration is very slow and marked by occasional remissions. These indicate that the degeneration is often not as great as the symptoms indicate and that recovery is possible.

Care of the Patient: "Treatment is of no avail," say medical authorities. We agree, but we do not agree that the removal of all the causes of enervation and the elimination of toxemia through physiological rest is of no avail. The Hygienic mode of living offers the best prospect of arresting the degeneration and prolonging life and usefulness.

Hereditary Ataxia

Definition: A "family affection" characterized by symptoms resembling those of locomotor ataxia, and due to hardening of the posterior columns of the spinal cord; known also as Friederich's ataxia.

Symptoms: This affection develops in children and young people up to the twenty-fifth year of life. It sometimes develops in several members of the same family, which indicates a hereditary predisposition to its development. The essential features are ataxia, paraplegia and irregular jerky movements of the head, impaired speech, disorders of vision, and loss of muscular power. Pain is seldom present.

Etiology: "Some cases can be traced to heredity; in others no cause can be ascertained" say medical authorities. It must be due to the usual causes of nerve degeneration, with perhaps inherent weakness of the spinal cells.

Prognosis: "The disease is slowly progressive and treatment is of no avail," say medical authorities.

Care of the Patient: Same as for locomotor ataxia. A Hygienic mode of living offers the best prospect of arresting the degeneration and prolonging life and usefulness.

Hypertrophic Cervical Pachymeningitis

Definition: This is a chronic thickening of the spinal membranes in the neck region with compression of the spinal cord and nerve roots.

Symptoms: Sharp pain in the neck, radiating to the shoulders and arms, muscular weakness, wasting, impairment of sensation, and the peculiar deformity called "clawhand," are the chief symptoms. Later, spastic paralysis with exaggerated reflexes and interference with the sphincters may result from pressure on the, cord.

Etiology: "Syphilis" is given as the most "important etiological factor." This can only mean that mercury and arsenic plus fear and sensuality constitute its chief cause. Some cases follow injury. Some are said to be due to over-exertion and exposure to cold. These last two "causes" merely represent the "last straw" that, added to the many previous straws, 'break the camel's back."

Prognosis: The condition often persists for years. Where injury is slight and in cases said to be due to "syphilis," recovery is possible.

Care of the Patient: Correct all enervating influences. Cut out all stimulants. A prolonged rest in bed will be essential to nervous recuperation. Fasting will not only serve to relieve the body of its toxic load, but will serve better than the counterirritation commonly employed to relieve the spine of its hyperemia.

Myelitis—Acute

Definition: This is inflammation of the spinal cord. It may be limited to the gray matter chiefly, or to the gray and white matter together. The term is also applied to ischemic (deficiency of blood) softening of the cord. The two conditions present the same symptoms.

Symptoms: Several forms are described as follow:

Acute ascending myelitis is characterized by progressive loss of motion and sensation beginning in the legs and rapidly ascending until the muscles of respiration are affected. Death often occurs at the end of a few days from asphyxia, or at a later period from hypostatic pneumonia.

Compression myelitis is characterized by deep-seated, localized pain in the back, rigidity of the spinal column, angular deformity. stabbing pains radiating to the limbs or around the trunk, spastic paralysis below the level of the cord lesion, impairment of sensation and disturbances of the sphincters.

Disseminated myelitis is a rare condition in which palsy of isolated groups of muscles develops and there are irregularly distributed areas of anesthesia. In its later stages this form may resemble multiple sclerosis.

Transverse myelitis: This form begins with acute symptoms: chilliness, malaise, fever and vomiting. There is numbness in the limbs and sometimes pain iii the back and a. girdle sensation. Motor paralysis and paralysis of all the sensations quickly develop in the parts below the level of the spinal lesion. The paralysis is flaccid and atrophic in the muscles supplied by the affected segments and flaccid and spastic in the muscles enervated by segments below the level of the pathology, according as the affection completely or partially interrupts the conductivity of the cord. Even though the paralysis is flaccid at first in the lower limbs, it usually becomes spastic in a week or two if the patient lives. The sphincters of the bladder or rectum are nearly always affected, sexual power is lost, bed sores frequently develop rapidly over the buttocks and heels. The muscles supplied by the nerves arising from the affected spinal segment undergo atrophy and give the reaction of degeneration.

Etiology: Many cases follow injury to the spine, either from fracture of the spine or from a severe concussion. It is doubtful if any save the very worst injuries will so result in any save enervated subjects. Some cases follow smallpox, measles, typhoid fever and other infections indicating that sepsis or suppression may be the chief factors of causation. Exposure to cold is given as a cause. This we discount.

Prognosis: Any form of myelitis is grave and more or less disability usually remains after the subsidence of the acute symptoms. In mild cases complete recovery may occur. Death is frequent.

Care of the Patient: No food whatever should be given until all the acute symptoms have subsided. The patient should be left alone as much as possible and allowed to rest. If pain is severe, hot applications or hot baths may be employed for relief but these should not be pushed to the point of enervation or exhaustion.

After the symptoms have subsided, fruits and vegetables may be fed and, as soon as the patient is able to exercise, educational exercises will help to restore control of the paralyzed parts.

Pseudo-Hypertrophic Muscular Atrophy

Definition: This is a condition that usually develops in childhood in which the atrophic changes of the muscle are superseded by the deposit of fat and connective tissue. No remedy is known.

Spinal Hyperemia

Definition: Congestion of the spine. It may be active (arterial) or passive (venous).

Symptoms: It is characterized by pain in the back with more or less pronounced disorders of sensation or motion. The symptoms vary from a dull pain in the lumbar region, radiating to the hips, to very alarming symptoms such as rigidity, pain in the abdomen, tingling in the hands and feet, jerking of the limbs, exaggerated reflexes and incomplete loss of power. It may last from a few hours to several days. If prolonged it evolves into myelitis.

Etiology: Cold and exposure, arrested menses, habitual hemorrhoidal discharge, tension from protracted erect posture, and injuries are listed as causes. Most of these can act only as exciting causes in the greatly debilitated and toxemic.

Care of the Patient: Rest, lying in any position except on the back and fasting are the prime needs. Gentle rubbing may afford relief.

Spinal Pachymeningitis

Definition: This is inflammation of the inner surface of the spinal dura mater with an exudate upon the inner surface.

Symptoms: It develops slowly and gradually with feverishness, chills, stiffness, violent pains in the head and neck, and various disturbances of sensation.

Etiology: Injury is the most frequent cause. The causes listed under spinal hyperemia also produce the condition.

Prognosis: "Recovery may be confidently anticipated," says Weger, "provided the treatment throughout the course of the disease conforms to a conservative rather than a do something policy."

Care of the Patient: See Meningitis.

Spinal Sclerosis

Definition: This is myelitis with an increase of the connective tissue of the spinal cord. Four types are recognized, as follow:

Ataxic Paraplegia: This is a combined lateral and posterior sclerosis of the spinal cord.

Symptoms: It develops slowly as the structural changes in the cord gradually become more and more extensive. The paralysis affects muscles higher up than in locomotor ataxia and there is also a tendency to spasms in the lower extremities. Sensation is unimpaired, neuralgic pains are absent, the knee jerk is exaggerated and the affection may easily be mistaken for tabes dorsalis.

Prognosis: This is not very favorable, but there is every reason to believe that the tissue degeneration is not always as great as the symptoms indicate and function may be re-established in many cases that appear to be hopeless.

Cerebrospinal sclerosis: This is a multiple sclerosis affecting both the brain and cord. It is also known as disseminated sclerosis and insular sclerosis.

Symptoms: It is characterized by pains in the back, disorders of sensation, loss of coordination, tremor on motion, scanning speech, and varying degrees of mental impairment. In well-developed cases, there are increasing weakness in the lower limbs with exaggerated tendon-reflexes, involuntary oscillation of the eye-balls, defective vision and optic atrophy, headache, giddiness, numbness or tingling in the limbs and various other symptoms that are not constant.

Prognosis: This is not favorable. Our experience has demonstrated that the sclerosis may be checked if Hygienic care is instituted early and that improvement may be obtained, even, in advanced cases.

Lateral sclerosis: A rare condition, known also as Charcot's "disease," Erb's palsy, amytrophic lateral sclerosis, and anteriolateral sclerosis.

Symptoms: Bilateral paralysis of the legs with muscle contractions and exaggerated reflexes characterize this affection. Loss of power is the first symptom. There is a gradual increase of weakness and heaviness in the limbs. The knees are drawn together, the legs drag behind and move forward rigidly as a whole with no knee action and the toes catch against the ground often causing falling.

Prognosis: Complete recovery is rare. Much may be accomplished in its early stages.

Posterior spinal sclerosis: This is a degenerative affection of the sensory neurons of the spinal cord, often involving, also, the sensory neurons of the cranial nerves, and characterized by incoordination, loss of deep reflexes, disturbances of sensation and nutrition and various ocular phenomena. It is also known as locomotor ataxia and tabes dorsalis.

Symptoms: These are divided into three stages as follow:

Pre-ataxic (or early) **stage:** The symptoms of this stage are sharp, shooting pains in the lower half of the back and legs, severe backache, numbness and tingling of the feet, a sense of constriction about the body, disturbances of the urinary and sexual systems (usually of a paretic type), deficiencies of vision, loss of deep reflexes, paroxysms of intense pain in the stomach, and isolated areas of hyperesthesia or anesthesia.

Ataxic stage: As the nerve degeneration progresses there is a want of certainty and precision in the movements of the legs especially in the dark, and a gradual loss of control of the muscles. The walk becomes a peculiar heavy shambling, futile attempt to direct the feet. If the patient stands erect with his eyes closed and his feet in juxtaposition he sways and tends to fall; or, if the upper extremities are affected the ataxia becomes evident when he attempts to touch his finger to the tip of his nose. If placed in a recumbent position with his eyes closed he is usually unable to recognize the position in which his limbs are placed.

The steps are awkward and jerky, the foot is raised high, projected forward and outward and brought down forcibly with a thud. The body is bent forward, and the eyes are directed to the floor. Although there is not great loss of muscular power in this stage, the muscles are abnormally flaccid.

Such trophic abnormalities as perforating ulcer in the sole of the foot, abnormal brittleness of the bones, and painless swellings of the large joints,

with effusion, atrophy of the bones and cartilages, and ultimately dislocation (Charcot's joint) develop.

Paralytic stage: This develops in from ten to twenty years if the patient lives. This stage is characterized by inability to walk, progressive muscular weakness, inability to retain the urine, cystitis, bed sores, and increasing marasmus.

In a small percentage of cases symptoms of paretic dementia develop and the condition is called tabo-paralysis.

Etiology: We assume that the cause of the hardening in the different parts of the cord that gives rise to these different "forms" of spinal sclerosis is the same. We are usually told that the cause is obscure, which means it is unknown. Locomotor ataxia is said to be caused by "syphilis" and cases are treated accordingly; hence the uniform failure in these cases.

Dr. Alsaker says "the tendency of late years is to blame syphilis for more and more of the nervous disorders from which people suffer.

Some medical men claim that this disease causes all cases of locomotor ataxia. It is true that many of the ataxias have had syphilis, but by no means all of them. Many of them have also had measles and corns.

Locomotor ataxia has as varied a causation as other diseases have, and to blame one previous disorder is either mental laziness or perversion of the truth."

Many cases of ataxia give no history of "syphilis" and do not react positively to the Wassermann test. These are treated for "syphilis" anyway.

A little investigation of the past lives of every one of these sufferers will reveal enough of sensuality and gross living to cause their troubles without dragging in an imaginary "disease" called "syphilis." These people have been living in a manner that weakens and debases their bodies. Years of gluttonous eating, late hours, excessive venery, drinking, tobacco using and other forms of sensuality and dissipation, eroticism in thought, and, added to these, the drugs that are taken by such men and women for their aches and pains, are enough to produce in them any one or more of the mental and nervous and other "diseases" which are referred to as the third stage of a "disease" called "syphilis." Tilden says, "I know from sixty-five years of experience that * * * locomotor ataxia is the result of excessive venery and is curable." Alcoholism, injury to the cord, vascular and nervous sclerosis from

toxemia are undoubtedly causes. Perhaps the drugs given for "syphilis" are the most potent causes.

Tilden also says that a cause for locomotor ataxia "need not be looked for beyond the daily lives of subjects. Everyone has abused himself sexually; indeed the history of such cases usually runs about as follows: 'I began at eight years of age to masturbate, and kept it up one to half dozen times a day until I began visiting women, and, have had intercourse once to four times every twenty-four hours for the past twenty years.' Does such an individual require syphilis to paralyze him? Add to this abuse wrong eating, tobacco and often alcoholics, coffee and tea, then can any sane man believe that syphilis is necessary to add to all that crime against health, to make a successful ataxia?"

Prognosis: In the early stages, this is favorable. In advanced stages, the case is hopeless.

Care of the Patient: We care for all of these cases alike and a description of our care for locomotor ataxia will suffice. The care of locomotor ataxia cases should have no reference to a "disease" called "syphilis." All causes of impaired health should be corrected and every health-building measure employed. Tilden says, "when cases of locomotor ataxia apply to me for treatment, I treat the individuals for what their symptoms represent. If they have any stimulating habits, these have to be given up at once. Their wrong eating habits are corrected immediately. When it is possible for them to go to bed, they are sent to bed, and kept there until the coordination has been restored." He tells us that he has treated many cases of locomotor ataxia with plus four Wassermanns, whose symptoms cleared up within sixty to ninety days, and adds, "where they have given up their bad habits and continued living in the right way, they have continued to remain well."

To be able to bring about resolution of hardening in the cord in locomotor ataxia and a consequent restoration of normal movement is something so-called "regular medicine" hardly dares hope for.

Dr. Weger reports that "several tabetic cases advanced to the cane and crutch stage have been able to discard these aids to locomotion within a few months and have improved sufficiently to carry on extensive enterprises, play golf, and live normal lives for six or eight years, only to have the tabes reassert itself and become progressively worse. These cases were those of

men past middle life whose habits were exemplary and who could be depended upon to do much better than the average person in carrying out instruction."

I have had no such experiences and Dr. Weger is the only Hygienic practitioner who reports such recurrences. I incline to the opinion that the habits of these men were not as exemplary as they had led Dr. Weger to believe, and that they had not carried out instructions well. Unless we abandon all rational views of the trouble and accept the delusions that cluster around the spirochete, we must know that something in the lives of these patients caused the recurrences.

We often see an almost complete clearing up of all symptoms in multiplesclerosis during a long fast only to have some of them return in milder form as soon as eating is resumed.

Syringomyelia

Definition: A rare affection of the spinal cord, occurring chiefly in males between the ages of ten and forty, characterized by the formation of cavities within the cord, and by atrophy of certain muscles, peculiar disturbances of sensation and various trophic changes.

Symptoms: The affection usually involves the upper extremities, the chief symptoms being wasting of the muscles (atrophy of both hands and arms) fibrillary tremors, loss of sensations of pain and temperature, but with well preserved or but slightly affected tactile sensation, lateral curvature of the spine, and such trophic disturbances as fissures, ulcers, gangrene and affections of the joints. Such eye symptoms as continuous rolling of the eyeball, inequality of the pupils, and narrowing of visual field are frequently seen. The affection is nearly always bilateral.

Complications: In many instances symptoms of lateral sclerosis, posterior sclerosis or bulbar pathology are superadded.

Morvan's "Disease" is thought to be a form of syringomyelia but differs from the above description in that there are loss of tactile sense and the development of painless felons.

Etiology: Injury and "acute infectious diseases" are mentioned as causes. Acute "infectious diseases" cause nothing. They are caused by toxemia and sepsis and these are the causes of syringomyelia.

Prognosis: Syringomyelia is considered incurable but not fatal and patients may live in comparative comfort for many years and eventually die of other affections.

Care of the Patient: We believe that proper care at the beginning would arrest the progress of the pathology in this condition and prevent the development of the helplessness described above. The care would not differ from that given for neurasthenia or myelitis.

Spinal Tumors

Tumors (neoplasms) sometimes develop in the cord and its membranes. The meningeal tumors may be either inside or outside the dura mater. They may be located anywhere along the cord, producing compression or pressure wherever located; and if prolonged the pressure interferes with the ascending and descending functions of the cord.

Symptoms: These vary with the location. Persistent neuralgic pains and slow progressive paralysis may be the chief signs. Pain in the legs, with gradually extending paralysis is diagnostic. Weakness is the first sign. There is pain upon pressure along the spinous processes.

Etiology: See Tumors.

Prognosis: Very unfavorable.

Care of the Patient: Rest and a long fast are essential. Correct all errors

of life.

Affections Of The Nerves

Diver's Paralysis

Epilepsy (Falling Sickness)

Herpes Zoster (Shingles)

Facial Paralysis

<u>Neuralgia</u>

Simple Neuritis

Neuromata

Paralysis Agitans

Raynaud's "Disease"

Traumatic Neurosis

Diver's Paralysis

Definition: A condition of motor and sensory paralysis with other nervous symptoms observed in divers and others subjected to increased atmospheric pressure; known also as Caisson "disease," and "bends."

Symptoms: These may appear immediately on reaching the surface or after the passage of several hours. Pains in the joints followed by motor and sensory paralysis in the lower extremities are, the chief symptoms. Sometimes the bladder and rectum are involved. The paralysis may sometimes take the form of hemiplegia or monoplegia instead of paraplegia. Gastralgia and vomiting are common symptoms.

Etiology: It usually requires a pressure of more than two hundred atmospheres to produce the paralysis and the time required decreases as the pressure increases. Congestion hemorrhage and softening in the cord result from the pressure.

Prognosis: As a rule recovery ensues in a few days or weeks. In a few cases the paralysis is permanent. In severe cases coma develops and death occurs in a few hours.

Care of the Patient: A gradual transition from a high to a low pressure will usually prevent the paralysis. If symptoms develop the patient should be returned to the high pressure and then subjected to gradual decompression. Severe cases should be cared for as described under acute myelitis.

Epilepsy (Falling Sickness)

Definition: A nervous affection with loss of consciousness and tonic and clonic convulsions.

Symptoms: The common form of epilepsy is divided into two general types. The more severe form is known as Epilepsia Gravior, or grand mal. In this form the patient falls without sufficient warning to protect himself. These are the cases where consciousness is wholly lost and the convulsions are usually severe; although there are cases where consciousness is wholly lost and convulsive movements are slight—more of a stiffening of the muscles—and there are cases where consciousness is not lost. These patients may fall on the street before a car or other passing vehicle, or in some other place that

may cause them severe injury. One form of this severe type of epilepsy is the nocturnal type. This is the safer form, for the patient has his convulsions at night while asleep in bed.

The light form of epilepsy is known as Epilepsia Mitior, or petit mal. Convulsions in these cases may be very mild, last less than half a minute, the momentary loss of consciousness not being enough for the patient to fall, if standing, nor to lose the trend of conversation. Or this form may be characterized by staggering and confusion and the sufferer may not be able to resume the conversation in which he was previously engaged until he is reminded of the subject. The light form may gradually develop into the severer form if its causes are not removed.

There is nothing resembling regularity in the development of epileptic convulsions. In some cases they often occur in "bouts," one, or two or three taking place every few days, or they may be separated from each other by weeks, sometimes by months, and occasionally by years. A patient may have two or three sets of fits in a week or in a month and have none the following week or month.

It is said that the light and severe types of the affection may exist at the same time. But this does not mean that the patient has two "diseases," two epilepsies. It only means that he has both light and severe paroxysms. The light form may exist for years without a severe "seizure," or the severe form may persist for years without a severe paroxysm or light and severe convulsions may alternate.

In the light form, petit mal, the patient may have a half-dozen or a dozen convulsions in a day. Indeed he may become so intensely sensitive that he has as many convulsions in an hour. He may be so sensitive that the slightest shock or irritation out of the regular routine may cause a momentary loss of consciousness. Such a patient may suffer a severe convulsion every two to four weeks, or at shorter and longer intervals.

In the severe form, Grand Mal, the convulsion is preceded by a short cry or shriek, like a cry of distress. The patient usually falls forward on his face, which is often injured. It is no uncommon thing for these patients to fall on a stove and be badly burned. Due to the spasmodic contractions of the muscles of the jaw, these patients often severely bite the tongue. In frequent cases the tonic contractions of the jaw muscles is so severe that the jaw is set, and, due

to the setting or spasmodic contraction of the muscles of the chest, breathing is suspended for half a minute.

Due to suspended respiration and even circulation, the face, which at first is pale, turns red, livid, then purple, and, at times, almost black. The pulse becomes very rapid and the pupils dilate. Indeed there is over-dilatation of the pupils in all forms of epilepsy, as in many other nervous affections.

Because the muscles on one side of the body are affected more than those of the other side, the head is turned to one or the other shoulder in a jerking way. The eyes roll and have a wild expression. The cheeks as well as the tongue are often severely bitten. In severe cases there is always foaming at the mouth, the foam being tinged with blood from tongue or cheek. Breathing is stertorous and these cases are often mistaken for apoplexy or drunkenness. There have been cases in which bones were broken or dislocated, so severe were the muscular contractions. Often the sphincters relax and there is involuntary emptying of the bladder and colon.

The paroxysm may last from a few seconds to a halt-hour. One, two, or three dozen convulsions may be required before calm is restored to the nervous system. In cases where dozens are required the patient may die due to rupture of blood vessels in the brain (apoplexy), rupture of the heart, uremic coma, shock, or from too long suspension of the vital functions by the prolonged tonic spasm, so that vital activities cannot be resumed after it has passed off.

When the convulsion subsides, the body relaxes, consciousness returns and the patient may fall into a deep sleep which may last for several hours. Upon awakening, if the convulsions have not been too prolonged, the patient may appear quite well, and except for a tired feeling and muscular soreness, may feel well. Indeed many cases recover from the convulsions in a few minutes and immediately resume their regular activities, as though nothing had occurred.

In cases where the convulsions last several minutes the patient is worn out and, even though he sleeps heavily for some time after the spasms cease, he may be tired and his muscles be stiff and bruised and his tongue sore, for several days afterward. In the more severe cases the patient may recover from the convulsions very excited and lapse into a severe form of mania, which lasts one or two days, ending in death; or he may go on living but requiring constant attention and attendance, due to the mental derangement.

One form of epilepsy known as "Jacksonian," is conceded to be due to injury (trauma). This type is characterized by being confined to one-half of the body; either the right side, or the left side. The muscular spasms are more or less severe, but the patient does not lose consciousness. He is a witness to his own spasms. This type of epilepsy is rare.

Etiology: Epilepsy belongs to that group of maladies called neuroses. It is characterized by periodic convulsive paroxysms, due to functional derangements of a reflex nature. Pathologists have sought the cause of epilepsy in post-mortem studies of epileptics, but have not found it, due to the fact that the examination of an organ after death does not show functional derangement and cannot show the reflex irritations that throw the patient into convulsions.

The functional characteristic in all forms of epilepsy is a lack of nervous stability. The man with a normal nervous system is able to perform the functions of life—walking, thinking, eating, digesting, eliminating, etc.—to mingle with people and amicably adjust himself to society. In actual life we meet with all degrees of nervous coordination or balance, ranging from a solid, stable state to one of marked instability—one easily thrown off balance.

In the epileptic we see a nervous system that is very unstable, one that is very sensitive to irritations and is thrown out of balance by things that the normal nervous system easily adjusts itself to or successfully resists. Epileptics are all neurotic. They lack strong central nervous control. When their nerve energy is drawn upon beyond a certain variable limit, they lose coordination and control. The whole motor nervous system becomes "insane."

Epilepsy is said by many to be hereditary, while others claim that only the neurotic diathesis (tendency to nervous "diseases") is hereditary. In view of our present knowledge of heredity, it is probable that both of these views are wrong. It is more probable that the nervous deficiency that constitutes the neurotic diathesis is the outcome of nutritive deficiencies before and after birth. Stable nervous systems cannot be built out of inadequate nutrition and we have enough clinical and experimental evidence to show that certain food deficiencies in the young, growing organism produce impairment and convulsions. Unfortunately, most of the old ideas about hereditary "disease," which were developed before we knew nothing about either hereditary or the

effects of dietary deficiencies, persist in spite of our increased and, increasing knowledge of these subjects.

Convulsions in infants and children with unstable nervous systems are frequently seen. Slight irritations, such as indigestion, a heavy meal, too much exercise, or being chilled, may bring on convulsions in some children. Undoubtedly, these are the children that give us most of our cases of epilepsy.

In all cases of epilepsy, except the few in which injuries to the head have caused depressed fractures and other anatomical defects, there are enough errors of life practiced to account for the "disease" without calling in predestination or election to help explain the pitiable plight of the sufferer.

To develop epilepsy there must first be a very unstable nervous system, one easily thrown out of balance. The individual must, then, & subjected to influences that bring on a pronounced type of enervation—lowered nervous energy. Enervation checks elimination, producing toxemia. This rapidly forces the nervous system into a pronounced state of lost resistance. It is then that it becomes so sensitive that unusual irritations of any nature or a slight increase of an accustomed irritation, may cause a breaking-up of nerve balance, a temporary loss of co-ordinating power.

The epileptic subject may be thrown into convulsions by overeating, improper eating, toothache, earache, or any pain, sexual indulgence, anger, sorrow, joy, overwork or overplay, excitement, adenoids, colds; in fact by any undue nervous strain. One case I cared for was thrown into a violent fit of convulsions by the application of an electric needle to the roots of some superfluous hair on the face.

Once the epileptic habit (reaction pattern, to employ a psychological term) is established, very little more irritation than one is accustomed to in daily life is enough to throw the subject into a fit. Often an unaccustomed harsh sound, a sharp word, or a slight disappointment is enough to overcome the slight resistance and bring on a convulsion.

Emotional over-irritation and lack of emotional control quickly impair the nervous system and these may also precipitate a convulsion. Psychic shock and lack of emotional poise contribute to the production and continuance of practically all so-called "diseases."

Perhaps the commonest cause of epileptic convulsions is poisoning or putrefaction generated by gastro-intestinal decomposition. Too much sugar or meat often cause enough decomposition and poisoning to bring on epileptic convulsions.

The nervous tension produced by gambling, or by bucket-shop operations, is enough to produce epilepsy and, if these things are continued, to prevent recovery. The petty thief, the smuggler, the hypocrite, the juggler of accounts, the liar, and the cheat, all, if subject to epileptic convulsions, pay for their dishonesty by fits.

Prognosis: This is favorable if the case is not based on an incurable organic pathology.

Care of the Patient: That reflex irritations from abscessed teeth, adenoids, ovarian and uterine abscesses and fibroids, phimosis, enlarged prostate, bony growths, eye-strain, etc., may precipitate convulsions has been emphasized above, but these are only local outgrowths of the same nervous impairment and toxemia which form the basic cause of epilepsy; and unless the basic causes of all of these troubles is removed the patient will continue to have epilepsy. Hence, the failure of surgery in epilepsy.

Only by going back of these minor ailments and correcting all of the causes of ill health can we ever hope to succeed in remedying epilepsy. It is necessary to get rid of the enervation and toxemia and to remove all the causes of these. The whole body must be put in a state of health and maintained in this state.

As a matter of physical and mental economy, there must be a general reform in all physical and 'mental habits. The epileptic must stop all abuse of the body and mind. All enervating habits must be discontinued at once and permanently. Doctors who attempt to cure "disease" without correcting enervating habits and who treat patients for "specific diseases," while ignoring a manner of living that makes cure impossible, will never succeed in remedying epilepsy or any other affection in their patients.

It is necessary in all cases to avoid the causes of enervation. Since the cause of epilepsy is often subtle, uncertain and obscure, both the doctor and the patient should attempt to find and remove or correct all and every enervating habit or influence, however insignificant it may appear. The plan of living should be put upon a rigidly economic basis and nerve energy conserved as much as possible.

Sensualism must be controlled. Sex abuse, both mental and physical, must be given up forever. Libertines and masturbators cannot be cured of epilepsy until cured of their wasteful sex habits. Those who constantly excite their sex functions mentally, even if they do not resort to overt sexual acts, will also fail to recover until they have educated themselves out of this bad habit. -

Tobacco, tea, coffee, alcohol and like poisons lower nerve-tone and help to produce and perpetuate epilepsy. Until all poisonous habits are completely abandoned, the sufferer need not expect to recover. Gross eating habits must be broken. Gluttony, irritating foods and condiments and too "rich" foods help to produce enervation and toxemia and are often the causes of the irritation that precipitates a convulsion. The putrefaction and constipation that grow out of gross eating habits are recognized as "causes" of epilepsy.

Since gastro-intestinal derangements are so nearly uniformly precedent to epileptic "seizures," it is folly to look for, good results in these cases without giving due attention to the amount, kind, and combination of food eaten.

Everything capable of producing reflex irritation must be overcome in order to overcome the convulsion habit. This is not to be done by cutting off a tight prepuce, saddling the nose with eye-crutches, removing the gall-bladder, or womb, etc., and by taking cathartics; but by restoring the whole body and all of its parts to good health.

It is often necessary to get away from family influences, for the epileptic who is pampered and indulged and weakened by misdirected sympathy cannot get well. He must learn to stand on his own.

Among the treatments employed by the ancients in the care of epileptics were fasting and prayer. On one occasion, when the disciples of Jesus, wanted to know why they had failed in their effort to cast out the "devil" from an epileptic, he told them "this kind cometh not out save by fasting and prayer." There is nothing of more immediate benefit to the epileptic patient than fasting, while the mental calm often produced by prayer is a great aid to restoration of poise.

Every case of epilepsy should be given a long fast as the surest and most rapid means of freeing the body of excess food and of its toxic overload. This will also quickly remedy nearly all the common sources of reflex irritation. Since the most common source of irritation is the digestive tract, nothing can more speedily benefit these patients than a properly conducted fast.

It has been shown that excess nitrogen (protein) increases the frequency of paroxysms in epilepsy; whereas, an increase in bases (alkaline salts) reduces

them. One egg added to the daily diet of children predisposed to spasmodic affections will give rise to spasms. When the eggs are removed from the diet the child promptly becomes normal.

In all cases of nervous impairment—epilepsy, chronic melancholia, neurasthenia, etc.—"acidosis" arises more quickly and has more powerful effects. It is undoubtedly the weakness and derangement of the nervous system in such cases that permits the earlier development of "acidosis" and that explains why the "acidosis" has such a powerful effect. "Acidosis" is especially likely to precipitate an epileptic paroxysm at night, for then the reaction of the blood is physiologically less strongly alkaline than during the day.

The weakness and derangement of the nervous system in epilepsy renders care in feeding all the more necessary and makes it equally necessary to avoid shock, emotional strain, overstimulation, excesses, extreme exposure, and all other influences that tax or weaken the nervous system.

Finally, if all the enervating and irritating habits and influences enumerated above are not corrected and removed, these will keep up enough irritation, digestive derangement and excretory inhibition to prevent recovery.

It is, of course, true that the longer the causes of epilepsy have been allowed to run, the harder it is to correct. The nervous system may ultimately become so non-resistant to irritation and the habit of convulsive repetition so firmly established, that the slightest irritating influence may unbalance coordination and initiate convulsions. It is wise, therefore, to begin the care of these cases at the very beginning and we have a right to expect better and faster results than years later, when the "disease" is well established. Those are most benefitted by fasting whose mental state is not shattered by the long-continued use of drugs and by psychic shock.

But whether the case is taken early or late, we should not lose sight of the fact that it takes time to overcome toxemia and enervation, and still more time for the nervous system to evolve out of the habit of falling into temporary states of lost co-ordination. How can we expect this to occur during a few days of fasting?

Rest is necessary to restore nervous poise and this cannot be obtained so long as there is any nervous irritation from any source. Emotional over-irritation—worry, anger, jealousy, apprehension, fear, etc.—; poison habits

—tea, coffee, tobacco, alcohol, headache "remedies," constipation "cures," etc.—; excesses—gluttony, sensuality, overwork, overplay, etc.—; and the deficiencies—lack of fresh air, lack of sunshine, indolence, deficient diet, etc.,; all aid in building and maintaining the constitutional derangement that is back of epilepsy. Any program of care that ignores these will inevitably fail.

The patient who returns to gluttony, sensuality, inebriety, gambling, and to his former excesses, and dissipations, after he has been restored to health, will again break down his health and is likely to redevelop epilepsy. There is no cure of "disease" outside of removal of cause and there is no prevention of "disease" save by avoiding its causes.

Herpes Zoster (Shingles)

Definition: This is an acute inflammation of the ganglia of the posterior nerve roots, characterized by more or less intense pain and a vesicular eruption upon a red and inflamed base along the peripheral or cutaneous nerve. It is also called posterior ganglionitis.

Symptoms: Shingles may develop in various parts of the body from the face down to the legs.—The most common site is along the intercostal nerves of the chest, where it is almost always unilateral. Severe complications and organic changes are rare. Clusters of vesicles (blisters) mounted on inflammatory bases, accompanied and preceded by sharp, neuralgic pains, mark the affection. The eruption will not cross the median line either in front or behind. The fluid soon becomes turbid, dries up and forms yellow-brown crusts, which fail off in a few days.

Etiology: It is a reflex irritation; its real cause is poisoning from intestinal putrefaction. It is a common development in fevers—pneumonia, malaria, cerebrospinal meningitis—and in neuritis and neuralgia.

Prognosis: It commonly gets well quickly, though neuralgic pains may persist for some time and its development near the eye may result in permanent damage to this organ.

Care of the Patient: Rest in bed and a fast of sufficient length to result in full elimination should be employed in all cases. Drugs to "relieve" pain should be avoided. After the fast the diet should be fruits and vegetables.

Facial Paralysis

Definition: This is paralysis of one side of the face; called also Bell's palsy.

Symptoms: The affected side is expressionless, the natural lines are obliterated, the angle of the mouth droops, the eye cannot be closed, tears flow over the cheek, and speech is affected from impaired motion of the lips. If laughing or whistling are attempted the absence of movement on the affected side is still more conspicuous.

Etiology: Many cases are due to neuritis resulting from its usual causes; other cases are due to pressure, an inflammatory exudate, upon the nervetrunk between the brain and skull, or from a tumor, or blood clot or abscess involving the facial center; a few cases result from paralysis of the nerve within the temporal bone as a result of a fracture or an extension of Inflammation of the middle ear.

Prognosis: This is guardedly favorable in most cases. The prognosis must depend on the pathology back of it.

Care of the Patient: Remove the cause—that is, correct all causes of enervation and toxemia. Fasting for toxemia will help.

Neuralgia

Definition: A symptom-complex characterized by paroxysms of severe pain occurring along the line of a sensory nerve-trunk, without inflammation or obvious anatomical changes in the nerve.

Symptoms: Seen almost wholly in adults, more often in women than in men, neuralgia may occur in almost any part of the body. It is characterized by sudden, sharp, darting and arresting pains. The pain is relieved by pressure; there are tender spots (points douloureaux) where the nerves emerge from bony canals or muscular coverings. The area supplied by the nerve is usually very sensitive and palpation may locate spots of extreme tenderness at points of exit of the nerve. Inspection of the part usually reveals nothing abnormal, although a slight swelling may be seen in some cases. Herpes occasionally precedes or follows a paroxysm. In some cases reflex spasms of the muscles attend the pain.

The condition is more or less chronic and the pain, which is of a sharp, stabbing character, is often intense. The pain lasts from a few moments to many hours and its subsidence may be accompanied by the passing of a large quantity of pale urine. The interval between paroxysms varies in different individuals; sometimes being several weeks or even months long. The paroxysms often tend to recur at regular intervals.

The most frequent and most important neuralgias, named according to the location of the pain and the special nerves involved, are:

Trifacial Neuralgia, or neuralgia of the fifth nerve, known also as Tic Douloureaux and prosopalgia, is characterized by pain in one or more branches of the trifacial nerve with tender points above and below the eyes, extending well down the cheek and centering, in some cases, at a point immediately above the teeth of the upper jaw. Reflex spasms of the muscles (muscular twitchings) are common. In old chronic cases the hair on the affected side may become coarse and bleached.

The real sufferer from tic douloureax presents a pathetic picture of abject misery and suffering. In the chronic form this trouble often persists for years and may utterly incapacitate the sufferer. Despair and mental apathy are common depressive concomitants and, when the affection has become a fixture, the two form an almost indissoluble union.

Cervico-Occipital Neuralgia involves the upper cervical nerves and is characterized by paroxysmal pain extending down one or both sides of the neck as far as the collar bone and upward to the cheek. A spot of tenderness may be found midway between the mastoid process and the upper cervical vertebrae. Cramps in the muscles, sensitive skin, and, sometimes a surface eruption of vesicles, may accompany this form of neuralgia. Frequently a cracking at the nape of the neck proves very annoying. Cervico-occipital neuralgia may also accompany tuberculosis of the spine.

Cervico-Brachial Neuralgia, involving the lower cervical nerves, presents paroxysmal pain with numbness and weakness radiating down the arm to the hand, across the shoulder to the scapula, sometimes accompanied by a surface eruption of vesicles. Swelling or edema of the arm and later atrophy of certain muscles with pale, dry, harsh, and glossy skin are often seen in long-standing cases.

Dorso-Intercostal Neuralgia, following the course of the intercostal nerves, is characterized by paroxysmal pain that is usually confined to the

fifth and sixth intercostal spaces. This means that the pain is felt between the ribs. It is' frequently associated with "an eruption of herpes zoster. Spots of tenderness may be found near the spinal column, in the axilla and near the sternum.

Lumbo-Abdominal Neuralgia presents paroxysmal pain along the courses of the iliohypogastric and ilioinguinal nerves radiating from the hip to the groin and inner side of the thigh.

Sciatica, though usually a neuritis, may also sometimes be a neuralgia, the pain radiating down the inner side of the thigh and leg.

Etiology: Medical works list heredity as a cause. This is a fallacy that will soon be outgrown. Hereditary "disease" belongs to the days of our grandparents. Modern biology admits of no such thing.

Neuralgia is of toxic origin, sometimes of drug origin—chronic lead poisoning being among its causes. Eye-strain and cavities of the teeth are listed among the reflex irritants that may produce trifacial neuralgia. Nervous degeneration, gout and malaria, listed as causes, are all outgrowths of toxemia, as are other pathologies that are said to cause it. Pressure on the nerves from tumors, misplacements, and from without, help, at least to account for some cases.

Prognosis: Complete and permanent recovery may be expected in practically all cases by persistently following a strict regimen.

Care of the Patient: Weger well sums up the care of the neuralgia patient when he says of trifacial neuralgia: "All but one of the few cases we have been privileged to treat have made permanent and satisfactory recoveries by persistently following the most rigid dietetic regimen for many months. Some cases require a year or two to overcome the toxic cause and the vicious pain habit that frequently persists after the cause is removed. The psychic aspect of some cases that have had as many as fifteen ganglion injections without relief, is a factor that is often underestimated. The power of the will must be enlisted and utilized to overcome, to endure, to ignore, and to minimize the pain consciousness. We have found a rather protracted fast or even several fasts at intervals of a few months absolutely necessary to accomplish a cure. All carbohydrate food must be withheld for several months. Sweets, condiments, and stimulants of all kinds must be absolutely avoided. The diet must be non-irritating in order to avoid reflex excitation from a sensitive gastric or intestinal mucous membrane. Food containing all of the necessary

basic cell salts and vitamins should be given in proper combination. The physical and mental morale must be raised and the patient carefully guided and encouraged. The only failure we have to record was in a patient near the seventieth year who was not capable of understanding or carrying out specific instructions."

Weger has here outlined the care of long-standing chronic cases of trifacial neuralgia. The reader will understand that milder cases, of shorter duration, will not require such long periods for recovery. All "forms" of neuralgia are to be cared for alike.

Simple Neuritis

Definition: This is inflammation of a nerve and, since nerves ramify all parts of the body, neuritis may develop in any part of the organism. The condition is almost wholly confined to the peripheral nerves. As it is often difficult to distinguish between neuritis and neuralgia, thousands who have the latter condition imagine they have neuritis. Simple neuritis is characterized by inflammation of the nerve trunks accompanied by pain, impaired sensation and motion, and atrophy.

Symptoms: Three sets of symptoms are commonly described for acute neuritis, as follow:

Sensory Symptoms: These are severe pain following the course of the inflamed nerve, which is tender upon being touched. The pain is often associated with burning, tingling, numbness, etc. At first the affected part is likely to be very sensitive but later may lose sensation.

Motor Symptoms: These are impairment of muscular power, diminished or lost reflexes and tremors.

Trophic Symptoms: Herpes eruptions sometimes develop along the course of the affected nerve. The skin may become glossy, and the nails lusterless and brittle. In advanced cases the muscles undergo atrophy.

Chronic Neuritis is characterized by pain, loss of, sensation, paresis, wasting and contraction of the muscles, glossy skin, and thickening and brittleness of the nails.

Optic Neuritis is inflammation of the optic nerve and involves chiefly the intra-ocular end of the nerve.

