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Vol. 1

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No. 10

The Sanitarium Bath and Treatment Rooms

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MASSAGE (general),

MASSAGE (special),

SCHOTT'S RESISTIVE MOVEMENTS.

ELECTRICITY.

What More Could be Asked?

Sanitarium Bath and Treatment Rooms, 75, Park St., Calcutta

Herald of Health

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No. 10

Cholera

The characteristic symptoms of cholera are due to the presence of the comma bacillus of Koch, which finds entrance to the body either by food or drink. As stated by Dr. Ernest Hart. "You can eat cholera, you can drink cholera; but you can not catch it." Cholera is not contagious, as is smallpox, which is contracted directly by contact with another person having the disease, but is conveyed from one person to another by an immediate agent, as is the case with typhoid fever. This immediate agent is either water, milk, or food which has become contaminated with the dejecta of persons suffering from the disease. The contagious principle seems to multiply rapidly in water, but is destroyed by thorough boiling; therefore, the same precautions should be taken to prevent cholera as are required to avoid typhoid. Cholera being essentially a filth disease. personal hygiene and general sanitation are of primary importance as efficient preventative measures. Experience has demonstrated that whatever tends to lower the vital powers will predispose to the disease. A perfectly healthy person is capable of successfully coping with cholera germs; his digestive fluid has strong antiseptic properties, and his tissues possess great resistive powers. But one whose nervous system is depressed and general powers lowered from over-exertion, loss of sleep, or prolonged residence in a damp and debilitating climate becomes an

easy prey to this disease. Especial care should be exercised to avoid irritation of the stomach and intestines, as this lowers the resistive power of the important organs, and allows the germs todevelop when introduced. Over-eating, eating between meals, late dinners, the use of food which is difficult of digestion, spices, condiments and alcoholic beverages—all produce an irritable condition of the alimentary canal which very strongly predisposes to cholera by producing conditions that are favourable to the development of the comma bacillus.

Three Stages

There are three rather distinct stages, The first is the stage of invasion usually commencing with diarrhoa first of watery, vellowish stools, colic, headache vomiting, and excessive thirst. In the second stage the patient becomes cold, has pains in bowels and cramps in legs, the secretion of urine stops, stools are more profuse and watery (rice water stools). The loss of fluid from the blood ranges from 35 to 64 per cent. The severe purging and vomiting is due to nature's effort to rid itself of the cholera germs and their poisons; this effort is so severe that the body is depleted of a large part of its fluid, which brings on a state of collapse. If death occurs, it is usually at this stage. The third stage is where reaction sets in. The patient becomes warm, the heart more regular, vomiting ceases, diarrhea stops, and the kidneys begin to secrete urine.

Treatment

When cholera is prevalent, preventive measures should be rigidly observed. Boil all drinking water, milk, and vegetables; fruits should be dipped into boiling water while the skin is intact: avoid fatigue and all excesses. Attendants must exercise great care in disinfecting their hands as well as all discharges, vessels, and linens used after attending a patient. No certain cure has yet been discovered for this disease; but judicious treatment and good nursing, especially in the early stages, will save many lives. Many drugs have been tried, but have proved of little avail.

From the very first, all food must be discarded and physiological rest established. The patient should drink acid drinks made of lemon juice, lime juice, or dilute sulphuric acid (five or ten drops of the dilute acid to the glass of water). Ice may be held in the mouth. During the early stage, hot astringent enemas should be used, consisting of one tablespoonful of tannin to one pint of water; very hot fomentations applied to abdomen or a hot bath, 108°, should be given, followed by a very short cold application with friction. During this stage, one or two doses of opium may be given. If more than this is administered, or if it is given after the ricewater stools begin, it will do harm.

If the condition advances, the pulse becomes weak, respiration rapid, the flow of urine stops, and collapse threatens, begin at once measures to restore the depleted blood as much as possible. The most effective measure in the absence of a physician is the rectal injection of one pint of normal salt solution made by adding one teaspoonful of salt to the pint of water; boil and cool to 100° F. Elevate foot of bed, and inject through a soft rubber tube which is in-

serted 10 to 12 inches; administer at intervals of two to four hours. This fluid is rapidly absorbed and restores the circulation and stimulates the flow of urine. Keep the patient warm by wrapping in blankets and surrounding with hot water bottles or hot stones. Hot applications or dry cupping over the kidneys will assist in restoring their function.

