

# Health

*A Journal Devoted to  
Healthful Living*

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## EDITORIAL

### A Few Reflections on Sleep

“BLESSINGS”, exclaimed Sancho, “on him that first invented sleep. It wraps a man all round like a cloak”; Sleep is ‘Nature’s never-failing relief’ and a boon to the tired limbs, which have laboured all day long and require complete rest. The failure of one’s perceptions and the loss of one’s consciousness are real indications for the advent of sleep. The best time for sleep is before midnight. “Early to bed and early to rise makes a man healthy, wealthy and wise” is an old saying which is pregnant with meaning. “Lying late in the morning is a great shortener of life. It tends to make people corpulent”. But it is excus-

able in the case of persons whose duty it is to keep watch all night. These must perforce convert day into night and night into day.

#### Day Slumber

People generally do not think of sleeping during the day. But, day sleeping is permissible in the case of the old, the sickly, the tired and care-worn. After dinner, a doze would be refreshing but it is “often rather a hovering and nod-



*The best method of Sleeping.*

ding on the borders of sleep than sleep itself”. A slumber in the course of an argument, in the company of a lady or during dinner over your host’s face will be construed

as bad manners. Care-worn people require more sleep during the day to drown their sorrows and fears. There are some healthy people to whom sleep will be welcome during the day. They are the farmers out in a field in summer-time. "There is perhaps no solitary sensation so exquisite as that of slumbering on the grass or hay, shaded from the hot sun by a tree, with the consciousness of a fresh but light air, running through the wide atmosphere, and the sky stretching far overhead upon all sides. Earth and heaven and a placid humanity seem to have the creation to themselves. There is nothing between the slumberer and the naked and glad innocence of Nature".

### Night Sleep

Before one retires to bed, a snatch of slumber out of bed, in a chair, in one's sitting room is the most relishing. "The consciousness of being very sleepy and of having the power to go to bed immediately gives great zest to the unwillingness to move. Sometimes he sits nodding in his chair, but the sudden and leaden jerks of the head to which a state of great sleepiness renders him liable, are generally too painful for so luxurious a moment."

But when one is overcome by sleep, what a strange alteration it makes! "A man in his waking moments may look as proud and self-possessed as he pleases. He may walk proudly, he may sit proudly, he may eat his dinner proudly, he may shave himself with an air of infinite superiority; in a word, he may show himself grand and absurd upon the most trifling occasions. But sleep plays the petrifying magician. He arrests the proudest lord as well as the humblest clown in the most ridiculous postures".

### Homage to Sleep

Poets have sung highly in praise of sleep; some have placed "his dwelling in a dull and darkling part of the earth; others with greater compliments, in heaven and others, with another kind of propriety, by the sea-shore". The following lines give a vivid description of sleep in its relation to various types of individuals:—

"Sleep is most graceful in an infant, soundest in one who has been tired in the open air, completest to the seaman after a hard voyage, most welcome to the mind haunted with one idea, most touching to look at in the parent that has wept, lightest in the playful child, proudest in the bride adored".

### Reference and Acknowledgment:—

*A Few Thoughts on Sleep* by Leigh Hunt—"English Essays"—Lobban. Published by Blackie & Sons, Ltd.

# Sleep and Rest

By

S. SITARAM.

"Not a wink of sleep last night"! It is not infrequently that you hear this expression from many of your friends when you meet them in the morning. Their drowsy eyelids and worn-out countenance establish beyond doubt the truth of their sorrowful statement. Then you wonder how the loss of sleep could produce such weakness in a person, and naturally you become curious to know the importance of sleep, a daily occurring physiological phenomenon in man's life.

## Why do we need Sleep?

This wonderful human body surpassing in its complicated mechanism all the man-made machines, is built of innumerable cells, each of which is a living organism. In every moment of our activity a certain set of cells are at work, and work means waste of energy. So, a lot of energy is dissipated and material worn out every time we do some work either with the body or with the mind. In order to repair the wasted tissues, and replenish the spent-up energy it becomes necessary to adopt some means, and the most natural means are "nourishing food" and "sound sleep". Food goes to build the tissues and sleep is the best form of rest for the building process to go on. So, lack of sleep would hamper the work of repair, and consequently tell upon the health of the person.

## When do we feel Sleepy?

Work of any kind, mental or

physical, brings on fatigue. Then the circulation of blood is at a low ebb. When the supply of oxygen to the brain is inadequate we feel sleepy. Besides, it has been discovered that while sleeping, the brain requires less of oxygen than while awake. That is why the flow of blood to the brain in sleep is feeble. If by some reason the rate of flow is increased, the brain cells become active and sleep is disturbed. Then dreams set in and render good rest impossible.

## Why don't we remember Dreams?

In the sub-conscious state of mind the numerous thoughts that have entered the brain during the waking hours are analysed and systematised, and knowledge is built up. This process takes place at such a terrific speed that if by any cause it happens to be disturbed, the centres of perception are partially awakened and we begin to dream. But owing to the rapidity of thought process that goes on, it becomes almost impossible for the dreamer to remember his dreams when he is perfectly awake. In fact he recollects very faintly and vaguely what he saw in his dream over night. It has been said that we are able to dream a host of things in a moment which would take not less than an hour to pass before the mind's eye in the waking state. These dreams are closely related to the secret thoughts and previous experiences of the individual. Rich foods and emotional thoughts will make a person dream terribly at night for, the cerebral arteries will be engorged with blood and the brain centres will be wide awake.