Sciatica is inflammation of the sciatic nerve (sciatic neuritis) and is characterized by sharp, shooting pains running down the back of the thigh. It is almost always unilateral. The pain is constant; it is not so acute as it is tormenting and continuous and of a character to wear the patient out. It may extend from the spine to the foot, even to the toes. The back of the thigh is often the most troublesome of any point in the course of the nerve; apparently because it is being injured more than others from sitting on chairs and benches. Movement of the leg increases the pain. The patient tends to walk on his toes as this relieves the tension. A very short walk will often cause great distress. The pain may be evenly distributed along the course of the nerve, or there may be local spots where it is more intense. Tingling and numbness are often present. The nerve may be extremely sensitive to touch. The symptoms tend to be worse at night and upon the approach of cold or stormy weather. In long standing cases there is likely to be much wasting of the muscles and impairment of locomotion.

It is necessary not to make the mistake of believing that people have neuritis merely because they have pains in the arm, or shoulder, or thigh. Neuritis is really not as common as is generally thought. Pain is produced by many things and to mistake all acute or chronic pains in the limbs for neuritis is to make a great mistake.

Complications: Chronic inflammation may result in so much degeneration of the nerve that paralysis follows. This means loss of sensation, or motion, or both.

Etiology: Toxemia and autointoxication resulting from Impaired secretion and excretion form the basic cause of neuritis. This is the constant that is needed to prepare the groundwork for neuritis and to perpetuate it once it has developed.

Neuritis frequently follows infections, gout, diabetes and injury and may result from pressure upon a nerve by a tumor or a subluxation of the sacroiliac joint. Poisons like alcohol, lead, arsenic, sulphonal, carbon-monoxide, etc., often produce neuritis. It is a frequent aftermath of surgical operations. Dr. Richard C. Cabot says most cases of neuritis are due to alcohol.

Injuries to the nerves—wounds, blows, pressure, etc.—are speedily recovered from if the blood is normal. If toxemia is great, instead of recovery, the inflammation produced by the injury becomes chronic.

Neuritis resulting from injury—wounds, blows, crushes of the arm or leg, operations—and from great strain upon the arm is quite common. Operations are a frequent cause of neuritis. Indeed, such cases are more common than the public is aware of.

Many of the "causes" given in medical works are not causes at all and many of the others are only complicating causes. If injury (trauma) is the cause of neuritis, this "disease" should follow every severe Injury to a nerve. If "infectious diseases" cause neuritis, all cases of such "diseases" should be followed by neuritis. If alcohol causes neuritis, all drinkers should have neuritis. A cause that needs an ally is not a cause. A cause that causes an effect once in a hundred times is not a cause.

Pressure Neuritis is due to pressure upon the nerve by tumors, misplaced parts, or by outside forces. One form of this, called "Saturday night paralysis" is seen in the drunk who sleeps all night on a bench in the park with his arm over the back of the settee and his head on his arm. The alcoholic stupor prevents him from changing positions and relieving the pressure when it becomes uncomfortable, so that when he awakes next morning his arm is paralyzed.

Prognosis: Dr. Cabot says: "The great thing about neuritis is that it gets well and that it is rare and that treatment has very little to do with it." By this statement Dr. Cabot means for us to understand that the treatment has very little to do with the recovery. It does not follow from this, however, that it has very little to do with failure to recover; for, the treatment employed often prolongs and intensifies the "disease."

Care of the Patient: Absolute rest is essential until the acute symptoms subside. Cause must be removed and since the factor of toxic irritation must be reckoned with, toxemia must be eliminated. The elimination of toxemia by fasting produces speedy results. In chronic cases, rest and fasting are equally valuable. Massage, heat, cold, etc., are particularly inclined to aggravate the affected nerve and should be avoided.

It is, of course, necessary to discontinue the use of alcohol and other drugs (and this covers all drugs) that enervate and impair. Nothing will be gained by substituting strychnine or opium for alcohol. It is just as essential to discontinue tobacco and coffee as to drop alcohol. All enervating indulgencies must be corrected.

After the symptoms have subsided, exercise—passive where necessary, active when and as soon as possible—plus proper food and sunbathing will promote nutrition in a manner that massage, heat, electricity and strychnine can never do. Sunbathing is of value during the painful stage, but care must be exercised not to overdo sunbathing, as this Increases the pain and suffering.

Neuromata

Definition: This is a tumor of the nerve made up of nerve substance proper. Sometimes the tumor is a growth from a ganglionic cell. What is called a false nerve tumor is a fibroid development in which the fibrous tissue mixes with the nerve tissue.

Multiple Neuromata are tumors of the terminal nerves or the cutaneous branches of the sensory nerves. They may be associated with tumors of the nerve trunks. They are often seen on the face, breast, or about the joints.

Amputated Neuromata are nerve tumors that develop on the ends of amputated nerves. They cause great suffering.

Etiology: These tumors result from the usual cause of tumors. See Tumors.

Prognosis: Guardedly favorable.

Care of the Patient: Care must be on general principles. Digestion must be improved and energy conserved. All stimulants must be given up.

Paralysis Agitans

Definition: Known also as shaking palsy and Parkinson's "disease," this is a chronic affection of the nerves characterized by a gradually spreading tremor, muscular weakness and rigidity, a peculiar propulsive gait and at times mental impairment.

Symptoms: Rarely the tremors come on abruptly, but more commonly they develop "insidiously." A tremor appears in the hand, usually in the thumb and finger ("pill rolling" movement), or in the foot or chin, and gradually spreads until it involves all the extremities and occasionally the neck and head. At the beginning, the tremor may be paroxysmal, but, as the condition progresses it becomes almost continuous. Excitement increases it, while physical effort

temporarily diminishes or checks it. It ceases during sleep and complete relaxation.

Later the face becomes expressionless (mask-like), and the speech slow and measured, and there is drooling. Muscular rigidity develops, the head is, bowed, the body bent forward, the arms flexed, the thumbs turned into the palms and grasped by the fingers, and the knees are slightly bent.

At this stage the gait is characteristic. The steps, at first slow and shuffling, become progressively quicker and shorter, until the patient is forced to run or come to a stop to prevent falling forward. Occasionally a tendency to fall backward is seen. Rigidity and muscular weakness render all movements slow and stiff. Numbness, tingling and a sensation of heat are often present. Free perspiration is seen in some cases.

Etiology: Paralysis agitans develops more often in men than in women and is rarely seen under forty-five. Heredity is given as a cause. There may be a hereditary neuropathic tendency. Tendencies become affections only under the influence of enervation and toxemia. Years of wrong living are required to produce paralysis agitans. There seems to be no doubt that it is one phase of arterio-sclerosis. Tremors are commonly present as a symptom of great enervation in those in whom arteriosclerosis is well advanced. Exposure to cold, wet, worries and anxieties of all kinds are said to predispose. Cases have been known to follow shock, injury and intense mental and emotional excitement. Doubtless these cases have already evolved to the point where paralysis agitans was imminent.

Prognosis: Weger says: "In the non-traumatic type, excellent results have been obtained in a comparatively short time in most of the cases treated according to our system. When the Parkinson syndrome occurs as a late manifestation of encephalitis lethargica the prognosis is less favorable." Our experience has been that some cases make complete recoveries while others make considerable improvement. Complete recoveries require four to eight months.

Care of the Patient: Often aged men and women with advanced hardening of the arteries and tremor consult the doctor about digestive disturbances, high blood pressure, arthritis, or other affection. The tremor is of minor importance in the list of complaints and disappears quickly when the constitutional background is improved or remedied.

Pronounced cases require longer care. We often see a first fast make the tremors worse and a second fast improve the condition greatly. Three and four fasts are often essential. Prolonged rest is made necessary by the profound enervation of these cases. All stimulation must be avoided and patients must learn to eat barely enough food to keep alive. Disagreeable people, domestic and other worries, irritations, tensions and conflicts of all kinds must be avoided. These patients are often very excitable. All excitement is stimulation and all stimulation produces more enervation. Spinal nerve pressure, as in lordosis or scoliosis, produces some cases and where this is present it should be removed.

Raynaud's "Disease"

Definition: A comparatively rare vasomotor neurosis characterized by local anemia, congestion and symmetrical gangrene.

Symptoms: This affection "begins" in the fingers or toes and tends to become progressive, although recurrent periods of remission of symptoms are common. The affection develops most frequently between the ages of ten and thirty in those of a neurotic tendency. In its first stage the affected part—symmetric parts, as a finger on each hand, a toe on each foot, the lobes of the ears, are usually affected—becomes extremely pale, cold and anesthetic (local syncope). After a variable time the part becomes purple, livid and intensely painful (local asphyxia). Occasionally the third stage develops, in which congestion gives way to dry gangrene. Hemoglobin may appear in the urine. The condition may easily be confused with endarteritis obliterans.

Etiology: "The cause is unknown" is the statement that comes from all sides. "The disease is believed to be dependent upon spasm of the peripheral arterioles of central origin." Spasm is supposed to occlude the blood vessel, thus cutting off nutrition to the part which consequently dies. There is every reason to believe that this affection, is an outgrowth of toxemia. Tilden says: "The disease would have no existence if those afflicted were living properly. It is simply a surface manifestation of toxin poisoning, and, the same as most diseases to which flesh is heir. It originates in the gastro-intestinal canal."

Care of the Patient: Tilden adds: "Hence the intestinal derangement must be righted, first, last, and all the time, by correcting the eating habits and otherwise properly caring for the body." Weger says: "I have been privileged

to treat five or six cases in all of which the diagnosis had been made by well-qualified specialists, whose treatment was unavailing though it conformed to the best in medical practice. Under our supervision all made satisfactory recoveries and remained well. In one case amputation of one leg above the knee had already been resorted to and the condition of the other leg seemed to warrant the same procedure. A period of fasting and dietetic restriction resulted in complete recovery and six years after treatment it was reported that there had been no evidence of return of the disease and the patient still had one good leg. The other cases were also urgently importuned to submit to amputation, but a complete physical renovation made surgery unnecessary in any of them. The obvious conclusion is that these diseases must also be considered as toxemias and if treated accordingly they need no longer be classed in medical literature as incurable and of unknown origin."

It is well to avoid exposure to cold, and, if possible, to spend the winter in the south, until recovery is complete. All nerve-leaks must be stopped and every health-building factor provided.

Traumatic Neurosis

Definition: This is a nervous state resulting from injury.

Symptoms: These follow close upon an accident that has done bodily harm. Headache, insomnia, loss of power to concentrate the mind, irritability, despondency and, in severe cases, melancholia, are the prominent symptoms. All symptoms included under neurasthenia are present in some cases.

Etiology: Inasmuch as this condition does not develop in cases cared for Hygienically, it is the opinion of the whole Hygienic field that too much doctor and drugs—narcotics, analgesics, hypnotics, etc.—constitute the chief cause. Injuries shock and enervate, but the tendency is to recover; where rest is provided and toxemia is not great the shock is soon recovered from.

Care of the Patient: "A patient who has been injured should not be fed until the shock is overcome," says Tilden. "Patients in a state of shock do not digest food. Patients in pain do not digest food. * * * Never feed before the patient is comfortable; until absolute comfort has been established, no food —solid or liquid—should be given beyond a little fruit morning, noon and night."

Rest and relaxation are essential. Hot applications may be placed over the seat of, pain if this seems necessary, but no drugs are to be given.

Functional Nervous Affections

Chorea

<u>Headache</u>

<u>Hysteria (Hypochondriasis)</u>

<u>Insomnia</u>

Migraine

Neurasthenia (Nervous Prostration)

Occupation Neuroses

Nervous Children

Biting The Nails

Enuresis Nocturna

Grinding The Teeth

Infantile Eclampsia (Spasms)

Picking At The Nose

Chorea

Definition: This is a nervous affection, commonly known as St. Vitus dance, which develops largely in those of the neurotic diathesis. Osler tells us that it is often found in "abnormally bright, active-minded children belonging to families with pronounced neurotic taint."

Symptoms: Chorea manifests in all degrees, ranging from mild to severe and even maniacal forms. Jerky, twitching movements, restlessness, inability to keep still, and ungraceful movements in getting about are seen in mild stages.

The severe form is more distressing. The involuntary contractions of its various groups of muscles partially disable the child, which must have some help in attending to itself and its daily tasks. These symptoms are all greatly exaggerated in the maniacal forms and the child requires constant supervision. Pains in the limbs and joints and disturbances of the heart attest to the general impairment of the child's health. Fits of crying, loss of temper,

irritability, and a general lack of mental and physical poise indicate an unbalanced "psychic" life and a profound impairment of the nervous system.

Etiology: Chorea is caused by anything that will use up the child's nervous powers and impair its health. Good general health, based on natural hygiene, is the best protection against chorea. Dr. Bendix says: "Anemic, scrofulous and debilitated children, as well as those who have become weakened by acute or chronic disease and nutritive disturbances, are unquestionably affected by chorea more frequently than those who are robust. Therefore, anemic, chlorotic conditions, exhaustive diseases, rapid growth, improper nourishment, the influence of school and other factors, appear to be favorable media for the development of this affection."

Cases following scarlet fever, diphtheria, measles, etc., must be attributed to the suppressive drugging and the inoculations commonly employed in these conditions.

Chorea develops most frequently from the ages of seven to fifteen although it may develop as early as two years. From seven to fifteen when the "deleterious influence of school-life makes great demand on the youthful organism," it is most common. Night-lessons or "home work" keep children's noses buried forever in their books. There is no time for play; no time to get out-doors. A child, unless he is exceptionally bright, either neglects his home work or else he neglects more important things. The mills of education grind slowly, but they grind exceedingly anemic. The nervous, anemic, mentally and physically stunted products of this senseless process are unfitted for the burdens of life.

Sir Wm. Osler says: "The strain of education, particularly in girls during the third hemidecade, is a most important factor in the etiology of this disease. Bright, intelligent, active-minded girls from the ages of ten to fourteen, ambitious to do well at school, often stimulated in their efforts by teachers and parents, form a large contingent of the cases of chorea in the hospital and private practice. Sturgis has called attention to this school-made chorea as one of the serious evils in our modern method of forced education." * * * "So frequently in children of this class does the attack of chorea date from the worry and strain incident to school examinations that the competition prizes and places should be emphatically forbidden."

This condition is often attributed to tonsillar troubles and "rheumatic" affections. There is nothing to this, however. They are not causes of the

chorea.

Fear, excitement, masturbation, overfeeding, wrong feeding, sugar-excess, lack of rest and sleep, undue fatigue, ghost stories, harsh treatment — "punishment"—all help to bring on nervous derangement.

Prognosis: Recovery is the rule although without proper care there may be recurrences and the child may grow to maturity lacking poise and subject to many functional disturbances of the so-called nervous type.

Care of the Patient: The key to the proper care of these cases lies in the fact that the nervous twitchings and other symptoms are seldom present during sleep. Rest in this, as in all nervous cases, is the great desideratum. The child should be put to bed and kept there until all twitchings and convulsive movements are thoroughly controlled.

Everything that excites or disturbs the child should be excluded from his environment. Noise, bright lights, quarrelsome people, and other disturbing factors should not he permitted in the child's room.

When the child is put to bed, he should also be allowed to fast. No food should be allowed for at least a week. If the child's condition warrants, the fast may be carried further.

A fruit and vegetable diet should follow the fast for a week to ten days, after which, if the nervous symptoms are overcome, and, the child has normal control over its movements, a normal diet, as given in Volume II of this series, may be fed.

Daily exercise, sunshine, fresh air, plenty of rest and sleep, play and outdoor life, proper food, and absence of fear, overexcitement, stimulants, etc., will rapidly restore the child to full health and prevent a recurrence. If the child is of school age, it certainly should not be re-entered in school until it is fully recovered.

Headache

Definition: This is pain or aching in the head. It may result as a reflex from many conditions in the body and is classified as:

Indurative Headache: This is a comparatively rare form, sometimes called rheumatic, and is said to be excited by chilling. It is increased by movements affecting the muscles of the head, and is associated with

tenderness in the scalp and presence of sensitive nodular swellings at points upon the skull corresponding to the insertions of the muscles.

Headache of Cerebral Hyperemia and Cerebral Anemia: Active cerebral congestion is blamed upon prolonged mental work, fever, and exposure to the sun. Passive cerebral congestion results from obstruction to the flow of blood from the brain, as by a tumor of the neck, or heart affection. It is also said to be due to a relaxed condition of the muscles in elderly people.

Cerebral anemia is frequently merely part of general anemia. It is also seen in "neurasthenia" resulting from overwork, prolonged emotional excitement, excesses, etc. Aortic stenosis may also give rise to it. In this form of headache the patient describes his feeling as one of gnawing or of weight. The mind is depressed, there is sometimes fainting, the extremities are cold, the face and eye-grounds are pale, and lowering the head relieves pain.

Headache of Organic Brain Affection: This is headache associated with meningitis, cerebral tumor, abscess, softening of the brain etc. It is distinguished by its persistence and its association with other evidences of organic cerebral pathology such as vertigo, vomiting, optic neuritis, and so-called focal symptoms. How uncertain the diagnosis may be is revealed by a case we cared for in which severe, persistent headache that drugs would not afford even a brief respite from pain, led to a diagnosis of brain tumor and an operation urged. Twenty-four hours without food resulted in the disappearance of all pain.

Hysteric and Neurasthenic Headache: Persistent headache is frequently present in hysteria, which grows worse at the menstrual periods, but which improves under pleasurable excitement. It is frequently localized and described as resembling "driving a nail into the head," but it may be diffuse.

In "neurasthenia" the headache is, as a rule, a dull pain or merely a sensation of fatigue. It is usually in the occipital region but may also be diffuse. Mental and physical effort almost invariably aggravate the ache and it accompanies other "neurasthenic" symptoms such as ready fatigue, backache and disturbances of sleep.

Reflex Headache: Eye-strain, ovarian and uterine affections, gastric irritation, nasal catarrh or sinusitis, etc., give rise to headache. We doubt that eye-strain produces headache.

Toxemic Headache: Uremia resulting from nephritis, often results in headache. Headache may also be due to alcoholism, nicotinism, caffeinism, diabetes, gout, etc. Ultimately all headaches are toxic headaches.

Etiology: In the final analysis all of the above "headaches" are the results of enervation and toxemia based on an unphysiological or unbiological mode of living. Toxemia and indigestion build all the pathologies upon which the headaches rest.

Care of the Patient: There is no cure short of removal of cause. Palliating headaches and leaving cause untouched is folly. All enervating causes must be eliminated from the life of the patient. Rest must be used to restore nerve energy. Fasting will rid the body of its toxic overload. A correct diet and generally correct mode of living will build and maintain good health. Drugs to relieve headache only confirm the headache habit and hinder recovery. Aspirin, for instance, causes worse headache than it relieves.

The cause to be removed in congestive headache is the overstimulating habits, which enervate and favor hyperemia in those who have a tendency to cerebral stasis. This same is true of the varicosities in other parts of the body. All foods and drugs make a congestive headache worse. Hypodermic reliefs in these cases are often followed by a funeral a few days after the "relief" is given.

<u>Hysteria (Hypochondriasis)</u>

Definition: A neurosis, mainly of women, characterized by lack of control over emotions and acts. Like neurasthenia, rheumatism and "syphilis," it is a "catch-all" or "waste-basket" of medicine into which is thrown anything the doctor does not understand. Hypochondriasis is its analogy in the male.

Symptoms: Its nature and complexities are so variable that accurate definition or description is precluded. Weaknesses and lack of control of the will, reason, imagination, and emotions, with both sensory and motor disturbances exist in the same individuals. Real and imaginary body ailments are exaggerated or distorted and magnified to the point of obsessive introspection in both hysteria and hypochondriasis.

Hysteria may occur as a paroxysm, or as a prolonged hysterical state. Its many and complex symptoms may simulate almost any affection. For their most effective demonstrations these patients require an audience, leading to the conclusion that there is a certain amount of wilfulness in their outbreaks. Some of them possess no regard whatever for the fears and anxieties of relatives and friends. Many of them are "astoundingly versatile, acrobatic, vociferous, emotional, eratic, erotic and pestiferous." They exhaust all the resources of nurses, doctors and family while their affection thrives on sympathetic ministrations and their motor and sensory abnormalities and perversions "run the whole gamut of what appears to be pre-meditated and ingenious affection."

Etiology: In women, hysterical outbreaks are frequently associated with the menstrual period, functional crises, or definite pelvic pathologies, and with the menopause. Paroxysms may be precipitated by sexual, digestive, circulatory, or nervous disturbances.

Care of the Patient: One should first make sure that he is dealing with hysteria and not with real pathology masked by hysterical symptoms. Then he should adopt a policy of firmness and frankness with scant sympathy. Call the patient's bluff at once and without apology and refuse to be influenced, subjugated or dominated by the patient.

The doctor should have complete control of the patient, unhampered and uninfluenced by family and friends whose minds are full of visions of pathologies, dire emergencies, and terrible consequences, and who are easily dominated by the perversities of the patient.

Fasting, rest, dietetic regulations, correction of uterine displacements and correcting environmental influences will produce rapid and dependable recovery.

Insomnia

Definition: Inability to sleep: wakefulness.

Symptoms: The inability to sleep is the characteristic symptom. Otherwise the patient may present any nervous symptom seen in any state from a mild neurasthenia to insanity.

Etiology: Wakefulness results from irritation of the nervous system. Pain, worry, anxiety, even the belief that one cannot sleep will prevent sleep. Poisons circulating in the blood such as occurs in cholemia, nephritis, autotoxemia, intestinal toxins, mercurial mania, different drug. habits, etc., will

prevent sleep. Insomnia is seen in most nervous affections. Nervousness from eating beyond digestive capacity, gastric irritation from indigestion, acid stomach, etc., result in wakefulness. Indeed any enervating habit may bring on a nervous state that prevents sleep.

Care of the Patient: Insomnia is a symptom following mental and physical dissipation, and can be eliminated by rest and fasting, but not by drugs. It is not loss of sleep that makes these cases sick; it is sickness that keeps them awake. The causes of their illness must be sought for and removed. All stimulating and enervating practices must be discontinued. Fasting will eliminate toxemia, remove intestinal intoxication and relieve nerve irritation. Rest will restore nerve energy, hence restore efficient function. The more "sleep" inducing drugs these people take, the more confirmed they become in their wakefulness. All such drugs must be avoided. There must be no compromise with this rule.

Migraine

Definition: This is a neurosis characterized by periodic paroxysms of intense headache, usually on one side of the head and frequently accompanied by visual, gastric and vaso-motor disturbances. It is commonly called sick-headache, and bilious headache, and is also known as megrim and hemicrania.

Symptoms: Restlessness, depression and somnolence are common premonitory symptoms. The crisis often begins with flashes of light, colored spectra, dimness of vision and blindness for one half the field of vision in one or both eyes. Severe pain is usually limited to the temporal-frontal region of one side, though it sometimes spreads until it involves the whole head. Nausea and vomiting frequently develop. Pallor of the face, coldness of the extremities, or flushing or sweating are the most common vasomotor disturbances. Less frequently there may be numbness or tingling of one extremity, dizziness, ringing in the ears, transient motor weakness or loss of speech.

Etiology: This is a typical toxic crisis or reaction and no matter what the supposed immediate or exciting cause, the real cause is invariably toxemia. Worry, eye-strain, Intense mental effort or strain, digestive disturbances, uterine or ovarian dysfunction or congestion, anemia,' and excesses are

listed among its "causes." These headaches are produced by coffee, tea, tobacco, alcohol, continued, eating of excesses of starch, badly combined foods, or not enough fruits and vegetables, and all other enervating influences.

Prognosis: Tilden says, "as soon as they are put on the proper treatment the headache will cease, never to return." Weger says:

"Among the many cases of migraine coming under our care, less than five per cent have not been permanently cured."

Care of the Patient: Due to frequent recurrences and the consequent opportunity for observation, the application of the Hygienic theory of etiology—enervation and toxemia—can be more effectively demonstrated in migraine than in those affections of less regular periodicity. Weger says: "every disease-building factor can be checked and demonstrated in any given case so that the whole complex can be laid bare and uncovered to the understanding. The relationship of migraine to menstrual function, to pelvic congestion, to other abnormal states of the reproductive system can be definitely established by careful study. All observations, taken collectively, permit the physician to formulate a regimen of physical and mental activities and a dietary within the needs and capacity of the patient that will result happily in the majority of cases, if not in all. The responsibility of living within definite limitations lies entirely with patients most of whom prefer a life of strict scientific asceticism to the nerve-shattering and pleasure-destroying effect of recurring sick headaches."

He tells us that careful study of cases of migraine in which he did not achieve permanent recovery revealed an irremediable psychic factor that made complete cure impossible. "Some of the more obstinate cases," he says, "present the picture of a habit neurosis in which the sensation of pain persists in traveling over established or eroded nerve paths after the primary cause is removed. In some it is impossible to change the mode of living or the special method of making a living, which may put an unbearable tax upon the nervous system through brain fatigue. In some the underlying cause of continuous enervation and toxemia is an unhappy married life. In others it is a life of disappointments or unfulfilled wishes or desires in those who think that single blessedness is a singular misfortune. The effect of emotional states should not be underestimated."

Everything that causes enervation must be discontinued and failure to remove a single enervating factor may result in failure of recovery. Rest for restoration of normal nerve energy and fasting to remove toxemia should be followed by a health-building regimen. Here is as good a place as any to offer a little criticism of the practices of both Tilden and Weger. They do not sufficiently stress the building of vigorous positive health by the use of the causes of health. They were often inclined to be content with merely removing the causes of pathology.

Neurasthenia (Nervous Prostration)

Definition: A. functional affection of the nervous system characterized by a lack of nervous energy and increased sensitiveness to external impressions used largely as a blanket-term to cover the doctor's ignorance.

Symptoms: These are extremely varied although all cases have certain characteristics in common. It is customary to group symptoms as follows:

Cerebral Symptoms (psychasthenia): These include depression of spirits, inability to concentrate the mind on any subject (except self) for any length of time, insomnia, dizziness, headache, irritability of temper, introspection and various forms of morbid fears—fear of crowds, of closed places, darkness, etc. There is moodiness, critical examination of symptoms, exaggerated pessimism and restlessness.

Spinal Symptoms: Chief among these are pain in the back, tender spots along the spine, weakness of the extremities, marked prostration after moderate exertion, ocular disturbances, unpleasant dreams, and numbness, tingling, formication, neuralgic pains and other subjective phenomena.

Gastro-intestinal Symptoms: Lack of appetite, coated tongue, indigestion with abdominal distress, and constipation are chief among these. There is usually much emaciation.

Circulatory Symptoms: Palpitation of the heart, pseudoangina, cold hands and feet, hot flashes, and sometimes violent pulsations of the abdominal aorta are chief among these.

Sexual Symptoms: In males there is often a genito-urinary obsession and fear of impotence and spermatorrhea; in females painful menstruation or absence of menstruation, with ovarian irritation, fear of mental imbalance and a sense of social inferiority are quite common.

There is almost no end to the symptoms that may be described under this term and patients so suffering make their own lives miserable and are often a sore trial to family, friends and those who care for them.

Etiology: These symptoms are caused by extravagant dissipation of energy in many useless ways and to such a degree that the body's functional activities do not receive their due measure of nervous support. Digestive secretions and all functional activities become impaired, metabolism is deranged, and a vicious cycle of physical and mental reactions "becomes established in chaotic perversity."

Individuals of neurotic tendencies are pushed most readily into this condition by excesses in eating, working, sex, emotional stress, alcohol, tea, coffee, tobacco, gastro-intestinal irritation, pelvic irritations and toxic saturation. Many obscure conditions are often diagnosed neurasthenia because the factor of toxic saturation is not sufficiently considered.

Prognosis: These conditions are usually not quickly overcome, though happy results are usually obtained when toxemia and intestinal autointoxication are eliminated.

Care of the Patient: In the care of these cases it is necessary to frankly and reasonably interpret the condition to the patient in order to secure his or her full cooperation. It is necessary to explain that physical impairments precede the mental depression. These cases are often ridiculed and censured for their troubles, which are assumed to be under direct control of the mind, and this arouses a feeling of resentment and injustice. The neurasthenic refuses to admit the influence, even though it may often be true, and develops a marked state of sullen displeasure. The antagonistic forces thus aroused often render progressive recovery impossible and usually lead to a change of doctors.

Diverting the patient's mind and holding him to interests outside of himself helps him toward recovery and requires a practical understanding and tactful application of the principles of psychology. This calls for the prior establishment of complete confidence. This must be relied upon merely as a helpful adjunct of the real care.

Recovery depends upon the correction of all causes, elimination of toxemia and restoration of full nerve force. Rest and fasting are more important than psychology. All sources of irritation and stimulation must be

removed. These procedures, plus time and the proper use of exercise, sunbaths, diet, etc., and health slowly returns.

Occupation Neuroses

Definition: A form of muscular spasm induced by the frequent and prolonged execution of certain coordinated movements, and occurring only in the performance of work requiring those particular movements.

Symptoms: Several forms of occupation neurosis are seen, these developing among writers, telegraph operators, pianists, typists, and seamstresses. Writer's cramp, or writer's palsy, may be taken as typical. The subject experiences a sense of fatigue or a dull ache in the wrist and hand with a tonic or clonic spasm of the muscles whenever he attempts to write. In some cases there are muscular weakness and tremors. These cases are unlike neuritis in that the subject can execute all other movements involving the same muscles and in that there is an absence of tenderness along the course of the nerve and a lack of muscular atrophy.

Etiology: Occupation neuroses develop chiefly in neurotic individuals as a result of overwork. Doubtless there is exhaustion of the cerebral centers concerned in the execution of the movements, which are affected by the spasm. Such exhaustion is possible only in greatly enervated and, therefore, toxemic subjects.

Prognosis: Recovery is reasonably certain in all cases. Relapses are common due to recurrence of cause.

Care of the Patient: Rest is the most important need in these cases. Not merely rest of the affected parts, but of the whole organism. All causes of enervation must be removed. Writing, sewing, typing, telegraph operating, or whatever the patient has been doing, must be discontinued until complete recovery has occurred.

Nervous Children

Nervousness is quite common in children today. Parents, teachers, nurses, doctors and everyone who has to deal with children know only too well how prevalent is this condition.

The nervous child is irritable and ill-tempered, fretful and capricious. His sleep is likely to be disturbed and unrefreshing. He seldom sleeps soundly. His appetite is capricious, his tongue often coated, and his breath bad. He is usually underweight and does not put on weight no matter what food is given him. On occasions he will be a little feverish and may present extreme lassitude. In the worst cases, enuresis (bed wetting), diarrhea, vomiting and other evidences of physical disorders are present.

These "trivial" ailments may seem to the average person to bear no relation to the nervousness, but they are truly indicative of an underlying systemic derangement that must be attended to at once if more serious developments are to be avoided.

Nervous children are not likely to be well developed and alert. They are more prone to be limp, underdeveloped and listless. Some of them are said to be "on the go" all the time, but this overstimulation does not last. Soon these lack the zest and eagerness that should be the mark of all young life. They bear every evidence of nervous fatigue and physical exhaustion.

The round shoulders, flattened chest, protruding abdomen, exaggerated spinal curves, loose knees, and sallow, pasty complexion all bear evidence that the child is not well nourished.

Dr. Harry Clements says: "In all cases the condition of the alimentary tract will be found abnormal and far from wholesome. In the worst form we may see the condition known as cyclical vomiting. The child is prostrated under the attack. The face has no colour, the lips may be red but dry, and the muscular structure of the body seems utterly relaxed. The breath is foul, and the bowels are either violently diarrheic or badly constipated. The whole picture is that of systemic poisoning, plus a violent reaction of the digestive processes against normal functioning."

Incontinence of the urine, day and night, and incontinence of the feces are seen in extreme cases also.

It should be evident that we are dealing with a condition that requires study and patience, for in a large number of these there enters a hereditary neurotic diathesis, which makes the child's nervous system unstable. Dr. Harry Clements astutely remarks: "It will be obvious that the old-fashioned method of looking at his tongue and prescribing a laxative will neither help the child nor satisfy the parent that the physician has grasped the significance of this problem."

It is necessary to thoroughly study such a child. Its whole life and its heredity must be gone into. Its diet, sleep, social contacts and its studies and mental efforts are all important. Much of the remedy is educational and few parents and physicians are prepared to handle such cases correctly. Indeed parental mismanagement is largely responsible for the condition of the nervous child. The mental overstimulation of children, by our present hothouse method of mis-education, is a large factor in producing nervousness in children. Whipping, scolding, nagging, fault-finding and other such elements in the child's environment, are injurious to the nervous system of a child. Frightening children with scarey stories, bogic men, dogs, etc., and leaving them in dark rooms for something to catch, and locking them in closets, are criminal procedures. Parents guilty of such cruelty deserve severe punishment.

Says Dr. Harry Clements: "The nervous child suffers from his contact with grown-up persons who are forever communicating to him their criticisms, their failures, and their fears. When he reacts with fits of temper, irritability, fretfulness, he meets with reproofs and punishments which he neither respects nor heeds."

The nervous child needs sympathetic understanding, kindness, firmness, and the best of care. Nothing helps such children like a proper diet and outdoor life. Such a child, if his condition is bad, should be removed from school. All criticism, nagging, scolding, whipping, etc. should be abandoned. The genitals should be carefully cleansed and cared for to remove all irritation that may exist in these. Plenty of rest and sleep are required. By all means avoid drugs, serums, tonics, coffee, cocoa, chocolate, operations on the tonsils and adenoids, etc.

Biting The Nails

Biting the nails may be only a habit without reason, but it is most likely to be a symptom of nervousness. Look to the correction of nervousness.

Enuresis Nocturna

Definition: This is bed wetting, or the involuntary emptying of the bladder during sleep.

Symptoms: Wetting the bed and various nervous symptoms are the only symptoms.

Etiology: Neurotic or nervous children are Inclined to the bed-wetting habit when enervated, toxemic and suffering from digestive derangements. Involuntary emptying of the bladder is normal from the day of birth until the child has reached that stage in its development, when it normally assumes voluntary control of this function. Children with nerve impairments will continue to involuntarily void their urine, while asleep, long after they should have complete voluntary control over urination—sometimes for years.

The exciting cause is any enervating influence; overeating, eating between meals, eating stimulating foods, using stimulants of any kind—coffee, tea, cocoa, soda fountain slops, etc. drugs, excessive drinking of milk or water, salt, too much sugar and sweets of all kinds, the excessive use of butter, cream, meat, eggs, cake and pastries, the use of gravies, digestive disturbances, fear, excitement, fatigue, etc.

Fear is one of the greatest dissipators of nerve energy to which children are subject. Parents who rule their children by fear, instead of love and reason, constantly slap and scold their children, pick on them, find fault with them and punish them until they ruin their health. A chronic shrew can keep a home atmosphere so tense and panicky that health for the children and all who live in it takes wings and files away. Children are scarcely over one illness until they are sick again; and, if they are troubled with sensitive neurotic bladders, bed-wetting will be a nightly occurrence. If they are scolded and punished for the enuresis this tends to make the condition worse.

Fear of bed-wetting, the displeasure of parents, and the punishment often administered are enervating and become a cause that perpetuates the habit.

If the neurosis is of the stomach, digestive crises (indigestion) will be frequent. Then, if nursed and cared for badly, an eruptive fever may develop; or, if the throat is the neurotic center, feeding, medicating and foolish nursing may result in diphtheria, even death.

Neurotic children are caused much suffering by school-life. Their fear of not pleasing the teacher is a constant drain on their nervous forces. Faulty lessons are often enough to cause indigestion. Failure at school and criticism at home are sufficient to result in indigestion and fever.

Care of the Patient: These cases should be cared for as advised for the nervous child and every cause of nervousness corrected. An occasional

period of two or three days on fruit with rest in bed will be found very helpful. The amount of fluid given in the evening should be reduced. Dr. Harry Clements writes: "The highly sensitive child who becomes a victim to this distressing complaint may find it difficult to escape from his bonds, and the effects of the injury to his emotional condition may be apparent for years. If the parents of the child happen to be stupid and unkind, he may be abused and brow-beaten until all sensibility is lost and he becomes case-hardened and a real problem. If the parents extend to him more consideration and more hope—particularly more hope—he will grow out of the habit and it will not seem to him so dreadful after all. In many cases the hyper-sensitiveness and self-discouragement of the child stand most solidly in the way of successful treatment. It is only when he has freed himself from the obsession of weakness, and the fear of the act, that the problem is solved. It is not the appeal to force or coercion that cures the child; it is the development of selfcontrol through the realization of dawning boyhood and its responsibilities that lifts the burden from his mind and body."

Grinding The Teeth

This is an indication of nervousness or indigestion. Where the trouble is due to indigestion the child is likely to cry out at night.

When a child continually grinds its teeth during the day and never relaxes its jaws during sleep at night, this symptom results from the profound irritation of the nervous system caused by the never-ending fermentation in the stomach, with absorption of poisonous gases and other products of gastric acidity. Eating between meals, overeating, eating wrong foods, eating wrong combinations of food, and all causes of enervation 'will cause this symptom, which may also be seen in adults.

"Worms," was the diagnosis of our mothers and grandmothers, when this symptom developed. Worms are not cause.

Care of the Patient: The remedy is apparent—correct the diet—feed to avoid decomposition—and all causes of nervousness (enervation).

Infantile Eclampsia (Spasms)

Definition: This is convulsions in children. These are involuntary spasms or contractions of the muscles of the body. We will deal only with convulsions in children, as uremic convulsions, epileptic convulsions, hysteric convulsions, etc., are dealt with elsewhere.

Symptoms: There are few conditions that strike more terror into the heart of parents than to see their child in convulsions. Yet convulsions, are not, of themselves, dangerous and it is a very uncommon thing for a child to die in convulsions. The child may be unhappy and indisposed and appear sick for a day or two; the face may be flushed and white around the mouth, there may be nausea and vomiting, or gagging and efforts at vomiting, there may be high temperature, before the spasm comes on. Some children are threatened with convulsions for several hours before the real spasm develops: in others it comes on suddenly. The child will scream, cling, to its mother in a frightened manner, after which it may quiet down for a minute, then have the same symptoms repeated. Often there is pain in the bowels which are usually bloated with gas, and there may be vomiting. The effort at vomiting causes an excess of blood to rush to the brain and the convulsion ensues immediately.

The child appears excited or frightened, its arms and hands begin to jerk in rapid succession, the jerking usually confined to one hand and arm, the head jerking and twisting to the opposite side of the body, the face is drawn and distorted, the eyes roll or stare, the pupils are dilated and in a few seconds there is a struggle for breath, due to shutting off the air by the spasmodic contractions of the muscles of the throat and chest. As the convulsions continue the child becomes purple (bluish to black) in the face, the tissues about the face become puffed and engorged. After a variable period the intervals between the jerks increase in length, relaxation begins, inhalation is accompanied with a distressing rattling in the throat, which scares the parents, but which is due simply to mucus that accumulated in the throat during the spasm. Sometimes the mucus is bloody due to biting the tongue. The jerking slowly subsides as slow relaxation occurs.

In severe cases a child may be little more than fully relaxed after passing through one of these convulsions, before another sets in, which may be as severe as the first one. The length of time these spasms last varies from a minute to two or three minutes. Infants at the breast have been known to develop a convulsion every twenty minutes for twelve to twenty-four hours. The convulsions in these cases are lighter than that described above.

Etiology: Convulsions occur chiefly in infants and children with unstable and poorly adjusted nervous systems. Slight causes may bring on convulsions in some children. Undoubtedly these are the children that give us most of our cases of epilepsy. Most children never have convulsions, while others may have them at frequent intervals if their nervous systems are irritated from any cause.

Convulsions in infants at the breast come from toxic poisoning from the mother's milk, or from drug poisoning from the same source. Most of these cases occur in the first six months of life, most of them in the first three months, many of them less than three weeks after birth. In older children they are brought on by indigestion, from overeating or improper eating. Vomiting usually frees the stomach of food.

Severe indigestion causing pain in the stomach and bowels, a catarrhal condition of the throat, extending to the ears and mastoid cells, meningitis, severe injury, fear, or sudden fright, shock, unfit milk from a sick, or tired, or excited mother may result in convulsions in infants and children, for the nervous system of a child is very susceptible to irritations.

Care of the Patient: The cause reveals the prevention and the remedy. Breast feeders must be weaned at once. Stop all food and give no drugs. No food should be given until all symptoms have passed for at least twenty-four hours. Put the child to bed, in front of an open window or door and let it alone. Don't disturb it. Keep the child warm.

Convulsions are "self-limited" and, while most parents and friends will insist on some kind of treatment to satisfy their superstition that something be done, treatments are valueless and harmful.

A few years ago I visited a child that I was told was dying. When I reached it, from across the street, I found the child in convulsions. The mother was sitting in a chair, with the child in her arms, tossing it up and down and sobbing: "Oh! my poor child! Oh! my poor child!

