

Herald of Health

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No. 9

ATTEN- TION!



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INTERNATIONAL TRACT
SOCIETY, - - - - - Lucknow.

Herald of Health

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Lucknow, September, 1911

No. 9

Simple Rules for Right Living

IRVING FISHER, PROFESSOR OF POLITICAL ECONOMY AT YALE UNIVERSITY

[MANY attempts have been made at various times to formulate rules for healthful living. At the present time there are thousands of intelligent men and women who are anxiously asking for simple rules of life whereby comfort, efficiency, and longevity may be increased. Such rules render valuable service, especially to those who are quite willing to exert the self-restraint necessary to follow a wholesome course of life, but who lack either the time or inclination to make for themselves a thorough-going study of the philosophy of right living. Such persons will welcome the excellent summary entitled "Simple Rules for Right Living," which Professor Irving Fisher, head of the political science department of Yale University, contributes to the *June World's Work*.—EDITOR.]

ESSENTIALS OF SUCCESS: Knowledge, self-control, enthusiasm.

Essential rules: Plenty of fresh air, both for the lungs and the skin, proper bathing, exercises, resting, sleeping, thinking, feeling, and willing.

Many, if not most, changes of habits require a period of physiological adjustment, and, therefore, should be made gradually. The foregoing lead to the following specific rules:—

Air

Keep outdoors as much as possible.

Breathe through the nose, not through the mouth.

When indoors have the air as fresh as possible: (a) by having the room aired before occupancy; (b) by having it continuously ventilated while occupied. (In winter, the ventilation is best secured by a window-board de-

flecting the entering cold air upward.)

Not only purity, but coolness, dryness, and motion of the air, if not very extreme, are advantageous. Air in heated houses in winter is usually too dry, and may be humidified without injury and probably with advantage.

Clothing should be sufficient to keep one warm. The minimum that will secure this result is the best. Porosity is very important, not only in underclothes, but in all clothes. The more porous the clothes, the more the skin is educated to perform its functions with increasingly less need for protection. Take an air-bath as often and as long as possible.

Water

Take a daily water-bath, not only for cleanliness but for skin gymnastics. A cold bath is better for this purpose than a hot bath. A short hot, followed by a short, cold bath is still better. In fatigue, a very hot bath lasting only half a minute is good.

A neutral bath, beginning at 97 degrees or 98 degrees dropping not more than five degrees, and continued at least fifteen minutes is an excellent means of resting the nerves.

Be sure that the water you drink is free from dangerous germs and impurities. "Soft" water is better than "hard" water. Ice water should be avoided, unless sipped and warmed in the mouth. Ice may contain spores of

germs, even when germs themselves are killed by cold.

Cold-water drinking, including especially a glass half an hour before breakfast and on retiring, is a remedy for constipation.

The judicious use of enemas is advantageous where there is auto-toxication,—that is, absorption of poisons through the colon. They are especially needed when one is not feeling well from almost any cause, as a cold. A warm enema is likely to have as an after-effect the inability to defecate without its use. For this reason, cool enemas—temperature of 80 degrees down to 75 degrees—are best.

The best way, however, of regulating the bowels is by exercise and diet.

Food

Teeth and gums should be brushed *thoroughly* several times a day and floss silk used between the teeth. Persistence in keeping the mouth clean is good not only for the teeth but for the stomach.

Masticate all food up to the point of involuntary swallowing, with the attention on the taste, not on the mastication. Food should simply be chewed and relished, with no thought of swallowing. There should be no more effort to prevent than to force swallowing. It will be found that, if we attend only to the agreeable task of extracting the flavours of our food, nature will take care of the swallowing, and this will become, like breathing, involuntary. The more you rely on instinct, the more normal, stronger, and surer the instinct becomes. The instinct by which most people eat is perverted through the "hurry habit" and the use of abnormal foods. Thorough mastication takes time, and, therefore, one must not feel hurried at

meals if the best results are to be secured.

Sip liquids, except water, and mix with saliva as though they were solids.

The stopping point for eating should be at the *earliest* moment when one is really satisfied. Normalized instinct is the best guide here, provided one eats without hurry and masticates thoroughly.

The frequency of meals and time to take them should be so adjusted that no meal is taken before a previous meal is well out of the way, in order that the stomach may have had time to rest and prepare new juices. Normal appetite is a good guide in this respect. One's best sleep is on an empty stomach. Food puts one to sleep by diverting blood from the head, but disturbs sleep later. Water, however, or even fruit, may be taken before retiring without injury.

An exclusive diet is usually unsafe. Even foods which are not ideally the best are probably needed when no better are available or when the appetite especially calls for them.

Use some raw foods, nuts, fruits, salads, milk, etc., at each meal.

In general, hard and dry foods are preferable to soft and wet foods.

The amount of protein required is much less than that ordinarily consumed. Through thorough mastication the amount of protein is automatically reduced to its proper level.

The sudden or artificial reduction in protein to the ideal standard is apt to produce temporarily a "sour stomach," unless fats be used abundantly.

To balance each meal is of the utmost importance. When one can trust the appetite, it is an almost infallible method of balancing, but some knowledge of foods will help; such as, of the proper proportion of protein, fat,

and carbohydrate. The aim, however, should always be—and this cannot be too often repeated—to educate the appetite to the point of deciding all these questions automatically.