### Duration of Sleep

The amount of sleep that one requires depends on various factors. A person's character, activities and age are some of them that determine the hours of sleep. The influence of mind on the body has a great deal to do with this phenomenon. Persons whose minds are agitated by conflicting passions and those that are filled with evil intentions towards their fellow-men can never have a wink of sleep. Their lives will always be miserable. Advancement of age and idleness in life lead to sleeplessness and disease. Hard work during day and a light meal at night promote sleep. Children and babies require longer hours of sleep than old and idle persons. Childhood, the period of growth and activity requires more rest than old age in which growth has ceased. It is desirable to have 8 to 10 hours of sleep for children, 7 hours for the middle-aged, and 6 hours or even less for the old.

### What causes sleeplessness?

One cannot induce sleep by rolling in bed and thinking about it. The more one thinks of it, the less one gets it. It is a primary condition of good sleep that we must clear our minds of all stagnant thoughts which vitiate their abodes even as stagnant water fouls the tank or pool. After shutting out all evil thoughts we must fill our minds with good and noble ones and compose ourselves to sleep. Only such people can have the benefits of sound sleep. Some individuals develop in them certain idiosyncrasies

about the place of sleep. A narrow, illventilated room is chosen by some for sleeping in. Again, some by habit prefer certain places for their sleep. A wood cutter working hard all day long in the forest can sleep more comfortably on a rugged rock or a grassy meadow under the sky than on a heap of cushions in a good room. A fisherman finds an old mat covered with the stinking scales of fish more comfortable to lie on than a bed of downs spread over with jasmine. All these go to show that the habit of the individual counts much in the choice of beds. It is worthwhile to remember that by following a set of general rules we can enjoy the advantages of sound sleep.

### The Code of Rules

1. Shut out all thoughts that agitate your mind.
2. Take plenty of exercises in the open air.
3. Before going to bed take a short walk or some other light exercise.
4. Spend most of your time in sunshine and open air.
5. Let in plenty of pure air into your bed room.
6. Do not take sleeping draughts or drugs. They are positively harmful in the end.
7. Do not use coffee, tea, or tobacco.
8. Drink plenty of pure water every day.
9. Go to bed with an empty stomach or with light food.
10. When you do not get sleep, wash your feet and hands with warm water which will induce sleep.

# Physical Culture

By

R. RAJAGOPALAN, B.A.

As Sanford Bennett says, physical culture is the "greatest of all sciences" and it is not an exaggeration to say that it is a subject which is flush with literature. This is an era of awakening and there is a craze for physical health and go-back-to-nature-cult. Hence the formation of nudists' colonies in America and numerous endurance tests, which in some cases even extend to the limit of eccentricity and ridiculousness. It can be said with some assurance that the modern men and women have an inclination to look after their body and health. Consequently, a number of men, who are clever enough to take chance by its heels have sprung out to the public their "systems", which cost from two guineas to a few rupees to suit the pockets of rich and poor. Leave alone the marketable point of view of their systems, physical culture by itself is a subject worthy of the attention of the young and old alike.

To define physical culture, it is a science of muscle training and an aid to cultivate health. Physical well-being is a treasure to be coveted by every living being on earth. Material wealth alone will not bring happiness to a home. Riches only aid a person to wield some influence in the world and satisfy his whims and fancies. Health offers the real enjoyment of life and complete freedom from ailments. A healthy person alone can parade about the world and call himself a worthy member of God's creations.

One should have regular habits and live a healthy life to acquire good health. A flabby body with superfluous fat is a home for sickness and an unsightly thing. To toss off fat and waste from the body it is essential to undergo a systematic course of exercises. As remarked above there are a number of systems available now. Any system will do one good. The principle of a good system is to perform a course of exercises every day regularly and the course should cover the muscles of the whole body. A course which prescribes exercises for a certain muscle only can never be called complete. All the muscles of the body from head to foot should be brought into play. An exercise is nothing but contractions and relaxations of the muscles. Frequent contractions and extensions of a particular muscle increase its size and strength. Proportionate development of the muscles all over the body is the main feature of a good physique.

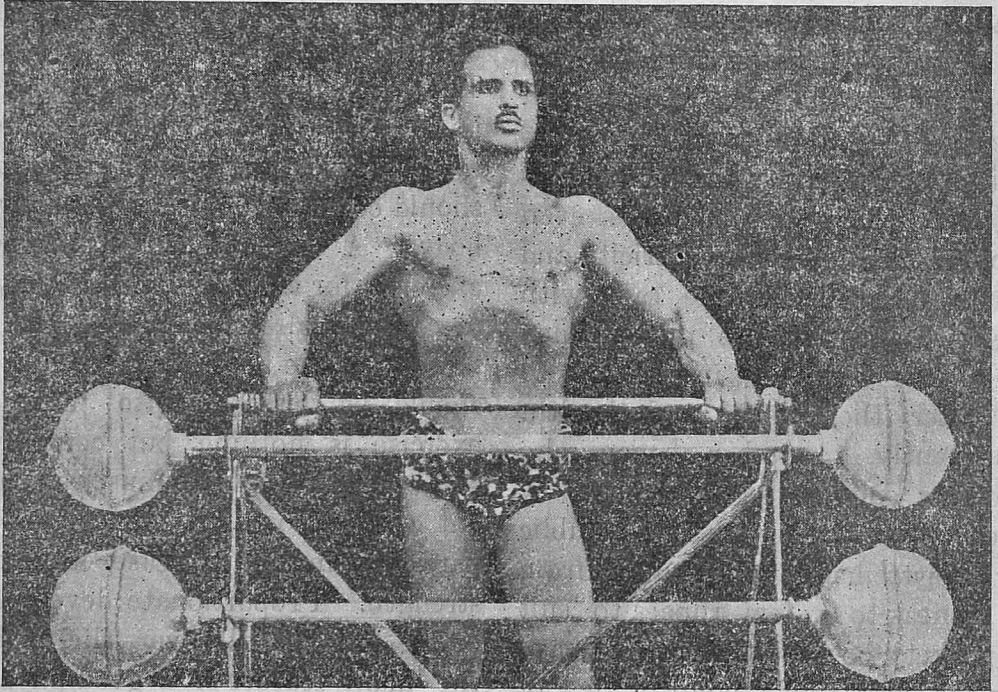
In main, the effects of exercises with and without appliances are the same; while one is artificial the other is natural. The appliances give an incentive to a young man to perform the exercises. It is true that they bring about a quick development. There are certain exercises which while they are excellent for one thing they lack in other effects. For instance, exercises like weight lifting, bar bells, heavy dumb-bells, though they develop the muscles and make a man super-strong leave them dull and heavy due to the fact that they do not require much concentration and exercise of the will. Elastic developers and spring dumb-bells induce a certain amount of