I took the child from her, laid it on a table, over which a folded quilt had been hastily spread, and placed it in the open door. Almost immediately the twitching movements began to cease, the eyes, thrown upward, soon returned to their normal position, the head which was thrown back relaxed and the child began to look around. In fifteen minutes the child was asleep.

This child had been given a cup of coffee only an hour previously, the milkman having delayed in delivering the milk. The poor ignorant mother

who made her own breakfast on coffee, as so many ignorant people do, gave this poisonous drug to her baby, also. I attributed the convulsion to the caffeine poisoning.

Picking At The Nose

Picking at the nose is the result of irritation of the nostrils. It is evidence of a catarrhal condition. Correct the catarrh.

Affections of the Muscles

"Charley Horse"

Congenital Amyotonia

Congenital Myotonia

Muscular Dystrophies

Myalgia (Muscular Rheumatism)

Myasthenia Gravis

Muscles constitute the greater part of the total weight of the body and are found in all parts thereof. The muscles are subject to but few affections, but these may develop in any part of the body.

"Charley Horse"

Definition: This is a term applied to injury of a muscle resulting from over-exertion. It is heard of largely among athletes and their trainers.

Symptoms: Action of the muscle may be brought to an abrupt halt by a sharply acute and incapacitating pain and stiffness in the muscle. This is especially likely to happen in those who attempt strenuous exertion to which they are unaccustomed.

Etiology: Strenuous and unaccustomed exertion is the chief cause. The pain also often follows a blow to a strained muscle. Spasms incident to the readjustments within the muscle have caused congestion of blood in the muscle's vessels; these blood vessels are sometimes torn and there is bleeding into the tissue.

Care of the Patient: The usual care is heat, liniments and massage. Heat affords relief from pain, Liniment irritates and injures, massage delays tissue repair. Rest is the one and only need. If health is good, repair will be rapid; if the subject is enervated and toxemic, repair will be delayed. If health is poor, a brief fast will hasten repair.

Congenital Amyotonia

Definition: A congenital muscular deficiency characterized by flaccidity and lack of tone and power in the voluntary muscles, but without absolute paralysis as in atrophy of the muscles. It is also called Oppenheim's "disease."

Symptoms: Muscular weakness and flabbiness and lack of power in the muscles are the characteristic symptoms. The deep reflexes are diminished or lost. Unlike the muscular dystrophies to be later described, it does not "run in families" and there is no wasting of the muscles.

Etiology: This goes back to the nutrition of the mother, as the condition is congenital.

Prognosis: The condition usually disappears as the child grows older.

Care of the Patient: Good general hygiene is all that is required. Exercise, good nutrition and sunbathing are especially important. Babies should be given exercise from the start.

Congenital Myotonia

Definition: Also known as Thomsen's "disease," this is a condition characterized by tonic spasms of the muscles upon every attempt at voluntary movement and is said to be confined to certain families.

Symptoms: In addition to the muscular spasms following effort after a rest period, relaxation of the muscles follows persistence in use of the muscles and this continues while they are in use. The muscles are of average development, but are unduly irritable, quick blows producing contractions that are tetanic in character. The condition develops in childhood and is probably not truly congenital.

Etiology: We have cared for but one case of this kind and as the condition ended while fasting and did not return thereafter, we regard it as being of toxic origin.

Prognosis: It is said to continue through life. This seems to be due to failure to recognize and remove cause.

Care of the Patient: Other than fasting, improved nutrition, exercise and sunbathing are the only requirements. No doubt there is some muscular peculiarity that tends the individual to the development of this condition. Any return to toxemic living may, therefore, reproduce it.

Muscular Dystrophies

Definition: This is an atrophic (wasted) condition of the muscles developing in early life and not dependent upon any lesion in the nervous system.

Symptoms: Three chief varieties are described as follow:

Pseudomuscular hypertrophy begins in childhood between the second and seventh years. Muscular weakness is the first symptom to attract attention. The child is awkward, stumbles, and seeks support in walking. As the condition progresses, the muscles, particularly those of the calf, thigh, and buttock, enlarge. The upper extremities are less often affected. While standing erect the child's feet are wide apart, its belly protrudes, and marked lordosis of the spine is evident. The gait is waddling in character and the child's manner of rising is characteristic. He straightens himself either by grasping his knees, or by resting his hands on the floor in front of him, extending the legs and pushing the body backward.

After a few years the paralysis becomes so great that the subject is unable to leave his bed, and the enlarged muscles undergo atrophy.

Erb's Juvenile Dystrophy: Developing usually between the ages of twelve and sixteen, this form usually starts with the muscles of the shoulder. The muscles may first hypertrophy (enlarge) before they waste (atrophy).

Landouzy—Dejerine Type: Usually developing in early childhood, this form is characterized by atrophy of the facial muscles on both sides of the face. It does not involve the tongue or muscles of swallowing.

Etiology: If you can find any cause In the following statements from medical authorities, you are a genius: "The disease usually manifests itself before puberty. It is more common in males than in females. It is frequently transmitted from generation to generation, and several members of the same family may be similarly affected." These are mere statistical summations.

It is our view that toxemia and malnutrition (perhaps deficiencies) account for these developments.

Prognosis: "The disease is incurable but the progress is slow," say the gods of medicine. Why not? Cause is unknown and no attention given to it.

Care of the Patient: Improved nutrition, graduated exercise, sun-baths and good general hygiene are the only requirements. If health is low, a fast

will relieve the body of its toxic load. Massage and electricity, commonly advised, should be religiously avoided.

Myalgia (Muscular Rheumatism)

Definition: An affection of the voluntary muscles and their faciae, sometimes extending to the periosteum (investing membrane—covering—of the bones), and characterized by pain, which is aggravated by movement. When located in the muscles of the back, it is called lumbago; when in the chest, pleurodynia or intercostal neuralgia; in the neck, wry-neck or torticollis.

Symptoms: The pain varies in degree from a dull ache to an intense cramp. The pain is usually local and constitutional symptoms are slight. There is no fever. Malpositions and even contractures may result from the sufferer's efforts to avoid using the painful muscles. The condition may be either acute or chronic.

Etiology: Weger says: "Muscular rheumatism we classify as a fatigue intoxication." Tilden says: "People who develop it are subject to acetous fermentation in the stomach from eating food potentially acid and low in vitamin." Toxemia, regardless of origin, is present in all cases.

Acute myalgia follows overexertion, chilling and getting wet when the body is overheated—but only in toxemic subjects. Chronic myalgia is seen in neurasthenia, anemia, gout, diabetes, chronic nephritis and arteriosclerosis. Many cases supposed to be chronic lumbago are due to injuries to or malpositions of the spine and sacroiliac joint, strain, arthritis of the spine or to reflex pains from pathology in the pelvis.

Prognosis: This is good.

Care of the Patient: Weger says: "It is rapidly relieved by doing without food for a while, or more slowly but yet effectively, by making proper changes in the eating habits of the patient." Rest is very essential if the pain is great and no food should be given so long as the pain lasts. The sufferer should be kept warm. After the pain has ceased, good general hygiene—proper food, daily exercise, sun-baths, rest and sleep, mental poise and freedom from all enervating habits—will prevent a recurrence.

Myasthenia Gravis

Definition: An affection of the muscles characterized by rapid exhaustion of the muscles upon slight exertion and recovery after a brief rest.

Symptoms: The chief complaint of the sufferer is that he tires rapidly and completely and out of all proportion to his exertion. All the muscles of the body may be affected, but usually only some of them are. Those supplied by the cranial nerves are most frequently involved. One of the first symptoms often observed is a drooping of the upper eyelids. In order to see, the individual is forced to throw his head backward to permit the light to enter the narrow slit below the lid margin. Sometimes the muscles of the jaw are so affected that the act of chewing is so wearisome that food will need to be disgorged to prevent choking—pseudo-bulbar palsy. Or a woman may report that the first sign of the trouble she noticed was so great exhaustion on attempting to fix her hair that she could not complete the job due to inability to raise the arms. Atrophy and degeneration of the muscles are not present.

Etiology: "No one knows the cause of myasthenia gravis," say medical authorities. They think it may be a deficiency state. Toxemia and malnutrition are present in all cases.

Prognosis: "The disease lasts for years, and remissions are common," say medical men. Our own experience with this condition has been very limited, but recoveries were uniform and fairly rapid.

Care of the Patient: The cases we have handled have made rapid improvement on the following program: Fasting and rest to eliminate toxemia, followed by a diet largely of fresh fruits and green vegetables and accompanied by exercise and sunbathing. Massage, electricity, strychnine and other so-called tonics are enervating and valueless.

Affections of the Bones and Joints

Atrophy Of The Bone

Breaks And Fractures Of Bones

Caries Of The Bone

Exostosis

Inflammation Of Bone

Osteomyelitis

Pott's "Disease"

Affections Of The Joints

The bones are subject to a vide variety of affections, but we shall here consider only the most important ones. In those rare varieties not mentioned the same care described here will suffice.

Bones are living functioning tissue and are affected by the same toxic, malnutritional and septic states as the other tissues of the body. The causes of their affections are the same as the causes of the affections of the heart, liver, lungs, muscles, nerves, etc.

Actinomycosis (lumpy jaw), Arthritis Deformans, Osteomalacia, and Rickets are considered elsewhere in this volume. Spinal curvature and bow legs are considered in Volume IV of this series. These conditions will be omitted from the present chapter.

Atrophy Of The Bone

Definition: This is a process of wasting of the bone seen chiefly in aged persons. The condition may be stayed by eliminating toxemia and improving the general nutrition.

Breaks And Fractures Of Bones

These are largely surgical cases and cannot be covered here. Suffice it to say that rest, fasting, proper diet and sunshine will hasten healing in old and young alike.

Caries Of The Bone

Definition: This is death and decay of bone.

Symptoms: The pain is usually deep-seated and intense. There may be swelling of the overlying tissue. In many cases suppuration takes place and the abscess points on the surface. Often particles of bone will be expelled along with the pus.

Etiology: The most common form is seen in caries of the teeth resulting in abscess. Perhaps the next most common form is seen in tuberculosis of the bone. Caries may develop in any of the bones of the body. Dr. Howe produced caries of the skull, ribs, femur, etc., in monkeys by feeding them on a greatly deficient diet. Toxemia, septic infection and nutritive deficiencies cause caries in the teeth or elsewhere.

Care of the Patient: The elimination of toxemia by physical and physiological rest, followed by a diet of fresh fruits and green vegetables and regular sunbathing will restore bone health in all early cases.

Exostosis

Definition: This is an abnormal bony growth (a tumor) from the surface of a bone.

Unless located where it interferes with the function of the part, by being pressed upon, it presents no symptoms. It is probably induced by prolonged local irritation. Surgical removal is probably the only way to get rid of such growths.

Inflammation Of Bone

Due to the hardness and density of the bone structure, swelling of the bone cannot take place, but bone inflammation is similar in all other respects to inflammation in the soft structures of the body. The blood supply to the bones is more readily cut off resulting more easily in necrosis or death of the tissue.

Myelitis is inflammation in the medullary cavity of a long bone.

Osteitis is inflammation of the bone structure.

Periostitis is inflammation of the membrane (periosteum) covering the bone.

Symptoms: It is characterized by deep-seated and intense pain. There may or may not be fever and other constitutional symptoms.

Other symptoms will be in keeping with the nature of the trouble.

Etiology: Injury and infection (sepsis) are the chief causes.

Care of the Patient: Rest, fasting, fruit and vegetable diet and sunbathing are the needs.

Osteomyelitis

Definition: This is inflammation of the bone marrow or of the bone and marrow. Several forms are described as Garre's osteomyelitis, hemorrhagic osteomyelitis, hunger osteomyelitis, malignant osteomyelitis, osteomyelitis variolosa, and tubercular osteomyelitis. We shall deal only with the tubercular form, as the others are extremely rare.

Symptoms: Tubercular osteomyelitis first manifests itself by extreme pain, then by wasting or atrophy of the muscles above and below the seat of the inflammation. There is often spasm aid rigidity of the muscles. Suppuration occurs with the formation of sinuses through which the pus drains. The bones adjacent to the joints of the hip (hip joint "disease"), knee, ankle, elbow and wrist are most commonly affected. Ankylosis and deformity frequently result. The constitutional symptoms of tuberculosis are present.

Prognosis: This is guardedly favorable in early cases.

Care of the Patient: Care for as directed under tuberculosis.

Sunbathing is decidedly beneficial in these cases and often means the difference between life and death.

Pott's "Disease"

Definition: This is caries of the spinal column; it is usually tubercular.

Symptoms: It is characterized by softening and degeneration of the bony tissue of the spinal column. The vertebrae fails to support the weight above them and great deformity results. In its advanced stages the deformity will indicate the affection; but in its early stages tenderness upon pressure and a general sense of weakness are its chief symptoms. Due to the disinclination

to use the muscles of the back a peculiar rigidity of the back develops. The patient will prefer to turn the entire body rather than turn the head in looking around. He will bend at the knees and hips and hold the back rigid in picking up objects. A sense of constriction about the chest and stomach is often present. Pus may form around the affected part and, sinking by gravity to lower parts, be discharged as a "cold abscess."

This condition begins as osteitis and as the vertebra become soft and vascular; the bone corpuscles undergoing fatty degeneration, they waste away even to the point of liquification. The extent of the ensuing deformity is determined by the vertebra affected. The spine above the affected part sinks down, the body is bent forward and the spinous processes project backward. The deformity is more marked when the affection is in the dorsal region of the spine.

Etiology: This condition is more common among undernourished children of the poor and among children who have or have had rickets. Malnutrition breaks down the resistance of the bones; chronic sepsis results in infection of these. The condition is rarely seen in adults and is attributed to "syphilis." It is here due also to septic poisoning.

Prognosis: As regards life this is favorable. There will almost always be some deformity.

Care of the Patient: The spine should be fixed so that perfect rest is secured. The same care described for tuberculosis should be given. Sunbaths are especially beneficial in this condition.

Affections Of The Joints

Ankylosis
Bursitis
Cracking Of The Joints
Synovitis

Ankylosis

Definition: True ankylosis is immobility and consolidation of a movable joint due to the union of the parts by the formation of bone in the joint. False ankylosis is stiffness and rigidity of the joint produced by rigidity of the parts

outside the joints (extracapsular ankylosis); or from rigidity of structures within the joints (intracapsular ankylosis) or by rigidity of the surrounding parts. We are here concerned with true ankylosis.

Symptoms: Rigidity of the joint is the only symptom of ankylosis. An X-ray will show that the bones forming the joint have grown together making one bone of the two.

Etiology: A few cases result from injury, but most cases are due to the destruction of the structures in the joint by inflammatory processes, as in tuberculosis of the joint and rheumatic arthritis.

Care of the Patient: Nothing can be done for true ankylosis. It should be prevented. False ankylosis may be overcome by detoxication and by manipulation of the joint.

Bursitis

Definition: This is inflammation of the bursal sacs between joints or other parts that move against each other.

Symptoms: Often deep-seated pain, dull, nagging, or sharp and severe, is the only symptom. The pain is in the joint and is made worse by movement.

Etiology: It is often caused by strains. In such cases, if there is no toxemia, healing is rapid. The chief cause is toxemia.

Care of the Patient: Rest and toxin elimination is the only care needed.

Cracking Of The Joints

If no pain or inflammation accompanies this symptom it should be no cause for alarm. It commonly results from a lack of synovial fluid, a lubricating fluid secreted to "oil" the joints and make them work smoothly. It is chiefly a matter of nutrition and circulation and will disappear with improvement of the general health.

Synovitis

Definition: This is inflammation of the synovial membrane, a serous membrane which covers the articular extremities and the ligaments entering into the formation of joints.

Simple inflammation of the synovial membrane may follow a bruise or injury. In this form there is swelling, pain and an effusion of serum into the joint.

Dry synovitis presents pain, perhaps swelling, but no effusion of serum. In this form ankylosis of the bones may follow rapidly.

Purulent synovitis follows simple synovitis when the effusion increases gradually and changes to a most purulent character. Pus will be discharged from the joint in this form.

Gouty synovitis is seen in gouty or rheumatic subjects.

Gonorrheal synovitis is claimed to follow as a complication of gonorrhea. Since it never develops under hygienic care, perhaps it were better named Medical Synovitis.

Care of the Patient: Rest of the affected joint is most important. Movement increases the pain and aggravates the inflammation. Fasting is very important in all save those cases due to injury or bruises and should be employed in these if the pain is great.

Affections of the Eyes

Blindness

Cataract

Congestion Of The Conjunctiva

Conjunctivitis—Catarrhal

Conjunctivitis—Granular

Conjunctivitis—Purulent

Detachment Of The Retina

Eye Headaches

Glaucoma

Iritis

Keratitis

Optic Atrophy

Optic Neuritis (Papillitis)

<u>Retinitis</u>

Retinitis Pigmentosa

<u>Stye</u>

Trembling Of The Eyelids

Ulcers Of The Cornea

Those defects of vision, usually functional, called "errors of refraction"—short sight, long sight, etc.—due to inability of the eye as a whole to accommodate itself to the instinctive physiological act of seeing, are discussed in Volume I of this series. At this place we shall confine ourselves to a consideration of pathology of the structures of the eyes.

It is desirable to impress upon the reader the fact that the eyes are integral parts of the body and not, as commonly implied, independent isonomies without vital connection with the rest of the body, and share in any deterioration of the general integrity. Not to the eye itself, but the general state of the body—to enervation and toxemia—must we look for the cause of pathological states of the structures of the eyes.

Blindness

Definition: This is partial or complete inability to see. This inability to see constitutes the characteristic symptom. Various structural changes in the eyes are often apparent.

Etiology: Immediately, blindness results from changes in the eye: its lens, retina, or other parts that prevent vision. Cataract, destruction of the cornea, optic atrophy, glaucoma, tumor, brain pathology, etc., are the usual causes. These pathologies depend upon the general causes of pathology in the body. Temporary blindness may be seen in shock, hysteria, optic neuritis, etc., that may be quickly recovered from.

Prognosis: In all save cases of temporary functional blindness the outlook is not favorable. Only an occasional case may recover vision.

Care of the Patient: All causes of ill-health must be removed and the general health built up. A few cases of blindness of long standing have recovered good sight during a long fast.

Cataract

Definition: This is an opacity of the lens of the eye. Several forms are described.

Symptoms: The cataract cannot be seen except with the ophthalmoscope. It commonly begins at the outer border of the lens and slowly creeps over the whole lens resulting in gradually failing vision of the affected eye. The pupil gradually changes to a white or grayish color. The development may progress for years and both eyes are generally involved though it commonly begins in one eye. Blindness always results if the condition is allowed to persist.

Etiology: The "authorities" seem to be unable to agree on its cause. It rarely develops in children and is most common after fifty. It sometimes develops as a complication of diabetes. Eye strain is often said to predispose. It is our opinion, that it is the result of toxemia. In the cases we have handled there has been history of long-standing indigestion with much poisoning from the digestive tract.

Prognosis: In early cases this is good. In advanced cases where blindness exists it is not favorable. We had one case of blindness of one eye to recover so completely during a fast of eighteen days, that the patient was able to read a newspaper with the unaided eyes. The knife offers, perhaps, the only hope in advanced cases.

Care of the Patient: The elimination of toxemia is vital. To this end a long fast is essential. All causes of enervation must be corrected and feeding must be of a nature to assure good digestion. Sun-light, carefully used, as described in Volume I of this series, has proven helpful. It is claimed by the followers of Bates that palming and other measures to improve vision help to remove cataract.

Congestion Of The Conjunctiva

Definition: This is congestion of the delicate membrane which lines the lids and covers the eyeballs.

Symptoms: Redness ("blood-shot") of the eyeballs and lids, smarting or burning, blurred vision, and a mattery discharge are the chief symptoms. There may be a flow of tears.

Etiology: It often results from exposure of the eyes to smoke or strong winds or other locally irritating influence. It is seen after dissipation or much drinking of alcohol. It is almost always present in measles, scarlet fever and small pox. It is, except where due to local irritation, an expression of systemic toxemia.

Prognosis: This is good.

Care of the Patient: The eyes should be kept clean by thorough washing with warm water. They should be allowed to rest. Other than this, hygienic measures for cleansing the body—fasting, followed by a natural diet—is all that is required.

Conjunctivitis—Catarrhal

Definition: Commonly called "sore eyes," this is a catarrhal inflammation of the lining membranes of the lids and the globe of the eyes. It may be either acute or chronic.

Symptoms: It begins with dryness and smarting of the eyes, as though there is something in the eyes. Swelling of the lids follows and then there comes an abundant secretion of water, then mucus, and lastly, muco-pus. Feeding and drugging increase the suffering and prolong the trouble.

Etiology: Enervation and toxemia build a catarrhal state of the body which finally involves the mucous surfaces of the eyes. Excesses of sugar,

syrup, candy, bread, cereal, etc., are the chief causes of this catarrhal condition, which frequently becomes chronic, due to chronic provocation.

Care of the Patient: Stop all food until the inflammation subsides. Keep the eyes cleansed with warm water; use no salt, soap, boric acid, or other antiseptic. After the inflammation has subsided, put the child on a fruit diet until all symptoms of the trouble have cleared up. Feed properly thereafter.

Chronic conjunctivitis should be cared for in much the same manner, but it will usually require longer time. Repeated short fasts with a rigid diet between these will finally remedy the trouble.

Conjunctivitis—Granular

Definition: This is the dread trachoma of which we hear so much as an affliction of the Indians. It is an aggravated form of the simple catarrhal conjunctivitis previously described. It is also called granulated lids.

Symptoms: Severe inflammation of the membrane of the eyes, which is covered with numerous nodules, is the principal characteristic. The inner surface of the lids often become thickened and rough (perhaps as much from the abusive treatment commonly employed, as from anything) like sandpaper, and, by constant friction, Impairs the transparency of the cornea, often leading to blindness. The above symptoms are merely added to those described under catarrhal conjunctivitis.

Etiology: It is said to be very contagious; but this belongs with other myths, like werewolves, hobgoblins and mad dogs. It is the result of toxemia complicated with sepsis from the intestines. Among the Indians it develops only in those who live on white bread, molasses, salt bacon, coffee and firewater with a lack of fruits and vegetables in their diet.

Care of the Patient: Rest and strict cleanliness of the eyes are of greatest importance. Warm water is sufficient for cleanliness. Antiseptic solutions do more harm than good. A fast of sufficient duration to end the inflammation and free the body of toxins is very essential. Careful feeding to avoid indigestion, with an abundance of fruits and vegetables and general or constitutional health measures, are essential.

Conjunctivitis—Purulent

Definition: This is a purulent conjunctivitis of the new-born; ophthalmia neonatorum.

Symptoms: The symptoms are usually less violent and progress less rapidly than in purulent ophthalmia of adults. A few days (two to five), or a week, after birth the eyelids become slightly red and swollen, with a purulent secretion. The swelling of the eyelids increases, the conjunctiva becomes greatly infiltrated, swollen, and roughened, the secretion becomes thickened and of a yellow or green color. The "disease" is self-limited and runs its acute course in four to six days, after which time there is a longer period of mild trouble.

The cornea soon becomes affected. If the affection of the cornea should result in a scar over the pupil, blindness may result. Even if it is but a small scar there may be a serious impairment of sight.

Etiology: Purulent conjunctivitis is the result of septic infection of the eyes at birth. It is caused by the eyes of the child coming in contact with the "diseased" vaginal secretion of the mother as the child is passing out of the mother's body. Its symptoms are less violent than purulent conjunctivitis of adults and the consequences are less severe.

Gonorrhea and purulent endometritis (inflammation of the lining of the womb) are considered the chief sources of infection. Someday it will be recognized that a leucorrhea which does not drain well, or which is bound on the mother by pads, will generate enough putrescence to infect the eye or eyes of the infant. Indeed, Gould and Pyle say: "severe cases have been caused by the secretions of non-specific vaginitis." A clean mother cannot infect her child. An unclean mother, who thoroughly douches her vagina immediately before or during, labor greatly reduces the likelihood of infection.

The present-day practice of physicians and nurses of rupturing the "bagof-water," as soon as the os uteri is distended, robs the child of part of its natural insulation during passage and, undoubtedly, increases the likelihood of infection. Dry births act in a similar manner.

Tilden says: "The average mother thinks she must eat for two during her gestation period. This unnecessary stuffing enervates her nervous system, causing defective elimination, and a pronounced state of autotoxemia. Her secretions are excessive and abnormal in quality. These mothers have a very acid leucorrhea, which, if it finds its way into the child's eyes, will cause

inflammation, then add to this misfortune careless or unskilled nursing and heroic medication and we have a combination of causes that will probably end in blindness."

Complications and Sequelae: Blenorrhea (a purulent discharge from the eyes) and blindness are the chief complications. Blenorrhea is a common aftermath of medically treated cases. The danger of blindness is reduced to almost nil by proper care from the start. Dr. Trall says: "the common lotions and potions, washes and swashes, are very apt to aggravate the disorder, deform the eyelids, or destroy the sight."

Prognosis: Proper care from the outset will result in speedy recovery in all cases.

Prevention: Health, cleanliness—these two words sum up the whole of the work of preventing the condition. The pregnant mother should give more attention to her own health and cleanliness than most of them are willing to devote to these. A clean, healthy mother cannot possibly infect her child. We are frequently told that if we give prospective mothers the necessary knowledge, their mother instincts will prompt, them to live, eat and care for themselves in a way to insure the highest welfare of their unborn child. This is only partially true. A woman does not lose her love of pleasure, indulgence and indolence and greatly add to her self-control when she becomes pregnant. She is still inclined to follow lines of least resistance.

Cleanliness of the child's eyes is important. It is unfortunate that mothers and nurses do not know how to thoroughly and properly cleanse a child's eyes. The poor job that most of them do is lamentable. Nurses are trained to sterilize and not to cleanse the eyes. Tilden declares that: "If the eyes are kept clean—not pretty nearly clean—there will be no excuse for carrying out the medical superstition of medicating the eyes of every new born infant with argyrol, to prevent the possibility of ophthalmia neonatorum—gonorrheal inflammation of the eyes—developing; a sort of left-handed compliment that all mothers have gonorrhea. Gonorrhea is a disease of filth, and will end when the human family learns the art of keeping clean (not near clean)."

He says: "In these days of much medical delusion we hear that children should have a weak solution of nitrate of silver dropped into their eyes as soon as they are born, to prevent ophthalmia neonatorum—a venereal inflammation of the eyes of newborn babies. Doctors who gain their experience from free clinics, hospitals, and slum practice become deluded

with the idea that all mankind are tainted with venereal diseases. Their delusion should not be taken seriously.

"There may be a little danger of this infection in the slums, but the danger is nil among the representative, better class of poor as well as among the well-to-do of this country."

The eyes should be carefully cleansed with warm, water, using pledgets of absorbent cotton instead of the usual wash-cloth. Eyes, mouth, anus and genitalia should not be washed with a cloth; for, the secretions and excretions from the eyes, nose and mouth of infants should be removed with absorbent cotton and not with the handkerchief. Parents should learn to cleanse the eyes of a child and not trust a careless or inefficient nurse.

There should never he any trouble with the eyes of infants except for the careless use of wash-cloths by mothers and nurses. Tilden says: "Few if any mothers know how thoroughly to wash a child. When they learn how, there will be fewer blind, deaf, and catarrhal. Skin diseases will disappear if personal liberty ceases to be abrogated by manufacturers of vaccine and serum through their henchmen, the vaccinators, and such diseases as infantile paralysis, meningitis, epilepsy, and rheumatism will be heard of no more." Again, "Cleanliness is more far-reaching than prayer under such circumstances." The mother who will neglect her child in every way except prayer will probably send her child to heaven very early."

Care of the Patient: Prompt and persistent action is necessary in order to prevent infection or possible ulceration of the eyes. Cleanliness is the great desideratum. The swelling of the eyelids closes the eyes, the secretion glues the lids together and drainage is prevented. Herein is the real element of danger.

The eye lids must be opened and the eyes thoroughly and completely cleansed every two hours, day and night. The discharge must not be permitted to become pent-up and septic. Drainage is absolutely essential if the eyes are to be saved.

The application of ice to the inflamed lids and eyes has the following distinct disadvantages: It suppresses the inflammatory process, reduces the number of white corpuscles, devitalizes the tissues, reduces resistance to infection and perhaps, also, impairs the antiseptic secretions. The application of the ice pack, by suppressing the inflammation reestablishes drainage and

makes it easy to cleanse the eyes. As drainage and cleanliness are the factors most needed, this constitutes a distinct benefit.

In each case, therefore, the practitioner must carefully weigh the disadvantages and the advantages of the ice pack and decide the procedure in each case individually. Where the inflammation is not great enough to materially interfere with drainage, the ice pack should certainly be avoided. Where drainage is absent, the ice pack becomes the lesser of two evils and should be chosen. It should be understood, however, as suppression and the after-care carefully, provided for.

Thin pledgets of cotton are placed over the eyes (over the affected eye if only one is infected) and so arranged that no weight rests on the eye. Small pieces of ice are placed on the cotton and renewed when necessary. This should not be carried further than is essential to insure drainage and perfect cleanliness.

Dr. Trall said: "the eyes should be bathed several times a day in moderately tepid water at first, and finally as cold as may be found consistent with comfortable sensations after the application."

Thorough washing with plain warm water is enough. Trall and others who lived before the germ theory produced the present insanity, cleansed the eyes of these cases with plain water and enjoyed a remarkable success. The water did not injure the eyes, while, unlike the present antiseptic practice, germs never become adapted to cleanliness as they do to antiseptics: I say germs, because I find doctors of all schools accepting the germ theory and living in constant dread of their activities.

Tilden wrote: "The vandalism practiced on the human eye forty to fifty years ago by oculists in their use of nitrate of silver to control ophthalmic diseases was appalling. 'I have seen the sclerotic coat of the eye indelibly colored from the use of this drug, and near-blindness to total blindness brought on from scar tissue caused by its cauterizing effects."—**Stuffed Club**, May 1912.

Cleanliness is the great need. The secretions must not be permitted to become pent-up and force absorption after they have become septic. An aseptic condition must be maintained, as far as possible, until recovery is complete. This is all there is to be done. Nature alone does the healing. Vigilance should not be relaxed at any time. Where but one eye of the child is affected every precaution should be used to prevent the infection from

reaching the other eye, and to prevent it from reaching the nose and mouth. The child's hands must not be permitted to rub its eyes and then be carried to its mouth.

Attendants should use every precaution not to infect their own eyes, or the eyes of others. Strict cleanliness on their own account should be the rule.

Detachment Of The Retina

Definition: This is a tearing away of the eyeball from the retina.

Symptoms: The condition can be diagnosed only by means of the opthalmoscope. It may be preceded by years of near-sightedness. It always makes near-sightedness worse and eventually results in blindness.

Etiology: The most plausible theory of cause is that the stretching of the eyeball, produced by an excessive accumulation of fluid in the eye, detaches the retina. The overstretching of the membranes under the force of the increased fluid-pressure results in weakening and wasting of these membranes. Toxemia and malnutrition are back of the increased intra-ocular fluid. Detachment of the retina often follows operative removal of cataract.

Care of the Patient: The condition should be prevented by proper living. Perhaps little can be done after the retina has become detached.

Eye Headaches

Eye-strain causes headache! We know that many thousands have been fitted with glasses to cure them of headaches and many of them find comfort so long as they wear the glasses. They find that their headache returns when they lay their glasses aside. Such a remedy is mere, palliation and does not touch the real cause of the headache.

Too much attention is given to supposed defective anatomism in dealing with the eyes and not enough to the causes of impaired function. The animal (human) body physiologically adjusts itself to all kinds of anatomical deformities and, when in full health, does this with little or no strain.

Enervation, toxemia and perverted metabolism are the causes of the discomforts credited to eye-strain. In caring for "eye-strain" it is significant that when toxemia is removed, the headache is gone. Correct the habits of life

which derange metabolism, discard eye-glasses, and there will not be much eye-strain left.

Glaucoma

Definition: An excessive pressure within the eye causing hardness of the eyes and blindness. One or both eyes may be affected.

Symptoms: This condition may be preceded by weeks or months of pain in the eyeballs, especially early in the morning. One of the first symptoms of the early stage of the condition is the appearance of halos or colored rings around distant objects, when seen at night. The iris is usually pushed forward, there is constant pain in the brow, the temple, the cheek or other parts near the eye and the eyeball becomes hard to the touch instead of soft, and resilient, as in the normal state. Vision is gradually impaired and ultimate blindness ensues if the condition is not corrected.

Etiology: The hardness of the eyeball, pain and impaired vision result from the presence of an excess of fluid In the eye, either from an excess secretion or from obstructed drainage. While eye-strain and poor lighting are given as causes, the basic cause of glaucoma goes back much deeper than this. It grows out of a highly toxic condition of the body. Accumulation of excess fluid in the eyes has the same cause as similar accumulations in other organs and tissues of the body.

Prognosis: This is good in the early stages but if proper care is neglected constant pressure on the retina results in atrophy and blindness.

Care of the Patient: It is necessary to say that advanced cases may be beyond recovery, but in early stages the condition should respond readily to hygienic care. Indeed the only failure we have to record was in that of an advanced case that had an operation for the condition before coming to us.

Nothing is more immediately effective in these cases than fasting. We have seen normal vision restored in two to three weeks in cases that were practically blind. Fasting not only helps to remove the underlying toxic condition, but it speeds up the absorption of the fluid in the eye.

Rest and good general hygiene should accompany the fast. After the fast, a diet of fruits and vegetables should be followed long enough for the restoration of full health.

Even in hopeless cases the above program may be used to build up the general health and prevent further damage.

Iritis

Definition: Inflammation of the iris or colored portion of the eye.

Symptoms: Iritis is a very painful affection accompanied by redness of the eye, severe headaches and often some fever. The pain is often intense. Light striking the inflamed eye causes great suffering, causing a dread of light.

Etiology: It grows out of a general toxic state.

Prognosis: Under regular care, with its suppressive treatment and its ignoring of cause, the condition sometimes lasts for months and sometimes leaves behind permanent damage to sight. Indeed, neglect of the condition may result in total blindness.

Care of the Patient: Fasting and rest are the essential measures for elimination of the underlying toxemia. The eyes are very sensitive to light and should be protected from this so long as there is inflammation. They should be cleansed three or four times daily with warm water.

Keratitis

Definition: Inflammation of the cornea. Several forms are described depending on whether blebs, pustules or papules form on the cornea, or whether the whole cornea is involved, or whether there is pus, hardening or trachoma, or whether it follows injury or follows inflammation of the trifacial nerve.

Symptoms: Redness ("blood-shot") of the white portion of the eye, tearing, pain, sensitiveness to light, often purulent discharge from the eyes, are the chief symptoms. Vision may and may not be blurred. The external transparent membrane becomes slightly cloudy. Grave danger to vision exists if the discharge becomes purulent.

Etiology: This condition grows out of a highly toxic state of the body. Eye-strain and injury are predisposing factors.

Care of the Patient: Care for as directed under iritis.

Optic Atrophy

Definition: This is atrophy or wasting of the optic nerve.

Symptoms: Optic atrophy can be diagnosed only by the aid of the ophthalmoscope. It is not always preceded by pain in the eye. There is a gradual failing of vision with ultimate complete blindness.

Etiology: So-called primary optic atrophy is seen in locomotor ataxia and paretic dementia. Secondary atrophy results from pressure of tumors, aneurysms, etc., on the optic chasm. What is called consecutive atrophy is a sequel of optic neuritis. Primary and consecutive neuritis are due to the usual causes of nervous degeneration. Quinine and arsenic are potent causes of optic atrophy and blindness.

Care of the Patient: Nothing can be done for advanced atrophy. The process may be arrested in its early stages if proper measures are employed. The use of quinine and arsenic must be discontinued and all stimulants must be given up. Fasting is essential to eliminate toxemia and rest will be necessary to restoration of nerve energy. All abuse of the eyes must be discontinued. Glasses and local treatment will not help.

Optic Neuritis (Papillitis)

Definition: This is inflammation of the intra-ocular (within the eye) end of the optic nerve. If it is accompanied with marked swelling the term "choked disk" is employed to designate it.

Symptoms: Severe pain in the eye, which radiates up through the forehead and often even down to the back side, accompanied by more or less swelling, are the characteristic symptoms.

Etiology: It is due to the usual causes of neuritis—pressure, toxemia, and poisoning (lead and alcohol). It is seen in tumor of the brain, nephritis, anemia, cerebral meningitis and in "infectious fevers."

Care of the Patient: See Neuritis.

Retinitis

Definition: Inflammation of the retina.

Retinitis is a neuritis and presents about the same symptoms as optic neuritis. Its causes are the same. The care of the patient should be the same as that given for neuritis.

Retinitis Pigmentosa

Definition: This is a hardening of the retina with pigmentation and atrophy.

Symptoms: Gradually failing sight may be the only symptom. It is considered a hopelessly blinding affection and accounts for thousands of cases of blindness yearly. It can be diagnosed only by means of the ophthalmoscope.

Etiology: It is due to the usual causes of sclerosis of tissue—toxemia, intoxication, and drug poisoning. Abuse of the visual function may predispose. A theory has recently arisen that it is caused by a lack of carotene in the diet.

Care of the Patient: This must be constitutional. A fast followed by a diet of fruits and vegetables are essential. Local care is of no value.

Stye

Definition: This is a small, painful pimple or boil on the eyelid, or inflammation of the connective tissue of the lid near a hair follicle.

Etiology: It grows out of the local and systemic conditions which cause boils, which see.

Care of the Patient: They heal in three or four days without attention. Sometimes several develop in succession. General hygienic care of the body soon puts an end to them.

Trembling Of The Eyelids

This is a trembling motion of the eyelids often seen in children afflicted with conjunctivitis. The trembling is of nervous origin and often becomes spasmodic. Its causes are systemic and it disappears when the general health is improved.

Ulcers Of The Cornea

Ulcers often appear upon the cornea and cause considerable suffering. Like ulcers elsewhere in the body they follow inflammation and are due to toxemia and septic absorption. These should be cared for as directed under iritis. Cleanliness is doubly important.

Affections of the Ears

<u>Auditory Polypi</u>

Deafness

Otitis Externa

Otitis Interna

Otitis Media

Mastoiditis

Meniere's "Disease"

Stricture Of The Eustachian Tube

Anemia Of The Labyrinth

Hemorrhage Into The Labyrinth

Hyperemia Of The Labyrinth

As intestinal catarrh evolves and passes from the stomach to the throat, it extends into the Eustachian tube and, finally, to the inner ear, laying the foundation for all the "diseases" of the ear. Affections of the ear, as elsewhere in the body, though growing out of the same basic causes, are named according to the portions of the ear most affected. In any ear affection, either one or both ears may be involved.

Cysts of the ear, hyperemia of the ear, dermatitis of the ear, erysipelas of the ear, frostbite of the ear, eczema of the ear, tumors of the ear, etc., are to be cared for as for eczema, frostbite, dermatitis, or tumors, elsewhere. No special consideration will be given to these conditions here.

Auditory Polypi

Polypi in the ears, as in the nose, colon and vagina, accompany long continued catarrhal and suppurative processes. They are to be cared for as advised for nasal polypi.

Deafness

Definition: Dull hearing or inability to hear at all.

Symptoms: The characteristic symptom in all cases is the impairment or absence of hearing. The impairment is usually hardly noticeable at the start and progresses slowly to complete loss of hearing. There are, until deafness is complete, incessant head noises, with whistlings and roarings and ringings in the ears. There are periods of nausea and other symptoms of poor health. Commonly there is a lack of physical and emotional balance, and a lack of normal social adjustment.

Etiology: It is estimated that at least five out of every hundred people suffer with more or less impairment of hearing, or about six and a half million such sufferers in this country. Eighty percent of these cases are due to catarrhal inflammation of the Eustachian tube and inner ear. Cases follow measles, scarlet fever, and other "infectious" fevers quite often. Many thousands of cases follow colds.

A catarrhal condition starting in the throat and extending up to the Eustachian tube or tubes results in acute otitis media, and mastoiditis. The Eustachian tube may become obstructed by adhesions. Once the inflammation reaches the Eustachian tube, the middle ear and its ossicles may early become seats of pathology and ultimately complete deafness may result. The ossicles may become ankylose. Deafness may also result from external injury to the ear—blows, foreign bodies, explosions, etc. Atrophy of the auditory nerve, as from the use of quinine or arsenic, and pathology of the brain involving the auditory center may cause deafness. Deafness not due to external injury is only another of the many thousands of effects of toxemia growing out of enervation, which, in turn, grows out of wrong life.

Prognosis: It is estimated that ninety-five per cent of cases of catarrhal deafness can be restored to normal hearing in their early stages. Why not all cases in the early stages? Echo answers: "why not?". Deafness due to atrophy of the auditory, center, ankylosis of the ossicles, and to other destructions of the structures of the ears cannot be remedied.