The measure which has proven most successful in reducing the high mortality rate requires the skill and understanding of a competent physician. This consists of injecting directly into the vein three to four pints of hypertonic salt solution (120 grains sodium chloride with 3 grains of calcium chloride to one pint of water). In very urgent cases, this solution is injected into the abdomen through a small incision made just below the navel, and if any pulse remains, the fluid is rapidly absorbed. An abdominal binder applied after the injection will facilitate absorption in severe cases; these injections must be repeated several times. Major Rogers affirms that under this plan of treatment followed at the Calcutta Medical College Hospital, the death rate has been reduced to 33 per cent., or but little more than half that of former years.

If after the reaction has been established the kidneys still remain inactive, hot blanket packs should be used to stimulate elimination through the skin in addition to fomentations and dry cupping on kidneys: and it may be necessary to use hypodermic injections of ardrenalin and digitalin to raise the blood pressure; as urine is secreted more rapidly when the blood pressure is 110 or over.

During the first two stages, all food must be prohibited; as it cannot be absorbed and will only aggravate the condition. Water and small pieces of ice is all that is allowable for three to five days. Some authorities recommend giving black coffee without milk or sugar. When reaction has been established, the character of the stools changed, and the function of the kidneys restored, arrowroot and sago may

be given. After the disappearance of all acute symptoms, milk, plasmon, and the farinaceous foods may be added. Great care must be exercised in returning to solids. Alcohol is not allowable; as it aggravates the irritability of the stomach and exhausts the patient by exciting vomiting.

How to Prolong Life

Some People are Uncommonly Tough and they will live for a long time in spite of what they do. They can do almost anything; apparently, they have so much constitutional vigour and vitality, such a great reserve fund, and so much emergency margin, that they are able to live in spite of great infractions of the laws of life: but that is not true of the average man. The average man who drinks and smokes dies sooner than the man who does not drink and smoke. The life insurance companies are finding out that it makes a difference of about ten years with a man's life whether he drinks or does not drink; and they are beginning to inquire, especially the life insurance companies of England, as I learned from a man of prominence in the East a few days ago, "Do you smoke? Do you eat a great deal of meat?" They are beginning to find that it pays to classify the risks; and if a man is a great meat eater, that is a point against him. If a man smokes to any considerable degree, that is a point against him, and he is not so good a risk.

The purpose I have in view is to give a brief outline of how people ought to live if they want to really live one hundred years and to be good for something at the end of that period. One of the chief considerations is eating right, eating for efficiency, for

long life. What is the food that is best adapted to the long life?

What is a Man's Natural Diet?

To-day there is not a particle of question about what man's natural diet is, among scientific mer. The thing has been so absolutely demonstrated that there is no question at all. Comparative anatomists and physiologists all recognize the fact that man's dietary, in the natural, primitive state, is the products of the earth in the raw state, fruits, nuts, and grains in the milk or soft state. Those are the best foods; and if we were to make a pyramid, with the best foods at the top, we would put fruits right at the top; next we would put nuts; and next we would put cereals; then we would bring in cooked foods, including vegetables; then would come milk; then we would have possibly eggs; and down at the bottom, meats, for a man can live for a time on meats.

But that is not the way we find the ordinary bill of fare being made up at the present time. We find the pyramid turned upside down, meats at the top, and fruits down at the bottom. Now, let us see which foods are best. First, are ripe, fresh fruits. They are most easily digested and best adapted to man's needs. It is a little question whether among civilized people, living as they ordinarily do, the fruits which are available would be a practical diet-

ary. I hardly think so. But in South America it is easy to live on a fruit diet. There are plenty of people there who are living on bananas, oranges, figs, and other fruits that grow there. The Arab lives almost entirely on dried figs and dates, with a little barley or cooked cereals along with them. next after ripe, fresh fruits, come nuts. then cooked ripe fruits, and then cooked dried fruits. Then some cooked cereals; and the best of all cooked cereals is rice, because it contains the smallest amount of residue requiring work of the kidneys and eliminative organs to deal with it. Then after rice comes wheat and corn and barley and rye. Wheat, corn, and barley are on a par. Rye is not so digestible as the others, or so wholesome a cereal. After these come peas, dal, and beans, perhaps; and then come sterilized milk, sterillized cream, and sterilized butter. Milk, cream and butter, if not sterilized, are the filthjest articles that come on the table.

It is Necessary to Eat Some Raw Food Some should be eaten every day. It can be easily and most conveniently taken, perhaps, in the form of vegetable juices or ripe fruits. But some raw food must be taken. This point has not been appreciated until recent times. Within the last few years the great attention given the diet of babies has brought out the interesting fact that a human being cannot live more than eight or ten days on a strictly cooked dietary without suffering injury; and if this diet continues for a long time, in babies it produces scurvy and rickets. It is now known that the cause of scurvy among sailors is not salt altogether; it is partly salt, but it is principally the lack of raw food. There is something in the raw food which has disappeared in the cooked food. What that something is, is not thoroughly known as yet. It is surmised that it is enzymes, certain ferments, catlytic substances which are found in the juices of raw foods and are not found in cooked foods, because they are digested in cooking. So European authorities on feeding infants take pains to specify that when a child is fed on cooked food for more than ten days, lemon juice must be added. If this lemon juice were cooked, it would not do any good, of course. Sailors suffering from scurvy are much benefited by lime juice.