concentration but experience of many is that they affect the nerves due to sudden release of tension. Exercises in bars retain the youthful supple figure and encourage agility. For an on-looker the exercises with appliances afford a spectacular effect.

out the world. By proper adaptation of our own exercises one can form his own "system".

Along with the movement of the muscles an intelligent working of the lungs is also necessary. So to say, breath is the soul force in a man.



*A good Exercise for an all-round development of the body.*

The exercises consisting mainly of bodily movements have the strong support of Nature. Besides being within the reach of rich and poor they are the most comfortable and convenient mode of physical exercises. Overstrain can easily be avoided. As a matter of fact, there can never be overstrain as a person cannot do more once he gets tired. Indian exercises come under this category. Indian Dhandals and Bhaskies by themselves form a system and they are known through-

Inhalation, retention and exhalation of the breath is the essence of Yoga, the spiritual exercises to attain salvation through purity of body and mind. A good system is one which combines exercises for the lungs and muscles.

Any part of the body can be developed by working the particular muscles alone. But a uniform development can be obtained by exercising the muscles of the chest, hands, legs and abdomen, not to mention the neck and the hip.

# Modern Civilization and its Effects Upon Health

By

N. RAMAKRISHNAN,

Vellore.

(Continued from page 206 October 34 issue.)

**Diet.**—A perfect food of an individual must contain the following constituents that are absolutely necessary for a healthy life:—

(1) *Proteins* or the flesh-building substances which are derived from flesh, eggs, milk, hand-milled wheat and rice etc.

(2) *Carbohydrates* (starches and sugars) which supply heat and energy to the body. These are contained in wheat, rice, potatoes, brown sugar etc.

(3) *Mineral salts* or the bone-building materials which are found in green vegetables, fruits, milk etc.

(4) *Fats* such as ghee, butter, cod-liver oil, gingelly oil, groundnut oil, cocoanut oil etc. Fats supply strength and heat to the body.

(5) *Vitamins A, B, and C* which are very essential for life. Cod-liver oil, fish, butter, eggs etc., supply A vitamins.

Wheat, nuts, dhal, etc., supply B vitamins.

Fresh fruits, green vegetables, and milk supply C vitamins.

(6) *Water* which is necessary to eliminate wastes and poisons from the body and to effect good circulation of blood.



## FULL BENCH OF THE PERFECT FOOD

But let us see what the modern man consumes. The average daily food of a modern man consists of

- (1) Machine—milled and polished rice.
- (2) Machine—milled grains.
- (3) Adulterated ghee.
- (4) Skimmed buttermilk.
- (5) Dry vegetables.
- (6) Chillies and tamarind.
- (7) Refined sugar and
- (8) Coffee and tea. All these articles though they may seem to

contain all the necessary elements, are not really so. Machine—milled rice and grains, as already mentioned, are devoid of the vitamin contents and hence are quite unfit for human consumption.

Among the many articles of diet, that are adulterated now-a-days, ghee stands foremost. Ghee is the only common fat that is used with our diet. But, alas! this is now adulterated with various kinds of vegetable oils and ghees. Most of the modern coffee-hotels use the vegetable ghee for preparing the sweetmeats. Instead of supplying fats, they lower the vitality of the body which, in course of time, becomes too weak to resist disease. The reason why the people go in for this ghee is evident. It is rendered palatable by the manufacturer and is offered for cheap price. The present-day civilised milkman does not take the trouble of turning milk into butter and ghee but supplies all his milk to the coffee-clubs that are increasing in number.

Buttermilk when skimmed, loses its vitamins and hence is not a right article of diet.

Chillies possess none of the nutritive properties but form the extreme stimulants and irritants. Tamarind also does not possess any of the necessary elements and are added only to give taste for food.

Although sugar is one of the elements required for the body yet the present generation use it in excess with coffee, tea and other beverages so much so it causes indigestion and intestinal and joint troubles.

Excessive use of coffee and tea has become the fashion of the day. They

do not serve the purposes of food but are only stimulants. They cause indigestion, sleeplessness and retard the growth of the body. Our ancestors never knew the names of coffee, tea, soda etc., but were using pure water, milk and buttermilk in their stead. The use of buttermilk during day and milk during night promotes longevity.

Thus it will be seen that the diet consumed by the average modern Indian is only a wrong diet.

In this connection, a word about meat diet will not be out of place here. From time immemorial, India has been a country of vegetarianism, but after the advent of the Western civilization, the habit of meat-eating has been cultivated to such an extent that the present-day meat-eater finds it difficult to give it up. Although meat is a good food for building up flesh and strength, yet it has its own drawbacks. Meat causes a heavy strain on the bodily organs and is not easily digested. It is an unhealthy diet in as much as many diseased animals are slaughtered by butchers. For example, eating meat of consumptive animals is one of the ways by which consumption is spread. Trichinosis and malignant tumour of the abdomen are mainly attributed to the use of the flesh of infected animals. Meat is deficient in most of the vitamins. Proteins form the major portion of meat, which, if taken in excess, leads to kidney and liver diseases whereas the vegetable foods supply almost all the substances necessary for the body and eliminate poison from the system. Moreover meat, if retained in the body, rapidly undergoes putrefaction and poisons the blood.