The character of the fæces is greatly improved if the diet is proper in respect to protein and is properly eaten with respect to mastication; otherwise, there is always absorption of poisons through the colon. Thorough mastication, moderation in amount—especially of protein—are the best disinfectants. The use of buttermilk and sour milk has an advantage, mentioned by Metchnikoff, of reducing the putrefactive bacteria in the colon. There is, therefore, great hygienic value in sour milk, buttermilk, lactic acid koumiss (not the same as yeast-made koumiss), kefir, yogurt, etc.

Exercise and Rest

The hygienic life should have a proper balance between rest and activity of various kinds, physical and mental. Generally, every muscle in the body should be exercised daily.

Muscular exercise should hold the attention and call into play will-power. Exercise should be enjoyed as play, not endured as work.

The most beneficial exercises are those which stimulate the action of the heart and lungs; such as, rapid walking, running, hill-climbing, and swimming.

The exercise of the abdominal muscles is the most important in order to give tone to those muscles and thus aid the portal circulation. For the same reason, erect posture, not only in standing but in sitting, is important. Support the hollow of the back by a cushion or otherwise. A rocker or a tilted chair is restful to the portal circulation if the lower back is properly supported. Breathing exercises,

both by suction and otherwise, for pumping the portal circulation free of stagnated blood are very helpful.

Exercise should always be limited by fatigue, which brings with it fatigue poisons. This is nature's signal when to rest. If one's use of diet and air is proper, the fatigue point will be reached much later than otherwise.

One should learn to relax when not in activity. The habit produces rest, even between exertions very close together, and enables one to continue to repeat these exertions for a much longer time than otherwise. The habit of lying down when tired is a good one.

The same principles apply to mental rest. Avoid worry, anger, fear, excitement, hate, jealousy, grief, and all depressing or abnormal mental states. This is to be done not so much by repressing these feelings as by *dropping* or ignoring them, that is, by diverting and controlling the attention. The secret of mental hygiene lies in the direction of attention. One's mental attitude, from a hygienic standpoint, ought to be optimistic and serene, and this attitude should be striven for not only in order to produce health, but as an end in itself, for which, in fact, even health is properly sought.

In addition, the individual should, of course, avoid infection, poisons, and other dangers.

Occasional physical examination by a competent medical examiner is advisable. In case of illness, competent medical treatment should be sought. Finally, the duty of the individual does not end with personal hygiene. He should take part in the movements to secure better public hygiene in city, State, and nation. He has a selfish as well as an altruistic motive to do this. His air, water, and food depend on

health legislation and administration.

All the foregoing rules are important. The results which may be obtained by following them largely depend on the thoroughness with which they are followed. This is true, especially, of fresh air and mastication. If all the rules are followed and followed thoroughly, including the one most commonly neglected, namely,

keeping within the fatigue limit, the average man may reasonably expect, if not to equal the record of Cornaro, at least to double his own length of life, his activity per day, and to increase his satisfactions and his usefulness.

The laws of "humaniculture" can be depended upon as much as those of agriculture, horticulture, or stock-raising.

The Individuality of the Out-of-Doors

GEORGE WHARTON JAMES

Nobody can mistake a landscape of the south of Ireland for a part of the prairies of Iowa or the forest-clad slopes of Michigan; nobody ever looked over the expanse of the great lakes and thought he were in the savannahs of the South, no man ever mistook Niagara Falls for the Rhine, or the Bay of Naples for the harbour of New York. Neither did any human being ever imagine he was eating an apple when he ate an orange, or a lemon while he ate a persimmon, or a pear when he ate a peach. Every rose is different and distinct from every violet; and the callalily from the poinsettia, the carnation from the Fuchsia, the orchid from the Cereus, the marigold from the poppy. No dog ever looked like a cat, or a burro like a cow, an elephant like a pig, or a deer like a buffalo. Every fly has its own individuality, and each creeping thing is distinct in its kind from every other creeping thing. No quaking-aspen is ever taken for an alder, no pine for a poplar, or an elm for an oak—each bears the stamp and seal of its own kind. No mocking-bird's song is ever confused with that of the linnet, or the voice of the thrush with that of the cuckoo. The skylark

sings its own song; and the hermit-thrush and canyon-wren, the vireo and the robin, each has a voice that the world knows is its own.

Look at what you will, smell of what you will, taste, feel, hear what you will of the objects found in God's great out-of-doors, and each is itself, each is distinct, each is personal. And why? Is not the reason clear and self-evident? How could it be otherwise? Is not each object a clear and distinct representation of a thought of God? And how could God think indistinctly, unclearly, vaguely? If God has a thought, it is a thought, and as such must manifest itself sharp, clear, distinct, vigorous, detached, individual.

With man, sharp, clear, distinct, individual thoughts are comparatively the exception rather than the rule. Take our politicians: how vague their utterances often are.