Foods That Ought to be Avoided

There are certain foods containing elements which are distinct and active poisons. Tea, coffee, alcohol, and tobacco,-we cannot call a thing food that is a poison, even though it is taken so often in connection with the meal that it seems to belong with it. Coffee, tea, cocoa, and chocolate contain caffein, thein, or theobromin-a substance closely allied to uric acid. They are practically the same thing as nric acid. They are compounds of the same radical as uric acid. Xanthin substances they are called, compounds of the necleic bodies which are poisons to the human economy. They are a product of cell action, hence are a waste substance, and are a poison to the body.

What is Food?

A food is a substance which can be taken into the body and incorporated into it and become part of it. The food we eat today is walking around and talking to-morrow. And if substances are taken into the body which cannot be made actually to walk and to talk, they are not foods. The acumen of the brain and the action of the brain are less after taking alcohol than before. The real vigour of a

nerve or a muscle and the stamina after taking alcohol are less than before. The temperature of the body is less after taking alcohol than before; so it adds nothing to the energies of the body, and hence is not a food. These poison foods must all be discarded. The food of civilized man living under ordinary conditions encourages the growth of abnormal organisms within his body, of weeds, we may say, which take possession of the alimentary canal and grow there, they form poison-forming organisms. These organisms that make mischief get into the alimentary canal and grow there, become fixed in the intestines, and even in the liver, setting up inflammation and producing abscesses there; they sometimes get into the gall bladder, making gall stones; they get down into the colon and produce colitis; they get down into the small intestine and produce enteritis; they get into the appendix and produce appendicitis; they spread throughout the whole body and produce discolourations of the skin, produce pimples upon the skin, eczema, and a great variety of skin disorders,—these poisons produced in the body are the result of the action of germs, and these germs are invaders; they are products of growths that do not belong in the body; they are weeds in the flower garden of the body. These substances must be opposed and combatted.

In this day and age of such wonderful opportunity, it is our desire more than ever to prolong our lives and to make them capable of the highest efficiency while we do live. A rational policy should lead us all to consider the questions of diet and hygienic habit to such an extent that we will reserve for ourselves many years, well spent, in this great twentieth century.—Selected.

A Test of Physical Endurance

William M. Scott

ATHLETIC feats and demonstrations of physical fitness and endurance are usually considered to be conclusive proof of the superiority of one system of diet over another. We give a most interesting, as well as conclusive, practical demonstration of the value of a non-flesh, low protein ration, in the results following the tests of endurance conducted by Irving Fisher, professor of political economy at Yale University. Those who stood for vegetarianism were nurses and doctors from the Battle Creek Sanitarium.

The experiment consisted of endurance tests made on forty-nine persons, representing three decidedly contrasted types of individuals.

- Athletes accustomed to a high protein and flesh dietary.
- Athletes accustomed to a low protein and non-flesh dietary.
- 3. Sedentary persons accustomed to a low protein and non-flesh dietary.

All the subjects chosen for the second and third groups, except one, had abstained from flesh foods for periods of from four to twenty years, and five of them had never eaten such foods. The exception had abstained for two years only.

Two comparisons were planned, one between athletes of both persuasions, the second between flesh eating athletes and non-flesh-eating sedentary workers. The first comparison, being between classes similar as to the element of physical exercise, is fair to both sides. The second puts the flesh abstainer at a disadvantage; for, other things being equal, sedentary men have much less endurance than men in training.

Three simple tests of endurance were employed:—

 Holding the arms horizontally as long as possible.

2. Deep knee bending.

Leg raising, with the subject lying on the back.

All of the tests were made before reliable witnesses.

Without going into full details of the experiments, we will simply give the average results of the three tests in the three different classes.

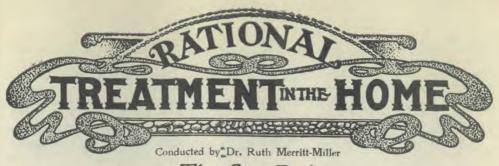
III till till tillet tillians		
ARM HOLDING :-	Average	Record
Flesh eating athletes	10 1	minutes
Non-flesh eating athletes	39	15
Non-flesh eating sedenta:	ry	
workers	64	15
KNEE BENDING:-		
First Class	383	times.
Second	927	**
Third	535	98
LEG RAISING:-		
First Class	297	times
Second	288	10
Third	74	16

In the first test, only fifteen flesh eaters succeeded in holding their arms out over a quarter of an hour; whereas twenty-two of the thirty-two abstainers surpassed that limit. None of the flesh eaters reached half an hour; whereas fifteen abstainers exceeded that time, and nine of the latter exceeded an hour, four exceeded two hours, and one exceeded three hours.