**Modern customs and Habits.**—Of late the Indians have cultivated certain habits and customs which play no mean part in the causation of many diseases. The first and foremost is the smoking habit. Smoking has a very harmful effect upon the brain, the heart and the nerves. It effects an overflow of saliva which is often spit resulting in indigestion. It weakens the respiratory organs and the nerves. Recent investigations have shown that one of the causes of the cancer of the lung is the smoking habit. It also injures the lips and teeth. When once a man contracts this evil habit he becomes so addicted to it that he finds it difficult to give it up.

Drinking is the next habit that has not spared the modern man. The Western civilization has tempted thousands of Indians to use the western liquors, alcohols and wines which have a devastating effect upon their health. These drinks impair the physical, mental and moral powers. They weaken the nervous system. The effect of alcohol drinking on the white blood corpuscles is very harmful. The white blood corpuscles are by nature endowed with the power of warding off disease germs that may enter the blood. But alcohol destroys this natural power of the white corpuscles and consequently gives an easy access to all sorts of diseases.

Next comes the habit of tobacco-chewing which has become very common. Tobacco is chewed mainly with betel-leaves and its evil effects on health are manifold. It causes indigestion, weakens the heart and the lungs and eventually gives rise to heart and

lung diseases. Cancers are also formed on the lips and the tongue.

Snuffing is one of the vices which the present civilized man is addicted to. Snuff is nothing but tobacco used in the form of powder through the nose. This habit is supposed to be more refined and fashionable although the effects they produce on health are almost the same as those of either tobacco-smoking or tobacco-chewing.

Shaking hands with friends is another curse of western civilization. This has become common in our country and is one of the potent factors that cause leprosy and other skin diseases by reason of constant touch with persons already suffering from them.

**General.**—The coffee-clubs which in recent years have been increasing in number by leaps and bounds are responsible for the rapid spread of diseases among the modern generation. Infection is carried by using the plates and spoons used by the consumptives, lepers etc., who are among the visitors of these restaurants. Moreover most of these clubs do not keep the preparations in a fresh and clean state, but keep them open for flies and dust to collect on. Yet the tendency among the present civilized men to frequent these hotels is great.

The present civilized man has become a more imitator of the Western ways even in respect of cleansing the teeth. The widely advertised tooth brushes and tooth pastes are used in the place of herbal twigs and tooth powders. The tooth paste is injurious to the enamel of the teeth and pyorrhœa has become very common in these days.

The females of to-day have become accustomed to spending their time in reading fictitious novels and stories and in attending dramas, cinemas, dances and other tamashas instead of doing the daily household duties which give them sufficient physical exercise. Absence of physical work is one of the causes of difficult child-bearing and menstrual troubles among the modern women.

The use of face-powder is another fashion of modern civilization. This is applied chiefly to ladies and children with the result that it prevents perspiration by clogging the pores of the skin. Perspiration is one of the natural outlets for poisons in the system and if this is blocked up, the blood gets poisoned and results in diseases.

The modern people are accustomed to reading in electric and other power-

ful lights that are invented now-a-days. The glare of these lights causes undue strain of the eyes and in course of time the vision becomes so defective as to necessitate the use of glasses. This is one of the reasons why the modern children wear glasses whereas our ancestors who were using the lights burnt with castor oil were enjoying excellent eyesight even in their advanced ages. The cinemas also are responsible for defective vision.

**Conclusion.**—In brief, I have endeavoured to mention the most glaring effects of modern civilization upon the health of the nation and unless people give up the modern evil habits and go back to the natural and healthful ways of our ancestors, the health of the country is liable to suffer more seriously in the long run.

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## Health-Seekers' Meccas in Germany

SOME 200 health resorts in Germany are blessed with healing springs, and fully as many more are meccas for health-seekers because of their climate or location on the sea. Yet despite this great number, no two are precisely alike or offer precisely the same results. This naturally means that sufferers from any particular disease have a wide choice of springs or other curative means. It is never possible to say unqualifiedly which place is the best for some specific case, for not only are the natural conditions different in each place, but the therapeutic methods employed are also different, and the balneologists in each resort know how. In this connection attention must be paid to whether the heart needs rest

or exercise, and accordingly as the one or the other is case, the resort must to make the most of the curative agencies at their disposal.

Thus, for example, rheumatism, gout and other affections of the bones and joints can be treated either with sulphurous or radium baths, or in certain cases also with saline baths. In many resorts the possibility exists of combining these methods, and places of the one or other kind generally have also facilities for giving moor or mud baths.

Carbonic acid springs are chiefly used for diseases of the heart and circulatory system, but in certain cases iodine springs are indicated, in still others, carbonic acid thermal baths.

lie in the lowlands or in the mountains. The matter of elevation plays a great role in such cases in the choice of the spa.

Diseases of the liver, intestines and stomach are in most cases treated with drinking cures. Germany has a great number of curative springs belonging to the alkaline and alkaline-saline group, which can stand comparison for the cures effected with the most noted springs of any country. The water of such springs can also generally be had bottled, so that they can be employed by persons who are not able to visit the springs themselves.

Bronchitis and catarrh of the nose and pharynx are also mainly treated with drinking cures, but also with inhalation and baths. In all spas with alkaline or saline springs one finds the requisite equipment for such treatment, and also graduating works where the sufferers can promenade and breathe in the salt air. Many sufferers from catarrh also find relief at sea baths or in climatic health resorts.

Anæmia and other diseases of the blood can also be cured in many cases by a stay at the sea or in the mountains. If they exist in connection with diseases of women, moor or sulphur baths will also be found most efficacious.

A cure at a spa should be carried through for four weeks at the very least, and much better results can be obtained if a longer stay is possible.