Care of the Patient: Catarrhal deafness yields readily and quickly to fasting. We have bad cases of twenty-five years standing, to recover normal hearing in a few weeks. Failure in these cases is due to failure of the patient to carry out instructions. All causes of enervation and toxemia must be corrected and removed. Local treatment of the ear is of no value, except in those cases where there exists an adhesion of the Eustachian tube. This may require mechanical removal, a thing that may often be done with the fingers.

Otitis Externa

Definition: This is inflammation of the external auditory canal. It is divided into diffuse, circumscribed, hemorrhagic, croupous, and diphtheric forms. These distinctions are of no practical value.

Symptoms: Radiating pains, especially when moving the jaw, or when pressure is applied, ringing in the ears, dizziness, itching, and, when the inflammation is great, impaired hearing; in severe form, loss of appetite and fever, are the chief symptoms. In the croupous and diphtheritic forms there are exudates from the ear.

Etiology: External injury, infection and toxemia are the causes.

Care of the Patient: Thorough and frequent cleansing of the auditory canal is most essential. Other than this, no. food should be taken until the symptoms have subsided.

Otitis Interna

Definition: This is inflammation of the labyrinth—bony or membranous.

Symptoms: These are indefinite and the condition is difficult to distinguish from meningitis, except that the symptoms of otitis interna develop very suddenly. The child is likely to have fever, more or less congestion of the face, vomiting, delirium, deafness, vertigo, convulsions, and coma.

Etiology: It follows inflammation of the middle ear, and is often seen in diphtheria, scarlatina, tuberculosis and caries or necrosis of the temporal bone. The condition may become chronic.

Care of the Patient: Due to the inaccessibility of the labyrinth and the difficulty of drainage (pus often forms) this condition often recovers slowly. A long fast is frequently necessary and great care in feeding thereafter is most essential. All health-building factors are to be employed and all causes of enervation and toxemia removed:

Otitis Media

Definition: This is inflammation of the cavity of the middle ear. It is a very common affection in babies and young children who are fed and cared for in the usual manner. Several forms are described, as acute otitis media, or acute catarrhal inflammation of the middle ear; sub-acute catarrhal otitis media; acute purulent otitis media; chronic catarrhal otitis media; and chronic purulent otitis media, or chronic suppurative otitis media; but these distinctions are of no practical importance.

Symptoms: The symptoms are earache, and sometimes discharge from the ear. In some cases there is no ache and the first indication of trouble is the discharge. Fever, crying, and restlessness are the chief symptoms in babies. The child may continually place its hand on its ear. The child will often scream and it keeps this up-no matter what is done for it. In other cases, where there is apparently no pain, there is fever. Most of the long list of symptoms the standard texts list under the above forms of otitis media can be found only by instrumental examination, hence to list them can be of. no. service to the average reader.

Etiology: Exposure to cold is the cause, according to popular superstition. Medical superstition has it that the condition arises out of an acute cold, an infection in back of the nose, etc. Otitis media is an extension of catarrh which passes up the Eustachian tube to the middle ear and is due to the same things that cause catarrh in any other part of the body. Acute inflammation of the middle ear may be either catarrhal or purulent, but the affection frequently passes from catarrhal to purulent so that in many cases it is extremely difficult to make a distinction. Purulent inflammation of the middle ear usually occurs in connection with acute or chronic naso-pharyngeal catarrh and is due to the same causes that produce acute catarrhal otitis media. Chronic otitis media is the aftermath of one or more acute crises. These conditions are frequent developments in scarlet fever, measles and other infections.

Prognosis: This is good if Hygienic care is employed early.

Care of the Patient: Most cases of this trouble last but a few hours and, while they cause considerable pain, do not result in a discharge or any serious trouble. The old-fashioned "remedy" was to place a hot "poultice" over the ear—a bag of hot ashes, hot peach-tree leaves, hot sand, etc., depending on which of these substances one placed his faith in. I recall an instance when my father filled his pipe with tobacco and lit it. Placing a thin

cloth over the bowl of the pipe and placing the end of the stem near the entrance of my ear, he blew through the cloth and sent the hot smoke into my painful ear. This soon brought relief, as will heat, however applied. The "virtue" in the poultice did not lay in the ashes or the leaves, but in the heat. Today the hot-water bottle or the therapeutic lamp are used for the same purpose and with about as much blind faith in their "curative" powers.

The heat gives relief from pain, but I doubt that it is in any way beneficial. I am inclined to think it is harmful. I know that doctors and parents tend to consider the condition cured when the pain is relieved. The basic causes of the trouble are not corrected.

These children should be put to bed and all food withheld from them so long as the pain lasts. After this, their diet and hygiene should be adjusted in such a manner as to produce and maintain health. If this is done there will be no recurrence. Do not syringe the ears. Keep everything out of the child's ear.

Mastoiditis

Definition: This is inflammation of the mastoid, a small piece of the skull which lies directly behind the ear. Two forms—internal and external—are described. The external form, except as part of the internal form, is rare.

Symptoms: There is deep-seated pain and tenderness over the mastoid process which is likely to radiate in different directions, upward in the temporal region, and downward and forward toward the teeth; more or less fever, swelling, and in some cases pus formation.

Etiology: In cases where earache (otitis media) is treated with beat, dry wiping, syringing, etc, and the causes of the catarrhal inflammation ignored, as is usually the case, the inflammation may extend to the porous bone back of the ear—mastoid. This does not occur in the vast majority of cases, for nature is always busy limiting inflammation as much as possible. Mastoiditis will never occur as a "complication" of otitis media, if the earache is properly cared for and not merely suppressed and then forgotten.

Care of the Patient: Operation is the usual recourse. It is a very dangerous procedure and seldom advisable. Rest, warmth, fasting and fresh air will speedily remedy nearly all such cases. Should this care be instituted late and the fever keep up, it may be necessary to surgically drain the abscess. Nothing should be removed except the pus.

Meniere's "Disease"

Definition: A term applied to a symptom-complex characterized by deafness, ringing in the ears, and paroxysms of intense vertigo.

Symptoms: The paroxysms may occur daily or at intervals of weeks, and may culminate in vomiting or even in fainting.

Etiology: These symptoms are apparently due to lesions in the labyrinth of the ear and may be due to either hemorrhage or to degeneration of the nerveendings. Or, in some instances, it follows affections of the middle ear. Tumors in certain regions of the brain may also produce these symptoms.

Prognosis: The condition usually lasts throughout life; occasionally when the loss of hearing on the affected side becomes absolute, the other symptoms cease.

Care of the Patient: Fasting, rest and a Hygienic mode of living-offer hope of recovery in many cases.

Stricture Of The Eustachian Tube

The Eustachian tubes run from the back of the throat to the ears, one to each ear. Closure or stricture excludes the air from the inner ear and results in partial or, total deafness in the ear on the affected side.

Etiology: Stricture and constriction are due to three causes: (1) pressure by tumors; (2) osseous growths in the bony canal; and most frequent of all (3) chronic catarrh.

The first of these causes may frequently be absorbed by fasting, the third may always be removed by fasting; the second cannot be so removed. Adhesions often form in catarrhal conditions and if these are not broken up by fasting, may need instrumental attention.

Anemia Of The Labyrinth

This is a deficiency of blood in the labyrinth and is part of general anemia, or from obstruction to the blood supply by a tumor, aneurysm, etc.

Symptoms: Deafness, faintness, ringing in the ears, vertigo, nausea, and vomiting are the chief symptoms.

Hemorrhage Into The Labyrinth

This is a slight extravasation of blood in the labyrinth resulting from inflammation or fracture at the base of the skull, concussion of the skull, necrosis of the temporal bone.

Hyperemia Of The Labyrinth

This is an excess of blood in the labyrinth and is seen in severe otitis media, scarlatina, diphtheria and other acute exanthemata.

Symptoms: Vertigo, giddiness, vomiting, inability to walk steadily, ringing in the ears, and a feeling of fullness about the ears are the symptoms of acute hyperemia.

The above three conditions are mere symptoms and care should be directed at the primary pathology.

Affections of the Skin

Skin Inflammations

Atrophies Of The Skin

Hypertrophies Of The Skin

Neuroses Of The Skin

Affections Of The Oil Ducts

Affections Of The Sweat Glands

Affections Of The Hair

Affections Of The Nails

Skin Affections Caused By Outside Agents

Neoplasms Of The Skin

Parasitic Skin Affections

The skin, as the investment of the body, is practically the only part thereof that is "intended" to come in direct contact with the outside world. It is naturally possessed of great resistance to external influences so that few of these can damage the skin and produce affections therein so long as it is well nourished and, not poisoned from within. True as this is, it must be admitted that much skin "disease" has gone out of fashion since the use of the bath tub became general. A clean skin is more resistant than a dirty one.

Skin affections are grouped into a few natural groups. We shall deal with them alphabetically under these groupings.

Skin Inflammations

<u>Acne</u>

<u>Acrodynia</u>

Angioneurotic Edema

Carbuncle

Dermatitis (Cutitis)

Ecthyma

Eczema

Erysipeloid

Erythema

Furuncle (Boil)

Furunculus Orientalis (Oriental sore)

Gangrenous Ecthyma

Herpes Simplex

Impetigo (Scrum pox)

Lichen

Lupus

Pemphigus

Pompholyx (Dysidrosis)

<u>Prurigo</u>

Pruritis (Itch)

Psoriasis (Lepra)

Roseola

Sycosis Vulgaris (Barber's Itch)

<u>Urticaria (Nettle Rash, Hives)</u>

<u>Urticaria Pigmentosa</u>

Etiology: The careful student is struck by the great similarity, often apparent identity, of the many inflammations and exudations of the skin and the similarity of conditions under which these "different" affections arise. He is also struck by the fact that the supposed causes of a given skin affection often fail to produce it.

There exists an appallingly tragic ignorance of the constitutional background of skin affections. For that matter, we need not confine our statement to skin affections, since these are only a few of the affections (covered by hundreds of names) that grow out of toxemia and gastro-intestinal decomposition.

Affections of the skin occur as the direct and indirect result of a large number of visceral failures. Functional weakness and actual pathology of the stomach, intestine, liver, kidneys, nervous system, etc., frequently lead to eliminative efforts through the skin. These are also seen in rheumatism, gout, diabetes, etc.

Carbuncles, furuncles, and other skin eruptions seen in diabetic cases are explained by the saturation of the skin with sugar and, even if we grant the claim of bacteriologists that these things represent staphylococcal infection,

the sugar saturation is necessary to provide a favorable nidus for the growth of microbes.

Pruritis and eczema occurring in a patient suffering from chronic interstitial nephritis is due to a failure of elimination through the kidneys. There is also an intimate relationship between gastro-intestinal disorders and such skin affections as eczema, pruritis, urticaria, acne, etc. These are frequently observed in association with and are seen to be influenced by digestive disturbances which involve decomposition of food and partial digestion.

Pruritis is often observed in connection with pathology of the liver, especially when jaundice exists; xanthoma and chronic jaundice are often associated. Eczema and gout are so common together that they have both been classed as belonging to the "gouty diathesis," while there is also a close connection between psoriasis and chronic arthritis.

It is often difficult to trace the relationship between eruptions and other skin symptoms and the internal failings and pathologies with which they are associated; but we may be sure that faulty digestion, incomplete metabolism, and deficient excretion, these growing out of bad dietary habits and other devitalizing practices, are the underlying causes of these skin affections.

Malnutrition, scrofulous conditions, and personal uncleanliness are frequent backgrounds for the development of skin eruptions.

Certain foods, such as strawberries and peaches, cause a skin rash in some people, when eaten. Oysters and shell-fish do the same with many people. Such people are said to possess an idiosyncrasy or hypersensitiveness to such foods. Some article of food is often blamed for trouble when it is the combination that is at fault. Cow's milk, particularly if sugar is added, is a common cause of eruptions in children. Any "disease" associated with digestive disorders and nutritive impairments, such as Bright's "disease," diabetes, rheumatism, uric-acid diathesis, ulcerative processes, child-bed fever, scrofula and menstrual disturbances, may be accompanied by skin disorders.

Serums and vaccines are frequent causes of skin eruptions. Serum rashes may be of different forms and degrees and may be apparently cured only to recur immediately in the same or other form. There are few skin "diseases" that cannot be produced by drugs alone. Morphine, turpentine, copaiba, chloral, iodine, salicylic acid, arsenic, the bromids, coal-tar products (most

of which are used to reduce fever and "kill" pain), mercury, belladonna, formalin, digitalis, arsphenamine, veronal, tea, coffee, alcohol, insulin, etc., used internally, are frequent causes of skin "diseases." Belladonna produces eruptions resembling scarlet fever; mercury may produce eruptions simulating measles, while its eruptions are frequently called "syphilis." Many drugs produce urticarial eruptions (hives), papules (small bumps), pustules and even hemorrhagic (blood-filled) eruptions. Others produce scaling or desquamation of the skin. The prevention of drug and seruminduced skin affections is accomplished by avoiding the drugs and serums.

Such irritants as strong soaps, mustard, acids, cantharides or Spanish fly, croton oil, aniline dyes, iodoform, some salves, carbolic acid and other antiseptic and counter-irritant preparations and washes, cause skin trouble. Soaps, salves, lotions, antiseptics, etc., are best omitted from the care of the skin.

Mercury may be used as a medicine or may be absorbed from working in quicksilver mines, and mirror and thermometer factories. Arsenic may be absorbed from wall paper. Quinine is used in many hair tonics. Bromids form an important ingredient of Bromo-seltzer, so freely used in this land of "beverage" guzzlers. Paraphenylenediamine, used to color furs black, and quinine, used to make brown furs, produce skin troubles in fur workers and fur wearers. The artificial leather used in making hat bands and for other purposes may cause skin troubles. Phosphorus matches have been causes of skin trouble. Many face powders, creams, lotions, bleachers, whiteners, etc., cause skin eruptions.

Poison ivy, or poison oak, dogwood, sumac, poison primrose and certain nettles and other poisonous and irritating plants cause skin disorders.

Putrescent matter from decaying meats and vegetables, coming in contact with the skin may cause a local infection and give rise to skin eruptions of various forms.

Uncleanliness, the use of soiled diapers which have been dried without washing, allowing a baby to go for long periods without drying or cleaning it, etc., may give rise to irritation of the skin, with redness, rawness, soreness, pain, etc.

X-ray burns, radium burns, burns from so-called therapeutic lamps, sun burns, cuts, bruises, tearing, scalds, burns, friction from tight bands, garters, etc., and like thermal and mechanical injuries cause local trouble.

Not everyone develops skin affections from the above causes. Indeed, there are those whose skins seem to glow with health even when they are nearing dissolution. Even contact dermatoses do not develop in many who come in contact with the causitive influences. On the other hand, some are so constituted that skin eruptions develop on the slightest provocation. These have what the German school calls the **exudative diathesis**.

Care of the Patient: Skin eruptions, if not due to purely local causes, as in poison ivy, are eliminative efforts. No attention should be given to the eruption beyond obeying the impulse to scratch and keeping the skin clean. First, last and all the time, proper care of the skin consists in removing the morbid systemic condition—toxemia and autointoxication—that the eruption seeks to throw off. The first principle in dealing with skin affections is to deal with the internal conditions with which they are associated by removing and correcting the causes of these.

Functional impairments—faulty elimination, digestive derangements, glandular defects, etc.—growing out of enervation and toxemia, even skin eruptions due to allergy, necessitate the removal of the organismal impairment, for the systemic impairment and not the specific food, is the cause of the allergy. Only by removing the fundamental cause of allergy can we prevent the systemic degeneration that is otherwise inevitable in allergic individuals.

Weger says: "We have found psoriasis to respond to dietetic treatment in all cases. In some, a complete cure can be effected in four to six weeks. Cases of long standing occurring in people of low vitality may require six months or longer before the eruption disappears entirely. Excess of sugars and starches in the diet is the most important of food factors. The patches begin to fade at the end of a week of complete fasting and in two weeks they have usually disappeared leaving only a smooth, pink surface at the site of the lesion. * * * Once overcome dietetically there is no recurrence of psoriasis unless the patient returns to former habits of eating or becomes so enervated as to bring about the same kind and degree of toxemia as had previously existed. Psoriasis undoubtedly represents a toxic state and should be so treated." All so-called "diseases" are liable to recur, unless the habits of life that brought them on in the first place are understood and corrected.

This care will serve equally as well in boils, acne, herpes, eczema, and all the other inflammations of the skin. In herpes simplex, Weger says, there

is "no constitutional remedy so effective as clearing out the intestinal tract and stopping all food for a day or two."

Besides fasting, proper diet and cleanliness, we find sun-bathing to be very beneficial in all skin affections. It is necessary to remove all causes of enervation.

Acne

Definition: Acne is inflammation of the oil glands of the skin and of the follicles of the fuzzlike hairs attached to the oil glands. It manifests as small, or large, pimples, often containing pus. Various qualifying terms have been added to the term acne to distinguish its most important features.

Acne artificialis, or artificial acne, is papules produced by the internal use of such drugs as the bromides and iodides and the external application of tar, chrysorobin, etc.

Acne atrophica, or atrophic acne, is simple acne in which the lesions are followed by scars or small pits.

Hypertrophic acne, or overgrowth acne, is acne followed by thickening of the skin from an overgrowth of connective tissue.

Acne indurata differs from the simple form chiefly in the degree and extent of the symptoms and the hardening (induration) which are present.

Acne papulosa, or papular acne, is simple acne in which papular eruptions (solid raised spots on the skin) predominate.

Acne pustulosa, or pustular acne, is acute acne simplex with papules developing into pustules.

Acne rosacea is acne plus rosacea, or a chronic congestion of the nose and parts of the face.

Acne scorbutis, or scurvy acne, is a papular acne with hemorrhages into the skin.

Acne scrofulosum, or malnutritional acne, called also scrofulous acne and acne cachecitcorum, occurs in undernourished or scrofulous or emaciated individuals. If develops chiefly on the trunk and lower limbs, though, occasionally, the arms and face are affected.

Acne simplex is simple acne, which is the most common form, hence the term acne vulgaris.

Acne varioliformis is a form of acne, the pustules of which resemble those of variola (smallpox). It develops chiefly on the forehead, along the hair margin, also the scalp, face and neck, and, sometimes, the shoulders and breastbone.

With the exception of acne artificialis, these various forms of acne are merely variations of simple acne, hence we will describe this only.

Simple acne is seen more often in girls and women than in boys and men; develops chiefly on the forehead, cheeks, lower jaw and chin, and sometimes on the chest, shoulders, upper arms, and even down the back and thighs; develops chiefly during the adolescent years and tends to disappear upon the attainment of maturity, although it may persist long after thirty is passed. It is often aggravated before and during menstruation.

Blackheads usually constitute the center or nucleus for the beginning of the inflammation. A papule develops around this center and later becomes a pustule. However, acne may develop without blackheads and blackheads may exist without acne developing.

A crust forms on the pustule, then falls off, leaving a redness which lasts a few days, or a depression or scar may be left. In many cases no pustules develop, the condition remaining in the papule stage, in which cases, the papules are absorbed after a few days.

On the same face, or other portions of the body, and without any semblance of regularity, there may be seen all stages—blackheads, papules, pustules, crusts, redness, pittings or scars. Frequently we see faces that have become so badly pitted their owners look like they have had smallpox. Few things can so completely spoil the beauty of the face as acne. The scars may be permanent, or they may gradually smooth out. In some cases no scars are formed. The stain that often remains tends to fade out, eventually.

If the papule of acne is opened or squeezed, blood, pus and fatty substance and, if present at the beginning of the papule, the blackhead, are found. Healing is usually rapid after evacuation of the contents, though squeezing usually tends to aggravate the local lesion. If the pustule is not molested spontaneous evacuation occurs.

In acne indurata the areas of hardening vary from the size of a pea to as a large as a hazel nut. They begin deep below the epidermis, are usually deep red or purplish, often involve several adjacent glands, thus giving the appearance of boils, and may contain much pus. The lesions often fail to

rupture spontaneously. When opened and evacuated artificially, they tend to refill rather than to heal. Scar formation is often very pronounced, especially where there has been much squeezing or direct pressure. Fibroid changes in the scars may cause them to resemble fibroid tumors.

There are no general symptoms with acne and the sufferer is inclined to regard himself as otherwise healthy.

Acrodynia

Definition: A symptom-complex marked by pricking pains in the palms and soles, hyperesthesia, and eruption on hands and feet.

Symptoms: This is an acute non-febrile erythema accompanied by nervous symptoms. It is considered to be related to pellagra, as it possesses similar symptoms. There are swelling of the face or extremities, erythematous eruptions on the hands up to the wrists and the feet up to the ankles, involving, as well, the fingers and toes; there is redness of the eyes, sensory disturbances such as a sensation of crawling insects on the skin, pain in the fingers and toes, sticking pains in the palms and soles, feeling of weight in the extremities, hyperesthesia and, sometimes, anesthesia. There is also irritation of the stomach and intestine. This symptom-complex occurs epidemically usually following the many catarrhal crises called "influenza."

Angioneurotic Edema

Definition: This is an acute circumscribed edema—a giant urticaria of neurotic origin.

Symptoms: Its main characteristic is a transient, well-defined edema or swelling of the skin, which appears suddenly upon the surface of some part of the body, especially the hands and face. The skin is not discolored. There are usually well-marked digestive disturbances associated with the condition. Usually the swellings last but a short time, disappear, and leave no traces in the skin. Crises of this kind may occur every few weeks.

Carbuncle

Definition: This is a circumscribed subcutaneous inflammation, having a deep-red knob and often ending in a suppurating slough.

Symptoms: Carbuncles resemble boils but are more extensive, the inflammation involves the deeper tissues as well as the skin, are very painful and discharge their contents through several openings. Beginning as a fairly rapidly increasing painful knob on the skin, of a deep-red color, and flattened on top, surrounded by a hardened, painful and dusky-red area, It enlarges, pus forming in seven to ten days, which is discharged through craters formed by sloughing of the top. General symptoms such as may appear in any suppuration—fever, malaise, etc.—are pronounced. Carbuncles develop most often on the nape of the neck, back and buttocks. The scalp, face and back of the forearm are less frequent locations of development.

Dermatitis (Cutitis)

Definition: This is simple inflammation of the skin caused by some irritant.

Symptoms: Several forms are described as follow:

Atrophic dermatitis: See under skin atrophies.

Dermatitis Excoriation Infantum, or scaling dermatitis of infancy is seen in very young babies. It begins the fifth week after birth, develops quickly, results in excessive scaling and leaves the skin red and usually dry. The mucous membranes may be raw and crusted. Nutrition is commonly very poor in these cases.

Dermatitis Ambustionis (burns) is inflammation of the skin due to heat or scorching—from flame or hot articles or from water, steam, hot oil, electric wire, X-ray apparatus, or sunburn. Three stages or degrees of burning are recognized:

First degree burn is an erythema (redness of the skin) with only very superficial destruction.

Second degree burn is a bullosa (bleb or blister) which results from deeper burns, and the deeper tissues are affected. The pain and tenderness may be and usually are less pronounced than in first degree burn, there may be some symptoms of shock; pus develops and scars are formed in healing.

Third degree burn is a sloughing dermatitis (inflammation of the skin) from more severe burns of greater area and which is likely to result fatally.

Serious and fatal results come from shock, interference with skin function, and the formation and absorption of poisons in the burnt flesh.

Dermatitis artefacta is a term applied to "feigned eruptions" frequently seen in beggars, criminals, hysterical people, especially women, and others. The eruptions are artificially produced for the purpose of eliciting sympathy, securing aid or attracting attention. Friction, acids, caustics, coals or other hot articles are used to produced erythematous, bullous, ulcerous or gangrenous lesions of the skin. They differ from "disease" eruptions in their deviations from regular types of dermatoses, by their distinctness, and in being confined to parts easily reached by the hands.

Dermatitis medicamentosa, or drug eruptions, follow the taking by mouth, rectum or subcutaneous injection, of drugs of various kinds. Some people throw out drugs through the skin more readily than others—these are said to be "more susceptible." Breast-fed babies often develop rashes from drugs taken by the mother.

Antipyrin is eliminated by means of a generalized papular eruption; arsenic by an erythema, or by papular, or vesicular, or pustular eruptions; atropin or belladonna by a rash resembling scarlet fever on the face, neck and chest and accompanied by dry throat, fast pulse, and sometimes large pupils; borax by an eruption resembling psoriasis; copaiba by a macular, papular, or hive-like eruption; chloral by a hive-like papule or an erythema potassium bromide by an acne-like eruption or an erythema, and pustules; potassium iodide most often by a widespread acne-like eruption, bright red in color and sometimes an erythema, or a papular, pustular, hive-like or purpuric eruption; quinine usually by an erythema, sometimes by an acne-like eruption; salicylates by an erythematous or urticarial eruption; etc., etc.

Dermatitis Multiformis, or dermatitis herpetiformis (many-formed dermatitis) is a chronic inflammation of the skin presenting groups and combinations of reddened, papular, vesicular, pustular and bullous eruptions, with burning and itching; the itching often being very intense. The eruptions may develop either suddenly or gradually. In severe cases fever, chilliness, general uneasiness and other acute symptoms are present. There is a marked tendency for one form of eruption to evolve into another form.

The chief forms are erythematous (red, diffuse patches), bullous (crops of large, irregular blebs), papular (groups of papules in crops), pustular

(clusters of pustules), vesicular (groups of irregular shaped vesicles appearing in crops), and mixed (containing various combinations of lesions).

Dermatitis venenata (inflammation of the skin from external poisons) includes all dermatoses due to direct or indirect contact with poisons of animal, vegetable and mineral origin. Poison ivy, poison oak, poison dogwood, poison sumac, poison elder, the nettle, oleander, rue, and smartweed are among the plants contact with which causes itching, burning, redness and eruptions, etc.

Epidemic dermatitis (epidemic eczema) is an acute inflammation of the skin which begins with hard, bright-red papules grouped around hair follicles. Vesicles may form on the papules and rupture leaving moist surfaces which produce thickened patches upon drying. After from three to seven days the lesions rum together, sometimes covering the whole body, the skin becoming very red and dry, with thick scales, sometimes crusts. Pints of scales may be given often in a day's time. Itching is intense. In from three to eight weeks a gradual return to normal sets in, though the skin may remain pigmented for months, covered with a smooth, shiny and inelastic skin. In some cases the hair of the body (not of the head) and even the nails are shed.

Vaccination dermatitis: Various skin lesions result from the efforts of the body to expel pus and virus from the blood and lymph through the skin. Smallpox vaccination and all serum inoculations are frequently followed by erythema, erythema multiforme, hives, lichen, malaria, impetigo contagiosa, erysipelas, and boils. These may develop shortly after or a few weeks subsequent to vaccination and may come out in crops. Gangrene sometimes develops.

X-ray dermatitis is due to exposure to the X-rays from a diagnosing or treating apparatus. Its development indicates carelessness or lack of knowledge on the part of the doctor or technician. X-ray burns may be severe, deep-seated and stubborn.

Ecthyma

Definition: The word means pustule. It is applied to an inflammatory skin affection characterized by separate, flat, deep-seated pustules having broad inflamed bases.

Symptoms: This condition seems to be secondary to other skin inflammations and is seen chiefly in the poorly-nourished and debilitated. The pustules range from the size of a pea to as large as a dime, are sometimes long and narrow, and are yellowish in color. The pustules usually dry, forming reddish-brown crusts. Pigmentation and raw surfaces, followed by scar formation, usually succeed the disappearance of the pustules. The legs are most often affected; sometimes the trunk and neck.

Eczema

Definition: A common skin inflammation characterized by itching, redness, and infiltration. It constitutes about thirty per cent of all skin affections, is found in all ages and conditions of life, but chiefly among the young and aged, and is commonly known by such names as tetter and salt rheum.

Symptoms: Primarily there is redness of the skin, scales, papules or pustules; and secondarily scales and crusts. Usually a tendency to a moist or weeping surface is present. The itching and burning are very annoying. It is seen in acute and chronic forms. Several forms are recognized as follow:

Eczema fissum (fissured eczema) of which chapping is one degree. It is seen most often upon the fingers, but develops also upon the palms, soles, back of the ears, and at the corners of the mouth and on the outlet of the rectum. Considerable pain and some slight or considerable bleeding are usually present. It is very persistent, usually disappearing in summer and reappearing in winter.

Eczema rubrum (red eczema) is a secondary form, usually of vascular or pustular eczema, commonly developing on the faces of infants and on the extremities of adults. Sometimes it develops where there is considerable heat and moisture—the arm pits, folds of the breasts and buttocks. It is characterized by an intensely red, raw-appearing, continuously weeping and oozing surface, with hardening of the elements of the skin, frequently combined with crusted areas. The term eczema madidans is applied to it when the weeping is very prominent. This is one of the most distressing forms of eczema as it is chronic and is accompanied with constant and intense burning and itching.

Eczema Sclerosum (hard eczema) begins as an ordinary eczema, becomes chronic and produces thickening of the skin and underlying tissues. It is almost entirely confined to the palms and soles, though it sometimes develops on the ankles and lower legs. The skin appears calloused, and it may be impossible to close the palms and fingers.

Eczema squamosus (scaly eczema) often evolves out of some other form of eczema, or it may develop in point of time between two other forms. It is characterized by dull redness, hardening and considerable scaling. These scales are small and easily brushed off. It is usually located on the scalp, face, and back of the neck, but sometimes develops upon the extremities and trunk. When near a joint the thickened skin is likely to become fissured or cracked resulting in fissured eczema.

Eczema verrucosum (warty eczema) is similar to hard eczema, though the lesions are warty or horny. The usual location is the lower legs: these may resemble legs affected with elephantiasis. Excretions accumulate between the protuberances and give off a nauseous odor. The condition is also sometimes located where heat and moisture are present and where cleanliness is likely to be incomplete—armpits, under hanging breasts and about the genitals.

Erythematous eczema is found most often on the face, neck and genital organs and consists of irregular, swollen and red patches, with rough and hardened skin, slight scaling, itching and burning. It recurs frequently. It may continue in this form or develop into scaly eczema.

Papular eczema occurs chiefly upon the extremities and consists of patches of pin-head-sized pointed papules accompanied by extreme itching. Vesicles are frequently associated with it, and leave the skin exposed and raw. The eruption often recurs.

Pustular eczema is frequently associated with, or is a later stage of vesicular eczema and appears most frequently on the face and scalp of scrofulous and ill nourished children and in elderly people. When it develops on the face and scalp of infants, it is known as "milk crust" or "milk crust eruption" or "milk scurf." It appears as many papules which quickly change to vesicles and then to pustules, on which form thick greenish-yellow crusts. An extremely nauseating odor is given off when the hairy region is affected. Itching is slight.

Vesicular eczema is essentially an acute form developing as poorly outlined red patches covered with small vesicles which, upon rupturing, permit the escape of a sticky serum on a raw surface. Yellow gummy crusts commonly form, under which the "weeping" may continue. The itch is relieved when the vesicles rupture, but smarting and burning soon follow. This form develops usually on the extremities in adults; on the face in infants.

Erysipeloid

Definition: An inflammatory dermatosis resembling erysipelas but lacking the constitutional symptoms. This is a local infection which affects the hands of those whose cut or wounded hands come in contact with decomposing meat—butchers, fish handlers, medical students in the dissecting room, etc.

Erythema

Definition: The word erythema means redness and is applied to certain skin affections in which there is hyperemia or redness which disappears upon pressure, and passive inflammation. It is a symptom and must be qualified by another word descriptive of the recognizable affection. Several forms are described as follow:

Erythema induratum is a rare inflammatory skin affection occurring in scrofulous individuals; chiefly in girls and young women.

Symptoms: It develops frequently in winter, largely in those who suffer with cold hands and feet. Circumscribed semi-hard lumps develop in the skin, usually on the calves of the legs, but sometimes, also, on the thighs and arms. These end either in absorption or in foul suppuration. Though usually absent, pain and tenderness may be marked. These subjects usually present signs of tuberculosis. Healing is slow ordinarily, with frequent recurrences.

Erythema multiforme is a skin inflammation characterized by lesions of different kinds—papular, vesicular, or bullous.

Symptoms: Occurring most frequently in women or girls in youth or adolescence, and chiefly in spring or autumn, it is marked by an eruption, usually on the extremities, of macules, papules, resides, or, more rarely, blebs or blisters. The lesions may run together or remain discrete; they last one or two weeks and gradually fade. There is little or no itching but in some

cases there are such constitutional symptoms as fever, headache, general uneasiness, and rheumatoid pains. Its various forms are named according to the leading eruption: Papular erythema with separate or merged maculopapules of reddish or violet hue—the most common form; erythema circinatum or Erythema annulare, circular patches that clear in their centers as they spread at their borders; erythema iris, various colored rings or crescents: erythema gyratum, erythema circinatum with overlapping lesions; vesicular erythema when vesicles are the chief lesions; erythema perstans, practically permanent, ring-shaped patches—these appear to be permanent because of so frequent recurrence.

Erythema nodosum (dermatitis contusiformis) is an acute inflammatory skin affection characterized by crops of rosy-red or purplish swellings of various sizes.

Symptoms: Appearing most often on the extremities, this affection is seen chiefly in children and early adult life and occurs twice as frequently in males as in females. It resembles somewhat erythema multiforme; the eruption of bright-red nodes appears suddenly, these becoming dark and fading, presenting the appearance of the late stages of the "black and blue" of bruises and contusions. At first the eruptions resemble boils, but there is no suppuration. They are very painful to the touch and fever, headache, general uneasiness and rheumatoid joint pains usually accompany them.

Erythema scarlatiniform (erythema scralatinoides) is a mildly acute skin eruption resembling scarlet fever but running a different course.

Symptoms: Appearing gradually or suddenly on the chest, the eruption spreads over the body. Usually there are chills, slight fever and uneasiness. Frequently there are burning amid itching. The eruption fades and gradually disappears within a few days, with little scaling except in some severe cases in which casts of the hands, and even the hair and nails, may be shed.

Erythema simplex (simple hyperemic erythema) presents lion-elevated bright red or dull patches of various sizes amid shapes in the skin. The redness always disappears readily upon pressure, as there is only congestion, not inflammation, of the skin. Usually itching and mild burning are present but there is no hardening of the skin structures.

This is divided into several forms according to its causes, as: **erythema caloricum** when due to exposure to either extreme of temperature (further divided into **erythema ab igne** when due to heat and **erythema pernio**—

chilblains—when due to cold j; **erythema solare** or sunburn; **erythema traumaticum** when due to skin injuries; **erythema venenatum** when due to plant poisons.

Symptomatic erythema is erythema appearing as a symptom of other affections as **erythema diphthereticum** which occurs in diphtheria; serum rash resulting from serum inoculations: "stomach rashes" seen in indigestion; **erythema cholericum** sometimes seen in cholera; and the erythemas of chronic nephritis and of uremia.

Furuncle (Boil)

Definition: An inflammation of the skin and underlying connective tissue surrounding a hair follicle or oil gland, leading to the formation of pus and death of the central portion or core, which is expelled. If a crop of boils appears the condition is called furuncolosis.

Symptoms: Boils are more common in men, especially youths, than in girls or women. The boil, develops rapidly, reaching full development within three or four days. It begins with a dull, aching pain, which rapidly grows more intense, with severe throbbing and a sense of tightness, these symptoms being more intense at night. The boil becomes "ripe" in seven to ten days. When the boil cap ruptures the core is usually expelled spontaneously leaving a small cavity of considerable depth. This heals quickly, leaving a small scar which gradually fades. Boils are occasionally accompanied with slight fever and other symptoms of a general nature. A "blind boil" is one in which no core is found. They may develop anywhere on the body, in the outer canal of the ear, etc.

<u>Furunculus Orientalis (Oriental sore)</u>

Definition: A boil-like sore, endemic in hot countries, known also as alepo boil.

Symptoms: it begins as a papule, which rapidly develops into a nodule or large tubercule, which breaks and forms an ulcer. Healing is spontaneous (all healing is) but is slow, sometimes not taking place for six months or a year.

Gangrenous Ecthyma

Definition: This is a gangrene of the skin seen in infancy.

Symptoms: A more or less extensive gangrenous dermatitis develops in children and especially following some pustular eruption, such as chicken pox, though also developing "spontaneously."

Herpes Simplex

Definition: This is an eruption of deep-seated vesicles on a red base, appearing on the face (herpes facialis) and the genitals (herpes progenitalis).

Symptoms: The most common form, seen on or about the lips, is known as fever blisters, or herpes febriles. Vesicles may be single or in groups. Whether appearing on the face, genitals or elsewhere, they have the same appearance—that of small vesicles or blisters on a red base. The frequency with which they are associated with "fevers" and "colds" has given rise to the terms "fever blisters" and. "cold sores." Digestive derangements from any cause will produce them.

Impetigo (Scrum pox)

Definition: This is a skin inflammation characterized by a pustular eruption occurring chiefly around the mouth and nostrils, the pustules of which rupture within a short time or become encrusted.

Symptoms: Two chief forms are described as follow:

Impetigo contagiosa is the, common form and is considered "contagious" since epidemics are common among children under ten in institutions. It is the most common skin affection of school children, especially among the poor, and is seen often in adults, especially in the beards of men. The eruptions are flat, yellowish, superficial vesicles or blebs, usually on the face, neck and hands. These rapidly develop into indented pustules, surrounded by a red area. Wafer-like crusts form, their edges loosen, the crust curls up and falls off, leaving a red spot that soon fades to normal. There may be slight fever and itching.

Impetigo herpetiformis is a rare acute form presenting crops of clustered small pustles developing usually on the lower front of the trunk (pelvis), the groins, and inner and back sides of the thighs. Chills and fever accompany each eruption of pustules and various severe general symptoms may develop.

Lichen

Definition: This is a term meaning tetter-like eruption applied to any papular skin eruption, but now applied to two varieties in particular, as follow:

Lichen planus is a not very common inflammation of the skin characterized by the development of small, fiat, angular, shining, bluish-red papules, scattered or bunched on the extremities, which later become covered with fine, white scales. There is slight to moderate itching, but the general health does not appear much the worse. As the old eruptions vanish new ones appear.

Lichen scrofulosus is a chronic inflammation developing in some scrofulous individuals, especially children, and characterized by small, conical, scaly papules, which usually form in clusters. These are usually on the trunk, and sometimes spread to the neck, thighs and arms. There are no subjective symptoms. The color of the lesions fades from pale red to salmon colored to normal skin, leaving slight pigmentation.

Lupus

Definition: This is often called tuberculosis of the skin. Two chief forms are recognized as follow:

Lupus erythematosus is a superficial hardening of the skin presenting well-defined, red patches more or less covered with adherent yellowish-gray scales developing chiefly in adult women, and frequently following acne or seborrhea. **Lupus pernio** appears on the ears and hands after frost bite. Small red, somewhat scaly, papules form on the face, chiefly about the nose and gradually unite forming red patches without ulcer formation. Rarely are there subjective symptoms.

Lupus vulgaris develops usually before the age of twenty, often before the age of ten, usually on the nose, cheeks and ears, particularly the nose, but at

times on the trunk, extremities and even on mucous membranes and cartilages.

The first lesions are numerous deep-seated, reddish-yellow or brownish papules which slowly evolve into tubercules, which, because of their consistency, are called "apple-jelly nodules." They are embedded in the skin but are perceptibly softer than the skin. The ulcers spread slowly, and may reach down into the underlying soft tissues, though the bone is never affected. One part of the ulcer spreads, while scar tissue forms in other parts. The scar tissue often becomes the location of new tubercules. Itching is absent, and pain is slight.

Pemphigus

Definition: A skin inflammation characterized by successive crops of variously sized bullae (blisters) and occurring either in acute or chronic forms. Several varieties are described as follow:

Acute pemphigus develops in those who handle dead animals or their products and usually follows local injury. Blebs form, accompanied with chills, high fever, and delirium.

Pemphigus congenitalis occurs near the end of the first year of life, possibly at birth, usually developing as a result of rubbing, scratching or pressure.

Pemphigus contagiosus is a local bullous form that appears to be transmitted by contact.

Pemphigus foliaceous is a rare and serious form presenting crops of flabby blebs which soon rupture and form crusts which are thrown off, leaving a reddened weeping inner skin. New crops develop in rapid succession, and the whole body surface, also the mucous membranes, may be involved at one time. The condition may last for years.

Pemphigus gravidarum is seen during pregnancy or soon after birth.

Pemphigus neonatorum is pemphigus of the newborn and is seen occasionally at or immediately after birth.

Pemphigus vegitans is a rare form in this country. In this form the rupture of the blebs is followed by wart-like growths upon their sites. These unite and form fungus-like masses. Severe constitutional symptoms accompany.

The most common locations are the neck, mouth, armpits, flexures of the arms and legs, and the genital and anal regions.