In the second test, that of deep knee bending, taking the figure of 325 as a basis, we find that, of the nine flesh eaters who entered, only three surpassed that figure; while of the twentyone abstainers, seventeen surpassed it. Only one of the flesh eaters reached one thousand, as against six of the abstainers. None of the former surpassed two thousand, as against two of the latter. In respect to leg-raising, it will be noticed that the records show little difference. None of the contestants reached their absolute limits. The highest record for the flesh abstainers was one thousand times. That this was not near the limit was evidenced by the repetition of the performance on each of several successive days. The flesh eater who topped this figure showed such fatigue at the conclusion of the test and from his physical state on subsequent days, it was quite evident that he could not have repeated the performance.

We might also record the striking fact, a strong evidence in favour of the non-flesh, low-protein ration, that in every case the performance of the flesh-eating, high-protein feeder was brought to a forcible, if reluctant. termination by extreme pain and incompetency in the groups of muscles used. In the deep knee bending test the flesh-eating athletes suffered considerably. One, after reaching a little more than five hundred, was unable to rise again, another fainted with the exertion and pain, and a third had to be carried from the room in a helpless condition and was incapacitated for days; whereas the flesh-abstainers, although all felt the effects of such strenuous performances, got over them much more rapidly.

Now, we trust it will be apparent to all that a non-flesh, low-protein diet, not only favours health but physical endurance, even in cases where other health factors, such as physical exercise, regular sleep, etc., are not, or on account of professional duties cannot be, followed. Wonderful and striking is the testimony borne likewise to the value of the Sanitarium, whose dietetic principles advocate the harmfulness of tea, coffee, cocoa, alcohol, and tobacco, as well as flesh foods. and teaches that the free use of fruits, grains, and tender vegetables and a restricted consumption of nuts, nut foods, eggs, cheese, and pulse foods. is not only efficacious in curing disease and establishing health, but equally adequate in maintaining a high degree of physical fitness and mental ability.



The Sitz Bath

The sitz bath is a valuable treatment on account of its beneficial effects upon the abdomen and pelvis. It is possible for a large proportion of the blood of the entire body to be contained in the blood-vessels of these viscera, and when, for any reason, its free circulation is disturbed it immediately becomes a source of danger. We find these organs subject to chronic congestions which, if neglected, are apt to result in something more serious. Neuralgia of the pelvic organs is also a common affection.

The blood supply and nerves of these organs can easily be affected by external applications; as the same nerve trunks which supply them also send branches to the skin over the lower abdomen, hips, and thighs. The sitz bath has been found a most excellent method of stimulating the circulation of the blood and relieving pain and irritation in these organs.

A special tub for giving the sitz bath is generally used in hydropathic institutions, where this bath is given to advantage in many conditions in which its use would hardly be safe in the hands of the inexperienced. In the home, a medium-sized galvanized iron tub such as is found in most of the homes of India may be used. A smaller tub will be required for the foot bath, which should always accompany the sitz.

The method of giving the bath is as follows: Elevate slightly one side of the tub, and place in it enough water of the desired temperature to well cover the hips. The foot tub should be about half full of water at a temperature of 105-110°, and so placed that the patient can have his feet in it while sitting comfortably in the larger tub. A towel should be folded across the edge of the tubs so that no uncomfortable pressure will disturb the circulation of the blood in the legs. Protect the patient with a sheet or a blanket if the room is cold.

The temperature of the bath and its duration depend upon the effect desired; but the foot bath should always be warm.

The cold sitz is given for its tonic effects. The temperature of this bath should be 55-65°, and it should be continued from one to three minutes. Vigorous friction should be given during the bath and drying process so that a good re-action will be secured.

The cold sitz is beneficial in chronic congestions. The water should have a temperature of 65-75°, and the bath should usually be continued from 15 to 20 minutes. Friction is employed throughout this treatment.

The neutral bath, temperature 92-97°, continued from 15 minutes to half an hour is valuable for its sedative influence upon the viscera of the

pelvis and lower abdomen. It will be found helpful if given two or three times a week or even daily during the last months of pregnancy.

The hot sitz may if more convenient, be given in one large tub; as the temperature of the foot bath is the same as that of the sitz, 105-110°. Cold compresses should be applied around the head and throat, and then the temperature of the bath quickly raised to 105-115°. The duration of this bath should be from 3 to 10 minutes.

pain of inflamed hemorrhoids, sciatica, and neuralgias of the pelvic organs. It can also be used as a substitute for a full hot bath.