With scientists it is the same. Science changes yearly, until that which we believe to-day is wonderfully different from that which was taught yesterday. The science of geology of fifty years ago is a matter of laughter and mockery to-day; and if one were to propound to a class in astronomy to-day the ideas firmly held, believed,

and thought by such eminent astronomers as Halley, Newton, Herschel, the youngest student would have no difficulty in proving them absurd and ridiculous in the extreme. The greatest botanical society of the world is called the Linnean Society, after the great Swedish botanist, yet there is not a tyro in the study of botany to-day who does not know that his classification of plants was an incorrect and false one. And so with every science except that of mathematics. All have altered; all have changed; all have "progressed."

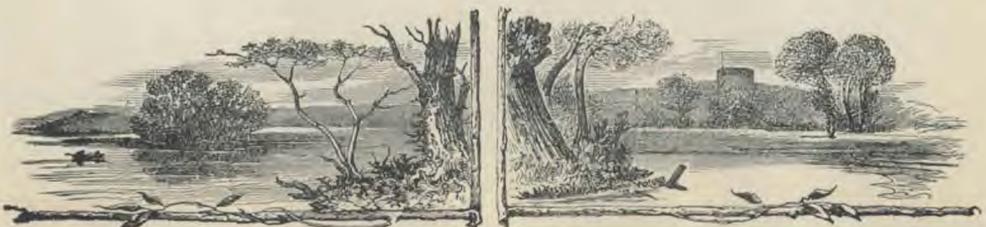
Has it ever occurred to you how much it means to you, individually and personally, as well as to all men collectively, that God's ideas are so real, so definite, so individual? What would become of mankind if God—for one short day—were to think vaguely, uncertainly, unsurely, as man so often thinks? With man we are ever uncertain. "He is a man of moods," we say, "look out for him!" "She is uncertain; beware of her?" But with God is no uncertainty, no moodiness; every thought is sure.

Do you see what I mean? What would become of man if when he reached out and took an orange from the tree and tried to eat it, he found it

made of granite? or sought to step on granite, and found it made of jelly-fish? What would result if he went to bed at ten o'clock at night and awoke next morning at seven to find the stars still shining, the "dipper" showing that it was still seven hours before daylight? What would he think if when he stepped from his house upon the lawn, it were to let him in, and he found it were water? or if he started to drink water, and he found it coal-oil?

You say these questions are too absurd to answer. Are they? Why? There is but one reason, and that is that you are so sure, so certain of the certainty and sureness of God, that you have not the power to conceive of his changing. It is simply that you believe in the "individuality of the out-of-doors." It is because in him is found "no variableness, neither shadow of turning." And it is because of that unchangeable fact that you can turn to God at all times, knowing that he and all he has made is ever the same. How can we ever have fear of God when he is ever the same?

And it is this assurance that it is God's out-of-doors, that he controls and directs it in wisdom and love, and keeps everything stable and sure, that makes all life possible.



Hygiene of the Skin

KATE LINDSAY, M. D.

THE influence of the skin on moral, mental, and physical health preservation has been very much underrated until recent years; in fact, but little attention has been paid to the hygiene and sanitation of this extensive investing membrane. When an impression or an idea was superficial, shallow, frivolous, or unlikely to permanently influence an individual or community, it was said to be only skin deep, thus showing the contempt in which the human cuticle was held by humanity at large.

Notwithstanding this traditional error as to the skin's insignificance as a factor in the promotion of the health and happiness of the race, the facts are that the cuticle is one of the most varied and complicated structures of the body. The first impression the infant gets of a change of environment comes from the impression made by the air on the sensory nerve-endings of the skin. The impression is so potent that it starts the functional activity of the bodily organs to working in new and hitherto unused channels. The lungs begin to inhale and exhale, and become the chief centres of gaseous food intake and waste out-put. The blood flows through new channels, and the digestive and eliminative organs all begin to per-

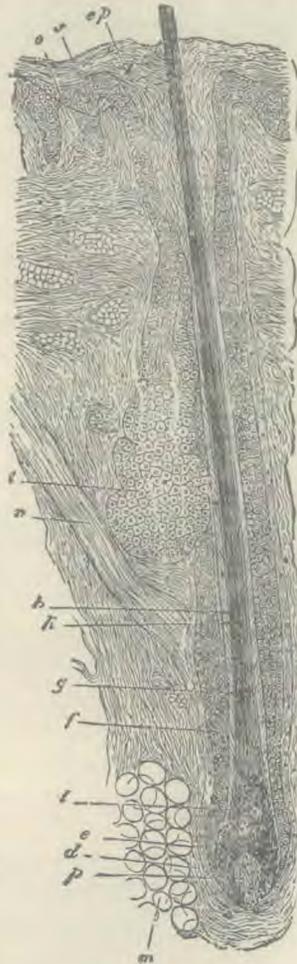
form their life-supporting functions.

The little one, who chiefly vegetates and grows for the first weeks of post-natal life, is principally educated through what comes in contact with its surfaces. When the skin is cold and blue, it feels discomfort and cries. When over-heated, irritated by rough, ill-fitting clothing, restricted by bands, or pricked by pins, or left to lie wet or uncomfortable, it cries, frets, and becomes a nervous, irritable baby, stunted in growth and warped in temper, and is called a bad baby.