Pemphigus vulgaris is the most common form and is chronic. It is characterized by successive crops of tense blebs with clear fluid that rapidly become cloudy and purulent. The surrounding skin appears normal. Usually the blebs do not rupture, but their contents are absorbed in five to six days. A small pellicle is left which falls off and leaves a pigmented spot. In severe cases there are itching and burning. No part of the body is exempt.

Pemphigus of hysteria, of leprosy and of "syphilis" are also described.

Pompholyx (Dysidrosis)

Definition: A rare acute skin inflammation occurring usually in those who sweat excessively and characterized by the formation of deep-seated vesicles symmetrically between the fingers and on the palms.

Symptoms: Developing on the hands, and occasionally the feet, the vesicles gradually increase in size until they become blebs, which do not rupture, their contents being gradually absorbed, to be followed by extensive scaling which exposes a red skin beneath. Heat, itching, tingling or burning, pain and sensitiveness, and often some nervous depression, usually develop. The surrounding skin becomes sodden, painful and scaly. Repeated crops of vesicles and blebs, differing in intensity, are frequent. Healing takes place slowly within a few weeks.

Prurigo

Definition: A chronic skin inflammation characterized by multiple palered papules and intense itching.

Symptoms: Developing in infancy or early childhood, especially in the under nourished, this condition often lasts for years, even for life. It develops chiefly on the face, extensor surfaces of the extremities and the trunk. The skin is likely to be well marked by scratches and blood-crusts. It often becomes dry, harsh and thickened.

Prurigo mitis is the term applied to mild cases; prurigo ferox (cruel) and prurigo agric (wild) to severe cases; **prurigo aestivalis** (summer prurigo) to a form that recurs each summer and remains severe until cold weather;

prurigo infantalis to a form that develops during the eruption of the front teeth.

Pruritis (Itch)

Definition: This is an indescribable subjective symptom causing an impulse to scratch. It is loosely applied to any prominent itching not accompanying a definite lesion. It is a symptom that also accompanies many skin affections. Several forms of "itch" are named, but these distinctions are unimportant.

Psoriasis (Lepra)

Definition: A chronic skin inflammation having dry, grayish, or white scales upon a shining red base usually first appearing in adolescence or early adult life.

Symptoms: It begins as small, reddish papules crowned by minute silvery scales. The papules gradually increase to the size of a dime or dollar, patches often uniting and thus involving extensive areas with overlapping scales. The papules are dry, sharply defined, slightly elevated, and hardened. The eruption is most commonly located upon the extensor surfaces, though any or all parts of the body may be involved. Patches of "normal" skin are found between the lesions. Itching may be slight or absent. The general health appears good, though muscle and joint disturbances occur. The scaliness reduces as the eruption subsides and eventually the redness fades and the skin re-turns to its normal condition and color, except where pigmentation occasionally remains. The condition gets better in summer and worse in winter. The generalized form usually does not develop until in later years.

Roseola

Roseola is a term applied to various eruptions of a trifling and "non-infectious" character. The term is obsolescent.

Sycosis Vulgaris (Barber's Itch)

Definition: An inflammation of the hair follicles of the bearded regions, also called tinea sycosis.

Symptoms: It first appears as a scaly patch of red, upon which pustules soon form, these being usually perforated by hairs. The pustules dry and form crusts instead of rupturing. There is itching, burning and soreness. The eruption comes out in crops, the hair becomes lusterless, brittle and loose.

<u>Urticaria (Nettle Rash, Hives)</u>

Definition: This is a transitory inflammation of the skin characterized by short-lasting elevations that itch intensely. It is also called hives, in America. In Great Britain, the term hives is applied to croup, laryngitis, and chicken pox.

Symptoms: This affection seems to develop most often in the nervous type of child and in children with a very sensitive skin. The eruption in the form of firm, well-defined wheels with red bases and white summits, raised irregularly on various parts of the body, appears suddenly. They may appear locally or generally. "Individual" hives usually last but a few hours, but each crisis usually lasts a few days, new eruptions appearing as others subside. Occasionally, chronic hives develops. The term nettle rash is applied to these symptoms because they resemble those occasioned by the sting of the nettle.

<u>Urticaria Pigmentosa</u>

Definition: Pigmentation hives is a rare form of urticaria seen in young children, usually during the first six months of life, and characterized by pigmentation.

Symptoms: The eruptions or nodule-like wheels are buff-colored, itchy and persistent. When they gradually disappear, they leave brownish or yellowish pigmented atrophic spots behind them. The condition is chronic and often runs a course of months or years, perhaps due to wrong care and neglect of cause.

Atrophies Of The Skin

<u>Albinism</u>

<u>Atrophoderma Nuriticum (Glossy Skin)</u>

Leukoderma (Vitiligo)

Scleroderma (Hard Skin)

Xeroderma Pigmentosum

Atrophic Dermatitis

Definition: Atrophoderma is a general term for wasting of the skin. Skin atrophy may result from insufficiency of blood supply, dietary deficiencies, toxemia, nervous impairment or general metabolic perversion.

Albinism

Definition: A congenital absence or deficiency of pigmentation in the skin, hair, and eyes. Though it is an "inherited" condition, albino children may be born to normally pigmented parents. What is called piebald skin is partial albinism and is found chiefly among negroes. The cause of albinism is unknown and there is nothing that can be done about it.

Atrophoderma Nuriticum (Glossy Skin)

Definition: A rare affection of the skin characterized by a glossy skin.

Symptoms: One or more fingers or toes (usually the fingers) become smooth and glossy, they lose any hair that may be on them, the normal skin lines are obliterated, there are local burning pains and neuralgia, and they appear "blotched as if by chilblains." The nails may also undergo nutritional changes.

Etiology: Nutritional changes in the skin due to injury to the nerves of the parts affected produce this condition.

Care of the Patient: Improve general and local nutrition, circulation and nerve tone, by correcting all enervating habits and improving the diet, is the only care worthwhile.

<u>Leukoderma (Vitiligo)</u>

Definition: This is the development of white spots and patches on the skin. It is called piebald skin, or acquired leucoderma.

Symptoms: The spots are of various sizes and shapes, and, in color, are milk-white or pale pinkish-white. Commonly they spread slowly and they may unite forming a larger white patch. In all other respects the skin appears normal. The hair on the white spots may or may not become white. The spots may occur in either the young or old and usually last throughout life, though a few cases undergo a spontaneous restoration of normal color.

Etiology: The cause is unknown. It is supposed to be due to altered local nerve supply, which would, in turn, be due to toxemia.

Care of the Patient: There is nothing to do except build up the general health. We have had one case to make some improvement during eight weeks under our care for arthritis.

Scleroderma (Hard Skin)

Definition: A hardness or harshness of the skin. The skin is rigid, pigmented and wasted, either in spots or fairly generally.

Symptoms: The condition may develop quite suddenly or may develop slowly over months or years. It may be preceded or accompanied by abnormal sensations in the skin. In time, the skin grows tense, hard and fixed to the underlying structures (hidebound) so that it cannot be pinched up. It feels like wood, or leather or frozen skin. Yellowish or brownish discolorations usually appear. The skin is very smooth and dry and often shiny. The joints may be rendered more or less immovable.

Circumscribed Scleroderma (called generally morphea, or Addison's keloid) is also a skin atrophy. It presents limited, rounded, ivory-like patches of various sizes, surrounded by hyperemic or pigmented borders. The patches are firm but not hard.

Scleroderma Neonatorum (scleroderma of the newborn) is a rare affection that develops shortly after birth, rarely as late as the sixth month. Beginning in the lower limbs it spreads rapidly over the trunk, arms, and face, giving the infant the appearance of being frozen. It develops chiefly in premature infants, but is occasionally seen in full-term babies and those whose skin circulation is faulty.

White-Spot "Disease" is a hardening of the skin characterized by a few or many pea-sized or larger chalk-white patches on the chest, neck and back. The patches are often atrophied.

Care of the Patient: Remove all causes of ill health and build up the general health.

Xeroderma Pigmentosum

Definition: This is a skin atrophy usually appearing in the first or second year after birth and slowly progressing to death; also known as atrophoderma pigmentosum.

Symptoms: Freckle-like spots first appear on the face and hands. Later these atrophy and become depressed. Dilatation of minute skin blood vessels follows and then diffuse atrophy. After a few years, wart-like growths develop on the pigmented areas and these develop into tumors. In these cases the skin is very sensitive to the actinic rays of the sun which affect it somewhat as do X-ray burns.

Etiology: The condition is thought to be due to some nerve impairment, "probably some congenital predisposition." This is not cause. Cause must reside in metabolic perversion from wrong life.

Care of the Patient: The condition runs a chronic course and there should be ample time for a revolution in the mode of care, particularly of feeding, to produce improvement if not complete recovery. A fruit and vegetable diet should be religiously adhered to. Sun-baths should not be employed until the skin has lost at least a large part of its sensitiveness.

Atrophic Dermatitis

Definition: This is a diffuse or localized atrophy of the skin, involving the hair and nails, affecting chiefly the extremities and face. It is often seen following upon the heels of dermatitis and chronic external irritation of the skin.

Hypertrophies Of The Skin

<u>Callosity (Callous)</u>

Clavus (Corn)

Cornu Cutaneum (Horny skin)

Keratosis

Nevus Pigmentosa (Mole)

Keloid (Kelis)

Ichthyosis (Xeroderma)

Verruca (Warts)

Hyperthrophy is an abnormal increase in the size of an organ or part due to an increase in size of its cells. Hyperplasia is an increase in size resulting from an increase in the number of cells. These usually appear together. There are several hypertrophies of the skin.

<u>Callosity (Callous)</u>

Definition: This is a hardened, thickened, horny condition of a local area of skin composed of an overgrowth of the corneous layer of the epidermis produced by friction or intermittent pressure, and appearing largely on the feet, hands, fingers and toes. They develop as protective devices. They disappear spontaneously when pressure and friction are removed or avoided.

Clavus (Corn)

Definition: This is a small callous or thickening of the outer skin, generally resulting from the friction of ill-fitting shoes, developing usually on the toes, over bony prominences, occasionally upon the soles, fingers and palms.

Symptoms: Two varieties are recognized as follow:

Hard corns usually develop over the joints of toes. These are hard, painful elevations.

Soft corns usually develop between the toes, where they become softened by the moisture of perspiration and insufficient drying after bathing.

Etiology: Intermittent pressure causes both forms of corns to develop.

Care of the Patient: Full correction requires the removal of cause and correct fitting of shoes. They will disappear in a short time without further

attention when cause is removed. Cutting corns and treating them with corn removers is of no value.

Cornu Cutaneum (Horny skin)

Definition: A cutaneous horn or horny formation on the skin due to hypertrophy of the epidermis.

Symptoms: These horn-like growths form most often on the face, scalp and penis—usually in old age. They are conical, tapering, usually curved or straight projections, which are generally over half an inch in length, but have been known to reach a foot in length. Pain is present only upon injury.

Etiology: This is unknown.

Care of the Patient: The usual treatment is surgical removal followed by cautery. This does nothing to remove the metabolic perversion that must be back of the growth.

Keratosis

Definition: The term means any affection of the epidermal layer of the skin, but is particularly applied to localized overgrowths of the horny layer. Three chief forms are described as follow:

Contagious Follicular Keratosis is seen generally in childhood, but may develop in adults. Several members of the same family may be affected at the same time thus giving rise to the belief that it is "contagious." It begins as small, black points that spread from the elbows and knees practically over the whole body. Papules develop around the black points and often become inflamed.

Follicular Keratosis is a rare hypertrophic affection of the oil glands at the roots of the hair. Small, dark papules embedded in the follicles, often crowned with horny projections, which, when removed, leave pits. They are most common on the scalp, face, chest, loins and inguinal region, chiefly of men. The condition is chronic and progressive. The general health is said "not to be disturbed," though there may be annoying subjective symptoms.

Keratosis Pilaris (lichen pilaris) is keratosis of the hair follicles and presents the development of small papules due to hypertrophy of the outer skin at the mouth of the hair follicles. Developing as dirty-gray, pin-head

elevations, each pierced by a hair, usually upon the extensor surfaces of the arms and legs; they have the appearance of "goose flesh" in mild cases and feel like a nutmeg grater to the touch. There is little or no itching. Most people develop the affection in some degree.

Etiology: Toxemia and a lack of cleanliness seem to account for these conditions.

Care of the Patient: Adequate bathing and good general hygiene should result in speedy disappearance of all forms of keratosis.

Nevus Pigmentosa (Mole)

Definition: This is a pigmented, raised spot in the skin. It is sometimes covered with hair. The term nevus means "birthmark" as they are often congenital. The term birthmark means more than moles.

Symptoms: They vary from the size of a pin head to as large as a hand, or larger and are usually found on the face, neck and trunk. The color ranges from yellow to black and there may be one or many. They are given descriptive names as follow:

Nevus lipomatsus is a mole composed largely of fat and connective tissue. **Nevus maternus** is a congenital birthmark. **Nevus pilosus** is a mole covered with hair. **Nevus spilus** is a smooth mole. **Nevus verrucosus** is a wart-like mole.

Etiology: Moles are usually congenital and their causes are unknown.

Care of the Patient: They may be removed by the use of a blue lens which concentrates the infra-red rays of the sun upon the mole. One to a few applications are enough to remove them without leaving a scar. This should be done by one who knows how to use the lens.

Keloid (Kelis)

Definition: A new growth of connective tissue of the corium of the skin and resembling a crab, hence its name. It is also called cheloid and Alibert's keloid.

Symptoms: It commences as a pea-sized nodule which slowly enlarges and extends claw-like processes. It may reach the size of a hand. They are firm, elastic, sharply defined, slightly elevated, firmly implanted in the skin

and are shining, pinkish or reddish in color. They develop most often on the back and chest. After removal they usually return often developing faster than before.

Etiology: Some keloids follow injury, but are not due to injury alone. So-called **spontaneous keloid** is said to "develop upon a normal skin" and is "of obscure origin." Irritation and toxemia and an abnormal skin is the more likely explanation. **False keloid** (cicatrical or scar keloid) develops at the site of cuts, burns, wounds, bites, skin lesions, etc. The scars are not sufficient to account for their growth. Toxemia is the more likely explanation. The Negro race seems to be particularly susceptible to keloid growths. Certain families are said to be predisposed.

Care of the Patient: This must be constitutional and should start with a fast. Spontaneous shrinkage and return of the skin to normal is frequent enough to show that when metabolism is normalized the growth will be absorbed.

Ichthyosis (Xeroderma)

Definition: A chronic, congenital affection of the skin characterized by roughness, dryness and scaliness, with hypertrophy of the papillae. If the ichthyosis is extreme with marked hypertrophy of the papillae it is called ichthyosis hystrix. Its common name is Fish-Skin "disease."

Symptoms: The skin is dry amid harsh; its surface is covered with adherent polygonal scales and the papillae are more or less hyper-trophied. The usual location is on the extensor surfaces of the extremities. It usually manifests in early childhood.

Etiology: Under this heading we are told "it is often hereditary," but no cause is given. It is our belief that it is due to toxemia.

Prognosis: "The disease is incurable (so is all so-called "disease"), but the patient can be rendered comfortable by appropriate treatment. (=medical verdict)" The condition will get well if its cause is removed.

Care of the Patient: Improved nutrition following a period of disintoxication and proper use of sunbaths will restore these conditions to health.

Verruca (Warts)

Definition: These are clearly defined papillary outgrowths on the skin, due to overgrowth of the papillae and true skin. They are painless.

Symptoms: Warts appear chiefly in childhood. Several forms are described as follow:

Verruca digitata are finger-like warts that develop on the scalp. They are elevated with several slender projections reaching out from their bases.

Verruca acuminata, or venereal warts, are groups of soft red vascular growths developing upon the skin and mucous membranes of the mouth, anus, penis, and labia in young people. They often grow rapidly and may resemble a raspberry or cockscomb. Those on the sex organs are covered with an offensive pus-like secretion. (See affections of the sex organs.)

Verruca filiformis (slender warts) are slender, thread-like outgrowths developing upon soft parts, chiefly upon the neck, face and eyelids.

Verruca plana or flat warts are well-defined flat elevations, pigmented brown or black, developing usually upon the backs of old people. This type is said to occasionally become cancerous as a result of irritation by injury or caustics for removal.

Verruca vulgaris, or common warts, are commonly found on the fingers and backs of the hands of children. They are irregular, round, firm and elevated.

Etiology: Their cause is unknown.

Care of the Patient: They tend to disappear when nutrition is normalized. If they do not, the blue lens may be employed.

Neuroses Of The Skin

<u>Hysterical Dermatoses</u>

Nervous Itch

<u>Asteatitis</u>

Comedones (Blackheads)

Crusta Lactea (Milk crust)

Milium (Grutum)

Seborrhea

Seborrhea Sicca (Dandruff)

Definition: These are affections of the nerves of the skin and are almost always symptomatic of affections elsewhere in the body, particularly are they symptomatic of nervous affections. Chief among these are anesthesia, analgesia, causalgia, dermatalgia, hemianesthesia, hyperesthesia, paranesthesia, paresthesia, thermoanesthesia, and zonesthesia. They are symptoms, not affections, and disappear when the causes of the primary pathology (the nervous affection) are removed.

Hysterical Dermatoses

Definition: These are affections of the skin produced by emotional or nervous over-irritation.

Symptoms: Among the most common hysterical dermatoses are acne, hives, dermographia, erythemia, psoriasis, and black-and-blue spots. They present the symptoms described elsewhere for these affections.

Etiology: Hysteria combined with a very unstable vaso-motor control and nutritional impairment and, in case of very sensitive skins, external irritants, produce these conditions.

Care of the Patient: Hysterical dermatoses develop quickly and many of them disappear quickly when the emotional causes are corrected. We have seen very severe cases clear up in twenty-four hours when the patient's mind was put at rest and the body relaxed.

Nervous Itch

Definition: This is an itch that comes on during periods of quiet.

Symptoms: Any part of the body—scalp, face, extremities, back, chest, or even the whole body—may be affected. The itch comes on in the theatre, church, parlor, office, while sewing, or when quiet. It is often impossible for some people to remain long at any pleasure or duty that requires quiet without developing itch.

Etiology: Lack of sleep, mental, emotional or physical stress, sexual excesses, lack of exercise, insufficient bathing, overeating, intestinal toxemia, etc., are the chief causes.

Care of the Patient: Remove the cause. Secure more rest; poise the mind, cease the excesses, keep the body clean and eliminate toxemia.

Asteatitis

Definition: This is a symptomatic affection of the oil glands.

Symptoms: There is a diminution or total absence of the oil, resulting in a dry, harsh, and frequently scaling skin. It frequently accompanies psoriasis, scleroderma, prurigo, ichthyosis, and leprosy.

Comedones (Blackheads)

Definition: These are plugs of oil or sebum which form in the oil ducts of the skin. There is usually an overgrowth of the lining membrane of the ducts, and added to the plug may be scales from this membrane. It. is sometimes called a "flesh worm."

Symptoms: Blackheads are occasionally seen in children, even in babies, and in later life, but are most common in puberty and young adults. They may be either slightly elevated or slightly depressed, and are yellowish, bluish, brown or black in color. The nose, cheeks, and forehead are their most common locations. They are sometimes seen in the temples, ears, neck, back and chest, or wherever oil glands are present. They may be single, or with a "head" attached to two or more plugs; may be few or numerous; and upon pressure, exude a slender body, colored at its outer end, its body yellowish or white, its lower end white and soft.

Crusta Lactea (Milk crust)

Definition: This is seborrhea of the scalp in infants—an abnormal secretion of the oil glands in the face and scalp.

Symptoms: Though sometimes developing soon after birth, it most frequently develops during dentition. It consists of irregular groups of little pustules on the face and scalp, which discharge a viscid and yellowish or greenish fluid. At times, there is intense itching.

Milium (Grutum)

Definition: A functional affection of the oil glands.

Symptoms: It presents small, round, yellowish, or pearl-white, non-inflamed elevations in the skin. They appear chiefly on the face and their contents cannot be squeezed out until an opening is made. In this, they differ from blackheads with which they are frequently associated. They often develop under scars. The elevations are about the size of millet seed, hence the name. They feel gritty to the touch, hence the name grutum (grit).

Etiology: They result from the retention and hardening of the oil secretion in the ducts of the oil glands, the outlets of which have become closed.

Seborrhea

Definition: This is an increase, decrease, or alteration in the secretion of the oil ducts of the skin. Two forms are described:

Seborrhea Oleosa is an excessive oiliness of the skin, which is usually seen upon the face, particularly the forehead, cheeks, and nose. The duct mouths are enlarged and often the superficial blood vessels also. The settling dust causes the face to appear dirty and begrimed.

Seborrhea Sicca (Dandruff)

Definition: An excessive scaling of the skin, particularly of the scalp, as a result of a decrease or absence of skin oil. The condition is seen largely in older people, but occasionally it is seen on the head and eyebrows of babies. In adults it may also develop on the hairless surfaces. The scales are yellowish or grayish. Often dandruff and falling hair are associated symptoms. When on the scalp it is frequently associated with falling hair, though there may be considerable dandruff with loss of hair.

Affections Of The Oil Ducts

Care of the Patient: Locally, cleanliness is all that is required.

Constitutionally, toxemia and its causes must be removed. A healthy skin is not troubled with any of these functional short-comings or excesses. Cleanliness will both prevent and remedy milium in infants. In adults, cleanliness will prevent it, but the whiteheads may require puncturing and squeezing out if they have been allowed to form.

Affections Of The Sweat Glands

Anidrosis

Bromidrosis (Osmidrosis)

Chromidrosis

Hematidrosis

Hydrocystoma

Hyperidrosis

Sudamen

Uridrosis

Care of the Patient: All of these affections of the sweat glands are to be cared for alike. The remedy is: remove the cause. The underlying systemic impairment should be removed by freeing the body of toxemia and reforming the mode of living, particularly the mode of eating. Cut out excessive water drinking, stop the use of tea, coffee, alcoholics, cease the excessive use of fats, abandon overeating and stop the use of stimulants. Normal nerve energy will soon end these troubles. Locally, cleanliness is the only need.

Anidrosis

Definition: This is a deficiency of sweat.

It is a symptom and is seen in fevers, diabetes, certain skin affections, and in cases of lowered nerve tone.

Bromidrosis (Osmidrosis)

Definition: A functional affection of the sweat glands characterized by the secretion of sweat of an offensive odor.

Symptoms: An offensive odor, chiefly of the feet and in the axillae, and often associated with excessive sweating are the, characteristic symptoms.

Chromidrosis

Definition: A functional affection characterized by the secretion of colored sweat.

Symptoms: The sweat is most commonly red or yellow. The face and trunk are most frequently affected. It is often associated with excess sweating.

Hematidrosis

Definition: This is bloody sweating occurring usually in young hysterical women, upon the hands, feet, face, ears, and umbilicus, due to hemorrhage into the sweat pores.

Hydrocystoma

Definition: This is the development upon the face and neck of discrete firm vesicles, due to obstruction of the sweat glands. The ducts become dilated. It is seen most often in washer-women, appears in summer and disappears in winter.

Hyperidrosis

Definition: Excessive sweating.

Symptoms: Excessive sweating is the primary symptom. Prickly heat, eczema or intertrigo often ensue in its wake. Local hyperidrosis is most frequently seen in the hands, feet and axillae. Unilateral sweating of the face is sometimes seen.

Etiology: Marked debility, tuberculosis, affections of the sympathetic nervous system and aneurysm are given as causes. These are effects—effects of enervation and toxemia. Overeating, too much fluid intake, the use of tea, coffee, fat and alcoholics lead to excessive sweating.

Sudamen

Definition: An affection of the skin characterized by the eruption of minute vesicles, resulting from the retention of sweat in the upper layers of the skin.

Symptoms: Minute, irregular, translucent vesicles appear on the skin. They are not surrounded by an area of inflammation and do not rupture, but dry up and are followed by slight desquamation.

Etiology: It is often seen in healthy persons who sweat profusely and is seen in febrile crises, like pneumonia and typhoid, that are associated with sweating.

Uridrosis

Definition: This is sweating of urinary constituents, seen in suppression of the urine, as in nephritis, cholera, and certain nervous affections.

Affections Of The Hair

Alopecia (Baldness)
Alopecia Areata
Canities (Gray hair)

Alopecia (Baldness)

Definition: This is partial or complete loss of hair and is also known as calvities. In rare cases all the hair on the body is lost.

Symptoms: Partial or complete baldness is the rule in the aged. The hair begins to thin at the brow or crown and progressing from these points, the head or much of it loses all of its hair. In congenital cases, baldness is usually only partial.

Etiology: No cause for congenital baldness is known. Baldness in "old age" is considered normal and is probably as normal as toothlessness in old age. It is considered to result from changes "due to senility" or some degree of atrophy of the scalp and hair follicles. Senility and atrophy are due to

chronic toxemia. Hair is often lost in anemia, diabetes, chronic intoxications and various affections, as well as in seborrhea, psoriasis, folliculitis, and ringworm of the scalp. These things account for but few cases of baldness. Hair is often lost rapidly during or immediately after fever. The fact is that the cause of most cases of baldness is still unknown.

Care of the Patient: Once bald-headed, always baldheaded is the rule. I have seen one case of spontaneous regrowth of hair on the head of an aged man who had been baldheaded for, more than twenty years. Hair lost during or immediately after a serious acute affection like typhoid, usually (though not always) grows back immediately after normal health is restored. There is no way to restore lost hair and no known way to prevent its loss, once it begins to fall out. Better health and better nutrition should help.

Alopecia Areata

Definition: This is localized areas of baldness without skin lesions.

Symptoms: Usually appearing in early adult life, it is usually confined to the scalp, but may develop in the eyebrows, eyelashes, beard, or other hairy parts of the body. The patches appear suddenly or gradually.

Etiology: This is unknown. Parasites and neurosis are often blamed.

Care of the Patient: If the condition develops in children, these usually recover after a variable time—months to years—; but in adults recovery is rare. Build up the general health.

Canities (Gray hair)

Definition: This is a skin atrophy resulting immediately from loss of pigment in the hair.

Symptoms: Though considered normal in advanced life (canities senilis), premature graying may occur even in adolescence. Albinism is a congenital form.

The hair may become gray in spots or patches, or it may involve all the hair of the head or body, and the loss of color may be partial or complete.

Etiology: The loss of hair pigment usually takes place slowly, though in some instances, its loss is comparatively rapid. Enervation and poisoning of the pigment secreting glands is the probable cause of graying.

Prognosis: Once developed it usually remains, though occasional cases are recorded. Where the hair returned to its original color or to some other dark color. The existence of such cases, though rare, points to the possibility that someday, a way may be found to restore normal color to gray hair.

Care of the Patient: There is nothing to do except adopt a wholesome mode of living and stick to it.

Affections Of The Nails

Atrophy Of The Nails
Leuconychia
Onychia
Onychorrhexis
Onychauxis
Panaris

Like the hair, nails are outgrowths or appendages of the skin. Hard as they are, they are liable to affections of the nail-bed and matrix. These arise from the same toxic states and nutritive deficiencies that produce trouble elsewhere in the body.

Care of the Patient: Remove all causes of impaired health and protect the nails from further injury.

Atrophy Of The Nails

Atrophia unguis, as this is called, may be either congenital or acquired. In the congenital form the nail may be defective or distorted or absent from birth. In the acquired form, which is more common, the nails become thin, narrowed, furrowed, crumbly and distorted and lose their transparency. The condition is symptomatic of constitutional impairment and is seen in prolonged fevers, psoriasis, eczema and ringworm.

Leuconychia

Definition: This is white-spotted nails (leucopthia unguium).

Symptoms: White areas on the nails are very common and are often the occasion for much mental distress. Rarely are the spots general. They are thought to be due to interference with the normal process of change to a horny substance, caused by injury, defective nutrition and illness. Slight injury to the nail-bed, and, especially, to the matrix, as in manicuring, causes them to appear. The spots cannot be removed and care should be exercised to avoid the injury.

Onychia

Definition: This is inflammation of the matrix (paronychia) and may be either acute or chronic. It may affect one or several nails.

Acute onychia follows contusion of the nail, where the matrix is bruised. It is very painful and if the matrix is seriously damaged, may result in shedding of the nail.

Chronic onychia is a low-grade inflammation developing in those who are forced to keep their bands more or less constantly in water. It may also be seen in certain types of malnutrition. One or several fingers may be involved. There is slight redness, swelling, little pain, no pus, and, if allowed to continue, deformity of the nails.

Onychorrhexis

Definition: This is splitting of the nails and is usually due to defective local or general nutrition, or to constant use of the bands in water.

Onychauxis

Definition: This is hypertrophy of the nails (hyperonychia).

Symptoms: There is enlargement of the nail, either in length, breadth or thickness, or any combination of these. The nails of the big toes are especially liable to hypertrophy and marked darkening.

Panaris

Definition: This is commonly called whitlow or felon and is applied to inflammation of the bone or bone covering, but is also correctly applied to inflammation of structures about the nail (paronychia) which is usually associated with inflammation of the matrix. It is common in washerwomen and scrubwomen, in diabetes, arsenic poisoning, glossy skin, leprosy, Reynaud's "disease," and other affections. Acute inflammation, redness, swelling and agonizing, throbbing pain are the symptoms. Pus forms and burrows around under the nail, which becomes thickened and discolored and is, finally, shed. The new nail may be normal but frequently is deformed.

Skin Affections Caused By Outside Agents

Argyria
Chapped Skin
Eccymosis (Black-eye)
Frostbite
Intertrigo (chafing)
Miliaria (Prickly heat)
Pernio (Chilblain)
Sunburn

Argyria

Definition: A bluish-gray or slate-gray discoloration of the skin and deep tissues resulting from chronic silver poisoning and most pronounced in the exposed parts. The condition is less common now than in the days when silver was administered in nervous "diseases." The discoloration first shows up in the gums which are discolored and swollen. The discoloration is permanent.

Chapped Skin

Definition: A cracked and roughened skin.

Symptoms: The skin becomes dry, rough, broken and painful. Some of the cracks or fissures are quite deep and bleeding often occurs. Washing tends to aggravate the trouble.

Cracking of the lips is frequently a source of much annoyance, pain and bleeding. In many cases the crack lasts throughout the winter months. The crack may be in the middle, on one side, or at the corner of the lips. Often the fissure is deep and stretching the lips tends to tear it and prevent healing. There may be no scar but sometimes a well-marked scar develops.

Etiology: Exposure to cold air and wind, especially without careful drying of the skin after bathing, soap, and the overuse of hot water are the most common external causes. Vigorous skin health prevents chapping under all ordinary conditions. Soap and hot water rob the skin of its oil and leaves it dry. Some people are troubled as much by chapping in winter as others are by sunburn in summer. It is most common in those having delicate skins and is seen most often on the hands, cheeks and lips.

Care of the Patient: Cut out the use of soap. Use few hot baths, keep the affected parts out of water as much as possible. Thoroughly dry the body, face and hands after bathing and washing. Protect the chapped portions from wind. But, most of all, build up the general health with better diet and hygiene; in the case of the lips, avoid stretching the lips so that the crack may heal.

Eccymosis (Black-eye)

Definition: This term is applied not only to black-eye but to other purplish or black-and-blue patches in the skin, due to changes in the blood that has passed from the blood-vessels into the skin. Most cases are due to blows; but the condition is seen in whooping cough in children and chronic bronchitis in adults. It may also occur in arterial degeneration.

Frostbite

Definition: A local inflammation of the skin and deeper structures resulting from prolonged exposure to great cold.

Symptoms: There are three degrees of frost-bite as follow:

First degree: This is a mere redness or erythema.

Second degree: This presents much swelling and lividity with the formation of blisters and ulceration. Usually the surrounding tissues are considerably inflamed.

Third degree: This presents pallor of the parts, which lose their sense of feeling, though there may often be intense pain in the parts above the frostbite. The frozen parts becomes cold, swollen and puffy, then discolored and shriveled, with the formation of the typical line of separation between gangrenous and non-gangrenous tissue produced by a protective inflammatory wall.

The fingers, being small, and far from the circulatory centers, are the parts most often frostbitten, except the ears and nose. The feet are also frequent sites of frostbite.

Etiology: Poor circulation, with poor tone of the blood vessels predisposes the individual to frostbite. Alcoholism also renders one more liable to its development. Exposure to cold produces frostbite in a susceptible individual.

Care of the Patient: Sudden application of warmth causes much pain and severe inflammation. The parts are best rubbed with snow or cold water in a cold room. The temperature of the room should be slowly increased. When warmth has returned to the parts, they may be wrapped in flannel to keep them warm, but no heat should be applied. The blisters need not be evacuated, although evacuation probably produces no harm.

Intertrigo (chafing)

Definition: This is a hyperemia of the skin caused by friction of surfaces that rub one upon the other. It is especially common in children and fat, people. Lack of cleanliness, friction, the fat-"disease" (sweating, in the folds of babies suffering with fat-bloat), perspiration and friction, as under hanging breasts, between the upper parts of the thighs, and around the sexual organs, frequently produce chafing. Diffuse redness, a sensation of heat, irritation and usually, some degree of moisture are the common symptoms. If the cause continues, a definite dermatitis results.

Care of the Patient: Cleanliness and dryness are the immediate needs. Reduction in weight is essential in most cases.

Miliaria (Prickly heat)

Definition: This is an acute inflammation of the sweat glands accompanied by prickling, tingling and burning of an aggravated character. It is also known as miliaria rubra, and miliaria alba.

Symptoms: It is common in hot weather and is seen most often in fat adults who perspire freely. It disappears when the weather becomes cool. There is a fine, burning, itching eruption. Overclothing, flannel clothing, tight clothing, over-eating, bottle-feeding of infants, and any health-impairing influence may induce the condition.

Care of the Patient: Cleanliness and less fluid soon remedy the trouble. Fatty foods, coffee, tea, beer, etc., should be specially avoided.

Pernio (Chilblain)

Definition: A chronic skin inflammation and swelling resulting from frost-bite.

Symptoms: Chilblain is seen in various grades ranging from a mere transient redness to a deep destruction of tissues. The usual case presents redness, swelling, itching and intense burning, the parts being shiny and cold to the touch. Vesicles and deep ulceration may occur in the worst cases. The fingers and toes may develop a sausage-like appearance. Exposure to artificial heat causes intense stinging and burning or itching. The extremities —fingers and toes—and the ears and nose are the parts commonly affected.

Etiology: Chilblain is due to exposure to cold and damp. A sudden change from a low to a high temperature seems to be the chief cause. Anemic individuals and those with poor circulation are most likely to suffer.

Care of the Patient: Prevention. Care for as instructed under frost-bite.

Remedy: Keep the feet dry and gradually innure them to cold. Vigorous use of the feet, as in walking and running, will build up the circulation in them and gradually overcome the tendency to frost-bite.

Sunburn

This is a very common skin affection during the summer months, practically all people have experienced some degree of it at one time or another in their lives.

Undue exposure to the sun's rays, especially before preparatory graded exposure has built up a protective tan, results in sun-burn. Burning is easiest in blondes and red heads, and in the mountains or in water where the rays are stronger.

Various degrees of burn occur. A moderate redness of the skin is a normal, healthy reaction and produces no harm. Beyond this there may be severe skin inflammation, with swelling and large blister formations, accompanied by high fever. In all degrees there later follows shedding of the skin, sometimes in large sheets.

Gradual exposure prevents sunburn.

Care of the Patient: Cold cream, sweet, unsalted butter and other things are smeared on the skin. These palliate the discomfort but do no good. The main thing is to stay out of the sun until the skin is healed.

Neoplasms Of The Skin

Epithelioma
Cysts
Fatty Tumor (lipoma)
Fibroma
Steatoma (Wen)

Definition: The term neoplasm means new growth and is applied to tumors, cancers, cysts, etc., of which several may develop on the skin in almost any location.

Epithelioma

Definition: This is skin cancer. There are a few varieties of epithelial cancer or carcinoma as follow: **Deep-seated Epithelioma**; **Papillary Epithelioma**; and **Superficial Epithelioma** (rodent ulcer). See Cancer and Tumors.

Cysts

Definition: These are usually sacs in the skin formed by the closing up of the hair follicles and oil glands or their ducts, due to retention of the oil. Small, millet-seed sized, white cysts of the sweat glands are common. The larval stage of the hog-tape-worm may result in the formation of a skin cyst.

Symptoms: These are painless, non-inflammatory enlargements, filled with fluid.

Etiology: Dermoid cysts are comparatively rare and are congenital cysts sometimes having in them hair or other skin elements or appendages. Larval cysts result from the encapsulation of the larval tapeworm received from pork. Other cysts are probably due to inflammatory obstruction of a follicle or duct.

Care of the Patient: It is usually best to open the cyst and destroy its sac. They may often be absorbed by fasting.

Fatty Tumor (lipoma)

Definition: This is a non-malignant tumor composed of fat cells bound together by delicate fibrous or connective tissue. One or more may be present. See Tumors.

Fibroma

This is a connective tissue growth situated in the true skin and subcutaneous tissues. A fibroma may be soft or firm and may range in size from that of a split-pea to that of an egg. They often become pendulous, in which case there may be ulceration. See Tumors.

Steatoma (Wen)

Definition: This is a sac composed of a distended oil gland or duct, filled with the oily matter from the gland.

Symptoms: Wens are painless, round or oval elevations ranging from the size of a pea to as large as an egg. They occur most often on the scalp, but also on the face, neck and back. They may remain stationary for years, or may grow slowly, or undergo inflammation and suppuration.

Care of the Patient: They should be evacuated and the sac removed. If the envelope is not removed the cyst re-forms. The frequent advice to break them is not sound.

Parasitic Skin Affections

Botfly

Erythrasma

Ground Itch

Harvest Mite

Pediculosis (Lousiness)

Pork Measles

Ringworm

Scabies (Itch)

Straw Itch

Tinea Favosa (Favus)

<u>Tinea Versicolor (Chromophytosis)</u>

In discussing skin affections due to parasites we shall devote no space to mere bites like those of the bed bug, gadfly, or other flies, chigger, mosquito, tick, flea, etc., and stings like those of the browntail moth (caterpillar dermatitis) or the ant, etc. These things are evanescent and require no attention.

Care of the Patient: Care consists of two general processes. The most important of these is that of increasing the skin's resistance by building up the general health, especially by improving nutrition.

The second is that of killing the parasites. Lice may be killed by oil. Most parasites may be destroyed by ultraviolet rays. A paste made of lard or butter and sulphur and spread over ringworms speedily destroys these.

Cleanliness is always essential.

Botfly

This fly deposits its eggs in the skin, where a painful boil-like swelling results, which may suppurate. The larvae are usually expelled with the pus;

after which one only needs to await healing. The botfly is common in the tropics.

Erythrasma

Definition: A rare skin affection caused by a vegetable fungus, the microsporon.

Symptoms: It appears as small, round or irregular, well-defined, slightly bran-like patches which are reddish brown in color. These develop usually in the arm pits and groins and between the hips and thighs in the rear. They are accompanied by intense itching, are slowly progressive, and may last for years.

Ground Itch

Definition: This is a vesicular dermatitis seen among barefoot workers in India, and other tropical and subtropical parts of Asia, and, less frequently, in America.

Symptoms: It is characterized by swelling and itching preceding the eruption which is first papular or macular and later becomes vesicular. It affects, almost entirely, the feet.

Etiology: It is considered to be the result of the entrance of a type of hookworm into the skin.

Harvest Mite

This little mite, also called mower's mite, harvest tick, and red bug, is the larval state of certain ticks found upon grasses and bushes during the summer and autumn. It is brick-red or yellowish in color. They get onto the legs and thighs where they either burrow beneath the skin or burrow their heads into the openings of hair follicles, causing intense itching. Their removal ends the discomfort, as they are not poisonous.

Pediculosis (Lousiness)

Definition: This is infestation by lice, pediculi: it is also called phthiriasis. Three varieties are described.

Pediculosis capitis (head-lice) is the presence, on the scalp, of head lice, or their ova or "nits." They cause severe itching which leads to scratching, and this causes the formation of excoriations, with either serous, purulent or bloody discharge. The exudate dries into crusts and mats the hair together. A foul odor usually accompanies. Irritation often causes the glands in the back of the neck to enlarge and sometimes to suppurate. More often this occurs on the back part of the head. Frequently there are papules, pustules and excoriations scattered about the face and neck.

Pediculosis corporis (body lice) is lice on the body. These are larger than head lice. They hide in the seams of the underclothing and deposit their eggs where they hatch in about 6 days. The louse gets out upon the skin only when searching for food. Crawling upon the skin, it causes intense itching which results in scratching, making lines or marks (excoriations), blood crusts, and, in chronic cases, pigmentation and thickening of the skin. The shoulders, chest, waist and thighs are most affected.

Pediculosis pubis (crab lice or pubic lice) is lice in the hairs of the genital region. These are the smallest of the lice. These lice fasten themselves to the hair of the pubic region, where they cling tenaciously while burying their heads deeply in the orifices of their follicles. The pubes and perineum are usually involved. Occasionally the armpits and the hairy region of the chest, and even the eyebrows, eyelashes, and beard are involved. Itching is intense and is accompanied by hemorrhagic punctures, papules, and scratches about the affected parts.