The Yellow Stains

Dr. Len G. Broughton, of Atlanta, Georgia, says: "I have been through the cigarette factories of South and North Carolina and elsewhere, and what I say I know to be a fact. The bleached paper in which the tobacco is wrapped is thoroughly steeped in arsenie. It is

made in China, a heathen production. We can not make it here, though we make at it and make a more dangerous article. It is the arsenic that gives the finger ends of a cigarette smoker a dirty vellow color. always so plain.



The Sitz Bath

When the patient is ready to come from the bath, quickly cool the water to 80° and 90° and pour it over the entire body. The patient should then be dried thoroughly, using friction. Another method of securing a tonic reaction and fixing the blood in the skin is to have the patient stand in the warm water while a pailful of cold water is dashed over hips.

The hot sitz bath will be found a most excellent means of relieving the The poison-

from the arsenic, and it is this miserable viper that first enters the brain of the smoker, after being absorbed by the blood in the lungs, where it is thrown to be purified, and instead of that is loaded with impurities.

Tabooed by the Aeroplanist

Wilbur Wright, the great flying machinist, is a total abstainer from both liquor and tobacco.



Breakfast Breads

Hor batter breads made light by the introduction of air through brisk and continuous beating of the batter and then well baked, make a wholesome as well as appetizing addition to the breakfast menu.

Success in making delicious batter breads depends on the dexterity with which the materials are put together. All materials should be at hand and when put together, the beating should be quick and continuous for ten minutes or longer until the batter is perfectly smooth and full of air bubbles. Do not intersperse with stirring; for this allows the air to escape. Put at once into hot irons or gem pans and bake in a well heated oven. If eggs are used, separate the yolk from the white and beat to a stiff froth: this serves to hold the air and added to the batter, makes it light.

Gluten Pop-overs

1 egg, 1 cupful sweet milk, ½ teaspoonful salt, 1 cupful gluten flour.

Beat the yolk and white separately, adding to the yolk the remaining ingredients, beating untillight. Chop the white into the mixture and pour the batter into well oiled, very hot gem pans or irons.

Cocoanut Corn Bread

1 cupful corn meal,

t cupful cocoanut milk,

1/2 teaspoonful salt,

1/2 cupful cocoanut cream.

Scald the corn-meal by pouring over it one cupful of boiling cocoanut milk, stirring well meanwhile. Add to this the cocoanut cream and spread in an oiled pan. Bake one half hour or longer.

Corn Puffs

1 egg.

1 cupful cocoanut milk,

1 cupful flour (sifted well)

1/2 cupful corn meal,

1/4 teaspoonful salt.

Beat the yolks until light; add the milk, flour, meal, and salt; beat them for ten minutes; chop in the stiffly beaten white of egg, and pour into hot gem irons and bake forty minutes.

Whole Wheat Puffs

1 cupful milk.

2 eggs.

1/2 teaspoonful salt,

I cupful whole wheat flour.

Proceed as you would with the corn puffs.

"Been Playing Fool, Papa?"

Many a promising young man has found his experience to be like that of the industrious young shoemaker who fell into the habit of spending much time in a near-by saloon. One by one his customers began to desert him. When his wife remonstrated with him for so neglecting his work for the saloon, he would carelessly reply. "O, I have just been down a little while play-

ing pool!" His little two-year-old caught the refrain, and would often ask, "Is you goin' down to play fool, papa?" The father tried in vain to correct this word. The child persisted in his own pronunciation, and day by day he accosted his father with, "Has you been playin' fool papa?" This made a deep impression on the shoemaker; as he realized that the question was being answered in the falling off of his customers and the growing wants of the household. He resolved again to quit the pool-table and his intemperate habits, but weakly allowed his appetite to hold him still. Finally, he found himself out of work, out of money, and out of food. Sitting on his bench one afternoon, idle and despondent, he was heard to exclaim, "No work again to-day; what I'm to do I don't know!" "Why, papa," prattled the little boy, "can't you run down and play fool some more?" "O, hush! you poor child," groaned his father, shame-stricken. "That's just the trouble. Papa has played the fool too much already."

It is strange that intelligent men, as they often are, should so play the fool as to spend their hard-earned wages and rob themselves and their families in order to invest in another man's greed or luxury, while they receive nothing in return but poverty and distress.—Lonis Albert Banks, in "Seven Times Around Jericho."