Prices in the German spas have been greatly reduced. A four-week cure in the lower-priced spas ought not to require more than \$ 120, and not over \$ 150 in the most expensive resorts.

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## Vitamins

DR. BELLE J. ALLEN, M.A., F.A.M.A.

A CHILD'S question. "You are a doctor, may I ask you to tell me what a Vitamin looks like? I know they are in lettuce, oranges, and cabbage, and that they are not in chocolate creams, nor in our sugar bowl, and Mama says if I don't want holes in my teeth I must learn to like the things that contain Vitamins. What do they look like?" Wise workers all over the world are helping to find out more about them, and I could only reply, "We cannot see them, nor feel them, nor hear them, nor touch them: we know them best by what they do, or better still, by what happens when they are absent."

I am pleased to greet you all to day, especially because I learn that many of you are eager to know more and are trying to bring up your families in harmony with what you have already learned. The hospital we visited the day after the poser of this thinking child, we watched with most intense interest a specialist helping those children learn about Vitamins. So great was their success in this children's Diet Clinic, that the big Children's Welfare Association of Boston frankly wrote them, "You are doing far more helpful work for the children and for their homes than we are, so we are sending you our funds for you to use"! One scholar has aptly compared Vitamins with the spark plug in our motor cars, the spark from which ignites the full mixture and enables the engine to go. The Vitamin in the plant does something like that, but more—it enables the

plant to grow ! Another scholar has likened it to the marvellous protoplasm which the Creator of life alone imparts.

Even the names are not really descriptive—A, B, C, D. They have not been isolated like the germs of infectious diseases, like the tubercular or typhoid germs; they are not tissue builders like proteins; nor flesh producers like carbohydrates. But they are hidden away in live, growing seeds, green vegetables, and fresh, juicy fruits too near to the skin to permit of peeling. What is positively known about them has been learned from feeding experiments on animals. There are pictures here which will illustrate their importance better than technicalities can. Without Vitamins the essential principles in food cannot sustain life. Plants have the power of making them, but neither man nor animals can do so, except by providing the needed essentials for Vitamins which are seed, soil, sunshine, water, and often, in India, shade has to be also provided; and the essential mineral, must also be provided for the plants in their soil manure.

**How can we get them ?** A Sikh gentleman surprised us recently, by the following remark: "I've made a discovery—you *can* find green growing things if you want them enough to *search* for them." I, too, found this was true when living on the plains. A dealer in your bazaar can be interested when he sees a chance to gain; a good *mali* can be taught; canning fruits and vegetables, when they are plentiful, is easy if you have a Waterless Cooker; a group in a station can be interested and a joint "dali" can be ordered regularly from the nearest market and

the expense shared. "But," says some one, "it is so expensive". Well; do some calculations with a pencil on sickness, dentistry, X-Rays, operations, doctors, surgeons, medicine bills, loss of time, chronic invalidism, and the misery of poor health, and see which will prove the lesser expense—not to mention the joy of living at the top notch of health and vigour !

Have you ever thought that God provided a dietary for us ? You will find it in Gen. 1:29-31—"And God said, Behold, I have given you every herb bearing seed, which is upon the face of all the earth, and every tree in which is the fruit of a tree yielding seed; to you it shall be for meat. And to every beast of the earth, and to every fowl of the air, and to everything that creepeth upon the earth, wherein there is life, I have given every green herb for meat; and it was so. And God saw everything that he had made, and behold, it was very good". He Himself pronounced His work "very good". Animals were provided with instinct; they never need operations or drugs or X-Rays, But live out their appointed days. Eve set the fashion of following the captious appetite, and the world still tarries over what "looks good" and "tastes good". Only within recent years we are finding out the secret of why God our Creator planned our diet as He did. Those who adhere to it are relatively few, they are laughed at or scorned, but they are never in need of the knife or of drugs, nor do they have to ask for sick leave.

**What foods should be avoided ?**—Vitamins are absent in the modern *refined* foods, such as liquid honey, polished

rice, white flour, corn flour, sago, tapioca, arrow-root, peanut butter, egg substitutes, ghee and butter and ghee substitutes, custard powder, pea flour, butter and cream when the cattle have no meadows to graze in, *purified* Cod liver oil, meat extracts, malted and distilled liquors, tinned foods, boiled vegetables, tea, coffee, etc. Hence, a health-producing dietary should *include* the whole grains, nuts, cottage cheese, fresh, uncooked fruits and vegetables. As grains and nuts are very concentrated, the intake should be regulated by the individual needs of the patients. Some should take neither, some the one, and some the other. This is because both grains and nuts are acid-ash producing foods, and the blood should always be kept at its healthy normal of 80% alkali and 20% acid. One of the chief causes of disease lies in the reversal of this proportion.

**What about milk?** someone may ask. The Vitamin content of milk depends upon the green things the cows eat which they should get from the green grass of well manured fields, *planned* for grazing. Milk becomes more acid each time it is boiled, yet it is not safe to use it without boiling with the present dairy methods. Everyone should rejoice in the plans now being launched for improving the milk supply in India.

A page from a lecture on the Chemistry of Nutrition is perhaps instructive—(see below). Hence it is apparent that vegetables and fruit should be eaten raw. The common practice of adding soda bicarbonate to the water in which they are cooked rapidly destroys the Vitamins.

**Home Germinating Possibilities of Vitamins.**—The method, available in any home without a garden or market, is as follows: Beans, peas, gram or grain are washed in water and left to soak for 24 hours at room temperature. Then place upon an ordinary sieve or other porous surface at a depth not exceeding 2 or 2½ inches, so that light and air can circulate. Keep moist by occasionally sprinkling with water and with free access of air for 48 to 72 hours. At the end of this period rootlets varying from ¼ to ½ inch should be visible. These germinated seeds should not be allowed to become dry again, but should be cooked immediately for *as short time as possible* to render them soft and palatable. The dietary should include raw fruits and green, raw vegetables.