Pork Measles

Definition: This is the larva of the taenia (pork tape-worm).

Symptoms: They usually find their way into the skin of the trunk and limbs where they may remain unchanged for years. They cause tumor-like lesions, which are rounded, firm, and elastic, ranging in size from a pea to a walnut.

Ringworm

Definition: This is a common skin affection caused by the presence in the skin of a vegetable parasite called tinea trichophytina. There are six varieties.

Tinea circinata is ringworm of the body. It begins as one or more rounded or irregular pea-sized hyperemic scaly patches. These form into a circle in a few days with very small papules or vesicles around the outside. The patches heal in the center as they spread from their outer borders. Adjacent patches may coalesce, producing ring-shaped patches of skin that overlap or fold over each other. They are pink or red in color, with slightly elevated borders and, upon scaling, give off bran-like flakes. Itching is usually slight.

Tinea circinata cruris is ringworm of the thighs. This begins and develops as does tinea circinata.

Tinea Cruris (eczematoid ringworm) is so-called washerwoman's itch. It is very common and resembles intertrigo. There are macular, vesicular, papular, scaling, macerated (soft from cooking) and callous (like keratosis) types. It is common for several forms to develop in the same individual. The thigh, pubes, (around but not in the hairy region), the penis, labia, scrotum, perineum, arms, and the cleft between the buttocks as far up as the sacrum are common locations for the vesicular type. Extreme itching may be present around the labia, anus, and buttocks. The macular form is especially likely to develop under hanging breasts, between the toes, between the penis and scrotum, and between the buttocks. The feet is the location of the callous type.

Tinea trichophytina unguium is ringworm of the nails. Ring-worms form under the nails.

Tinea tonsuraus is ringworm of the scalp. This begins as does tinea circinata and may occur anywhere upon the hairy scalp, often producing partial baldness.

Tinea sycosis is ringworm of the beard or barber's itch and was discussed elsewhere.

Scabies (Itch)

Definition: This is the well-known "seven-year itch." It is an itching of the skin due to the itch mite, sarcoptes scabiei.

Symptoms: Small papules, vesicles or pustules form at points where the mite enters the skin. Slightly dark elevations of the skin show along the course of the burrow, which varies in length from one-eighth to one-half of an inch. Well marked cases also present various forms of eruptions—papules, vesicles, pustules, crusts, excoriations (raw areas from scratching), and thickening of the skin. In extreme cases the skin may look like the bark of a tree. There is intense itching which is worse at night or when warm. Much inflammation may develop in children with sensitive skins.

The affection commonly starts between the fingers or toes from where it rapidly spreads, often reaching advanced stages in a week or two. The front surfaces of the wrists, the flexor surfaces of the extremities, the armpits, the breasts of women, the navel, buttocks and penis, are other common locations.

Etiology: Scabies may be acquired at any age and is transferred by direct contact, or by bed clothes, towels, toilet seats, etc. It is common among people who live in filth.

The mite is a yellowish-white parasite, barely visible to the unaided eye; the female being twice the size of the male. The mite burrows beneath the skin and then burrows, either in a straight or zigzag line in the skin. Along the course of these burrows she deposits her eggs and excreta. She perishes but the eggs hatch in eight to ten days and the new mites make burrows of their own in which they also deposit eggs and waste. The new crop matures and repeats the process and in this way the affection spreads.

Straw Itch

Definition: This is a skin eruption produced by a minute animal parasite, a mite that is received from cereal or straw.

Symptoms: Mild systemic symptoms sometimes precede the eruption. These are general restlessness, loss of appetite, slight fever, and sometimes vomiting. The eruption occurs chiefly as wheels, many of which are crowned by a central vesicle from the size of a pin point to considerably larger. Frequently the eruption consists of barely raised, red, hive-like macules or edematous papules. These quickly become pustular and closely resemble the vesicles of chickenpox. The eruption is of rose tint, usually profuse, covering the trunk and lower limbs, but varying in extent. Rarely a few eruptions develop on the face, seldom on the hands and feet. There is intense itching.

Etiology: Straw-itch develops in the United States usually between May and October, in farmers, harvest hands, laborers, etc., who come in contact with the mite in the grain field, granary or store house, in stacking, baling, or otherwise handling the straw. Shippers, porters and others who carry the grain in sacks; those who use straw in packing, by contact with the straw; and those who sleep on straw bedding. Some of the most severe cases have developed in those who sleep on straw mattresses. The mite lives upon the larvae of grain-destroying insects.

Tinea Favosa (Favus)

Definition: This is a skin affection largely confined to the scalp, caused by the presence of a vegetable parasite; occasionally found on non-hairy sections of the body and the nails, causing these to become thickened, brittle, yellow and opaque.

Symptoms: There is diffuse or confined superficial inflammation, with scaling, around the hair follicles. This is soon followed by the formation of yellowish crusts about the size of pin-heads. The crusts increase to the size of peas, are sulphur yellow color, pierced by a hair, and become cup-shaped. When removed from the scalp a shining, reddened, cup-shaped and atrophied excavation, which is often in a state of suppuration, is revealed. When the excavation heals it leaves a scar and results in more or less permanent baldness. The crusts may be scattered or may run together forming irregularly horny-comb-like patches. They give off a peculiar odor resembling that of a mouse or damp straw. The hair loses its lustre, becomes dry and brittle and tends to split or break off or to fall out. Itching of varying intensity is usually present.

Tinea Versicolor (Chromophytosis)

Definition: This is "Liver spots" and is closely allied with ringworm but is not a true ringworm. It is due to a vegetable parasite.

Symptoms: Though usually found on the trunk, in rare cases it may develop on the neck, arm, armpit and face. It begins as yellowish, pin-head to pea-sized macules which are scattered over the affected sections. Within a few weeks or months these increase in size and run together forming large,

irregularly shaped patches, with sharply defined edges. Usually fawn-hued they vary in color from pale yellow to brown, or may present a distinctly pink tint. A fine mealy scale covers the involved area, which, if not apparent, becomes noticeable upon scratching the surface. Itching is mild but usually persistent. It is seen chiefly in adults.

Etiology: Parasitic skin affections are due to animal and vegetable parasites that come in contact with the skin, most often in filthy surroundings. Most of these parasites are powerless against normal skins of full resistance. A healthy skin and cleanliness constitute the best protection against them.

A lowering of the powers of life, with abnormal nutrition and consequent slow and imperfect renewal of the tissues are essential before parasites can gain a foothold in the skin and thrive therein. When the skin is weakened and debilitated and ready to undergo de-generation, physiological scaling of the skin occurs prematurely and the skin fails to renew itself promptly and perfectly. This affords opportunity for parasitic invasion.

The resulting inflammation, eruption, suppuration, etc., are efforts to dislodge them.

Tumors

Definition: A tumor is a morbid growth of tissue not normal to the part. Tumors are divided into benign (innocent) and malignant (cancer). Cancer will be discussed in the succeeding chapter. Hence we shall here confine ourselves to the so-called benign tumors.

Tumors are made up of flesh and blood and bone; are composed of tissues, the same kind of tissues, in fact, as the other tissues of the body. There are many names for the different kinds of tumors, but the names all indicate the kind of tissue of which the tumor is composed. The many kinds of tumors are broadly grouped as (1) connective tissue tumors; (2) epithelial tissue tumors; and (3) mixed tissue tumors, composed of mixtures of various tissues.

In his **Notes on Tumors**, a work for students of pathology, Francis Carter Wood defines a tumor as "a more or less circumscribed collection of cells arising wholly independently of the rest of the body, in general growing progressively, and serving no useful purpose in the organism." He admits that this definition is entirely descriptive and adds "as we do not know the cause or causes of tumors, it is impossible to define these structures more accurately." In dealing with their classification he makes a similar statement, saying: "inasmuch as we do not know the cause of tumors, it is impossible to make a strictly scientific classification of them. It is, therefore, most convenient to use a purely morphological basis for classification, drawn from the microscopic appearance of the tumors and the tissues from which they originate. Cysts are included with tumors because of their genetic relationship to new growths rather than to any other pathological condition."

We do not see how it can be maintained that tumors grow independently of the body and we do not believe that it can be shown that they serve no useful purpose. It will not be denied that those portions of a cyst, or at least some cysts, which are genetically related to neoplasms, serve a very definite and imminently useful purpose. A cyst which forms around a foreign body, a parasite for example, is definitely useful and protective.

A process similar to this is seen in plants that have been invaded by parasites. The large, rough excresences seen on oak trees form about the larvae of a certain fly. This fly lays its eggs beneath the bark of the tree. The

larvae which develop from the eggs secrete a substance that results in the formation of the huge tumorous mass. Large tumor-like masses form on the roots and stalks of cabbages as a result of parasitic invasion. The olive tree also develops tumors from a similar cause, while cedar trees present peculiar growths called "witches brooms," as a result of a fungus growing on them. There are many other examples, and they are all quite obviously protective measures. Tumor formation is, undoubtedly due to a variation in the complex relations determining normal growth, and is of a distinctly protective nature. A tumor is not a source of danger until it begins to break down.

It is our opinion that tumor-formation is always and ever orthopathic, and that it prolongs life in the face of causes, which, except for the tumor-formation, would produce death much earlier.

From our standpoint a "strictly scientific classification" of tumors is not necessary; for they represent the same condition or the same process in different tissues. Tumors may develop in any organ or in any tissue of any organ in the body and they derive their names from these organs and tissues. Thus, Myoma is the name given to a tumor of muscle tissue; Endothelioma is the name applied to a tumor of the endothelium of some of the body's cavities; Osteoma is a bone tumor; Lipoma is a fatty tumor; Adenoma is a tumor of a lymph gland; Fibroma is a tumor of fibrous tissue (a fibroid tumor); Fibro-adenoma is a fibrous tumor of a lymph gland; Sarcoma is a connective tissue tumor; Neuroma is a nerve tissue tumor; etc., etc. A malignant tumor is called **Carcinoma**. These names relate to tissues, organs and locations—the differences in these tumors are those derived from the differences that exist in the tissues in which they originate. From these considerations it is evident that tumors are a unit just as inflammation is a unit. Furthermore, they do not represent distinct and specific "diseases," but are merely links in a long chain of causes and effects which extend backward in the life of the individual to infancy, and often, perhaps, beyond.

A tumor is not only composed of cells of the same kind as those composing the tissue from which it is derived, but these cells are frequently functioning tissue. Carcinoma of the thyroid often secretes the specific thyroid material; a tumor of the breast is likely to contain structures which remind us of the secreting gland of the mammae; a uterine tumor is likely to contain involuntary muscle fibre; carcinoma of the bowel often contains

glandular structures which resemble the normal structures of the intestine, and which secrete mucus.

The tumor, as a whole, does not resemble perfectly normal tissue. In a fibroma, for instance, its connective tissue cells are absolutely identical with those of the tissue in which the tumor is situated, but the general structure is usually more or less cellular than the normal connective tissue. Blood vessels have thin walls, or in dense tumors are almost entirely absent over considerable areas. The lymph channels are defective, while the nervous structures present have no relationship with the tumor. These latter merely pass through the tumor to the normal structures which they innervate. In tumors in cartilaginous structures (chondromas), the cartilage is not so regular in structure as in normal cartilage. In tumor of the bone the bone cells and lamellae are not so systematically arranged as in normal bone. It seems self-evident to the writer that this proliferation of cells is the same in all tissues and from the same common causes and that it represents an effort of defense or adaptation—a means of prolonging life instead of an effort to commit suicide.

Symptoms: Tumors, **per se**, produce no symptoms. They often are so located and grow to such sizes that they produce pressure, occlusion or obstruction, or, by pressure upon a nerve, produce neuritis, and nerve degeneration. Pressure on the optic nerve may produce blindness. A tumor in the intestine may produce obstruction. Many examples of this have been given in preceding pages. Fibroid tumors are credited with, or are said to be the cause of thousands of symptoms, but this is refuted by the fact that as soon as toxemia is eliminated and improper eating is discontinued the patient is relieved of her symptoms which never return, in spite of the tumor, unless she resumes her wrong living habits. Discomfort caused by intestinal indigestion is often diagnosed fibroid tumor of the uterus.

Etiology: Tumors arise out of the innate power of asexual reproduction present in all tissues; except, perhaps, in the most specialized, and this power is fanned into activity by nutritional excesses and perversions. So called "benign" tumors are abnormal (pathological) and are evidences of constitutional pathology.

Tumors begin as hardening and thickening of the tissues at a point of irritation as a means of defense. Hardening and thickening of the tissue may occur in any and all parts of the body to resist constant irritation. This can be

seen in the mouth, and stomach and intestines of those who employ salt and condiments. It is seen in the constant use of drugs. Silver nitrate, for instance, if repeatedly employed, converts the mucous surface upon which it is used into a kind of half-living leather. The arteries of the body, the liver, eyes, ears, and other organs harden and thicken as a result of toxic irritation. Tumors that follow so often the chronic application of tar, paraffin, soot, etc., come as a result of disturbed nutrition and functional activity of the skin; the skin first becoming harsh and dry to the touch. Toxemia with or without the aid of external irritation often necessitates, at certain points of the body, the erection of greater than ordinary barriers against it. When the normal cells of a local spot become so impaired that they no longer successfully resist the encroachment of toxins, not only are the usual defense processes brought into activity, but also, since a more than usual condition is to be met, nature calls into play her heavier battalions. She begins by erecting a barrier of connective tissue cells. Then, with a slowly yielding fight against the toxins, she continues to erect her barrier. This may continue until the tumor becomes so large as to constitute a source of danger itself. Were it not for the erection of the barrier, the causes against which it is erected would destroy life long before they ultimately do. The tumor actually prolongs life.

Tilden traces the development of a uterine fibroid thus: "A young woman develops intestinal indigestion from imprudent eating. The catching-cold habit, with catarrh of the mucous membranes, follows. Soon there is developed intestinal putrefaction, which being absorbed, causes infection. The pelvic lymphatics become involved. As there is more or less congestion of the mucous membrane lining the uterus and its neck, the condition is made more pronounced each month because of menstruation and the toxins being absorbed in the bowels. The uterine engorgement causes longer and more profuse menstruation; painful menstruation begins, growing more pronounced month by month. Pain forces the calling of a physician, who on examination finds a flexed womb. The flexion is caused by a thickening of one side of the womb, which forces a flexion to the opposite side. The more thickening the more obstruction to the circulation and the more bent is the neck of the womb.; and the more bent is the neck, the more the canal is obstructed to the menstrual flow.

"As the womb is flexed more and more, the circulation is more and more interfered with. The flexed side fails to receive the proper amount of

nourishment, and the thickened side receives all that the uterine and other vessels can bring; but the return vessels fall to carry back the full amount, and, as a, result, hypertrophy takes place—the parts are overstimulated. Nature undertakes to organize the surplus; and she does—and we call it a fibroid tumor. These growths grow rapidly or slowly according to the amount of obstruction.

"A growth may fill the pelvis and abdomen in five years; and again in some other women it may require twenty years to develop a tumor the size of an orange.

"Injuries at childbirth often become the first cause of tumor, next to putrefactive infection from intestinal indigestion.

"Another cause: A catarrhal inflammation locates at an old placental site, as a result of toxemia. Thickening and induration follow, impeding the efferent circulation. The more growth, the more pressure and obstruction, until the new growth—fibroid tumor—is large enough to become a cause of its own growth, by impeding the circulation through its weight and pressure.

"This work of overgrowth is pushed along rapidly by overeating, which means over-nourishing; the surplus being organized into tumor.

"Overeating and improper eating often cause gas distention of the bowels. The pressure from gas crowds and misplaces the womb. From such misplacements enough obstruction to uterine circulation may take place to cause hypertrophic enlargement, which is fibroid enlargement.

"Constipation may cause enough pressure on the womb to start imperfect circulation, and later fibroid growth.

"Wherever there is impeded circulation, new growth must take place; and that means tumor. The kind of tumor will depend on the character of the tissues involved.

"Add to these causes sclerosis, and malignant diseases may follow. That is, the benign tumors may become malignant."—Impaired Health, Vol. I, pp. 255-6-7.

Women can be taught how to prevent building tumors, cancers, and other diseases, and those women who have fibroid tumors can be taught how to get rid of them without operations; and those who have them not, how to avoid building them.

Care of the Patient: Doctors and surgeons commonly believe that there is no "cure" for fibroid tumor except its surgical removal. While surgery is

still preferred for other types of tumors, X-ray and radium are frequently used in treating them. Neither removal of tumors by the knife nor their destruction by X-ray or radium removes their cause and they usually recur, often in malignant form.

Radical cure of tumors requires a removal of all causes of metabolic perversion and a restoration of normal nutrition. When this is done, tumors tend to disappear.

Tumors being composed of tissues, the same kinds of tissues as the other structures of the body, are susceptible of autolytic disintegration, the same as normal tissue, and do, as a matter of experience, undergo dissolution and absorption under a variety of circumstances, but especially during a fast. The reader who can understand how fasting reduces the amount of fat on the body and how it reduces the size of the muscles, can also understand how it will reduce the size of a tumor, or cause it to disappear altogether. He needs, then, only to realize that the process of disintegrating (autolyzing) the tumor takes place much more rapidly than it does in the normal tissue.

Over a hundred years ago Graham noted that when more food is used by the body than is daily supplied "it is a general law of the vital economy" that "the decomposing absorbents always first lay hold of and remove those substances which are of least use to the economy; and hence, all morbid accumulations, such as wens, tumors, abscesses, etc., are rapidly diminished and often wholly removed under severe and protracted abstinence and fasting."

I could quote numerous men of wide experience with fasting to corroborate what I am going to say about autolyzing tumors, but I do not desire to weary my reader with quotations. I will content myself with one quotation. Mr. Macfadden says: "My experience of fasting has shown me beyond all possible doubt that a foreign growth of any kind can be absorbed into the circulation by simply compelling the body to use every unnecessary element contained within it for food. When a foreign growth has become hardened sometimes one long fast will not accomplish the result, but where they are soft, the fast will usually cause them to be absorbed."

Due to a variety of circumstances, some known, others unknown—the type of tumor, its location, the amount of weight carried by the patient, the general state of the body, local conditions, etc. —the rate of absorption of tumors in

fasting individuals varies. Let me cite two extreme cases to show the wide range of variation in this process.

A woman, under forty, had a uterine fibroid about the size of an average grapefruit. It was completely absorbed in twenty-eight days of total abstinence from all food but water. This was an unusually rapid rate of absorption.

Another case is that of a similar tumor in a woman of about the same age. In this case the growth was about the size of a goose egg. One fast of twenty-one days reduced the tumor to the size of an English walnut. The fast was broken due to the return of hunger. Another fast a few weeks subsequent, of seventeen days, was required to complete the absorption of the tumor. This was an unusually slow rate of tumor-absorption.

Tumor-like lumps in female breasts ranging from the size of a pea to that of a goose egg will disappear in from three days to as many weeks. Here is a remarkable case of this kind that will prove both interesting and instructive to the reader.

A young lady, age 21, had a large, hard lump—a little smaller than a billiard ball—in her right breast. For four months it had caused her considerable pain. Finally she consulted a physician who diagnosed the condition, cancer, and urged immediate removal. She went to another, and another and still another physician, and each made the same diagnosis (an unusual thing) and each urged immediate removal.

Instead of resorting to surgery the young lady resorted to fasting and in exactly three days without food, the "cancer" and all its attendant pain were gone.

There has been no recurrence in thirteen years and I feel that we are justified in considering the condition cured.

Hundreds of such occurrences under fasting have convinced us that many "tumors" and "cancers" are removed by surgeons that are not tumors or cancers. They cause us to be very skeptical of the statistics issued to show that early operation prevents or cures cancer.

The removal of tumors by autolysis has several advantages over their surgical removal. Surgery is always dangerous; autolysis is a physiological process and carries no danger. Surgery always lowers vitality and thus adds to the metabolic perversion that is back of the tumor. Fasting, by which autolysis of tumors is accelerated, normalizes nutrition and permits the

elimination of accumulated toxins, thus helping to remove the cause of the tumor. After surgical removal, tumors tend to recur. After their autolytic removal, there is little tendency to recurrence. Tumors often recur in malignant form after their operative removal. The tendency to malignancy is removed by fasting.

In Europe and America literally thousands of tumors have been autolyzed during the past fifty years, and the effectiveness of the method is beyond doubt. The present writer can give no definite information about bone tumors and nerve tumors; but, since these are subject to the same laws of nutrition as all other tumors, he is disposed to think they may be autolyzed as effectively as other tumors. These things are certain—the process has its limitations and tumors that have been allowed to grow to enormous sizes will only be reduced in size; while, not all cysts will be thus absorbed. It is advisable, therefore, to undergo the needed fast or fasts while the tumor or cyst is comparatively small.

One other limitation must be noted; namely, tumors that are so situated that they dam-up the lymph stream will continue to grow (feeding upon the excess of lymph behind them) despite fasting.

In cases where complete absorption is not obtained, the tumor is sufficiently reduced in size not to constitute a menace. Thereafter proper living will prevent added growth. Indeed, we have seen a number of cases where a further decrease in size followed right living subsequent to fasting.

It is necessary to add that all causes of toxemia and enervation must be corrected and good health built by proper use of every hygienic factor. In uterine fibroid the uterus must be resorted to normal position and pelvic hyperemia overcome.

Cancers

Books on cancer are largely repetitions of other books on cancer. There is much iteration but small addition. They travel in circles and make no progress. Ours is a new approach to the problems presented by cancer.

Definition: Cancer is defined as a malignant tumor. There are two general varieties as follow:

Carcinoma, or epithelioma, is cancer of the epithelial tissues, or a special form of hyperplasia of the epithelial tissue.

Sarcoma is cancer of the connective tissue.

Several forms of both are described but for all practical purposes these distinctions may be ignored. Indeed carcinoma and sarcoma are probably both due to the same causes acting on different tissues.

They are regarded chiefly as "diseases" of middle life and old age. They are seldom found in children and young people and there must be a good sound reason for this. It is probably correct to say that children do not suffer from cancer for the reason that their habits have not had time to produce it. A few cases do develop in children, who must be predisposed to its development, and the number who develop the "disease" increases as age increases, clime, no doubt, to the fact that the causes which produce the "disease" continue to accumulate and grow in power as age advances. The causes operating to produce cancer take time to act and it is for this reason that cancer becomes more common as age increases.

In childhood and early life, irritation in the body is accompanied by intolerance. The young organism vigorously resists the causes of irritation and throws them off. This gives rise to the fevers, inflammations, sudden and fierce, and frequently of short duration, so characteristic of childhood.

As age advances and the tissues harden they cease to offer such violent resistance to irritation, but tolerate it, so that the "diseases" of middle life and beyond are not so fierce as in childhood and youth. The ever increasing cause begins to weigh down and depress the powers of the body. The ordinary powers of resistance to toxins and irritants and the usual means of disposing of surplus food are impaired and the body is forced to defend itself and dispose of its surplus food by some more or less unusual means. New

growths of all kinds are composed of cells and in order to grow it is necessary that more food material be brought to them than is necessary for the sustenance of the normal tissue of the part. Long continued local over-irritation due to irritation or circulatory obstruction would seem to be necessary for the immediate production, of a neoplasm.

Cancer cells manifest marked resistance to toxic factors to which normal cells offer but slight resistance. This is especially seen in their resistance to the toxic factors active in the homiotransplantation of cancer, to which normal cells succumb. Does it not seem more than probable, then, that the changes which occur in normal, cells, when these are transformed into cancer cells are efforts at adaptation?

Cancer cells, like tumor cells, were originally ordinary cells which have assumed or have had forced upon them, increased intensity of proliferation and often an increased ameba-like activity. There is only a gradual transformation of normal into cancerous cells. Cancerous tissues retain the characteristics of the tissues in which (or out of which) they develop. There is no line of demarkation between normal tissue and cancerous tissue the two are really one.

Cancer cells do not grow more rapidly than do normal regenerating cells, but continue to grow long after the normal regenerating cells will have returned to the equilibrium of normal tissue. During this process the cells, step by step, assume characteristics which are very similar to those possessed by regenerating cells, but these characteristics are even more accentuated in the cancer cells and, instead of returning, after a time to the equilibrium of nominal cells, they tend to retain these accentuated characteristics as fixed possessions.

Symptoms: There are three diagnostic symptoms of cancer. These are **induration**, **pain** and **cachexia**. Tilden says: "Without cachexia cancer has not yet evolved. Between induration (a tumorous hardening), pain, and cachexia there is a diagnostic **no man's land**."

Any hardening of tissue belongs to the cancer family. All that is needed to push it into a state of cancer is to increase the toxemic condition of the blood to the point of disintegration of such tissue.

Etiology: Cancer is a problem of general biological importance, for both tumors and cancers occur among both plants and animals. The fact that cancer occurs in many animals, mammals, birds, fishes, etc., is enough to refute, the

theory that its occurrence is essentially connected with civilization. When we see cancer of one location more common in one people than in another we account for it by the differences in their modes of living. But its presence in practically all peoples proves that the basic cause is not any particular habit or practice.

Much of our perplexity with regard to cancer grows out of our failure to see things whole and in proper proportion. Cancer is not some spontaneous horror suddenly sprung upon us without any provocation on our own part. It is the last gesture in a long chain of toxemic crises, none of which are specific in beginning nor in ending. A cold is the Alpha in a chain of pathological developments of which cancer is the Omega.

In Vol. VI of this series we traced the evolution of cancer through the following more or less well-defined stages: irritation, inflammation, induration, ulceration and fungation, which is cancer. Dr. Claunch traces it through five similar stages as follow: inflammation, hypertrophy, hyperplasia, atrophy and malignancy, which is cancer.

It is well to understand that these stages are not sharply defined and demarkated, but shade gradually into each other. Stages three and four in each of these classifications correspond to "pre-cancer," while stage five in each of them includes both "early cancer" and cancer. Both Dr. Claunch and I have made it clear that cancer has its beginning with the first departure from the ideal health standard, that it is an end-point in a chain of causes and effects, each stage of which is built upon and grows out of the preceding one and each stage of which prepares for the next. There is an unbroken continuity from the first departure from health to the final ending in death from advanced cancer.

We hear on all sides that the cause of cancer is unknown and this allows us to ignore the obvious fact that every influence that impairs the general health contributes to the production of cancer. Cancer should be traced back to its ultimate beginnings in those early departures from high health which are so obviously due to our indiscretions in eating and living in general. Cancer is preceded by early cancer; early cancer by pre-cancer; and pre-cancer is preceded by years of pathogenic factors and pathological developments.

Failure to recognize the continuity and unity of pathological developments and to grasp the principle of pathological evolution accounts for the chaos in present theories and practices. Until we have learned to recognize the genetic connection between cancer and the preceding and concomitant pathological developments in the body and to understand that they rest upon a common substratum of cause aside from the body itself, we will not be in a position to deal intelligently with either the problems of cancer prevention or those of cancer cure.

Cancer is not cancer at the beginning. It is the end of a series of toxemic crises starting in youth, even in infancy, and ending in a pathology of indurated tissue which finally ulcerates and suppurates, and is marked by an overwhelming cachexia—a fatal anemia from chronic septicemia.

Pre-cancer may be a gastric ulcer, a fistula, a fissure, an indurated breast, a chronic cystitis, or the stump of a removed tumor, or an X-ray or radium burn, etc. Between the pre-cancerous stage and early cancer, there is no distinct line of demarkation—they are not distinguishable from one another. Nor is there a line of demarkation between the pre-cancerous stage and the stage which immediately preceded it. One development is the son of another and we should not forget the parentage.

Why does last year's ulcer become this year's cancer? Why does the fistula become cancerous? What produces this change? Obviously it is an evolution out of the prior condition and is produced by the same causes, perhaps intensified, that produced the prior condition.

Let us not forget the antecedents of the pre-cancerous condition. Suppose "early cancer" and then "cancer" have evolved out of a gastric ulcer: Where did the ulcer come from? It developed out of a previous hardening at the site of chronic inflammation, which, in all likelihood, began as a catarrhal inflammation (gastritis), due to overeating of carbohydrate foods. Cancer is merely the last stage in a long series of developments. When the variation from the normal type of tissue in which the tumor originates passes beyond a certain more or less indefinite line, the tumor becomes malignant. This represents merely another stage or step in the pathological evolution, and not the addition of some new element. It is the result of the continued action of the original producing causes.

There is no possibility of learning causation so long as pathology ignores all origins, so long as we ignore the early forms or stages of pathology and study only its end-points. In those early stages of pathology, which are so tangibly due to our indiscretions, lies the essence of pathology in general. To comprehend the simple issues here involved is to know the grand secret of

health and natural immunity, subjects which orthodox science prefers not to understand.

Tilden says: "Cancer is nothing more at the beginning than chronic catarrh. In a subject of scrofulous diathesis, the glands are likely to take on lymphangitis; if the lungs are the most vulnerable part, so-called tuberculosis develops; if an injured breast is the vulnerable point, glands enlarge and so-called cancer develops; if a slight abrasion is incurred on the genitalia and is badly treated, a 'chancre' develops, local glands become involved and we have so-called syphilis. The three diseases are one, manifesting differently because different environments and tissues are invoked, and complicated from the first by a greatly depressing psychology. These diseases are made deadly by the fear often implanted by doctors. All may be easily corrected before hope is killed."

Every man who comes down with any one of these so-called "diseases" has brought on enervation, and a toxic state of the system, by wrong living. These "diseases" can be prevented when people know enough to take care of their health, know that a cesspool under the diaphragm is a thousand times more dangerous than all the cesspools or drainage conduits found in the cities.

Victor P. Fleming says: "Then what is the cause of cancer? First and all-important is toxemia. The tissue resistance becomes lowered through many factors, such as age, traumatism, continued irritation, stasis, disfunction of organs, or overwork of organs. Time cell fluids become abnormal or unbalanced in their salt-content proportions, and cells take on abnormal growth. Cancer cells cannot thrive in tissue free from toxemia. There is also a disturbance of the internal gland secretions and vital forces which control cell-growth."

Diet in cancer production: Animal tumors and cancers are often allied with the presence of parasitic infection. Cancers are found almost wholly among meat eating animals and only rarely among vegetarian and fruitarian animals. In plants, nitrogenous excess seems to favor tumor and cancer development. Among races of men, cancer incidence is highest among the meat eating peoples, lowest among vegetarian peoples; highest of all in one section of Australia where the per capita consumption of meat is the highest in the world.

In the **Valley of Death** there is predacity, parasitism, insectivorism, carnivorism, cannibalism, degeneracy, tumors, cancers, extinction. There is abundant evidence, experimental and otherwise, to show that nitrogen-excess (anti-symbiotic feeding) results in so much and such virulent poisoning that the organism is predisposed to cancer development.

Overeating is continued for years after the first symptoms give warning that the body is no longer able to tolerate the excess of food. There is a vicious circle of affinities at the base of all morbidity, of which overeating and wrong eating are integral and important parts. Let no one say that overeating, or meat eating, is the cause of cancer. They are causes of enervation and toxemia. Cancer is an end-derangement following many crises of toxemia. The extreme toxicity and rapid degeneration seen in cancer are results of many cooperating factors. There is no unitary cause for cancer.

Irritation as a Cause of Cancer: The "precancerous irritative conditions" are almost universally considered as the best established factors in the causes of cancer. To quote from a work issued by the American Society for the Control of Cancer and prepared for the use of physicians: "One form of cancer after another has been shown to be related to some form of chronic irritation, as a direct or indirect contributing factor. We know that cancer of the cervix, the lip, the tongue, the rectum, the stomach, and many other forms of malignant disease of the external skin—Marjolin's ulcer, the cancer associated with the wearing of the peculiar charcoal-heated kangri basket of Kashmir, the paraffin workers cancer and the roentgen-ray workers cancer—are all closely associated in their inception with some form of chronic and repeated irritation."

It should be known, however, that not all seats of chronic and repeated irritation become cancerous. Indeed, an almost infinitesimal percentage of such sites ever develop cancer. Dr. Bulkley says: Local injury, sudden or prolonged, has been proclaimed by many as the cause of cancer. But while this may be the reason of the appearance of the lesion in some particular locality, * * * the absurdity of regarding this as time real cause of cancer is evident when we realize how frequently blows are received on the female breast, and how rarely cancer develops. Or, how many millions of men smoke, and have ragged teeth and how comparatively rare is cancer of the buccal cavity. Again how the hands and feet are constantly submitted to injury, and often to prolonged irritation, and yet how very seldom is cancer

seen in these localities, nor do warts or corns on the hands and feet develop into cancer, etc., etc."

This being true, and it is, it follows that there must be some underlying constitutional state which predisposes to cancer. For irritation alone is not enough to result in cancer. Indeed, as the many "causes of cancer" are presented, and are later shown to be not causes of cancer, we become more sure than ever that back of this condition there exists a universal basic cause, composed, of course, of many factor-elements, which must receive attention if we are to either prevent or remedy the trouble.

Perhaps we must lose some peculiar tissue resistance before cancer can develop. There are cases in which the resistance to cancer development is so great that no ordinary amount of irritation can produce cancer. Other cases develop cancer with a minimum of antecedent injury. We are certainly on the wrong track when we concentrate our attention upon the local irritation and ignore the "soil" condition.

X-ray cancer, paraffin cancer, arsenic cancer, mineral oil cancer, tar cancer, parasitic or worm cancer, kangri cancer, and carcinoma arising in old sores, as the result of acquired perversion of the regenerative processes, develop in those who are prepared, by a previously developed cancer soil. Not every one who is subjected to these sources of irritation develops cancer. Irritations of all kinds must find a responsive sub-stratum before they can produce a cancer.

If chronic irritation leads to cancer, what leads to chronic irritation? Cancer statistics show that most cancers develop in the stomach, breasts, uterus, intestine, liver, gall-bladder, rectum, prostate, and bladder, rather than in the mouth and skin. Chronic irritation from toxemia and intestinal intoxication are the chief internal sources of irritation.

Before irritation of any kind can result in a local growth there must first exist an autogenous poisoning of the body. Cancer is preceded by and accompanied with many evidences of systemic impairment and metabolic perversion, particularly perversion of protein metabolism.

Cancer of the bladder is frequent in aniline workers—certain aniline dyes are excreted in the urine. Cancer of the breast develops as the end-result of a preceding chronic inflammation. Cancer of the lip and tongue develop at the site of chronic irritation, usually from smoking, or from the habitual use of alcohol. Cancer of the throat grows out of the same causes. Cancer of the

liver and gall bladder may result from persistent inflammation of these organs. Cancer of the stomach evolves out of chronic gastritis and gastric ulcer. Two-thirds of all cancer of the stomach is an evolution out of a preceding gastric ulcer. In vegetarian Japan, where the rice is highly spiced, cancer of the stomach is very common. Cancer of the skin is found in people whose occupations bring them into contact with thermal and chemical irritants—flour, soot, oil, kangri basket, etc. Cancer of the womb is the final culmination of long-standing chronic affections in this organ. It is not uncommon for leucorrhea and painful menstruation to have existed from puberty to middle life. X-ray and radium burns frequently result in cancer. Drugs, vaccines and serums all produce more irritation than spices and condiments. Mineral oil, taken as a laxative must irritate the digestive tract as similar oils do the skin. Antiseptic douches irritate the womb and vagina of women who employ them. The wide-spread use of these elements of spurious "feminine hygiene" may account, in large measure, for the great increase in uterine cancer within recent years.

Constipation: In many quarters stress is laid upon intestinal stasis (constipation) as a cause of cancer. Indeed, too much stress is laid upon constipation, which is the effect of necessary antecedents, and not enough (or none) upon these antecedents. The evils that are blamed upon constipation are outgrowths of the causes of constipation and not of the constipation. It is unwise to stress a symptom and ignore its causes, magnifying this symptom into the cause of many affections, even cancer, and neglect to consider the antecedents of the constipation as causes of the other affections. It cannot be shown that the cancers of animals (and certainly not of plants) are in any way allied with constipation, nor with the presence of intestinal kinks; and certainly not with aluminum cooking utensils, tarred roads, etc.

When medical men (many of them) turned to "chronic intestinal stasis" as the cause of cancer, it meant that they had begun to recognize that factors and pathologies are concerned in the production of cancer other than local irritation, protozoa, or other parasites. They are looking to body chemistry, to perversions of nutrition, as the **fons et origo** of these destructive lesions. Toxemia and its myriads of causes answers to the needs of the problem, as they must someday recognize.

Metastasis: It is argued that the presence of a carcinoma of the uterus and of a carcinoma of the stomach must be based on different irritants. When

tumors are found to exist in some portion of the intestinal tract and also in one or both ovaries, the intestinal tumor is regarded as primary and the ovarian tumor as secondary, being derived from the primary one by metastasis. Metastasis is the name applied to the theory that particles of tumors break off or become detached from the "parent body" and are carried by the blood or lymph to other parts of the body where they attach themselves and begin the development of another tumor. Metastasis is autotransplantation of cancer cells as opposed to homiotransplantation which is done at will.

Without denying the possibility of an occasional metastasis occurring, I believe that the theory is often merely a smoke-screen behind which doctors hide their ignorance. There is always the possibility, where two or more tumors or cancers develop in a patient, that they are concomitant and successive developments out of common causes and not one the offspring of, the other.

Wood records a case of epithelioma of the lip "which remained fairly localized and was successfully removed by operation with no recurrence at the end of a year." However, by this time there had developed a very large carcinoma of the thyroid, all the lymph-nodes of the neck being involved along with the surrounding tissue. The patient died. At autopsy no traces of the epithelioma of the lip were found in regional lymph-nodes and adjoining parts of the face but numerous small carcinomata were present. Both carcinoma and sarcoma may develop in the same individual concomitantly or successively, and some instance are recorded in which both types of these tumors have existed together in the same organ. These are especially found in the uterus.

Now all of these phenomena we regard as arising out of the same primary cause. The development of a tumor in one organ or tissue is due to the same cause that produces a tumor in another organ or tissue. Instead of multiple tumors, when these exist in different organs, being due to metastasis, we regard them as originating out of the same primary cause. They are not primary and secondary to each other, but concomitant or successive developments from a common basis. Wood records a case of development of carcinoma of the uterus ten years after the removal of a carcinoma of the breasts and says that "Metastatic connection between the tumors could be ruled out."

If the irritants that help to produce tumors are to be regarded as always acting from without, and never from within, then it may be right to say that carcinoma of the stomach and carcinoma of the uterus arise from different irritants. But this assumption is by no means necessary and besides, the irritant is a secondary and not the primary cause of the new growth.

Cachexia is a chronic septic poisoning of slow development. When tissues are deprived of oxygen they degenerate or become necrosed. A poison is generated which, if absorbed, brings on a general septic poisoning —cachexia. If the poisoning is great enough, or sufficiently long continued, it results in death. Death of tissue occurs when the enlargement is great enough and impedes circulation enough to cut off the oxygen supply. Ulceration is the name of this condition —or it may be cancer.

Dr. Tilden says that "Ulceration is active degeneration from cell apoplexy; cancer is passive degeneration from cell asphyxiation. Ulcer may be likened to cancer in that the former is the acute form; cancer—the latter—being the passive form. The two forms may exist together. Pathologists should be able to see the blending if they ever quit the bad habit of individualizing so-called diseases and researching for specific causes."

Due to the loose construction of tumors, these structures will break down more easily than normal tissue, once their nutrition is cut off or their drainage is impaired. They will undergo decomposition and sepsis will develop.

The degenerative changes which occur in the various types of tumors, "benign" and "malignant," do not differ from the alterations which occur in normal tissues when the blood supply is diminished or ulceration and cachexia have developed. Due to the imperfect character of their capillary circulation, and to the usually insufficient blood supply, and to thrombosis, which result, usually from pressure or stasis, tumors are more liable to hemorrhage and subsequent degeneration than is normal tissue. Hemorrhage, various types of degeneration, often beginning with fatty degeneration of its cells which may progress to calcification or even to bone formation and leading, ultimately, to necrosis or gangrene, result from pushing the tumor beyond the boundary of safety. And this is done by the continued operation of the original causes.

When a tumor is encased in a strong resisting capsule it may become so dense that even the capillary arteries are completely obstructed, then decomposition takes place, poisoning the blood —the poisoning is chronic

septicemia and develops a fatal cachexia. When systemic poisoning takes place in this way, the change is called cancer. It is difficult to understand just why the authorities do not trouble to explain why the pathology is called cancer when it is brought on by obstructed circulation of normal tissue up to the asphyxiation climax, and from there, no extraneous pathological influence has entered. It is merely another link in the pathological chain. Malignancy is an autogenerated (endogenerated) sepsis that breaks through its restraining walls. Cancer is "benign" until irritation, inflammation and induration cause asphyxiation of tissue, then decomposition and cachexia destroy the patient.