The writer remembers riding several miles on a cold winter day to see a six-months-old baby, who had cried for three days and nights. The whole trouble was due to a blond, sensitive skinned infant being forced to wear a coarse, rough flannel shirt, which had produced a nettle rash, with irritation and itching so intense as to nearly produce an attack of convulsions. After a warm soda bath, soothing ointment, and a soft cotten gauze undershirt,

and the baby skin made comfortable, the infant went to sleep for hours, and awoke well and happy.

The skin is rich in its blood supply and in its glandular systems. It is the chief heat eliminating organ of



SECTION OF SKIN

the body. The sweat glands, which eliminate waste, the sebaceous gland, which secretes a lubricating fluid for keeping the skin and hair well oiled and flexible, form a vast system of pockets, each with a duct opening on the surface of the body.

The skin thus becomes a channel by which the nervous system is reached, and either stimulated to normal functional action, or irritated and harassed until the brain and nerve manifestations are abnormal, and result in many forms of nervous functional disorders.

Improper clothing and care of the skin, either by over-heating or chilling, will cause nasal catarrh, and predispose to many respiratory and intestinal disorders. An improperly treated, damaged skin may become an excessive channel for the introduction of disease-producing bacteria and parasites into the body. It may be rather startling to find that for centuries the white man has been debarred from any extensive field of activity and development in the tropics because he did not know how to protect his skin from the bite of insects which carry malarial and yellow fever infection.

By destroying the contagion-carrying insects, and screening the sick and well from their bites, and thus securing protection from the two scourges of tropics, malaria and yellow fever are being stamped out. These infections, deadly and potent when infected into the circulation, are powerless to do harm when the mosquito fails to reach the human skin of the patient and act as a middleman to convey the infection to other victims. Malarial and yellow fever thus cease to be, and the sunny south-land becomes a safe place to live in.

When the plague-carrying flea is

kept away from the human skin, and the infected rats are destroyed, the bubonic plague disappears. Sleeping sickness, breakbone fever, and many other infectious bacteria and blood-parasites find their way into the body by way of the skin, either from insect bites or from wounds.

Besides the infections which are injected into the body by means of punctured wounds, there are the infections and parasites which enter the body by way of the glands of the skin. One of the most common of these skin diseases is known as acne, or pimples, which may infect any part of the body, though it is most common on the face. The infecting bacteria find their way into the sebaceous glands, and there set up an inflammation and degeneration of the gland structures into pus. A boil core is a good example of the destruction of a skin gland from infection and the resulting death of the organ.

The fact that many serious disorders result from infection by way of the skin makes the subject of skin protection and hygiene a most important one.

Keep the surface of the body free from dirt by proper bathing. Eat easily digested food, so that this important, many functioned structure shall be well nourished. Protect it from temperature changes by proper clothing, and keep the biting insects from contact with it, the most effectual plan being to destroy the insects by abolishing their breeding places. And last, but by no means the least, keep the skin from contact with unclean bacteria and parasite infected soil.

The great problem of to-day is to teach the people self protection by instructing them in the science or art of cleanliness. And one of the most important branches of sanitary purity

instruction is to teach every householder to keep his own person and that of his family clean, and his house and house environment free from pollution from the excrementitious wastes of human beings and animals.

Function of the Tonsils

DISCUSSING the importance of the removal of the tonsils when diseased Dr. Hudson-Makuen, of New York, arrives at a number of very interesting conclusions, the most important of which, popularly stated, may be summarized as follows:—

1. The normal tonsil is so small that it can scarcely be seen without careful examination with a tongue depressor.

2. Just what is the function of the tonsil is not certainly known, but it is probably a lymphatic gland that has for its duty the preventing of bacteria from entering the system through the mouth.

3. When the gland becomes diseased, infected, and enlarged, it is no longer of any value and may be removed without loss or injury.

4. Distressing symptoms arise from diseased tonsils, especially sore throat, irritating and often very distressing cough, and foul breath.

5. Diseased tonsils are a menace to general health.

6. Enlarged tonsils often interfere with respiration, as well as the proper pronunciation of words.

7. Diseased tonsils should be removed, whether large or small, as they are not infrequently due to tuberculosis.

Olive Oil and Nuts in Gastric Acidity

A MARTINET, of Paris, has recently called attention to the great relief experienced by person suffering from gastric hyperacidity and gall-stone symptoms, by taking two to five ounces of olive oil daily before breakfast. He recommends also that olive oil be used in place of butter in the preparation of food.

Gastric acidity is probably due to intestinal auto-intoxication. Poisons absorbed from the intestine are excreted into the stomach and excite the secreting glands to excessive activity. Animal foods encourage intestinal auto-intoxication. It is doubtless for this reason that olive oil is found preferable to butter, since, as shown by Combe, of Lausanne, it is very far preferable to other animal fats. The free use of oil also encourages intestinal activity. The retention of un-

digested and putrefying food remnants in the colon is the cause of auto-intoxication. The bowels should move after each meal, and at least two or three times a day. Those who do not relish olive oil may use instead almonds and other nuts which are rich in fat, Nuts when dried contain about half their weight of fat.

"IN the *British Medical Journal*, March 18, Dr. A. Gouldston states that cane-sugar is capable of nourishing the heart muscle in a remarkable manner. In dilated heart in advanced age, valvular heart-disease, dilatation after influenza, heart strain, heart failure in consumption, a regime of cane-sugar produced surprising results. Though he gave immense quantities of sugar, none was excreted by the kidneys."