McCollum uses a valuable term when speaking of milk, fruit, eggs (yolks), and leafy vegetables, as “protective foods”. Again, McCollum writes, “Considering the whole question of nutrition from the point of view of *every essential constituent of human food*: ‘It is unwise to approach very closely the physiological minimum with respect to any factor; *liberal* consumption of all of the essential constituents of a normal diet, prompt digestion and absorption, and prompt evacuation of the undigested residue from the intestines *before extensive absorption of products of bacterial decomposition* of proteins and carbohydrates can take place, are the *optimum* condition for the maintenance of vigour and *the characteristics of youth*. The body goes sick if these protective foods are not provided in adequate quantity.”



McCarrison's article on "Damage to the Mucous Membrane of a Faulty Diet" should convince any unprejudiced person:—anyone who wishes may look at the pictures. One cannot read it thoughtfully without reaching the conclusion that we ourselves actually invite premature death; that we can grow old without the infirmities hitherto expected from years; that we may paraphrase Browning and say, "Grow young along with me, the best is yet to be". But someone thinks. "Are you crazy? Our children have to have the usual "children's diseases". "They must have their teeth attended to". "How can we keep from pneumonia, abscesses, etc.?" Etc., etc., *ad infinitum*. This Newer Knowledge of Nutrition is worth studying, because it enables you to realize that we do not catch any disease, not even the almost universal "colds", but that we contract them with our feet under the heavily laden table, an arm and hand movement to the mouth, and a paralysis of the nerve which moves the head in a negative "no thanks" movement to second helpings.

Yes, in all seriousness, and after years of observation, we believe the true way to prevent illness is, individually, to *stop causing* it! Only those, who try faithfully, discover the new, sure way to Health!

#### Comparative Values of Fruit and Vegetable Juices:

(In this list the best alkalizers are valued at 100. Note that cooking diminishes the value of these foods. Fruit acids do not cause acidity.)

	Parts
Fresh Lemon Juice	100
Fresh Orange Juice	100
Ripe Onion Juice	100
Fresh, Raw Cabbage Juice	100
Fresh cabbage juice cooked at 100° for 20 minutes	30
Fresh cabbage juice heated to 70°-80° for 60 minutes	10
Fresh Sorrell Juice, raw	60
Fresh Tomato Juice, raw	60
Fresh Turnip Juice raw	30
Fresh Carrot Juice, raw	7.5
Potato cooked at 100° for 30 minutes	7.5
Germinated peas, beans, raw	30

Foods which contain all five Vitamins are alfalfa, germinating seeds, fresh clover, lettuce, and sea vegetables.

Foods containing A, B, C, D, Vitamins are banana, buttermilk, raw cabbage, string beans, carrots, carrot juice, green onions, grapes, lemons, raw milk, oranges, orange juice, grape fruit, raw spinach, raw and canned tomatoes, turnips.

Foods rich in C are apples, peaches, pears, grape fruit, lemons, oranges, raspberries, lettuce, parsley, fresh pineapple, strawberries, tomatoes, turnips, bean sprouts, cucumbers, water cress, peppers, germinated cereals. When these are scarce, seeds should be soaked 24 hours, and left moist with access to air from 1 to 3 days, by which time they will have sprouts *equal to many fresh* vegetables. Cook for as short a time as possible.

## Mineral Salts:

Sodium Content in 1000 Parts of  
Water-Free Substances :

Corn	...	0.02
Walnuts	...	.17
Peanuts	...	.21
Pecans	...	.36
Almonds	...	.38
Beans	...	.42
Wheat	...	.52
Oats	...	.59
Rice	...	.62
Cherries	...	.76
Oranges	...	.95
Potato	...	1.33
Egg Yolk	...	1.44
Meat	...	1.44
Onions	...	1.55
Olives	...	2.52
Coconut	...	1.57
*Tomatoes	...	3.40
*Prunes	...	3.41
*Apricots	...	3.76
*Human milk	...	3.16
*Cow milk	...	5.34
*Cauliflower	...	5.38
*Turnip	...	7.10
*Apples	...	8.61
*Beets	...	9.00
*Eggs	...	9.56
*Whey	...	9.75
*Cucumber	...	10.00
*Dried figs	...	10.77
*Cabbage	...	11.68
*Lettuce	...	13.55
*Dandelion	...	13.63
*Carrott	...	14.63
*Asparagus	...	14.77
*Strawberries	...	18.53
*Radish	...	23.37
*Spinach	...	57.42

\* Note the superiority of these foods for  
sodium values.

Calcium in connection with magnesium is the mineral foundation of the entire skeleton as well as cartilages and tendons. Lime and magnesia are found in every part of the plant. Leaves, more lime; seeds, more magnesia. In man, the lime salts make up more than 50% of all the mineral elements of the body.

Iron Content in 1000 Parts of  
Water-Free Substances :

(The normal amount required does not exceed 75 grains. About 50 grains of this is contained in the blood and the remainder principally in liver and spleen. The spleen acts in our system as an electric power station when the blood is recharged with electricity.)

Meat of chicken	...	trace
Fish	...	trace
White flour	...	0.03
Dates	...	.03
Polished Rice	...	.05
Bananas	...	.07
Human milk	...	.07
Meat	...	.15
Beans	...	.19
Unpolished rice	...	.22
White of egg	...	0.25
Rye	...	.25
Peanuts	...	.27
Cow's milk	...	.30
Whole wheat	...	.37
Wheat bran	...	.38
Oranges	...	.38
Cocoanut	...	.40
*Yolk of egg	...	.40
*Grapes	...	.45
*Apples	...	.46
*Figs	...	.60
*Walnuts	...	.61

\* Note the superiority of these foods in  
their iron content.