Cachexia is a slow septic absorption involving the lymphatic glands first and the blood last. When a tumor dies from lack of nutrition—choked to death by its own growth—it decomposes and poisons the body. Cachexia is chronic septicemic lymphangitis.

Prognosis: Tilden says, "If lymphatic gland enlargement, in the near-environment, is not tactilely palpable to the surgeon's fingers, the deadline of septic poisoning has not been crossed, and surgery and correct hygienic treatment can yet restore health." Again: "As soon as cancer has infected the glandular system all so-called cures, are worthless, and as long as the glands are not affected there is a doubt about the growth being cancer. A wart it is said, sometimes takes on malignancy." "Before decomposition or septicemia has developed, all so-called cancers are readily amenable to correct treatment. It does not lie in the repertoire of regular medicine. This progressive theory, or unitiveness of all so-called diseases, has not yet entered the philosophy of regular medicine." "When the lymphatics are enlarged and cachexia is established, the patient is doomed." "Surgery after cachexia is established, is the height of folly. It can do nothing but add to the suffering and shorten life."

The fatalism of medicine with regard to such conditions as tuberculosis, Bright's "disease," cancer, etc., has its basis in the fact that they begin only with the symptoms of comparatively advanced pathology, the phase that is past redemption, and ignore the inceptional stages, including the **raison d'etre** of the degeneracy. The fatal ending of advanced degeneracy should not be regarded as presaging the victory of pathology over life—of evil over good—when reform is made at a much earlier stage of the process.

Hopeless Cases: Fasting is an easy and rational way to die when cancer or other painful affection cannot be remedied. Tilden says: "A better way to

die, when one is fated to go by way of cancer, is to stop eating. Nothing but peace, comfort, and enjoyment of friends to the end will be experienced by anyone who will not take anything but water. To eat and take morphine, or any narcotic or anodyne, causes a fiendish death." * * * "In those cases of cancer where there is absolutely no hope, if the patient will go without food he will go down and die normally and naturally, without pain, without discomfort, and can have the pleasure of conversing with his friends up to the last minute. And that is not all—he gets the last best chance for a cure. Some of these cases that are said to be hopeless, and afterwards killed by drug reliefs, if they were put on an absolute fast they would fool the prognostication sometimes by getting well."

Prevention: Cancer develops in sick rather than in healthy tissue. Writing of cancer a few years ago, Sir Win. Arbuthnot Lane, noted British surgeon said: "Very many, years ago I demonstrated unmistakably that cancer never affects a healthy organ." Sir Berkeley Moynihan says: "It has been said that cancer never attacks a healthy organ, but that is to set the standard of health rather high." Precisely so! And it is high standards that we must have. Sir Berkeley continues: "It is, however, quite certain that any organ or the skin, when affected by some chronic disorder, is more apt to be attacked by cancer. This involves the necessity for us all, patients and doctors alike, to pay attention to health and to do all we can to keep fit."

Malignant growths occur in tissues the vitality of which has long been lowered. If cancer seems to run in families, this is because the moribund "soil" is a family characteristic, due in almost all cases to dietary habits fitted to a state of scavengerdom rather than to the high estate of him who is said to be only a little lower than the angels, him who was made "in the image of God."

This is equivalent to saying that good health is a sure guarantee against cancer. Or, to put it differently, cancer only develops in the sick. Cancer, as I have emphasized in this book, is the culmination or end-point of a long series of pathological causes and effects, beginning often in infancy, and persisting and accumulating throughout life. It is a degeneration and cannot occur without efficient degenerating antecedents.

The way to prevent cancer is to preserve health. And this latter is so simple, so easy, that with proper health education, the so-called cancer scourge should be ended in a few years. But there is no effort now being

made to educate the public in right living. The government does not do it. The health (?) boards do not do it. The public schools do not make the effort. The churches are not attempting it. The public press gives no attention to this necessary work. The medical profession not only is not educating the public in healthful living, but, with a few honorable exceptions, the members of this profession oppose such teaching. Thus with a "Conspiracy of Silence" keeping the public in ignorance, disease and death increase year by year.

As I have previously pointed out, the prevention of cancer must begin far back of any stage where present efforts at prevention begin. It is certainly unwise to wait until symptoms of early cancer develop before we make any effort to prevent the condition. It is equally foolish to delay efforts at prevention until after the development of the pre-cancerous condition. Cancer is one of those conditions where "a stitch in time saves nine." The time to begin the prevention of cancer is at the beginning of life and this applies not only to this "disease," but to all others. The same measures that will assure us exemption from cancer, will also prevent the development of tuberculosis, diabetes, Bright's "disease," insanity, and other affections of the brain and nerves, affections of the heart and arteries, etc.

Cancer is the end of a chain of causes and effects—toxemia and toxemic crises—starting in youth, even in infancy, and ending in a pathology of indurated tissue which finally ulcerates and suppurates, and is marked by an overwhelming cachexia—a fatal anemia resulting from chronic endogenerated septicemia. This fatal ending may be prevented at any time before cachexia has developed. Cancer is the end of the chain of symptom complexes. The chain may be broken at any link and health reestablished by correcting the causes of the pathology.

Early operation is now advocated as a means of prevention. By removing thousands of lumps that were not cancer and would not have become cancer, the advocates of early removal have been able to create a vast amount of statistical data that appears to favor this procedure. This fallacy will be outgrown in time.

Early operation does not remove the causes that produce cancer. Early operation removes an end-point; it ignores all the antecedent stages. There is always more "pre-cancer" than "cancer" and no surgeon can ever hope to remove all the "pre-cancerous" spots from the body of his patient.

If we wait until we know, we wait until we cannot cure," say medical authorities. This is used to rush patients and physicians into operations for cancer. It says in effect: "operate at once, always operate, and operate on a mere suspicion." No less an authority than H. W. S. Wright, M.S., F.R.C.S., admits that this means performing many operations for the removal of growths that are not and would not become cancerous.

That cancer should be met early is sound reasoning, but surgical interference with organic integrity does not answer to the requirements of the problem and is by no means early enough. The same may be said for the X-ray and radium. How can X-ray, radium, serum, and the knife, one or all four, prevent the multiple influences requiring years to culminate in the end-effect known as cancer?

It is necessary to go back, far back, of the neoplasm, far back of early cancer, way back of pre-cancer, and remedy the general pathology upon which these rest. It is necessary to remove and correct all causes of local and general pathology. Any successful remedial program must take into account all of these antecedent stages and their causes. The mere removal of "early cancer" or of "pre-cancer" is not enough, for these are based on a pathological foundation that will evolve more "pre-cancer" and "early cancer." Early diagnosis, too, is futile in that it amounts merely to frequent examinations to see if growths are in evidence. Such studies of cancer are concentrated upon the growth itself, and ignore the basic pathology upon which alone cancer thrives. If no growth is found the present plan is simply to wait until one is found. Antecedent stages and causes are ignored.

The age-long quest for "cures" has been carried on from the point of view of disease, not of health. What will cure "disease"; not upon what does health depend, has been the question in the minds of the searchers and researchers. We have aimed not at the restoration and maintenance of integrity but at the expulsion of an entitative "disease." Health is wholeness, but we have failed to grasp the significance of this fact.

Repeated patching up, rather than radical self-cure through living reform, must end in physiological bankruptcy and degeneration—cancer, diabetes, "diseases" of the brain and nerves, etc. The present miscalled preventive and remedial programs are decidedly harmful. To say that they are failures seems hardly necessary in view of the steadily rising cancer incidence and cancer mortality.

Care of the Patient: Cancer may be remedied, but not by any eleventh-hour reform. He who waits until the surgeons tell him he has "inoperable cancer" before instituting living reform is doomed to failure. Wait not until degeneration has advanced too far for vital redemption, but begin early to evolve back into that high standard of health and physiological excellency that guarantees freedom from cancer and other "degenerative diseases of later life."

Undoubtedly there are systemic conditions which are antagonistic to abnormal cell proliferation, just as there are conditions which favor such growth. The systemic conditions which are antagonistic to such growth are normal conditions and must be present at all times, even where such a growth exists, although in a weakened or lessened degree. If this "anti-cancer" condition can be restored, it must, of necessity, check the growth of cancer and even in some, if not in all, cases cause the cancer to undergo involution and disappear.

These systemic factors, which are antagonistic to abnormal cell proliferation, must depend upon the same natural forces and agencies upon which normal growth and health depend. The restoration of this "anti-cancer" power of the body must, then, depend upon a restoration of health—this is, upon normal nutrition, efficient elimination and normal physiological function throughout the body. All causes of pathology, however relatively unimportant, must be corrected and removed; and all effort at finding a specific cause abandoned. Everything is important.

The growth of the cancer must be checked, the cancer must be destroyed and its causes removed. Either the body must be able to absorb the neoplasm or else a method of destroying the cancer, which is not worse than the cancer itself, must be found. Far be it from me to declare that a successful method of destroying the growth, particularly in its earlier stages, will not be found; but, I do insist that such destruction is less than half the solution to the problems presented by a cancerous growth. Destroy it by any means you will, it will recur unless its causes are corrected and removed.

I have often thought that where operations are made for the removal of early cancer, they might prove ultimately successful if they were followed up properly. But what surgeon ever does more than operate. The patient is sent away from the hospital without any instruction about how and what to eat and how to live. He or she is allowed to return to the same method of eating and

living that laid the foundation for the cancer in the first place. There is, quite naturally, a recurrence in a short time.

In his **Notes on Tumors**, Dr. Wood says: "In a very small proportion of human malignant tumors spontaneous disappearance for longer or shorter periods has been noted. The greatest number of such disappearances has followed incomplete surgical removal of the tumor, they have occurred next in order of frequency during some acute febrile process, and less frequently in connection with some profound alteration of the metabolic processes of the organism, such as extreme cachexia, artificial menopause, or the puerperium."

No more profound change in metabolism is possible than that produced by fasting and the change is of a character best suited to bring about the autolysis of a tumor, malignant or otherwise.

The conditions Dr. Wood mentions as causing, spontaneous disappearance of tumors are, for the most part, "accidents" and are not within the range of voluntary control. Fasting, on the other, hand, may be instituted and carried on under control and at any time desired. It is the rule that operations are followed by increased growth in the tumor. Spontaneous disappearance following incomplete removal is rare. The same may be said for extreme cachexia and artificial menopause. In fevers we have rapid autolysis in many tissues of the body and much curative work going on, but we cannot develop a fever at will. Pregnancy and childbirth occasion many profound changes in the body, but they are certainly not to be recommended to sick women as cures for their tumors. Even if this were desirable, it would be a hit-or-miss remedy. The effects of fasting are certain. There is nothing hit-or-miss about the process. It works always in the same general direction.

Fever is a curative process and does help to remove the cause of tumor. None of Dr. Wood's other causes of spontaneous disappearance assist in removing the cause of tumors. Fasting does assist greatly in the removal of such causes.

Victor P. Fleming says: "If the Toxemia is not great, and the local growth or involvement not too extensive, removal of Toxemia will result in a checking and disappearance of the cancer. Correct habits of living and eating will prevent a return. But the chief hope of conquering cancer lies with the dietitian when he learns correct dietetics, and must be along the line of prevention. The dietitian of today knows practically nothing about the

influence of food in restoring and maintaining normal health. He prescribes food as he prescribes medicine, and with as little success. He is palliating with food and trying to fill a popular demand. In other words, he is trying to keep up with the procession.—**Philosophy of Health**, Aug., 1924.

To correct constitutional impairments and restore normal functioning requires both time and, rigid self-control and most people will not take the time nor will they practice control. They are so accustomed to thinking of quick cures by drugs and surgery—cures that cure without removing cause—that they are unwilling to submit to the slow process of physiological readjustment. Snap-shot cures have been taught and practiced by the medical profession for so long that the people expect and must have them; consequently, if one doctor doesn't **cure at once**, they consult another. This restlessness and demand for quick cures keeps a whole army of "researchers" on the alert for the discovery of new and more pronounced palliatives; for they never cure, they only "relieve" and complicate the condition.

Tilden advises: "Disease does not trouble those who do not break the laws of their nature. When disease comes, cure is satire, buffoonery, or downright idiocy. Stop breaking law."

Affections due to Parasites

Round Worms (Nematode infection)

Pin-Worm (Seat-worm)

Hook-Worms (Ankylostomum Duodenale)

Trichinosis

Filariasis (Dracontiasis)

Filaria Bancrofti

Filaria Loa (Filaria Diurna)

Tape Worm (Cestode infection)

Round Worms (Nematode infection)

Round worms (ascaris lumbricodes) or eel-worms are of a grayish or pinkish color, and in form resemble earthworms. They get into the digestive tract through contaminated food or water, and live in the small intestine, but sometimes, especially in febrile conditions, migrate into the stomach, bile ducts, respiratory tract, or urinary passages, or perforate into the abdominal cavity through an intestinal ulcer.

Symptoms: Often there are none. Sometimes there are colicky pains, dyspepsia, voracious appetite, pruritis, mucous stools, anemia, and such reflex nervous phenomena as night-terrors, grinding of the teeth, disturbances of vision, chorea-like movements, and convulsions.

Pin-Worm (Seat-worm)

Technically known as oxyuris vermicularis, pin worms are small, white worms, measuring from one-eighth to one-half an inch in length. They get into the digestive tract through contaminated food in the form of eggs. They may develop at any age but are seen most frequently in children. Adult worms are most numerous in the cecum, but the females migrate to the rectum, where they deposit their eggs.

Symptoms: Intense itching at the anus, especially at night, is the most constant symptom. The symptoms described above under common round

Hook-Worms (Ankylostomum Duodenale)

Two varieties of hook-worms are described: (1) Uncinaria Americana seen in the southern part of the United States, the West Indies, and South America; and (2) Uncinaria Duodenalis, seen in Europe, Asia and Africa. They live in the small intestine.

Uncinariasis or ankylostomiasis is said to be a "common disease" in subtropical countries. In temperate regions it is seen chiefly among miners. The eggs of this parasite which escape with the feces, hatch in a few days and bring forth larva through food or water. It is claimed that in the majority of cases, entrance into the intestine is by way of a more circuitous route. The larva is said to penetrate the skin, usually in the feet or legs, causing at this point an eruption known as ground, itch, from whence it gets into the blood, is carried to the heart, from the heart to the lungs, from the lungs it reaches the larynx, thence to the esophagus and stomach and intestine.

Symptoms: The chief symptom is a more or less severe anemia. Digestive disturbances and mental lassitude are said to be frequent. While the diagnosis is said to depend on finding the eggs or the adult worms in the stools, we have seen the eggs and worms found in cases that presented no symptoms at all.

Care of the Patient: Efforts to destroy intestinal worms by poisoning them succeeds in doing more damage to the patient than to the worms. It also fails to raise the general tone and resistance of the body, hence it fails to prevent re-infection.

Weger says: "Round worms can be starved out and they will not again infest the intestinal tract that is kept sanitary by right food and right living." Tilden says all that is necessary to get rid of these worms is to correct the diet and to secure sufficient rest for recovery. He recommends a week on fruit, with no eating between meals.

Trichinosis

This is an affection produced by the trichina spiralis, a minute worm derived from the hog. Man is infected by eating raw or rare pork containing

the encysted larva. These pass to the small intestine where they grow into adult worms. The females migrate into the lymphatic spaces and bring forth their young which are carried by the lymph or blood to the muscles where they develop into encysted larvae.

Symptoms: There are no marked symptoms unless the infection is severe. In well-marked cases, digestive disturbances—colicky pains, nausea, vomiting, and much diarrhea—appear on the second or third day. These represent the body's effort to expel the invader.

In from one to two weeks symptoms of acute inflammation of the muscles (myostitis) develop. These include severe pain and soreness in the muscles, edema, especially of the face, profuse sweating, and remittent or intermittent fever. Hoarseness from involvement of the larynx and difficult breathing from involvement of the diaphragm, are often seen. In severe infestations, delirium and stupor are common. The symptoms often resemble those of typhoid fever. Trichinous capsules, impregnated with lime, are visible to the naked eye.

Prognosis: Favorable cases recover in from two to eight weeks, depending on the number of worms ingested. Early diarrhea is favorable. The death rate ranges from 5 to 30 per cent.

Care of the Patient: Efforts to poison the worms are not effective. Opiates to relieve pain account for much of the mortality. No food should be given from the appearance of the first symptom until all acute symptoms have ended. Thereafter feed and live to build up good health.

Filariasis (Dracontiasis)

Infection with the guinea worm (filaria or Dracunculus medinensis), a parasitic neamatode [nematode], the female of which may be three feet long, and as thick as a knitting needle, and which infests the feet and toes of residents of the East Indies and the Guinea coast of Africa, in India, Hindustan, Turkeystan, Russia and other warm countries. An abscess forms beneath the skin in which the worm is coiled up. Formerly confined to the Old World, the worm has been carried to the New.

Care of the Patient: The worm is extracted by slowly winding it upon a roll of paper, a little at a time, care being taken not to break the worm, for, if it is broken and a portion left, the young will develop and scatter under the

skin. Living thereafter should be of a character to build up resistance to further invasion.

Filaria Bancrofti

This is a small thread-like worm, chiefly met with in warm climates. It is also known as Filaria Sanguinis Hominis. The mosquito is said to be the medium of infection, in the body of which the larva reach a certain stage of development before being "again" transmitted to man. The adult lives in the lymphatics where the female brings forth active, mobile larva, which, curiously, are found in the blood chiefly at night.

Symptoms: Sometimes no symptoms are present. Dilatation of the scrotal lymphatics (lymph scrotum), enlarged and tortuous lymphatic veins, fat in the urine and elephantiasis, are the not uncommon symptoms.

Care of the Patient: Same as for Elephantiasis.

Filaria Loa (Filaria Diurna)

This is a parasitic worm that is very common on the African West coast.

Symptoms: It finds a habitat in the connective tissues throughout the body and often approaches the surface near the eye, causing an edematous swelling, with itching and, at times, more or less intense conjunctivitis.

Care of the Patient: The usual treatment is to remove the parasite under local anesthesia. This does nothing to build up resistance to subsequent infection. Proper living should follow its removal.

<u>Tape Worm (Cestode infection)</u>

Bothriocephalus latus (broad tapeworm) is a large tape worm that is rare in this country. The larval form is found in certain fresh-water fish. Man receives the worm by eating uncooked fish. The mature worm is one to two yards in length, yellowish-brown in color, the head is flat with hooklets, the segments are usually broader than long, the sexual opening is in the middle of the flat surface of the segment, and uterus is in the form of a rosette. It is common in Northern Europe.

Hymenolepsis Nana (Dwarf tapeworm) develops without an intermediate host. Human infection is thought to occur by eating foods contaminated with eggs derived from feces of infected rats or other human beings. The adult worm is but a few millimeters long, the head is small and provided with a single circle of hooklets. Great numbers are usually present and the geographical distribution of these worms is great.

Tenia Echinococcus is seen in man only in the larval state. The adult worm is found only in the intestine of the dog.

Tenia Solium or the pork tapeworm is six to twelve feet long with a round head smaller than that of a pin, with projecting rostellum on which is a double circle of hooklets and below which are four sucking disks. By its hooklets the worm attaches itself to the mucosa of the small intestine. Below the head is a constricted neck, which is followed by a large number of segments, which increase in size from the neck onward. Each segment contains the generative organs of both sexes. The worm attains full growth in three to three and a half months, after which, segments continually break off and pass out with the stools.

Tenia saginata, or the beef tapeworm, is the most common form in the U. S. It is larger than Tenia solium, is fifteen to twenty feet long; possesses a large head, but no hooklets. It is square and has four sucking disks. The segments are larger than those of the above worm.

Bothriocephalus latus, a still larger worm, and other species are rare in this country.

Symptoms: The only symptoms may be the passage of segments. There may be excessive appetite, nausea, vomiting, diarrhea, or abdominal pain, sometimes anemia. Vertigo, palpitation, itching of the nose and movements resembling those of chorea may sometimes be seen.

Care of the Patient: Weger says, "tapeworms can be starved out and they will not again infest an intestinal tract that is kept sanitary by right food and living."

"Diseases" Due to Physical Agents and Intoxications

Anaphylaxis

Arsenical Poisoning

Ivy Poisoning

Lead Poisoning

Drug Addictions

Alcoholism (Inebriety)

Chronic Opium Poisoning (Morphinomania)

Chloralism

Cocainism

Nicotinism

Heat Stroke

"Disease Due to Physical Agents and Intoxications" is the classification of the affections we shall discuss in this chapter. We shall cover the poisonings first and the physical agents last.

It would be impossible, in the scope of this book, to deal with all poisonings to which man is subject. We intend to deal with but one "disease" not commonly classed under this head, that of anaphylaxis, but, we desire to point out that all poisons produce symptoms—"diseases"—and should be avoided. The "medical" profession is busily engaged in poisoning the well and the sick at all hours of the day and night and are, therefore, responsible for much suffering. The following quotation gives a mere hint of the damage they do with their thousands of poisons:

Science Digest, Aug. 1937, carried an abridged reprint of an article by the Right Hon. Lord Border, K.C.V.O., physician to the King of England, entitled "Old Diseases and New," in which be says: "There are diseases which are the direct result of modern treatment. There is what we call serum sickness for example, which often follows after the injection of serum derived from the horse, as for diphtheria or tetanus. There are diseases which follow the use of X-rays and radium. There are effects following the use of a number of drugs, both inorganic and organic. We may do an arthritic

a great deal of good by injecting him with a preparation of gold, yet the metal may disturb the system and set up another disease.

"We may clear a man's tissues of gout by means of a drug called atropine, and give him a disease of the liver. We may assist in the healing of a gastric ulcer by the intensive use of alkalies, and induce a disease called alkalosis. Insulin keeps the amount of sugar circulating in diabetic blood at a proper level. But an over-dose may reduce the sugar below normal and result in a well recognized disease."

Agranulocytosis or granulocytopenia, both words indicating a decrease or complete disappearance of the granulated white cells of the blood, a condition that has greatly increased in recent years, is caused by a number of drugs, the greatest offender of which is pyramidon, or amidopyrine, a poison contained in such proprietary and patent "medicines" as Allonal, Peralga, Hexin, Amidol, Cibalgine, Pyraminal, Neonal, Midol, Novalgin, Amido-Neonal, Amarbital, Amidophen, Amidos, Aminol, Amypyron, Amita, Analgia, Anatabs, Baramid, Barb-Amid, Bromphenamid, Cinchopyrine, Compral, Dymen, Dyaskalmo, Lydia Pinkhams Tablets, Menalgesia, Mylin, Nod, Phenamidol, Pyramidon, etc.

Anaphylaxis

Definition: This is the highbrow term for serum poisoning or protein poisoning. Any protein introduced into the body through other channels than the digestive tract is a rank poison. All serums and vaccines are foreign proteins and therefore poisonous. Anaphylaxis follows every use of all serums.

Symptoms: These may be mild or severe. In its mildest form there may be only restlessness, feverishness and aching in the limbs, or there may be a mild urticarial rash.

Various skin manifestations follow the use of serums. Although these are chiefly urticarial (nettle rash) in character, they may resemble almost any form of skin rash. Often successive crops of eruptions will follow each other, these usually polymorphic (presenting many or different forms) in character. The skin eruptions, and all other symptoms are in direct proportion to the amount of serum injected. Sometimes the eruptions are large, like boils. Serum injections produce malaise (uneasiness and discomfort), fever, skin

eruptions, enlargement of lymph glands (glandular inflammation), leucopenia (a diminution of the number of white blood cells), swelling, pain, fever, and stiffness in the joints, edema (accumulation of serum in the cellular tissues), albumenuria, (albumen in the urine), generalized itching, convulsions followed by opisthonosis (a spasmodic rigidity of the body in which the trunk is thrown backward and arched upward), cyanosis (blueness due to circulatory impairment), dyspnea (difficult breathing), complete respiratory failure, nausea, vomiting, coughing, choking, fainting, dilation of the pupils, paralysis, insanity, inflammation of the heart, frequently permanent impairment of the heart, collapse, death. Death sometimes occurs instantaneously, at other times, a few minutes to a few hours to a few days after inoculation.

Large vesicles filled with clear liquid may follow intense inflammations over and around the sight of injection. "Alarming collapse" and immediate death are not infrequent. Local edema and, eventually, local necrosis sometimes occur. In animals, where these things have been exhaustively studied, the blood is greatly altered. The blood loses much of its coagulability, sometimes almost all power of coagulation being lost. There is a fall in blood pressure, anemia of the brain, involuntary voiding of urine, and feces, great muscular weakness, and a diminution of white cells and polynuclear cells in the blood. Hemorrhages occur under the membranes of the stomach, duodenum, colon and bladder. Inflammation of the intestinal mucous membrane, with excretion into the intestine of much mucous mixed with blood, is seen in dogs. Distention of the lungs, due to closing of the bronchial tubes and the subsequent efforts to breathe, occurs in some animals. In others, the trouble develops in the liver or heart. These things are all evidences of a profound injury to the organs and tissues of the body, the injuries to the most vital organs only having been studied.

Etiology: Serum sickness, serum poisoning, anaphylactic shock, anaphylactic reaction, anaphylaxis, protein-poisoning—these are all terms for the same thing—follows the use of serums and vaccines given to prevent or "cure" "disease." Mild forms of protein poisoning are seen in individuals who are "sensitive" (allergic) to certain proteins. One dose of serum is often fatal. One dose renders the victim more "sensitive" to subsequent doses. All serum treatment is criminal as well as futile.

Prognosis: Recovery is the rule, though this may require considerable time. Many are left with permanent damages.

Care of the Patient: The best care is prevention. The vaccine and serum practice should be destroyed forever.

Otherwise care for the victim of this fanaticism and commercialism as you would any other acute poisoning—fasting, rest, warmth—until all acute symptoms have subsided.

Arsenical Poisoning

Definition: Acute or chronic poisoning by arsenic.

Symptoms: Nausea, vomiting, diarrhea, skin eruptions, or pigmentations, dry throat, edema of the eyelids, sometimes coryza, falling of the hair, paralysis of the arms and legs with ataxia, atrophy and numbness, but little pain. The legs are most affected, causing steppage gait. Optic atrophy with blindness may also develop. Notice how much this condition resembles the descriptions given for "syphilis", of which arsenic is the most approved "remedy."

Etiology: Acute poisoning is caused by ingestion of paris green or rat or insect poisoning, usually with suicidal intent. Chronic poisoning may result from inhalation of arsenic from dyes in wall-paper, carpets, etc., or by ingestion by mouth in handling dyed paper, artificial flowers, etc., by eating sprayed fruits and vegetables, or, and most commonly, by taking repeated doses of the poison as medicine, as in so-called "syphilis."

Care of the Patient: First get rid of the source of poisoning. Give a fast for elimination of the drug; or a fruit and vegetable diet will do the same. Paralysis should be cared for as described in Vol. IV of this series.

Ivy Poisoning

Definition: A dermatitis produced by the sap of poison ivy, poison oak and various other species of rhus.

Symptoms: Intense itching and the formation of watery blisters (blebs) at the seat of poisoning are the chief symptoms.

Etiology: The dermatitis is produced by absorption into the skin of the poisonous sap of the plant. Some individuals are peculiarly susceptible to the

poisoning while others are very resistant. Perhaps many things help to constitute resistance or the lack of it—texture of the skin, much or little toxemia and the state of nutrition are perhaps involved.

Recently efforts have been made to show that people "allergic" to ivy poisoning are suffering from vitamin C deficiency. Since, however, vitamin C deficiency may mean many things, this is hardly an explanation of susceptibility. It is claimed that a diet rich in citrus fruits and their juices prevent skin troubles of an "allergic nature." This is in line with my own experience: the only thing I have found that appears to hasten recovery is a diet of orange juice.

Prognosis: Recovery occurs in all cases.

Care of the Patient: Cleanliness, scratching; and a diet of orange juice are all that are required.

Lead Poisoning

Definition: Plumbism or saturnism, as this is called, is poisoning by absorption of lead. It may be either acute or chronic.

Symptoms: Acute: In the acute form the symptoms—rapidly progressing anemia, with acute neuritis, epilepsy, convulsions, or delirium or with severe gastro-intestinal symptoms—develop rapidly from continued contact with lead. Painter's colic is a familiar example of the acute type.

Chronic: In chronic cases the chief symptoms are anemia, a blue-black line of lead sulphide (lead line) in the gums near the teeth; colic preceded and accompanied by obstinate constipation and resembling severe intestinal colic, often vomiting; cerebral symptoms, such as hysteria, convulsions, delirium with hallucinations, epilepsy, and optic neuritis; paralysis which may involve almost any part of the body; and, very commonly hardening of the arteries, chronic inflammation of the kidneys and gout.

Etiology: Lead may be swallowed in food and drink or absorbed through the skin and lungs. Lead smelters and grinders, painters, glazers, and plumbers who fail to wash their hands before eating may take it in with their food. It is ingested in drinking water, cider, etc., in new lead pipes, or absorbed from hair dyes and cosmetics.

Care of the Patient: It is first essential to remove the patient from contact with his or her source of poisoning. Thereafter, until the most pronounced

symptoms have subsided, a diet of lemon juice or lemon juice and orange juice should be fed. A fruit and vegetable diet and exercise are essential after the lead has been eliminated.

Drug Addictions

Below we shall consider the most common drug addictions in alphabetical order. The reader should understand that, though we have not considered it, caffeinism, as represented in coffee, and tea using and in the use of the Cola drinks, is as much a drug addiction as alcoholism or morphinism.

Alcoholism (Inebriety)

Definition: Alcoholic poisoning may be either acute or chronic.

Symptoms: Acute alcoholic poisoning is due to taking large quantities of alcohol. Its symptoms are flushing of the face, mental excitement, increased pulse and respiration; then incoherent speech, delirium, dilated pupils, loss of muscular coordination, subnormal temperature, vomiting, and, finally, stupor and coma. Not infrequently the coma is interrupted by convulsive seizures. In most cases, if the dose has not been too large, recovery follows in a day or two. In some cases death results. After recovery there is usually a lack of appetite for several days.

Chronic alcoholism is characterized by disturbed sleep, mental impairment, fine tremors, redness of the nose, injection of the eyes, and gastro-intestinal catarrh. If long continued the use of alcohol results in degenerative and cirrhotic (hardening) changes in the heart, blood-vessels, liver, kidneys, brain and cord.

A common result of chronic alcoholism is delirium tremens. This is usually excited by temporary use of unaccustomed amounts of alcohol, by injury or by some "intercurrent disease," especially pneumonia. It is characterized by great mental excitement, insomnia, incoherent speech, tremors, disordered intellect, and terrifying hallucinations of sight or hearing, the proverbial "snakes in the boots" and "pink elephants on the wall." There are rapid, feeble pulse, anorexia, constipation, and slight fever. In "favorable" cases, convalescence begins in a few days, but in many cases

symptoms of the "typhoid state" develop and the patient sinks into a semicoma lasting several days or even weeks ("Wet brain").

Sequelae: Most prominent among the many sequels of chronic alcoholism are pneumonia, chronic meningitis, cirrhosis of the liver, arteriosclerosis, multiple neuritis, amblyopia, (dimness of vision), epilepsy, dementia, and cancer of the throat or stomach.

Etiology: Ignorance, weakness, low mentality, and the use of alcohol as medicine are the chief causes of the alcohol habit. Its use is a "social" habit and few seem able to resist the "pull" of the crowd.

Prognosis: Dr. Cabot says, "it is not much torture to stop alcoholism, and when we once have stopped, it is comparatively easy to go back to it." Perhaps the influence of friends, or the nagging of a wife, or the weakness that makes us afraid to face troubles plunges one back into the foul embrace of this product of fermentation.

Chronic Opium Poisoning (Morphinomania)

Definition: Chronic morphinism is poisoning due to the habitual use of opium and its derivatives—morphine, heroin.

Symptoms: Disturbed sleep, mental depression, irritability, tremors, a characteristic propensity for lying and deceiving, loss of flesh and strength, anemia a peculiar sallow complexion, anorexia, deranged digestion, tendency to diarrhea, and an "irresistible craving" for the drug, are the chief symptoms of the habitual use of opium. The "craving" is probably no more than a desire to experience relief from the suffering felt when the nerves are no longer under its narcotic influence.

Etiology: Dr. Alexander Lambert states in Osler's Modern Medicine, that eighty per cent of the people of this country who have acquired the morphine habit have acquired it from doctors, that is, because of drugs given them by physicians. Dr. Richard Cabot, says in his Handbook of Medicine that "a considerable portion of the remaining twenty per cent are doctors themselves. The profession which figures most numerously in the list of occupations of those who get morphinism is the medical profession."

Many hundreds of drug addicts can trace their addiction to the use of nostrums to relieve them of headache or "nervousness" or sleeplessness. Morphine given for some time after, an operation may build addiction. All

others who foster the drug habit are bounded by state and federal authorities and, when caught, are severely punished. Why make an exception of the physician?

Prognosis: Doctor Cabot says, "with morphine it is torture to stop and comparatively easy to stay 'stopped'." In truth only those of sound stamina of character and an interest in life to hold them away from the drug, stay stopped. Prostitutes, criminals and degenerates commonly return to the drug.

Chloralism

Definition: Chloralism is the habitual use of the hypnotic and anodyne, chloral: also its poisonous effects.

Symptoms: Following slight primary "exhilaration," mental and physical depression, skin eruptions, bad breath, spongy gums, poor appetite, indigestion, malnutrition, permanent dilatation of the blood-vessels in the skin, intermittent pulse, blunting of the higher mental qualities, restlessness, sleeplessness, irritability, sensory and motor disturbances, and sometimes, dementia, develop. Habit seems to establish little tolerance for the poison.

Etiology: The choral habit grows out of the use of the drug to relieve pain or to overcome sleeplessness. Note that its ultimate effect is to produce sleeplessness.

Cocainism

Definition: This is the morbid results of the habitual use of cocaine. The habit is comparatively rare, few cases existing except those complicating the 'morphine and alcohol habits. The habit is seen chiefly in those of low grade mentality—prostitutes and jailbird types are most frequent users. It is taken generally as snuff or as a nasal spray; sometimes hypodermically. It is commonly called "snow" and its users, "snow birds."

Dr. Cabot says: "One wants to be always on one's guard against sprays and other throat and nose remedies which relieve very markedly and at once. They generally contain cocaine, and are always dangerous for that reason."

Symptoms: Large doses occasion great excitement, sometimes convulsions, followed by weakness of respiration and heart action, general prostration, convulsions and coma. The cocaine habit results in emaciation,

anemia, digestive disturbances, disordered heart action, physical and mental weakness, nervousness and great depravity.

Nicotinism

Definition: This is the term applied to nicotine (tobacco) poisoning. It may be both acute or chronic.

No space will be devoted to a description of the symptoms of acute and chronic nicotine poisoning at this place for the reasons that they are very generally known and we have discussed them elsewhere in these volumes, especially in Vol. VI.

Care of the Patient: Curable cases of addiction can get well without dope and they cannot be cured with it. "Curing" dope habits with more dope is a monstrous voodoo program. All poison habits are to be cared for alike. The tea and coffee habit (caffein habit) and all other drug habits hold their victims by the suffering they cause. So long as they are used they continue to cause suffering. Therefore the first thing necessary in all habits is the abrupt and complete withdrawal of the poison. No "tapering off" process will succeed and no success can attend the effort to substitute one poison habit for another.

Dr. Dewey was the first to use fasting in alcoholism. His success is described in his little book on the subject. The fast is equally as effective in nicotinism, morphinism, and all other poison habits. The following from Dr. Weger is to the point:

"Prior to 1923, we had the privilege of supervising the treatment of eight or ten alcohol and drug addicts of the most confirmed type. Food was withheld. The reactions during the first week of fasting were as a rule violent. Hot baths were the only measures used for relaxation. In about one week the mental state cleared sufficiently to permit the patients to realize their condition and cooperate actively thereafter. In four or five weeks they were apparently normal though keenly alive to the ordeal they had just been through. No evil effects ensued and all seemed happy and grateful. The desire for alcohol or drugs did not return and excellent reports of permanency were received from about one-half of these cases several years after treatment. Such permanent cures are the exception rather than the rule in

cases treated by gradual withdrawal of the liquor or drug or by substituting palliative drugs during the course of treatment."

Heat Stroke

Definition: Called also heat exhaustion, insolation, sunstroke, siriasis, and thermic fever, heat stroke is a profound enervation (shock) due to prolonged exposure to high temperature. Two forms are recognized as follow:

Heat Exhaustion is caused by continued exposure to high temperature, either natural or artificial, while working hard.

Symptoms: These are prostration with cool skin, temperature often subnormal, pulse small and frequent, sometimes restlessness and delirium.

Prognosis: This is usually favorable.

Sunstroke (thermic fever): is caused by severe exertion while exposed directly to the sun or to high temperature.

Symptoms: In severe cases, where exposed to intense heat as in forced marches, the victim falls unconscious and death follows at once, or after a few hours of coma with difficult breathing and heart weakness. In ordinary cases there may be a sudden arrest of perspiration, premonitory headache, dizziness, sometimes nausea and vomiting, colored or indistinct vision, then unconsciousness, which may be temporary or increased to deep coma. The face is flushed, skin dry and hot, pupils temporarily dilated, then usually greatly contracted, muscular relaxation, sometimes muscular spasms or convulsions, temperature rises to 107 to 110 or higher, pulse is frequent and full, respiration is deep and labored, or stertorous.

In fatal cases the coma deepens, the pulse becomes frequent and feeble, respiration rapid, irregular and shallow, or of Cheyne-Stokes type, and death follows in twenty-four to thirty-six hours. In other cases consciousness returns, the temperature falls, pulse and respiration become normal and recovery is complete or with sequelae.

Sequelae: The victim may recover predisposed to subsequent "strokes" or suffer from physical weakness, impaired memory or power of mental concentration, or headache and mental disturbance whenever the weather is warm. Tilden says: "Various disorders may persist after a recovery from heat-stroke; namely, neuralgia, headache, and sometimes strange ideas or

notions. These troubles, however, result as much from wrong daily life as from the previous sickness; indeed, such cases can be cured of these relics of former sickness if the patient will follow the proper style of living.

Etiology: It is appropriate to consider the cause of heat-stroke and sunstroke together, for they are practically identical. Lowered vitality, fatigue and alcoholism are important predisposing factors. Excess water drinking and overeating also predispose. The excessive heat exhausts the nervous system and disturbs the heat-regulating centers, or the vasomotor centers of the brain. Certain types, like blondes and red heads offer less resistance to the sun's rays.

The deaths from heat stroke recorded every summer over most of the country, especially in the cities, occur chiefly among those who are dissipated. It is doubtful if any succumb who are not toxic. In fact heat prostrations are confined almost entirely to those who gormandize in hot weather. Over-eating, eating much sugar and taking considerable quantities of salt and the use of alcohol are man's greatest enemies in hot weather.

Salt eating causes excessive intake of water and this causes excessive perspiration. Those who eat and drink normally do not perspire excessively. A relaxed and wet surface of the body has indigestion, caused by imprudent eating, behind it.

There is no danger of being overheated or sun struck when eating is what it should be. Nature guides her wild creatures to eat lots of grass, fresh herbs and juicy fruits in summer—man continues to eat concentrated foods. People who overeat on such foods are made very uncomfortable, their bodies are greatly overworked by the excess of food and water, and these are the. ones who meet with prostration and sun stroke.

A normal person will sleep as well in hot weather as in cool. He will not be forced to seek a cool place or have an electric fan stirring the air over his bed. The normal individual will lie down and sleep anywhere. The gourmand—full of food, salt, water, iced-tea—will be so uncomfortable he will not sleep anywhere.

Dry heat is more endurable than moist heat. A humid atmosphere is enervating. Heat strokes are rare in dry climates.

Oswald says: "Sun-strokes can be obviated by a simple and very inexpensive precaution—temporary abstinence from animal food. A refrigerating diet (vegetables, fruit, etc.) counteracts the effect of a high

atmospheric temperature, but the caloric influence of meat and fat, combined with solar beat and bodily exertion, overcome the organic power of resistance, the pyretic blood-changes produce congestion of the brain and sometimes instant death. I venture the assertion that in nineteen out of twenty cases of comatose sun-stroke it will be found that the victims were persons who had gone to work in the hot sun after a meal of greasy viands. One to two P.M. is the sun-stroke hour."—**Physical Education**, p. 112.

Prognosis: There is a high mortality in extreme cases, especially in alcoholics. Sequelae are common.

Care of the Patient: Dr. Weger says "the few cases of heat exhaustion treated have made quick recoveries after complete rest, average nursing care and restricted diet." It is our opinion that many of the deaths from heatstroke and sunstroke are due to ice-water bathing, ice-cap to the head, heart "stimulants," bleeding, ice-water enemas, and other mad-cap endeavors to "sustain" and cure the patient. Rest and reaction are impossible under such treatment. It amounts to treating shock with shock.