Soups Without Meat

WITH many people, soup is essentially a meat dish; as the idea is prevalent that tasty soups cannot be prepared without meat or meat preparations. This idea, however, is without a foundation. Contrary to the prevailing notion, meat soups contain very little nourishment. For the sake of comparison, we will give the food value of a few liquid foods, the figures being based upon tables of food values issued by the United States Government:—

Beef soup, food units per ounce,	8.0
Beef juice,	7.5
Milk,	20.6
Pea soup,	25.9
Bean soup,	25.1

Pea soup and bean soup, having this nutritive value, are made from peas or beans and water, one pound of peas or beans making two quarts of soup.

Thus it will be seen that all common liquid foods are more nutritious than meat soups, broths, or extracts. The fibre is the nutritious part of the meat, and very little of that can be dissolved in water by boiling. After soup or broth has been made from meat, the meat remains very nearly as nutritious as it was before the soup was made from it. It has simply lost some of its flavour, and this flavour is due to the waste products in the meat.

It is quite possible to prepare most excellent and tasty soups from grains, legumes, and vegetables. Vegetables are especially valuable for their min-

eral properties and their flavours. Much of these are dissolved in the water by boiling, and that which is most valuable is often thrown away. The water in which macaroni, rice, dhal, dried beans, and most vegetables are boiled makes a very good soup stock.

Following are a few suggestive recipes:—

Cream Corn Soup

Rub a pint of well cooked green Indian corn through a colander, or grind fine in a vegetable mill. Add two and one-half pints of rich milk, part cream if desired. Heat to boiling with two tablespoonfuls of flour stirred smooth with a little cold milk. Salt to taste.

Similar soups may be made from other vegetables; such as, green peas, lettuce, spinach, string-beans, cauliflower, etc.

Vegetable Soup

- One-half cup potatoes,
- One-half cup carrots,
- Two cups tomato juice,
- One-half teaspoonful thyme,
- One-half cup turnips,
- One medium sized onion,
- Eight cups water,
- Two tablespoonfuls butter.

Pare the potatoes, carrots, and turnips, and cut into small cubes. Grate the onion and put all to cook. Tie the thyme in a piece of cheese cloth, and let steep in the liquid. Cook for two hours, or until tender; then add the butter and serve.

MRS. C. E. WEAKS.

Cancer, the Outlaw

CAMILLUS BUSH, M. D.

FROM the earliest days of written medical records, the cancer question has interested the race. An ever-eminent foe, looming large in the mortality statistics of every generation, the dread disease unchecked has taken its toll of the lives of men and women. Here is chosen as victim a dweller in the slums; there, a member of a royal household; here, a drunkard; there, a minister of the gospel; here, the lingering remnant of a degenerate stock; there, the parent of a clean limbed, clean blooded family; here, one diseased outcast of society; there, the president of a university; here, the vegetarian; there the meat-eater. The insidious onset too often masks the observation of its earliest characteristics, and the discovery of the firmly-seated disease is accompanied by the despairing terror we have all seen.

In the very early embryo, which later develops into a babe, there are three primitive layers, the outer one of which eventually gives rise to skin, mucous membranes, and the glands that are developed from them. Cancer develops in these tissues and glands, and its cell resembles closely the cells of the tissue from which it starts, whether it be skin or stomach, mucous membrane or intestinal glands; and its further growth bears also a resemblance to the arrangement of the same tissue. But the individual cancer cells have somehow kept the same wonderful energy and ability to multiply rapidly that the cells in the outer layer of the embryo had.

For this reason, the greatest students of cancer have thought that a few scattered embryonic cells may have stopped in their early development

and lain quiet among their fully developed brothers, who have built the skin and mucous membranes, etc. Then something happened to wake them and start them madly multiplying, as their associates had done in early embryonic times.

We frankly avow our ignorance of the start of this tumor, just as we own our ignorance of the cause of the phenomenally rapid growth of the embryonic child. On the one hand, it is mysterious why the cancer grows without restraint; on the other hand, it is just as mysterious why the normal tissues grow just so far and then stop.

One of the questions oftenest asked is, "Is cancer inherited?" In the strictest sense of the word, cancer is not inherited. Probably when all is told, it may be said that one whose mother or father had died of cancer is no more liable to the trouble than one whose family has been free from it. At the same time, it is possible that there may be a certain family tendency.

A much more likely factor in the development of the disease is injury or chronic irritation. Cancer seems prone to develop in the base of old ulcers, in the scars of old burns, at the site of warts that have undergone long irritation, in benign tumors or cysts of long standing, and at the points where severe or oft-repeated blows have been sustained. For example, cancers about the mouth seem more likely to develop from the scratching of the tongue by decayed snags of teeth, or from the constant irritation of hot tobacco smoke. Apart from these factors, we know nothing that increases the likelihood of the disease.

The question is sometimes asked, "Is

cancer contagious?" The answer may be boldly given that it is not. In the experimental laboratory the cancer may be transmitted from one animal to another by cutting out a piece of the growth and transplanting it under the skin of another. In the same way, it is possible that living cancer cells rubbed from the tumor of one person may be implanted into the broken skin of another. But under ordinary circumstances, we may live in the house with a sufferer with no danger to ourselves.