Saltless Diet in Eczema

WITHIN the last ten years many articles have appeared in the leading medical journals of France relating to the treatment of disease by means of a diet from which salt was excluded, and more recently German physicians have given the question consideration. A leading medical journal of Berlin has published an account of a number of infants treated for eczema by putting them upon a diet in which the amount of salt eaten was only the quantity ordinarily found in buttermilk. As a result of this simple treatment, which consisted simply in the curtailing of four-fifths of the amount of salt ordinarily used. the infants all recovered, the eczema disappearing completely within four to six weeks. From these observations it seems very probable that eczema in nursing children may often be due to the excessive use of salt on the part of the mothers. This is, then, another important dietetic fact to which nursing mothers should give attention. It

is more than likely that many adults suffer from eczema as the result of a too free use of salt in the food. The addition of salt to food is not essential either to digestion or any other bodily function. It has no value except to give a pleasant taste to some food substances which would otherwise be disagreeable. It is more than probable, however, that even this demand for salt is due to an artificially cultivated habit rather than to actual necessity.

It may be remarked in passing that there are other causes of eczema besides the excessive use of salt. Combe and others have found that eczema is a symptom of intestinal autointoxication. A child suffering from constipation is exposed to the baneful effects of poisons absorbed from irritant food residues and the poisonous condition may manifest itself in eczema, as well as in many other symptoms.



The Nervous Child

Dr. E. H. Bartley, Professor of Pediatrics, Long Island Hospital College, Brooklyn.

THE nervous child is more common now than formerly, more common in large cities and cultured families than in the country and in the families of the poor. The nervous child becomes the neurasthenic adult, or may become neurasthenic while yet a child. When he is brought to the family physician he is often dismissed as having imaginative ills or nervousness, and allowed to worry on to adult life without assistance, sympathy, or encouragement.

Nervous children are particularly susceptible to their surroundings. Their irritable nervous systems are easily disturbed, and easily exhausted, leading to neurasthenia. An early recognition of these cases may do much to better their condition and save them from a life of misery, their parents from much trouble, and the community from some criminals; for, undoubtedly, nervous children are sometimes liable to develop criminal instincts or tendencies.

Symptoms

First, the nervous child has an abnormal capacity for feeling emotions and sensations, these being aroused by stimuli which would have no appreciable effect in the normal child. There is usually a marked tendency to fright at things which would not disturb other children. Continuous crying without evident cause is another symptom. Sometimes muscular twitchings can be produced by tapping any

portion of the body. Defects of speech are not uncommon. Bed wetting or clothes wetting is another symptom. Sometimes a disagreeable emotion, as when the child is compelled to do something he does not want to do, will set up spasmodic attacks of coughing and vomiting. Palpitation of the heart, dizziness, and fainting may be seen in older children. After the age of five or six, headaches are frequent. brought on, possibly, by anxiety over lessons, eye strain, sitting in illventilated rooms, etc. Such headaches usually disappear after school hours. unless the condition has become chronic.

The neurasthenic child has very little endurance, mental or physical. He easily tires of anything which requires sustained effort and attention. His interest is easily exhausted, and he falls back in his studies because of lack of endurance. This failure, to one of his sensitive nature, is a great discouragement, and adds to his difficulties.

Want of appetite or capricious appetite is common. It is unusual to see a neurasthenic child with normal appetite, digestion, and nutrition. It is difficult to keep up nutrition because the child can not be induced to eat anything he does not fancy. Such children are usually thin and anemic.

Disorders of sleep are common; such

as, wakefulness, grinding the teeth, crying, langhing, talking, or walking in the sleep, night terrors, etc. While these conditions are likely to be associated with digestive disturbances or adenoids, they occur much more commonly in nervous children.

Among the emotions of nervous children are, nuconquerable fear, fits of uncontrollable rage, craving for sympathy, selfishness, envy, discontent with everything, morbid sensitiveness, and a tendency to melancholia.

Causes

Some cases are developed, as after an attack of scarlet fever or acute dyspepsia, in a family where the others are healthy. In all subacute and chronic digestive disturbances, there is more or less change of the character, and if the disturbance is prolonged, there is permanent injury to the nervous system. This digestive cause of nervousness in children has been too long neglected.

Among other causes of nervousness in children may be mentioned, noise, broken sleep, late hours, school pressure, theatres, parties, etc., etc., and we must not omit adenoid growths, eye strain, nasal growths, phimosis, and vaginitis.

Another factor in the development of nervous children is the mother, When parents are fitful and inconsistent in government, little stability can be expected in the children, and this is especially so when the parents disagree as to policy.

Treatment

We must first search for any cause of irritation; such as adenoids, eye strain, middle-ear affection, chronic skin eruption, or digestive disturbance. Having attended to any of these, we must give careful attention to the diet, and to other habits of the little patient.