*Cherries	...	.70	*Radish	...	3.00
*Carrots	...	.70	*Strawberries	...	3.73
*Prunes	...	.94	*Rice bran	...	4.00
*Tomatoes	...	1.00	*Spinach	...	6.05
*Horse radish	...	1.25	*Leeks	...	7.60
*Rye bran	...	1.40	*Lettuce	...	9.40
*Cucumber	...	1.40	*Sorrel	...	9.85
*Pumpkin	...	1.88	These tables show the value of green leafy vegetables.  (Paper read before the Landour Community Club, May 11, 1933.)		
*Cabbage	...	2.16			
*Onions	...	2.20			
*Swiss chard	...	2.30			
*Asparagus	...	2.94			

\* Note the superiority of these foods in their iron content.

## What to Do if a Child has Worms

By

MARGARET Y. BRADY, M.Sc.,

It really is quite surprising how many children are troubled with worms. Often their mothers, though worried by this condition, take no very active steps to clear it up. Quite often, too, children have worms for a long time before anyone knows anything about it; but their presence is a very considerable handicap to any child.

Worms are little animal parasites which live in the human digestive tract. There are several types, but only two kinds which are common. These are the long round-worm, and the short thread-worm.

The long round-worm, looks like an anæmic earth-worm, and is from seven to ten inches in length. It lives in the upper part of the intestine, and usually only one or two are present, although in some cases larger numbers have been found.

**Thread-worms most common.**—The type which is commonly called "worm"

is the short thread-worm. This creature measures from a quarter to half an inch in length, and it looks like a little bit of cotton, pointed at each end. It lives in the lower part of the intestine, the rectum, and often causes great irritation at the anus. It multiplies in the body, and sometimes there are great numbers present in the rectum.

The symptoms attached to the presence of worms are numerous, and sometimes very acute. The round-worm produces the more serious symptoms, but thread-worms are much more common, and it is with those that we want to deal in this article.

Irritability, fretfulness, nervousness,<sup>o</sup> abdominal pains, diarrhoea, vomiting, wakefulness, bed-wetting, and even convulsions have all been traced to worms in various cases; but, usually, the symptoms are nothing like so extreme. Still, it is just as well to

realise to what neglect of this trouble can lead."

**Symptoms of worms.**—As a general rule, unaccountable irritability and fretfulness, coupled with a child being a "poor do-er," that is, failing to gain weight in spite of having a good appetite, are the signs to make a mother suspect the presence of worms. Restless sleep and gritting the teeth are often taken as indicative of worms, but these may be connected with any digestive trouble. Picking at the nose is sometimes a sign of their presence, and an irritating anus can be regarded as fairly conclusive evidence that worms are the cause of the trouble.

When worms are suspected, but their existence is not proved, it is a good plan to give the child an enema of about a quart of warm water containing a dessertspoonful of salt, and then to examine the result very carefully. If thread-worms are present in the rectum they will be washed out by the enema, although the less common round-worm cannot be detected in this way, as the water will not reach it.

### The Usual Medical Treatment

The usual medical treatment is to give the child a drug to kill the worms, at intervals of a few days. The drug kills the worms, and it also kills the eggs as they hatch out. The trouble about this method is that the child has to take a drug that has to pass along practically the whole length of the digestive tract before it reaches the worms themselves. Quite often the child itself is upset by the drugs taken to kill the worms, since fairly

powerful medicines have to be used to be effective, and also a purgative of some sort has to be taken afterwards.

Another point about the use of drugs is that their use does not tackle any cause; it only treats the symptom (the worms). Though drugs may cause them to disappear for a time, they generally return sooner or later.

**Various theories regarding the cause.**—Various theories are held as to how the worms come, the most popular being that they are introduced by salads, or from other children. It so happens that, when worms are present, there is mucus in the stools, which are also generally rather constipated. Some people think the worms cause the mucus, but it seems at least equally probable that the presence of the mucus, coupled with constipation, produces just the right conditions in which worms multiply and flourish. At any rate, when the system is cleared of mucus and the constipation is cured, the worms disappear. A perfectly healthy digestive tract keeps itself clear of parasites of the description under discussion, so that the logical and Nature-Cure method of tackling the problem is to rid the system of mucus and cure the constipation, thereby removing the medium in which the worms thrive. It seems that, when there is no mucus, there is less chance of the eggs hatching out; also, when there is no constipation, there is no waste matter fermenting in the system, and so any eggs that may be taken in at the mouth are quickly passed out with the rest of the waste products, before they have had time to hatch out.

**The most satisfactory method.**—By far the most satisfactory method of ridding the system of mucus, and thus solving the worm problem, is to fast, and then to live on fruit. When a mother knows that a child has worms, she should regard it as a definite illness, and treat it as carefully as she would any other illness. The child should be given an enema of about a quart of salt and water (a tea-spoonful of salt to a pint of water) and then be put to bed for a day, after its discharge.

While in bed the child should have no food at all, just the juice of oranges, lemons, or pineapples in water. Next day, and for a week, if necessary, the child should have three meals a day of fresh fruit only. No dried fruit, no bananas, no milk, and no bread of any kind should be taken. Just fresh, ripe, uncooked fruit. It is a good plan to give also a small glass of raw carrot juice every day the last thing before the child goes to bed. This is made by thoroughly scrubbing some fresh carrots, and then dipping them into boiling water to scald them. The carrots should then be grated, and put into piece of scalded butter-muslin. The sides are then folded over the grated carrot, and the ends twisted just in the same way as wringing a hot fomentation. The juice runs out freely.

The child should also have a nightly enema of salt and water, for this washes out the worms and the eggs. It has no injurious effect upon the child, and can be quite simply done by any competent mother.