How then are we to avoid this trouble? There are certain rules that, followed by everybody, would greatly reduce the number of cancers. Benign tumors should not be allowed to remain in or on the body indefinitely, as they tend in some instances to become cancerous. They should be surgically removed. In this category come persistent warts and moles and wens, as well as chronic sores that refuse to heal after months or years. The teeth should not be allowed to remain decayed or roughened so that they may irritate the cheek or tongue.

Aside from these few things, little can be done to lessen our likelihood to cancer. Not knowing the cause, we cannot formulate rules for prevention. There is nothing to indicate that diet or manner of life influences the matter. Our hope, then, lies in the early detection of the trouble. There is a time in the early development of every cancer when its removal would be followed by cure. This period may be longer or shorter, but the fact remains that if cancers were taken in time and removed, they would be cured. The tendency is, however, for people to temporize. A small lump is discovered. A neighbour suggests a remedy, which is tried for a few days or weeks;

then a patent medicine is used; then a so-called specialist who treats without the knife is consulted. After the patient's money is gone, the specialist drops the case or reports the cure, and, later on, depleted in health and wealth, with cancer cells scattered from the primary growth to other glands and tissues, the patient enters a hospital for an operation.

Had the surgeon been able to operate at the very start of the trouble, he would probably have cured the case. Sometimes, even after many months the disease is cured by thorough operation. It is impossible to foretell usually at just what point the disease has progressed too far to be eradicated. People should consult the best surgeon to be found at the very earliest moment that any suspicious growth appears. In these days, cancers of the hidden internal organs are being recognised early by skilful doctors, and are often cured by early operation.

We have to look the matter in the face. There is no cure except surgery for cancer, and waiting diminishes that chance. There are no serums, no medicines, no rays, no pastes, no secret remedies by imposing bearded fakirs that cure cancer. The skin cancers, or epitheliomas, are comparatively benign. These growths in experienced hands may at times be safely treated by X-rays or by caustic pastes and applications. This should be only done under the advice of competent consultants. The ordinary cancer demands early and thorough removal with the surgical knife. The point to be emphasised is the great need of an early diagnosis and immediate thorough operation. The earlier the operation, the less extensive it need be. Cancer begins as a strictly local disease, and there is a certain varying time in its early growth when its removal will be followed by cure.

The Cold Bath

EIGHT HUNDRED CASES OF TYPHOID TREATED BY THIS METHOD WITHOUT ONE DEATH

A BATH for fifteen minutes at 68° F. is the method generally employed in Germany for reducing temperature in fevers. The patient sits in the bath in four to six inches of water. Two attendants rub his back and legs, pouring cold water upon his head and spine at intervals of three or four minutes. At intervals of a few minutes the patient lies down in the tub

eight hundred cases of typhoid fever treated by this method without a death. The mortality in several thousand cases of this disease was only three per cent., while the ordinary mortality is about twenty per cent. If the cold bath treatment could be generally introduced and applied with thoroughness from the beginning, few persons would die of this malady.



for a few seconds. The rubbing is vigorous and continuous, the purpose being to keep the blood in the skin so that it may be rapidly cooled. When the patient begins to shiver, he is taken out and put to bed. The temperature usually falls in the bath or immediately afterward. As soon as the temperature exceeds 102° F. the bath is repeated. Several baths are given daily if necessary. A German physician has collected records of

The Graduated Bath

A method which is certainly less disagreeable than the above and perhaps at the same time fully as efficacious, is the graduated bath. The patient is put in a tub of water at about 100° F. The temperature of the water is rapidly lowered to 90° F., and is then lowered at the rate of one degree every two minutes down to 75° F. By this means, the temperature will usually have fallen to a safe point; that is less

than 102° F. By frequent rubbing the patient will be easily able to bear the bath without chilling, and there is no severe shock.

On the whole, it is doubtful whether either the cold or the graduated bath is really inferior to the wet sheet pack as a cooling measure. There are probably cases in which the bath might be superior to the pack, and vice versa.

In this connection we might also mention the wet sheet rub and the cooling compress. These through the recent numbers of *HERALD OF HEALTH* our readers are familiar with.

The Cool Enema

The cool water enema is an efficient means of reducing temperature, which is also useful in connection with other measures, especially when patients

have a great repugnance to cold applications to the skin. Two or three pints of water should be used at a temperature of 80° to 70° F. A lower temperature is likely to produce tenesmus and too quick discharge of water. The water should be injected slowly and retained for ten to fifteen minutes, if possible. When discharged a like quantity should be introduced, this procedure being repeated until the temperature is reduced a degree or two, or until the patient shivers. A hot bag at the pit of the stomach prevents uncomfortable chilling.

In certain cases the fever seems to yield more readily to the cool enema than to any other means, although in general this is a less reliable measure for reducing temperature than the cooling pack or the cool bath.

Obesity, Its Significance and Its Prevention

WE frequently meet with patients, usually past middle age and above the average in weight, who suffer from symptoms so diversified and indefinite that we are puzzled as to how to classify them. These symptoms are often severe enough to suggest serious organic disease. But we find the important organs are apparently in normal condition.