Remember these children are sensitive to faults, demand sympathy, and impose on parents. Avoid overtreatment; for they soon learn to be tyrannical in their demands of parents. Make the treatment largely educational. In this the most difficult matter is to get the co-operation of the parents. It is difficult, for instance, to break up the habit of late retiring and sleeping late in the morning or of allowing the child to attend the theatre once a week.

Recreation should be planned with care, and should not be too severe. When the weather is good there should be open-air walking, short of fatigue. Do not encourage memorizing of verses. Keep the child out of school till six or seven.

On account of the fickle appetite, the mother is apt to feed the child anything that will be accepted, regardless of its fitness. Do not try to force the appetite; but allow wholesome foods only, giving as far as possible, choice among these.

Long hours of sleep, twelve to sixteen hours' rest in bed up to four or five years of age will result in better appetite and better nutrition. Diet and hygienic measures, judicious outdoor exercise, fresh air night and day, and enforced rest, constitute the chief means of treatment. Strive to improve nutrition by increasing the appetite and the digestion. To do this we must diminish fermentation, and especially putrefaction, in the digestive canal.

One may begin with milk alone, giving one ounce and a half of milk to each pound of the child's weight. A

⁽Concluded on Page Seventeen.)

Radiant Light as a Remedy

T. D. Brothers, M. D. Hartford, Conn.

Light from an arc or incandescent lamp has a powerful remedial effect.

Methods of Applying Light

Various methods and means of applying these two agents are used. Some prefer the cabinet, which allows the head to project through the top, leaving only the body exposed; others believe that a room with both head and body exposed is best. In this bath, the hair requires protection by a wet towel to keep the oil from being

Applying The Arc Light

absorbed and dried out. My experience with the bath in a cabinet in which the body is exposed to a large number of incandescent lights is preferable to the arc light, because of its milder action and more gradual relaxation of the tissues and nerves.

In acute inflammations, particularly those of the stomach, lungs, and liver, the arc light concentrated on the locality of the disease seems to produce a decided change in the inflammatory action with pronounced relief of pain and diversion of blood to the surface.

A third form of the use of radiant light is that of the Leucodescent lamp, a powerful incandescent lamp with a reflector back of it to concentrate the rays on local areas of the body. This form of the light remedy is exceedingly practical and can be used in office practice and in home where electric light is used, and it promises to be one of the most valuable local remedies

which have been introduced into medicine.

The Therapeutic Action of Light

The action of light is more than merely that of producing excessive surface stimulation. and with it elimination through the veins and arteries. There is a definite chemical effect which not only diverts blood to the surface, but changes the activities of the protoplasm and cells of the body.

There is a noticeable effect on the nerves, evidenced by diminished irritation, pain, and discomfort. There is physiological effect in lowering the tension of the arteries, and diminishing the heart's action, as well as draining the water from the blood and tissues. These are evidenced by the marked relaxation and tendency to sleep which usually follow such treatment.

Another effect has been noted, that

of more rapid absorption and pronounced action of drugs. Thus quinine, morphine, or any of the mineral drugs, administered after the bath, produce more pronounced effects in smaller doses. Sulphate of magnesia is more effective as a cathartic, and the vegetable acids and alkaloids are more active.

A large number of patients suffer from toxemic conditions, and the use of light as a remedy seems to be peculiarly adapted to diminish the toxins and eliminate them. Another class of patients suffers from deranged metabolism with subacute inflammatory states, and here the therapeutic action of light seems to be very power-

ful. A third class may be termed psychopaths, suffering from nerve exhaustion and derangement of both functional and organic activities. Here the action of light is equally powerful.

Clinical Experiences With Light Therapy

It has been found from

experience that the use of the light must be preceded and followed by many means and measures to secure its best effects. In cases of severe dyspepsia and profound derangement of metabolism, it is found that hydropathic measures, diminished diet, removal of the active causes, greatly intensify the action of light. Salines,

low the use of the light bath. In a case of acute pleurisy, the body was sponged with warm saline water. then the light was applied over the pleura, until the whole began to perspire, then the body was once more sponged with hot water and the pa-

warm showers, sponging with warm

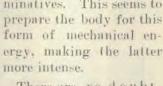
water, should always precede and fol-

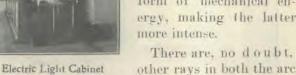
tient allowed to rest in a well ventilated room. The pain quickly subsided, the patient breathed with more ease, and sleep followed. A few hours later, on a return of the pain, the same treatment was administered with the same results, and recovery followed within a short time.

The light with the rays passing through a blue screen is decidedly sedative and analgesic, and no remedy will be followed by more pronounced relief than this. Acute dyspepsia is often treated by the lamp alone with very gratifying results.