Care of Wounds

It required thousands of years of torturing the wounds of sufferers with almost every substance in the three kingdoms of nature before surgeons finally discovered that there is no healing virtue in any "remedy" and that the healing of a wound is not the result of any application, but is the work of nature, that is, of a restorative principle identical with the principle of life, and by which each organ and tissue is, to a certain extent, enabled to repair the damage it sustains.

In vain would the surgeon set the ends of a broken bone in a case of a fracture, except for the power of the bone to reunite itself, or to reduce a dislocation, if the torn ligaments were not able to heal themselves. In vain would he bring together the severed edges of a wound if the power of healing possessed by these did not exist in them. These things they now know, although they did not always know them.

In the recuperative process, a certain series of changes must necessarily take place in the damaged part, before it can be restored to soundness, and these changes require time. It was an easy matter for those who did not know of these changes, nor of how and by what they were made, to attribute the healing of a wound or bruise to whatever happened to be used on it. The remedy was applied, the wound healed—ergo, the remedy healed the wound!

While healing is an internal, a physiological process and is not a power or property possessed by salves, ointments, etc., it is not wholly independent of external circumstances. It is more certainly dependent upon internal conditions.

In proportion to the soundness and general health and vigor of the system, will be the facility with which the individual organs will recover themselves from local injury and disability, and others hold on to their integrity and activity in spite of the crippled state of their neighbors.

It is a fact, evidenced by every day occurrences, that wounds or broken bones heal without great difficulty, no matter into whose hands they fall. Bones and wounds often heal under circumstances that would seem to render healing impossible. On the other hand, cases are occasionally met with in which neither broken bones, bruises, nor wounds will heal no matter how and by whom managed. The external conditions may be ever so favorable, yet instead of healing, suppuration occurs. In such cases the internal condition of the body is exceedingly foul and its energies at low ebb.

It is necessary to make a distinction between "disease" (pathology) and injury. A healthy body—one that is not toxemic—takes little offense at injuries, unless the injury is great enough to destroy the function of an organ, or to shock the system so greatly as to enervate profoundly. Assuming the injured individual is free from toxemia, he will recover from injury quickly, and without complications and sequels. This is possible but not very probable, for conventional living builds toxemia from birth. This is the reason so many are treated for injury for months and years before they recover. Some die from slight injury or poisoning; others survive desperate injuries or profound poisonings. The former are profoundly toxemic; the latter only slightly toxemic.

Although the forces of life are not easily overpowered and crushed beyond the possibility of final recovery, even while prostrate and staggering under hostile influences, except when the scales are just balancing between life and death, it may make all the difference between life and death, whether the care is such as to favor the natural, upward tendency of life, or such as to thwart and obstruct that tendency.

If the wound has been great enough to produce shock, the subject should be cared for as described for shock in the chapter on First Aid. Bleeding should be cared for as described in the same chapter for hemorrhages.

Large and severe wounds call for the services of a surgeon, but the little wounds anyone is liable to sustain may be cared for by the one who receives them. Whether it is a contusion, puncture, or cut, the rapidity and ease with which it will heal will depend chiefly upon internal circumstances, and every hygienic measure should be employed to improve the internal condition.

Whether a cut or puncture is large or small, the external circumstances required for best results in healing are (1) cleanliness, (2) drainage, and (3) rest.

Cleanliness: This is secured by washing the part in plain water, preferably hot, and by excluding external contamination from the wound. Care should be exercised not to dress the wound in such a way that drainage is interfered with. Physicians and surgeons think that wounds need frequent

irritating and are not yet ready to rely upon cleanliness; hence their frequent use of antiseptics.

The more a wound is manipulated, the longer it will require to heal. The raw surfaces of wounds do not need to be scoured. Cleanse the wound, prepare for drainage and let it alone. One cleansing should be enough.

Antiseptics: Lord Lister, who, as Geo. B. Shaw says, substituted carbolic acid for holy water, is responsible for the introduction of the antiseptic practice. His antiseptic dressings were heralded to the world as a miracle and the profession went wild over them. It was an elaborate process. All abdominal operations were performed under an antiseptic spray playing on the patient's abdomen and on the surgeon's and assistants' hands, on the instruments, etc. More or less systemic poisoning from absorption of the carbolic acid used in making the spray, followed time operations and patients were caused a lot of sickness by carbolic acid poisoning. The kidneys were damaged, the stitch wounds in the abdomen developed into "stitch" abscesses and, altogether, the miraculous process was so damaging that it had to be abandoned.

It was found by surgeons, who began by reducing the strength of the spray solution, that each time the strength of the antiseptic was reduced, healing was more pleasing. A few of these finally reached the stage where they depended wholly upon cleanliness. Others, and these are by far the majority, turned to the search for other substances that would kill the dreaded germ without injuring the patient. Sane treatment of wounds comes slowly.

New tissue—new cells—must be produced to repair the cut or wound. The young cells produced in this healing process are very delicate—more delicate indeed, than germs—and are easily killed by antiseptics and germicidal solutions applied to the wound. Any poison that will destroy the germs in contact with a wound, will also destroy, not merely the delicate new cells that are produced to heal the wound, but also the older and more resistant cells that it comes in contact with. If death of the tissues does not occur, they are greatly devitalized and their resistance to infection, thereby, greatly lessened.

In my **Human Life**, I long ago emphasized the fact that the use of antiseptics so devitalizes and even destroys tissue that healing is often rendered impossible.

"Antiseptic burn" is not a mere medical term. Such "burns" are real and may be produced by any and all antiseptics. I have seen more than one wound that not only failed to heal, due to the use of antiseptics, but actually grew larger from the same cause, so great was the destructive and corrosive action of the antiseptic. Healing did not occur until the antiseptics were discontinued. The use of such things actually encourages "infection." A severe "chemical burn" is frequently the result of the application of iodine.

In his **Man the Unknown**, Dr. Alexis Carrel says: "tissues are endangered by most antiseptic substances." Placed alongside this fact is the fact that every normal body is equipped with natural agents of defense against germs. Aside from the abilities of the white corpuscles, and to a limited extent all the other cells of the body, to digest bacteria, the blood and other fluids possess substances which are inimical to germ life. When germs gain an entrance into the body at any point there is launched, immediately, a biological counter-attack, designed to limit their invasion within a circumscribed area immediately surrounding the point of their entrance and to destroy, not alone the germs, but their toxic excretions.

It is worth knowing, also, that many of the antiseptics sold in the markets today have no power to inhibit or destroy germs. They are frauds as antiseptics. Thousands of people smear on or paint on a popular antiseptic and go on feeling secure in the belief that they have destroyed the terrible, infectious germs that were lurking around, when the so-called antiseptic was as harmless to the germs as water. Their faith in the protective potency of the newer forms of holy water gives them a false sense of security.

Drainage: This is the process by which blood and secretions drain out of and away from the wound. If they do not drain they become pent-up, decompose and produce infection. The noted English surgeon, Sir Win. Arbuthnot Lane, speaking of wounds and operations, says: "Where drainage is perfect there is no death."

When a wound is received, an excess of material is sent to the site, not only to heal the wound, but also to fortify the part against absorption from without and to flush away any injurious matter that may get into the wound. If danger threatens underneath a scab, itching causes rubbing or scratching, thus breaking the seal and re-establishing drainage.

Bleeding from a wound of any kind is nature's way of cleansing it. Where bleeding does not occur, as in snake bite, dog-bite, nail puncture, etc., means

should be employed to establish drainage. Tetanus will not follow a nail-puncture or other wound that drains well. Failure of drainage may lead to septic poisoning and death.

A puncture wound that does not bleed should be sucked with the lips or with a suction pump to establish drainage. If the puncture is large enough to admit of the entry of a small cleansing instrument, it should be cleansed with gauze or cotton and hot water. When the wound is cleansed, push a little gauze to the bottom of it and allow a portion to protrude. This establishes and maintains drainage. The dressing can be changed daily until the wound is healed.

Puncture from a dog bite may be cared for in the same way as puncture from a nail or other sharp instrument. Whether the dog's teeth are dirty or the nail is rusty, if the wound is cleansed thoroughly and drainage established, the wound will heal promptly and no poisoning will develop. If drainage does not take place, septic poisoning will develop.

Fear is a weapon used by preachers, politicians and physicians. Fear creates hysteria and hysteria produces dire results. Add fear to snake-bite, dog-bite or a puncture by a rusty nail and enough hysteria will, be developed to cause a serious ending. It is possible to get enough nervous excitement to kill, even where no poisoning is present.

Rabies is a state of frenzy brought on by doctors and the clamoring multitude. A psychological storm resulting from wild excitement, hysteria and frenzied fear, is tremendously enervating and causes many to lose their lives.

Shallow cuts hardly involve any problem of drainage. Deeper cuts, those that penetrate through the skin, will drain well if permitted to do so. However, where the severed edges are drawn together and sewed, or held together by adhesive tape, they will not drain well unless an opening is left for drainage. Putrescent poisoning will occur in such cases.

Such cuts should be carefully cleansed and the edges brought together, provision made for drainage, and then they should not be irritated and disturbed.

Ointments, salves and bandages interfere with drainage and healing. Binding up wounds in bandages and ointments is what makes antiseptics seemingly necessary. Wounds that are exposed to sun and air heal more readily than those bound up.

Healing takes place by granulation under moist dressings if the exudation is not allowed to accumulate. All surface wounds that drain well heal in a normal man in spite of germs. All penetrating wounds, small or large, with imperfect drainage take on septic fermentation and, if neglected, will cause death from septic infection.

Rest: This means that the injured part should not be used in such a way that it involves motion in the wound. It means that the wound should not be manipulated, prodded and irritated at frequent intervals, as is commonly done. Rest is just as important in a flesh wound as in a broken bone.

Rest of the whole body is essential if the wound has been sufficient to produce shock. Shock means profound enervation and rest is essential for recovery of nerve power. I have seen fainting follow sticking a small sliver under the finger nail. Not the seriousness of the wound but the amount of shock will determine the amount of rest needed.

Fasting: In addition to the above local measures, general measures to hasten healing are advisable. When an animal is seriously wounded or has a bone broken it will not eat. The shock of the wound and the subsequent pain and inflammation reduce digestive power, or suspend digestion altogether. To eat then adds to the internal foulness; to fast decreases the existing toxemia. Some wounds heal while fasting that have persistently refused to heal for months or years.

Sunbathing: Sunbathing, through its effects upon the blood, hastens healing, both of flesh wounds and of broken bones. Although there is reason to believe that wounds heal more readily if exposed directly to the sun, this is not necessary to get great help from sun-bathing.

Poisonous Bites and Stings

Spiders Snakes

In this section we deal with the results not alone of the poisons introduced into the body by poisonous insects: scorpions, lizzards, spiders, snakes, etc., but of those introduced by physicians and others, to "cure" the effects of the bites and stings and of the effects of fear born of ignorance and superstition. The varieties of poisonous insects, spiders, snakes, etc., are few and most of these are comparatively harmless and, though momentarily painful, may be ignored.

The stings of bees, wasps, scorpions, ants, etc., are simply painful for a short time, produce a little local inflammation, sometimes slight lymphatic enlargement, and are soon over. They are not dangerous and require no treatment.

Gila Monster: Popular superstition to the contrary notwithstanding, the horned toad, which is really a lizzard, is not poisonous. The Gila Monster of our Western deserts seems to be the only poisonous lizzard on the earth. Its bite is popularly supposed to be sure death. However, experiments conducted in one of our Western universities showed that its venom is of sufficient virulence and amount to kill a rat but not a dog or a man. Deaths attributed to this cause are due to fear or to the heroic attempts to save life. Fear is man's worse enemy in all poisonous bites.

Spiders

Spiders: Paul Ginswold Howes, in **Nature Magazine**, March, 1926, under the suggestive title, "Our Friends the Spiders," says:

"The spiders are nearly all harmless or nearly so. They do everything in their power to avoid contact with man in any aggressive manner. They come about our homes for the flies and other insects that are also attracted there, and it is in this manner that they are continually working for our benefit. Even the dread tarantula of South America is among the spiders that are beneficial and I have seen them in camps remaining hidden during the day and venturing forth by night to prey upon the gigantic roaches that infest the houses. They grow to an enormous size, but people in these countries do not often kill them because of their predatory habits and peaceful nature. In British Guiana I have lived in a shack containing a dozen or more tarantulas which never disturbed me as long as I treated them in a like manner.

"The bite of the tarantula, as far as its deadly quality is concerned, is greatly overestimated. In some few cases where the person has been weak, or in a run-down and non-resistant condition, it is possible that death may have occurred from it. In the cases that I have suffered personally, it resulted in nothing more than a swollen member, accompanied by some fever which passed off rapidly, leaving no ill effects."

Professor Combstock, of Cornell University, an authority on spiders, says the tarantula is definitely not poisonous. Deaths from tarantula bites are, therefore, deaths from fear and from treatment.

The black widow spider (known also as red-rump, hour-glass, shoe-button, etc.) which lives on insects and other spiders and only the female of which bites, has been given undeserved rank as a killer. Although she is our most poisonous spider, she is no menace to man for she attends strictly to her own business of devouring insects. She is belligerent only during the period of incubation and will, not invade a residence unless attracted by an abundance of insects. Her bite, though painful and not to be courted by carelessness, is not dangerous. Though her sting is more potent than that of the scorpion or centipede, it does not kill.

Equipped with two venom-producing glands, each smaller than the head of an ordinary pin, she produces less than one-fourth as much venom at a time as the rattler injects at one strike. Compared to the fangs of the rattler, hers are very inadequate. They are only about one-thirty-second of an inch long and, as they operate on a plane horizontal with the body, she cannot sink them to their depth. Drop for drop, her venom is as deadly as rattle snake venom, but the worst she can do is inject about one-thirty-second as much venom to about one-sixteenth the depth attained by the rattler.

Experiments with direct bites of the black-widow spider showed that guinea pigs are killed by her venom in from one hour and forty-five minutes to four hours. The first symptoms developed about half a minute after the bite. Her bite has little effect on rats, causing only nervousness and general irritability, or lassitude for about twenty-four hours. Only by crushing the two sacs from the head of a spider into an open wound, thus making sure that all the poison is introduced into the blood stream, can it be caused to kill a rat. It requires five hours for the venom thus introduced to kill a rat, while one bitten by a rattler will die in five minutes.

Hospital records of people bitten by the black-widow show that they suffer from various discomforts and pain, but there are no spasms of agony and no deaths. Indeed, there is no record of an adult death resulting directly and entirely from the bite of the spider. Few cases have really been proven to be spider bites—many are tick bites or poisonous insect bites. It is thought that such a spider bite might prove fatal to an infant or even to an adult in poor health but according to all available records, healthy adults quickly recover.

The seriousness of the bite depends largely upon its location. The symptoms described in recorded severe cases are acute pains, localized and general, profuse perspiration, tautness of the abdominal muscles to a board-like hardness, restlessness, nausea, constipation, urine-retention, labored breathing and an increase in blood pressure. Generally there was a fine rash covering the entire body after the first or second day, with complete recovery four or five days later.

Contrasting the above symptoms with those produced in the rat, we are led to believe that the severity of the above symptoms is due to something other than the spider venom. The poisoning is complicated by much toxemia, or by treatment, or by fear, or by all three. In black-widow spider bites, as in all other poisonous bites, fear and drugs are our greatest enemies. To know the facts about her bite should dispel all fear and prevent resort to drugs.

Care of the Patient: If bitten, it is best to lie down and keep quiet. No food should be taken as long as there are acute symptoms. The same emergency treatment used in snake-bite—that is, lance the flesh at the point of the bite, so that the blood flows freely, or apply suction—will be useful. There need be no fear of using the mouth for suction.

Snakes

Snakes: The danger of being bitten by a snake is not great, even where these are plentiful. Most snakes are quite harmless. There are really only a few poisonous snakes. In America the rattle snake, of which we have fifteen varieties, the copper head, the water moccasin and the little harlequin snake of our Southern States are our only poisonous snakes. Of these the rattle snake and copper head are most dangerous.

The copper head is the most widely distributed of the venomous snakes in the Eastern United States. It is smaller than its cousin, the rattle snake, but is more active, has an irrascible temper and approaches its victims silently.

The coral snake, represented in the Southern States by the harlequin is of a rich red color with black and yellow transverse bands. The, harlequin is a beautiful snake, about two feet or more long, of a retiring habit and not a serious menace to man. The coral snake belongs to the same family as the cobra, but owing to the position of the poison fangs and to the size of the mouth, is usually unable to injure man. Their venom is not thought to be very strong. Perhaps the more venomous of these snakes are those of the West Indies, and tropical South America.

The water moccasin is not as poisonous as is popularly supposed.

The cobra, of which several varieties exist in India, Africa and the East Indies, is reputed to be the most venomous of all the snakes. Death has been known to follow within a few minutes after its bite, while under ordinary circumstances in a few hours. No doubt fear has much to do with the most speedy of these deaths.

The bite of the rattle snake is popularly supposed to be sure death and the publicity given the anti-venom serum a few years ago was of a character to lead the uninitiated to believe that every reported recovery was due to the serum. The popular notion that a rattle snake bite is invariably fatal was inferentially upheld in favor of the serum.

Statistics show that only about two to seven per cent of snake bites prove fatal and there is every reason for believing that many of these deaths are due to a mode of treatment that is as deadly as the snake bite. For instance the old standby, alcohol, is given to snake bite victims in large doses. The depressing effects of alcohol are exactly the same as the depressant effects of snake venom. When a bitten person recovers after drinking a large quantity of whisky, he recovers in spite of the "remedy" not with its aid. But the addition

of the whisky must have resulted in the death of many who might otherwise have recovered.

The venom of all poisonous snakes is the same, but it is more virulent in some than in other snakes. Snake venom poisoning is protein poisoning. The lethal principle of all snake venoms consists of two elements, a venom peptone and venom globulin. One of these elements has the power to destroy the fibrin ferment in the blood, the other paralyzes the motor and sensory nerve trunks. Time does not destroy its lethal character. Preserved in glycerine, its virus is as active as ever after twenty years. Arrows steeped in rattle snake venom retain their powers for many years.

Like all poisons, snake venom kills only if the victim receives a dose large enough to produce death. If he receives less than a deadly dose, he may be made very sick, but will not die unless killed by the madcap endeavors to save life, and by fear. Snake venom in small doses must be aided by fear and malpractice to produce death.

A doctor with a fear-complex frightens and maltreats many patients to death.

How much venom the victim will receive will depend upon a variety of circumstances which may be grouped under season and the habits of life of the snake, and the manner and circumstances of the bite.

Iii the extreme South and in midsummer the venom attains its highest degree of virulence.

When once a snake strikes, as in killing a rat or other animal for food, he expends practically all of his venom. A rattle snake may not accumulate a full supply of venom for a fortnight after expending it. During this period of depleted venom the snake is relatively harmless. One bitten during such a period would receive little or no venom.

The manner in which the snake inflicts the wound helps to determine the amount of venom he will inject. A snake cannot strike further than his own length and seldom that. A snake cannot strike unless coiled and then only the length of the coil. He must have at least a few kinks is his spine and then can strike only the length of the kinks. Nor can a snake strike at objects held directly over its head.

A snake striking from full coil will drive his fangs deeper than if he strikes from half coil. A direct blow will deliver more venom than a glancing blow. The snake's blow is often delivered with a raking motion and the

resulting wound resembles a briar scratch. Little venom is administered in this way. A large snake will be able to deliver a heavier blow, thus driving his fangs deeper, than a small snake.

The fangs of the rattle snake are one-fourth to three-fourths of an inch in length permitting him to contact the blood stream. He may inject as much as six drops of venom. The average is two to four drops. Three drops of venom injected half an inch into the flesh may easily prove fatal.

Upon the bare flesh the snake will drive his needle-like fangs deeper than through clothes. The clothes will absorb part of the venom. Certain articles of clothing are less permeable than others. Rubber, even thin rubber, is nearly impermeable. Soft, closely woven cloth is resistant. In experiments, blotting paper placed behind two thicknesses of heavy flannel showed no venom (on the paper) after a strike. As about seventy-five per cent, of all snake bites occur on the lower part of the leg or foot, ordinary shoes and pants offer adequate protection.

The location of the bite has much to do with the danger. Wounds on the lower limbs are, least dangerous, on the hand and arm more dangerous, and on the face and trunk most dangerous. The more remote from the general circulation and from the large nerves and arterial vessels, the less danger.

Contrary to popular opinion, snake venom is slowly absorbed from the tissues. Its slow absorption seems to be due to its highly irritant character. As late as seventeen hours, and in some instances, as late as twenty-four hours, after the injection of venom, the poison could be recovered from the tissues around the wound by suction. This represents slow delivery. The body is but slowly poisoned by it and an ordinarily healthy body can dispose of considerable poison if it, is not delivered in overwhelming quantities.

Before discussing the care of the bitten person let us briefly glance at the futility of the old forms of medical care. We will then see that medical superstition is a much more virulent juice than the venom of the rattle snake.

Dr. Afraino de Amaral, director of the snake serum institute at Butanan, in South America, injected cobra venom into six dogs and then gave alcohol to three of these. The dogs that got the alcohol died sooner than the other three. He says that alcohol is not only not a remedy for snake bite, but that, "on the contrary, alcoholic liquors are harmful to persons bitten by venomous snakes."

Col. M. L. Crimmins and Dr. Dudley Jackson made an exhaustive series of experiments in the Robert B. Green hospital in San Antonio, using dogs for their cruel and needless experiments—useless because they only confirmed what was already known.

After first determining what constitutes a minimum lethal dose of venom, they injected dogs with venom and then tried out the various reputed cures of snake bite. Potassium permanganate proved worthless as a remedy. Weak solutions of this drug would not antidote the venom in a test-tube while neither a strong solution nor the pure crystals will antidote the venom after its introduction into the body. In a controlled experiment, two dogs that were given choral hydrate died quicker than two that received no treatment. Strychnine, given as a "heart stimulant," proved valueless. Ammonia applied locally had no value. Magnesium sulphate and glycerine packs were tried and found wanting. Soaking the wound in kerosene did no good, nor did burning powder from a shotgun shell on the wound help in any way. A paste of egg white and alum had no more effect than a ceremony by a shaman.

Finally, they tried the anti-venom serum and it proved to have no more value than the kerosene. Dogs treated with the serum all died and presented, at subsequent autopsies, all the usual findings in death from rattle snake poisoning.

About the only "remedy" they did not try is that of faith and prayer offered by certain religious sects. While faith and prayer are admittedly better than fear and frenzy, it must still be admitted that these appear to save only where less than a fatal dose of venom is received. The belief in cure removes fear; this is the only virtue any cure possesses.

Let us return briefly to the serum. "It will not entirely neutralize venom when the two are mixed in a bottle in the same ratio on which the government permit was issued and are left together twenty hours before injection," says W. A. Bevan, Snake Lore Editor of **Outdoor Life**. He says "the anti-serum manufacturers were shown in their own laboratories that their serum was not a cure-all. In those experiments 100 per cent of the cases treated by surgery alone recovered, though every case had from two to five times a lethal dose of poison; 66 per cent of the cases treated with serum only, died, and it was shown that three of the commercial doses would not prevent death when the equivalent of less than three drops of venom had been given."

All the vaunted antidotes having proved valueless, recoveries from snake bite must be accounted for on other grounds than on the usual assumption that the treatment saved them. We assume that if the "remedy" does not kill the patient, it cures him. Fortunately only a few of those bitten by venomous snakes receive a fatal dose.

Symptoms: I quote the following description of the symptoms of rattle snake poisoning, which is that of an extreme case, from **Backwoods Surgery and Medicine** by Chas. S. Moody, M. D. He declares "nothing like nearly all cases bitten present even half the symptoms described." He says: "A stinging, burning pain radiates from the wound and the wound itself becomes inflamed and angry. Swelling comes on, the heart action is immediately accelerated and the respiration is hurried. In a short time, the virus penetrates deeper into the systemic circulation, the heart and respiratory symptoms change, the heart slows down, the respiration decreases, the face becomes dusky and anxious, covered with profuse perspiration, and the mind grows dull. Blindness, due to the effect upon the optic nerve, takes place.

"The patient staggers as he walks, and soon unless relief comes, he will become totally paralyzed. Spots of blood appear just beneath the skin and usually upon the limb bitten. If the amount of virus is sufficient to produce death, all the above symptoms are soon followed by tetanic convulsions and lockjaw. If, however, the dose is not sufficient to produce death, they gradually subside, leaving the patient much debilitated and subject to poisoned blood states that manifest themselves in the form of skin eruptions and ulcers."

Care of the Patient: When bitten, don't go running at top speed to the nearest human habitation. This serves to speed up circulation and disseminate the virus through the system more rapidly. Sit down calmly and carry out the following instructions:

- (1) A tourniquet, or ligature, made of a handkerchief, belt, neck tie, or anything that may be handy, a reed or the bark off a tree, if nothing else, should be bound around the leg or arm, just above the bite and made tight enough to obstruct the circulation. This must be loosened for a few minutes every fifteen minutes to prevent the blockage of the circulation from resulting in gangrene.
- (2) A knife, or other sharp object should now be used to make a number of incisions, through, around and above the wounds where the fangs of the snake

entered. The danger, according to Dr. Jackson, is not in making too many Incisions, but in not making enough. The incisions should be about a quarter of an inch long and a quarter of an inch deep.

(3) Suction, with the mouth or a suction bulb (a breast pump is not powerful enough for this), should now be applied for at least a half hour. The more blood and lymph one extracts in this manner the better. This should be done immediately, although, if done within an hour after being bitten there is little likelihood of more treatment being required.

The old **Hydropaths** placed one end of a large quill or small tube over the wound and, taking the other end in the mouth, sucked vigorously through the tube to extract the venom.—See **The Water Cure Journal**, Jan. 1851.

If the mouth is used to supply the suction one must be sure there are no abrasions in the mouth, or else, that the abrasions are carefully protected from absorbing the poison.

(4) Where the above treatment has not been administered early, and the inflammation extends up the limb, this should be followed, and incisions made at the head of the advancing inflammation and suction again applied. This may have to be done several times.

If a pocket forms, this is to say, if one area becomes more swollen than the rest of the inflamed part, a "nest" of incisions should be made in and around this area, and suction applied. In cases that are not treated early, it may be necessary to repeat the incisions and suction as often as every four hours.

In the meantime, it is necessary to retain your poise and to avoid panic. Keep cool and inspire the patient with confidence and courage. I do not doubt that fear has accounted for the death of more than one bitten person who should have recovered, except for the addition of fear to the snake poison. Keep cool. Keep your wits about you. Do not resort to any mad-cap endeavors to "sustain the heart" of the patient. Keep him quiet and keep him warm. Give him no food but water. If these few simple measures are employed in every case of snake bite, deaths from this cause will soon be a thing of the past.

Col. Crimmins and Dr. Jackson injected four times the ascertained minimum fatal dose of venom into a dog and applied suction to the poisoned tissues within five minutes after the injection. The dog made a complete recovery. The venom-containing blood drawn from this dog by suction was injected into another dog. This dog developed the characteristic symptoms of

snake-bite poisoning and died. This method will probably save every case, regardless of how large the dose, if applied early enough. The "surgery" mentioned by Mr. Bevan in a previous quotation is simply the above old back-woods procedure which the self-elected authorities had always declared valueless because "the venom could not be removed by mechanical means."

Accidents and Emergencies

Shock

<u>Asphyxia</u>

Artificial Respiration

Burns And Scalds

Choking

Contusions

Dislocations

Electrocution

Fainting

Foreign Bodies In The Ear

Fractures

Hemorrhages

<u>Lightning Stroke</u>

Nose Bleed

Poisoning

Sprains And Strains

In the realm of first aid, as in the realm of so-called disease the "do something" superstition reigns supreme and many deaths occur each year because of the many harmful procedures that are employed in many cases. Stimulants, sedatives, antiseptics, etc., are no more necessary in accidents and emergencies than in so-called "diseases."

Because, even in drugless circles, the idea prevails that something radical must be done in accidents and emergencies and that "all that can possibly be accomplished by drug stimulants in cases of unconsciousness, or suspended animation can be brought about * * * by the most energetic vital stimulants * * hot applications over the heart and alternate hot and cold applications to the spine," we are going to deal first with shock and, then, follow with the other accidents, in alphabetical order.

Shock

Definition: This is sudden vital depression due to injury or emotion. As a general rule, the shock is proportionate to the extent of the injury or the emotional disturbance, though this is not always so. I have seen a man grow pale, weak, trembly, and then faint after which he vomited, all as a result of running a small sliver under one of his finger nails. So trivial an accident does not cause so much shock to one in good health. Deferred shock is shock the symptoms of which are delayed for some tune after the physical or emotional injury is received.

Often seemingly trivial injuries produce an almost fatal shock. In these cases there is a faltering in both the fundamental and expressed powers of one organ after another, in more or less rapid succession, not from so-called sympathetic association, or because one organ has learned that its neighbor is in peril and gives down under strenuous efforts to render aid, but the whole system, or its most vital parts, is bankrupt of power and its structures impaired, so that it is but able to keep up a semblance of health in the absence of added Or new disturbing and impairing causes, and as soon as a little extra burden is added, so that a little more power is demanded to keep the machinery of life in regular motion, derangement follows. The whole organism is involved in the destruction, and the best that its several organs can do is to stick to their posts of duty, and hold out as long as they can with what power they have, for no reinforcement can be raised, sufficient to check the derangement, and restore health.

Symptoms: The symptoms of shock are cold, clammy skin, face very pale and pinched, widely dilated and staring eyes, rapid and irregular pulse, and, even in severe injuries, little or no pain. Some of the mental faculties are usually retained.

Etiology: Many kinds of shock are described depending upon their causes. Psychic shock is due to sudden fright, sudden loss, as from the death of a loved one, or other severe emotional experience; allergic shock, serum shock and anaphylactic shock, are terms applied to serum poisoning; surgical shock follows surgical operations; electric shock follows passage of a current of electricity through the body; insulin shock follows an "overdose" of insulin; epigastric shock follows a blow over the stomach; shell shock is loss of nervous control seen in soldiers caused by the noise and concussion of bursting shells; traumatic shock is due to a wound or violence.; testicular shock is due to a blow upon the testicles; aerial shock is similar to shell

shock and is due to the same causes. There are other shocks due to the intravenous administration of drugs. Blood transfusion and great loss of blood each produce shock.

Care of the Patient: It should be obvious that in such cases every effort to conserve vitality should be made and no stimulation of any kind employed. Quiet, warmth and rest—mental, physical and physiological—are the remedies. The head should be lowered and the feet slightly elevated. After profound enervation from shock, rest —physical, mental, sensory and physiological—permits the return of the functions of secretion and excretion and the revival of circulation and respiration. But if stimulants—drugs and food—are given, reaction is prevented and death may ensue.

Even where shock is not profound, lack of proper rest may prevent a full return of secretion and excretion (elimination) and toxemia will be greatly increased. A long-drawn-out convalescence will be experienced in which organic change may take place. This means that the most vulnerable organ will give down and, unless a skillful letting-alone policy is pursued, death may be the result.

The prevailing mistreatment of shock victims is well described by Dr. Tilden thus: "An accident occurs. Someone is shocked into insensibility. A doctor and an ambulance are called. The proper treatment is to stop the hemorrhage first. Place the patient in the shade with a folded coat or something soft under his head—not too high. Leave someone in charge, and send the idle and curious away. The patient should not be disturbed until reaction takes place; then he may be removed to his home or hospital as gently and quickly as possible, there to be kept quiet, without drugs and food, until normal.

"The way such cases are usually treated is to rush to the doctor pell-mell, who administers a dose of stimulant hypodermically. The patient is bundled into an ambulance, and rushed, with the speed and noise of the fire department, to a hospital—it may be a mile or it may be two or three miles. Then he is rushed to a receiving ward, where he is pawed over—and what else, God only knows.

"Rest! Modern medicine has no such word in its dictionary. It is supplanted by stimulation and narcotization. Time is another word that has been eliminated. Care given to the injured is much like the Chinaman's description of the first electric car he ever saw: 'No pushee, no pullee, but run like hellee.' Such treatment has prevented the reaction in thousands and thousands of cases. But the public is satisfied; for something is done and done speedily, and neither last nor least, the patient is done to a finish. * * * — Philosophy of Health, Aug. 1924.

Asphyxia

This is a condition of suffocation that supervenes when respiration is totally interrupted. There is unconsciousness, due to lack of oxygen and the excessive accumulation of carbon-dioxide.

Etiology: External obstruction as in smothering and hanging, internal obstruction as in choking; immersion in water, as in drowning; or the presence of poisonous gases, as illuminating gas or smoke, are the most common causes.

Care of the Patient: The general care of these cases is the same and consists of:

- (1) The restoration of breathing by means of artificial respiration, instructions for which are given below.
- (2) Restoration of warmth of the body. This is best accomplished by blankets and the use of artificial heat. Stimulants should not be resorted to.

Drowning calls for great care in draining the lungs of water before artificial respiration is instituted. No time should be lost by moving the body to a place of shelter.

To drain the lungs, place the patient face down with the stomach resting on a barrel or roll of clothing so that the head will be lower than the rest of the body and the water will run out from the throat and lungs. Wipe the mouth and nostrils, wrap the corner of a hand-kerchief about the forefinger and clean the mouth of all mucus. Now remove the body from the roll of clothing or other object and begin artificial respiration. As soon as breathing sets in, apply artificial heat to the body and do not move until full reaction occurs.

Asphyxiation by gas or smoke requires immediate application of artificial respiration. Remove the subject from the smoke or gas and begin work at once. Give him or her an abundance of fresh air.

Artificial Respiration

The Schaefer, or "Prone Pressure" method of artificial respiration, slightly modified, possesses the following advantages: It is immediately available. It is easy of performance. Little muscular exertion and no apparatus are required. It secures larger ventilation of the lungs than the supine method. It is very simple and does not require any complex motions on the part of the operator and is, therefore readily learned. There are no difficulties from the tongue falling back into the air passages. The first result of the movement is an expiration so that foreign substances in the mouth or air passages is likely to be expelled. There is no risk of injury to the ribs or liver if proper care is exercised in executing the movements.

Briefly this method is as follows: place the patient face down. Extend one arm directly over head; bend the other arm at the elbow and rest the patient's face on the hand or forearm, so that the nose and mouth are free of the ground or floor.

Straddle the patient and kneel down with the knees just behind and on each side of the patient's hips. Place the palms of the hands on the small of the back so that the fingers rest on the ribs. The little finger should touch the lowest rib. The thumb should be held alongside' of the fingers which should extend around the sides of the patient until the tips are just out of sight.

Hold your arms straight and swing slowly forward so that your weight is gradually brought to bear upon the patient. This should take two to three seconds and must not be violent. The pressure should be gradually applied as too sudden force may cause damage. This movement compresses the abdomen and lower part of the chest and forces the air out of the lungs. The natural motion of the diaphragm is kept up and circulation through the whole abdomen is accelerated.

After the pressure has been applied, immediately swing backward to your original position, releasing all pressure from the chest. The natural elasticity of the chest walls will now cause them to expand and the diaphragm will descend. The lungs will be refilled with a fresh supply of air.

Repeat these movements, using about four to five seconds for a complete respiration, for as long as necessary. Cases of restoration of breathing, after electric shock, have been reported as occurring after nearly four hours of continuous artificial respiration. Sometimes, after spontaneous respiration has been resumed for a brief time, breathing stops again. Keep a careful watch on the patient and if this occurs, resume artificial respiration.

Manual methods of artificial respiration are superior to pul-motors and similar mechanical devices and have the advantage of being always at hand. Very few accidents occur where apparatus is at hand for immediate use. Aid is needed at once in drowning or electric shock and asphyxiation and the delay incident to removal to hospital or due to waiting for the arrival of apparatus may be the difference between life and death. The patient needs oxygen right now, not a half hour from now.

Burns And Scalds

If the clothing is afire, do not run wildly about, for this will increase the flames. Either lie down and roll over and thus smother the flames or wrap yourself in a quilt, blanket or rug and accomplish the same result. Do not run for water unless it is close at hand.

In removing the clothing, do not try to save it. Cut it loose and do not pull loose any parts that stick to the body and do not burst any blisters.

Care for burns and scalds as instructed under burns, in Affections of the Skin.

Choking

When due to foreign objects causing obstruction of the throat, choking calls for immediate removal of the object. A vigorous slap between the shoulders will often dislodge the obstruction. With children it is a simple matter to pick them up and hold them so they hang head downward while gently tapping their shoulders and back.

Always look into the throat to see if the object can be reached with the fingers or a curved spoon handle.

If asphyxiation has resulted artificial respiration may be necessary.

Contusions

These are bumps and bruises and are often very painful. The so-called black-eye is a familiar example. Beyond the instinctive rubbing that everyone resorts to, no treatment is necessary.

Dislocations

These should be left to the care of an expert for inexperienced hands are likely to do more harm than good. The patient should be placed in a comfortable position so that strain is avoided until help arrives. Hot applications may be employed to relieve the pain.

Electrocution

Death does not always result from electrocution, though it may result in cases that are not properly cared for.

The first need is artificial respiration. This should be given immediately and right at the place of electrocution. No chance should be taken by moving the subject: indeed, he should not be moved until full reaction has set in. Artificial respiration should be continued until rigor mortis sets in, or until the patient begins to breathe under his own power. Do not give up. Cases are reported of recovery after four hours.

The patient should be kept warm and no stimulants given. The practice of adding the effects of drugs to the state of overwhelmed shock is extremely dangerous. A heart stimulant is given and an anodyne. This method strikes down the very means by which the system seeks to repair its injuries and favors the conditions of depression that are so much to be dreaded, and delays recovery, even if it does not actually destroy life.

Fainting

Definition: This is loss of consciousness, due to brain anemia.

Symptoms: Pallid, cold skin, unconsciousness and feeble, perhaps rapid, pulse are the chief symptoms. The patient falls.

Etiology: Fainting may occur under a variety of circumstances; weakness, loss of blood, shock, sickness, etc.

Care of the Patient: Place the patient on a bed, floor, or ground, loosen the clothing, and give him fresh air. Use no stimulants, throw no water in his face. Let him alone. In from thirty seconds to two or three minutes he will regain consciousness, sit up and wonder what it is all about. Mad-cap

endeavors to restore consciousness are futile and wasted and often do more harm than good.

Foreign Bodies In The Ear

These are usually insects that find their way into the ear, or inanimate objects that the child places in the ear. Beans, kernels of wheat, onions, etc., are likely to swell. Bodies that do not swell or that cause no irritation may remain in the ear for years and cause no symptoms.

Pain, noises in the ear or bead, impaired hearing, sometimes almost complete deafness, and inflammation result from large or irritating bodies. Unskillful attempts to remove them often cause considerable injury, even lasceration or perforation of the ear-drum. No attempt should ever be made to remove a foreign body unless we are sure there is one present. The symptoms may be due to something else and efforts to remove a body that is not there may result in much harm.

Insects should first be killed by pouring oil in the ear. The ear may then be syringed, or the insect may be removed by the aid of forceps.

Fractures

These require expert attention and should be kept at rest until this arrives. Heat may be employed for relief. A splint should be applied to secure fixation and assure rest. All movement should be avoided.

Hemorrhages

Bleeding resulting from a severed artery or vein should be stopped as soon as possible to prevent too great loss of blood.

If there is fainting do not try to revive the patient as the syncope tends to prevent bleeding.

Blood from a severed artery is bright red and comes out in jets or spurts.

If on a limb, a ligature should be applied just above the cut and made tight enough to stop the flow of blood. If on the body, pressure should be applied just above the wound, between it and the heart.

Blood from a severed vein is dark and flows in a steady stream.

If on a limb, the ligature should be applied below the cut. If on the body, pressure should be applied below the wound, that is, the wound should be between the point of pressure and the heart.

The wound should be carefully cleansed and protected. Rest of the part until the severed ends are reunited is essential.

Lightning Stroke

This often kills, but many times only shocks into insensibility or suspended animation. In such cases, artificial respiration will revive the victim. Care for as for electrocution.

Burns from lightning stroke should be cared for as any other burn.

Nose Bleed

This requires no treatment. The nose is often forced to bleed much longer than it otherwise would, by the methods used to stop it. Cold applications will contract the blood vessels and slow up the bleeding. Bleeding stops as soon as coagulation occurs. Blowing the nose, washing it out and manipulating it, prevents coagulations.

Poisoning

If poisons have been swallowed and vomiting does not occur at once the stomach should be immediately emptied by washing it out or by inducing vomiting.

If an acid has been swallowed, it may be neutralized by giving an alkali—baking soda, chalk or whatever is handy.

If an alkali has been swallowed, vinegar, lemon juice, or other acid will neutralize it.

In practically all cases, it is safe to give milk to dilute and neutralize the poison.

Sprains And Strains

These are often severe and painful, often important ligaments are torn and require time to heal. The first and most important need in these cases is rest. Remove the clothing and stop using the part.