These patients usually complain of shortness of breath, dizziness, headache, backache, lack of energy, constipation, loss of appetite, "indigestion," puffiness of face, swelling of the legs and feet, insomnia, irritable temper, indefinite aches and pains in different parts of the body, commonly referred to as "rheumatic" or "neuralgic," and a great number of other symptoms.

If the patient happens to be very stout, we diagnose the case as obesity. But very often the patient's weight is

not sufficiently above normal to account for any symptoms at all. It is obvious that there must be some underlying condition responsible for the mischief; and when obesity is present, it must be regarded as merely a symptom of this general condition rather than a disease in itself.

Faulty metabolism is the underlying cause in all these cases, the symptoms in any given case being modified by the age, habits, temperament, etc., of the patient.

Metabolism is the highly complicated chemical process going on in the body in the assimilation and utilization of food. The uses of food are twofold: First, to supply the body with materials for growth or renewal of tissue; second, for the production of energy, in the form of heat and motion. During infancy, childhood, and adolescence, a considerable part

of the food is used up in the development of the body. When the body has attained full growth, the requirement of food is greatly reduced. Any excess taken at this period is generally disposed of by work or exercise. But after middle age, the activity of the body is diminished, requiring much less food. If the habit of satisfying a vigorous appetite is continued, a great deal of it will be stored in the form of fat.

Certain noxious by-products are formed as a result of tissue combustion. As muscular exercise is an essential aid in the elimination of these materials, if the proper amount of exercise is not taken, these substances will accumulate. It follows, then, that the same conditions or habits that encourage the development of obesity also favour the accumulation of poisonous materials which, in the course of time, will pave the way for one of several evils.

The kidneys, put under a tremendous strain, are likely to break down. The arteries, affected through the presence of toxic substances, undergo changes in structure, which weaken their muscular coats.

The heart, being a part of the circulatory system, is apt to share in the changes taking place in the arteries; and as the blood pressure is generally raised, the heart is forced to pump the blood through greater resistance, and heart failure is likely to result. The nervous system is also irritated by these products. Ill-temper, nervousness, insomnia, etc., are early indications of trouble, and many cases of neuralgia are due to this cause. These patients suffer from aches and pains in different parts of the body; and many cases of so-called muscular rheumatism, rheumatic gout, etc.,

are really cases of auto-intoxication.

These conditions are caused by sedentary habits, and over-indulgence in food and drink. Obesity is merely one of the indications of faulty metabolism, and a patient who accumulates much more fat than is normal will, sooner or later, show other evidence of the disease.

In making examinations for life insurance companies, we are occasionally surprised to find evidence of diabetes, disease of the heart and kidneys, etc., in persons who are apparently in good health, but not nearly so often as in examining patients affected with obesity. Overweights are prone to disease of the arterial system, diseases of the heart, apoplexy, premature arteriosclerosis, diabetes, and rheumatism. They usually take insufficient exercise, are generally high livered, and are frequently free users of stimulants, particularly malt liquors. They succumb easily to accidents, surgical operations, and, as a rule, to acute diseases.

Many people owe their lives to examinations for life insurance, when some conditions were discovered in the incipient, and often curable, stages that would have terminated fatally if left untreated. Many incurable diseases can be prevented if the conditions leading up to them are recognized in time, and the proper means taken to check them.

Prevention is the highest aim of modern medicine, and all our efforts are mainly directed to the prevention of disease. But under the present conditions we can control only diseases originating from causes outside of the body, because in those cases the physician is called early, and by the use of quarantine, vaccination, etc., he prevents the disease from spreading to

other persons; and the progress of the disease in the person already affected is modified, and complications avoided by the proper management of the case. Whereas in diseases originating within the body, such as chronic Bright's disease, the onset is extremely gradual, and there are no symptoms of sufficient importance, as the patient thinks, to require medical attention until the disease has reached a dangerous stage.

The only hope of solving the problem is not to wait until there is reason to suspect one of these incurable conditions before making a test. In the class of cases under discussion, such a catastrophe as apoplexy, uremic convulsions, or heart failure, which often carries off people who are comparatively young, is merely the culmination of a series of pathological changes that have been going on for some time; in a majority of cases, a careful medical examination would have disclosed

these changes quite early; and by correcting the errors in the person's mode of living, regulating his diet, exercise, sleep, etc., and proper medications and physical treatment when indicated, we can cure a great many of them, and certainly prolong the lives of a majority of them. We know that these changes are apt to begin any time after the age of forty or fifty (much earlier in men who are high livers, and spend much time in their office under great business strain), and that obese persons are more prone to develop these conditions than persons of average weight. Would it not be a wise and beneficent plan, then, to educate our patients who have passed middle life, and especially those affected with obesity, to the importance of periodic examinations? Many useful lives would be saved each year through this precaution.—*I. B. Kronenberg, M. D., in Medical Record.*

Effects of Tobacco Upon the Nervous System

VLADYTOCHKO, a Russian investigator, has made a most interesting and instructive study of the effects of tobacco upon the nervous system. Careful microscopic examinations were made by the most improved methods of the brain, the medulla oblongata, and the spinal cord, as well as of the general nerve trunks. These examinations demonstrated that the inhalation of tobacco smoke, repeated daily, produced by the end of two months destructive lesions both in the nerve-centres and the nervetrunks. Similar results were obtained by injecting into the veins an extract of tobacco smoke. The author also demonstrated that there are to be found in tobacco smoke other poisons besides nicotine which produce the same destructive effects

upon the nervous system which are produced by nicotine, although in less degree. No effect was produced when the products of ordinary combustion which are found in tobacco smoke were separated from the rest and used by themselves.