The principle to be remembered is that the action of light waves of different lengths on the surface of the

body, must be supplemented by changes in the temperature of the body. by water baths, and eliminatives. This seems to prepare the body for this form of mechanical energy, making the latter more intense.





and incandescent lamp light that, by their increased activity, have a specific action on cell and tissue activity. The blue screen, the ultra-violet, and red screen, through which the light passes, has each its particular effects. The practical fact is that light of all kinds has a distinct remedial value in destroying germs, neutralizing toxic products, removing chemical products, and causing mechanical congestion; but, like many other agents, it must be used in connection with other means to obtain the best results. Water and light are, no doubt, the most powerful remedies which can be used for the prevention of disease and restoration from diseased conditions.



Using Nature's Tonics

Mary Wild Paulson, M. D.

A LARGE majority of the patients who come to a sanitarium for physical relief are those suffering from loss of ambition, tired out, those for whom life has lost its charms. The poor, tired mother who has become worn out in looking after her large family of children and worrying over her

household duties. the business man who has been working late hours and perhaps dissipating, the society woman who, I fear, has been wasting her energies. the person who has been overloadin g his stomach. liver, and kidneys, -these all comeand want tonics.

Right here I want to say that worry is one of the worst ene-

So these people come and ask for a tonic. They need rest and change and relaxation, and oftentimes they need to be properly nourished. We

mies to health there are in the world.

need to be properly nourished. We derive our energy from the food we eat; but it is possible to eat so much food as to actually poison the

nerve centres so that the nourishment needed is not transformed into living tissue.

Oftentimes we need some stimulus to whip up the bodily forces a little. We have not enough energy within ourselves to do this; so our vital forces are low. The easiest thing for a

doctor to do for such a patient is to hand him a bottle of medicine or a little box of pills and tell him to go home and take that and it will tone him up. It does tone him up: but it is just like putting a mortgage on his place, which must be paid off sometime; so he will finally have to come to a sanitariu m and pay off



The Cold Sponge Bath

his mortgage.

I do not say that we should never use medicinal tonics; but what I am emphasizing is the folly of the daily use of such tonics. That is just like putting a whip on the back of a poor, tired horse,—it does not put into him additional energy, it only stirs up the last bit of vitality he has left. The whip on the horse does not enter his body (unless the driver is so cruel as to cut a gash in it); but when you take a dose of strychnine you put that cannot get too much of it. As we go out in the fresh air we should breathe deeply, taking long inhalations, filling the lungs full of pure, life-giving air.

Exercise in the open air is invigora-



The Pail Pour

on the inside and you not only have a tonic but a toxin, or a poison. A physiological or natural tonic increases all the vital functions of the body. It stimulates the stomach to do better work; it stimulates the liver and kidneys and skin to excrete the poisons that are constantly being formed in the tissues:

and it stimulates oxidation. A physiological tonic gives nature a chance to produce more energy. Under physiological tonics I will mention first, good, fresh, invigorating air. We



Spray Apparatus

ting. Some people are so worn out that they have no energy to exercise. To such are given passive exercises; as manual Swedish movements and massage.

There are life-giving properties in cold applications to the skin. The cold first causes the blood vessels to contract and then the

skin becomes pink. Such a reaction does not mean that the skin is the only part affected; the circulation throughout all the internal organs and nervous system is accelerated. There

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(Concluded From Page Sixteen.)

are many ways of applying cold to the skin as the cool sponge bath, the cold mitten friction, the cold pail pour, the spray etc. Some hot treatment precedes the cold; as a hot foot bath, fomentations to the spine or short electric light bath. Electricity and vibratory stimulation are other natural tonic measures used at the sanitarium.

THE NERVOUS CHILD

(Concluded From Page Twelve.) thirty-pound child would receive forty-five ounces of milk a day, Meats are especially liable to putrefaction. Egg-white is also liable to putrefaction, but less so. A change to a milk diet will do much to remove the intestinal putrefaction, which is the cause of much of the nervousness of children. Butter and cream are less liable to putrefaction than meat or egg, but an excess of fat is not well borne. Milk and cereals. rice, sago, tapioca, form the chief antiputrefactive foods. Avoid an excess of sugar. Avoid milk in acute enteritis. If the milk is pure, the raw milk is much preferable, otherwise, it is best Pasteurized. Farinaceous foods can be used freely after nine months of age, and should be so used when there is intestinal putrefaction. The grains should be thoroughly cooked.

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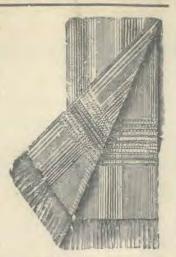
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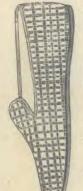
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