At the end of a week the system will probably be cleared, and so the child will be ready for a fuller diet and

for the enemas to be discontinued. The diet should then be as follows, for a while :

*Dinner* : large mixed salad, with brown bread, toast, and butter.

*Tea* : Crisp bread and butter, or brown toast and butter, and a glass of milk.

*Bedtime* : drink of carrot juice, or drink of clear vegetable broth.

### How to make Vegetable Broth

Vegetable broth is made by chopping up small any vegetables in season, *e.g.*, carrots, onions, celery, pea-pods, beetroot, lettuce, etc., and simmering them slowly for about three hours in just enough water to cover them. The water is then strained off, and it can be flavoured with *Yeastrel* or *Marmite*, and drunk hot. Cabbage can be added with discretion, but its flavour is rather strong, and, also, the broth ferments quickly if cabbage is used. The outer stalks of celery and the outer leaves of lettuce, if well washed and the bad parts removed, are excellent for the purpose of making the broth.

Every effort should be made to improve the child's general health. Diet can do a lot, but the ideal is to build up the child's whole system, and so increase its own natural resistance to every sort of infection. It should be encouraged to do deep-breathing exercises, by an open window, morning and evening, and it should have plenty of energetic play out of doors, with sun air baths when fine enough. Also, of course, a daily warm (not hot), bath, followed by a good rub down with a fairly rough towel.

**Further good rules.**—The child must be taught to masticate all its food very



thoroughly, and the omission of all soft and sloppy foods from its diet will be found a big help for this purpose. The bowels need to be kept working freely, and it is a good plan to get into the habit of seeing that the child has an action of the bowels morning and evening. A little persistent practice will soon form such a habit, and then waste material is removed from the system as soon as it reaches the rectum, instead of remaining there some hours, when it may begin to

ferment its poisons and be reabsorbed into the system.

Every effort should be made to prevent chance infection. That is to say, the water-supply should be examined, if not from the tap, and all vegetables should be scrupulously well washed, particularly watercress.

It cannot be too strongly stressed, however, that by far the best preventative for this, or any other, illness is the child's own state of health.—*Health for All.*

## Health Tit-Bits

### Windows Open Please!

Keep your windows open,  
Keep them open wide,  
That the sweet and wholesome air  
May always come inside.  
Keep your windows open,  
Open night and day,  
For the fresh air is your friend.  
To drive the germs away.

(From "Red Cross Rhymes for Juniors," published by the Red Cross Society).

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**Kissing is Unhygienic.**—Friends, relatives or parents often kiss a baby or a child. Kissing is in vogue all over the world except in China and Japan where it is regarded with disgust. But recently, countries like America, France, Austria and Russia have started Anti-kissing Leagues, because kissing is unhygienic, as each kiss conveys a minimum of 10,000 bacterias. Thus common cold, influenza, sore throat,

tonsillitis, pneumonia, tuberculosis and various other infectious diseases may be transmitted from one person to another by means of kisses. If a kiss is nothing but a symbol of love and affection then is it wise and desirable to transmit germs of diseases to the beloved person or child by means of kissing? Infants and children should never be allowed to be fondled by means of kisses.—*Health & Hygiene.*

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**Ancient Rules of Health.**—The following set of health rules, written before the Roman conquest of Britain by a Welsh bard named Cettury, who was also a physician, are recommended in full for our observance by the American Public Health Association.

1. He who desires to live to a great age should play and exercise until he is twenty, work hard until forty, then rest and pass his remaining days in quietness and contemplation.

2. He should rise and retire with the lark.

3. He should eat when hungry, drink when thirsty, and rest when tired.

4. Rich foods, strong drinks and overexertion should be carefully avoided.

5. He should shun strife and anxiety and cherish peace and pleasant things.

6. He should be thoughtful and active in the day and sociable at night.

7. He should marry, be pure in conscience and strong in faith.

8. He should be always just, generous and cheerful.

9. His thoughts should be serene, his amusements clean and the air wholesome for his respiration.

10. His clothing should be good, clean and light, his mind alert and his heart affable.

11. He should conform to the laws and social customs, the duties of his calling and estate and the commands of religion.

12. His great concern should always be to keep his body clean and healthy, his feelings joyful and his conscience pure.—*W. in Good Health.*

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### **"No Crime if People had Healthy Bodies".**

—Surgeon says all Disease comes from the Kitchen.—Sir William Arbuthnot Lane, speaking last night at a dinner with which the New Health Society Summer School at Malvern concluded, said that it was impossible to commit crime or to be bad if people had healthy bodies.

"If you had an unhealthy stomach, God knows what you might do. If

people were ill, they deserved it all. One could only become ill from neglect. All disease came from the kitchen, and as the woman controlled the kitchen, it was important that the woman should be educated in the question of diet.—*Birth Control News.*

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### **Obituary Notice**

Sir Ernest Horlick, Bart., Chairman of the Horlick's Malted Milk Company Ltd., died on October 7th, in Paris, after a brief illness, at the age of 54. He was the eldest son of the late Sir James Horlick, Bart., founder of the business.

Sir Ernest who was a well-known sportsman, was an outstanding shot and an expert with a light rod, as well as a keen golfer and a pioneer motorist, but he will be remembered best as a polo player; he always had a string of extra good ponies which he played throughout the London Season, and for many years he took his Cowley Manor team to the Cowdray Park tournaments and won the principal event on many occasions. During the war he was a captain in the Royal Flying Corps.

His son, Mr. Peter Cunliffe Horlick, who succeeds to the Baronetcy, is in Sydney as Chairman of the newly formed Australian branch of the Horlick's Malted Milk Company. The new Chairman of the Company will be Lt. Col. James Horlick, O. B. E., M.C., who is Sir Ernest's brother. Their cousin, Mr. O. P. Horlick, will continue as Managing Director.