These experiments are of the greatest importance, since they show by the most incontrovertible evidence the destructive effects of tobacco upon the human system, yet it is not unlikely that a considerable number of intelligent persons will still continue the use of the filthy weed undeterred by their knowledge of the injury which tobacco is inflicting upon them. One of the characteristic effects of tobacco seems to be to render its victims incapable of appreciating the damage which they are suffering by the use of this deadly drug.

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NEWS NOTES via SCISSOR SERVICE

No More Malta Fever.—It has been decided finally, so it seems, to rechristen this disease, Mediterranean fever. As a matter of fact, it is not so prevalent in Malta as in some other places, and the name gave the island a bad reputation.

Occupational Diseases Reportable.—California has passed the first law in America requiring the attending physician to report certain occupational diseases, such as phosphorus, arsenic, or lead poisoning, anthrax disease, etc. Other States are considering similar legislation.

Hotel Proprietors in Dresden.—The hotel proprietors of Dresden have decided that during the international Hygiene Exhibit, they will *not* increase their prices, as is generally the custom in a city which is temporarily attracting a very large outside patronage.

Euphemistic Causes of Death.—Investigation shows that a very large proportion of cases of death recorded as from pneumonia, gastritis, apoplexy, consumption, and rheumatism, should have been recorded as due to alcoholism. Eighty per cent of the pneumonia cases had pneumonia symptoms only a few hours before death. The pneumonia was entirely secondary to the real trouble. So with the other diseases.

A New Remedy for Whooping-Cough.—A laboratory worker with whooping-cough, who happened to be generating hydrogen, noticed that a whiff of the gas relieved his symptoms. Preparing an apparatus, he generated pure hydrogen, and by inhaling it just before the coughing stage, could prevent the cough every time. The remedy was also effectual with his sister, who had whooping-cough in a severe form.

Motion Pictures in Medical Lectures.—Motion pictures have been used in Philadelphia to illustrate the gait and other symptoms of patients having various forms of nervous disease. It is probable that this method of illustrating lectures will be greatly developed.

IMMUNITY AGAINST DISEASE LESSENED BY ALCOHOL

DR. F. R. PARKINSON reports in the London *Lancet* an interesting study of alcohol in relation to immunity, from which he concludes that a large dose of alcohol administered to rabbits lowers the opsonic index for twenty-four hours; continuous moderate doses cause a permanent lowering of the opsonic index; and the reaction to vaccines is much less effective in alcoholized rabbits than in normal animals. The difference in the reaction is still more marked, when living germs are used instead of vaccines. These results are quite in accordance with the observations of Dr. Charles E. Stewart, whose experiments showing that alcohol, even in moderate amounts such as are contained in the usual doses of such patent medicines as peruna, produces a decided lowering of the opsonic index, which means a decided lowering of the bodily resistance against disease.

COFFEE AND URIC ACID

A PROMINENT Berlin medical journal recently published the results of researches which fully confirm the observations previously made by Hall, of Manchester, and others, indicating that the caffeine of tea and coffee and the theobromin of cocoa and chocolate, which closely resemble uric acid in their composition, produce in the tissues of the body essentially and the same effects as those which arise from uric acid, in addition to the special effects upon the nervous system which are characteristic of these drugs.

It is evident that the poisons of tea and coffee, as well as the uric acid of meat, must be regarded as a common cause of hardening of the arteries, or arteriosclerosis, and the accompanying high blood-pressure which ultimately gives rise to apoplexy and paralysis. Bright's disease, cirrhosis of the liver, angina pectoris and other forms of heart disease, are justly attributable to the same cause. The skull and cross-bones should appear on every package of tea and coffee.

House We Live In

EVERYBODY knows about the building and furnishing of a house, so Mrs. Vesta J. Farnsworth uses one to help show the children how their bodies are made, and how to care for them. To add to the interest of the study, it is given in the words of a mother to her four children,—Elmer, Percy, Amy, and Helen.

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Cupola	The Head
The Kitchen	The Stomach
Pumping Plant	Heart
Bath-Room	The Lungs
The Windows	....	....	The Eyes
A Good Servant	....	....	The Tongue
A Faithful Watchman	....	....	Sense of Smell
A Gentle Nurse	....	....	Sleep
A Wicked Thief	....	....	Tobacco
A Cruel Murderer	....	....	Alcohol

It is just the book a mother will be glad to read to the younger children, and place in the hands of the older ones to read for themselves. It explains why it isn't best to eat between meals, to eat much rich food at any time, to swallow food before it is well chewed, etc., why tobacco and alcohol are thieves and murderers, why the tongue is a good servant but a hard master, and why the body-house should be carefully cared for.

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