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HEALTH

[Estd. Jan. 1923]

An Illustrated Monthly devoted to Healthful Living

Editors and Proprietors:

U. RAMA RAU and U. KRISHNA RAU, M.B., B.S.

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Edited by Dr. U. Rama Rau & U Krishna Rau M.B.B.S

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THE NEW YEAR

THE Year we have passed has been the most unhappy one for the world and particularly for the already half starved India, as food stuffs have become scarce. While profit makers are stocking them on one side, the Government are,on the other, paying little heed to the strong protests of India's merchant community against export of wheat and rice. Though the Government show their concern over the situation, they practically do nothing to relieve it. Instead of receiving assurances to tackle the problem properly, we received the unpleasant news in the *Hindu* dated 23-12-42 that Mr. Rutherford,adviser to Madras Governor, advised the people of this Province to eat less rice than before. If supplies can be pooled and made available every-where, then the slogan "Consume less Rice" can have some meaning. The health of average man in India is already very low compared with other nations of the world due to poverty and want of sufficient food. If this food supply is further lessened, the vitality will be still lowered and he is easily liable to succumb to epidemic and other diseases. We, therefore, on behalf of the poor and the suffering, appeal to Government to the arrange for supply of food-stuffs as early as possible without delay.

We thank our readers on this occasion of the *New Year* once more for their happy interest in HEALTH all these 20 years,& wish them **A Happy New Year.**

BLOOD BANKS

By Dr. H. M. Kar,
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WHAT is this Blood Bank? This has nothing to do with money but something more vital—saving of human life! For wartime purposes, especially in connection with air-raid civilian casualties, blood transfusion which invites an actual transfer of blood from a donor to a patient is inadequate. We have so far been spared the trials of air raids but this does not mean that we can be permitted to imagine permanent immunity. Intelligence demands that we should utilize this time in building up our defences and lay by, huge stocks of blood. Complacency spells ruin, and so let us not delay! The least required in wartime is that blood should be taken from a large number of donors in advance and stored in a 'bank' to meet emergencies. The stock so collected will be expeditiously distributed to the hospitals as they need.

Now the question is why do we require blood in these emergencies? For maintenance of health and strength, blood of good quality must be distributed to every part of the body, and for adequate circulation, the blood volume must also be adequate. In cases of shock and severe injuries, the circulation is impaired as the blood collects in small capillary recesses of the body where, to all intents and purposes, it is lost to the circulation. So we find that blood is the best material to replenish this lost fluid in these cases. The introduction of blood from another person by venous route is termed as blood transfusion.

It has been found out that all people can be classified as being of 4 groups of blood. One of the groups is universal recipients, meaning thereby that this group can receive blood from anybody without serious consequence to themselves. The other group is called universal donors, who can 'donate' blood to any and every person. The remaining two are ordinary groups, who can neither donate nor receive blood from another without proper testing and 'matching' of blood.

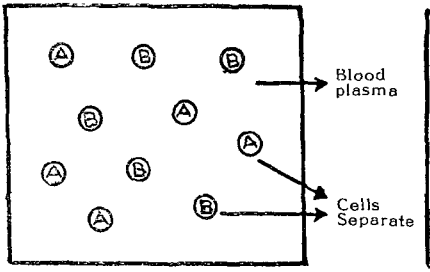

Diagram 1
'Proper matching'.

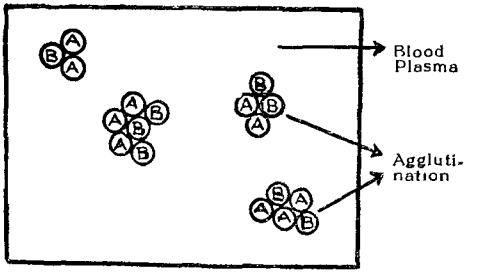

Diagram 2
No matching or Incompatibility

The red blood cells of the donor and the serum of the recipient are mixed, and this mixture is examined under a microscope. For this we have to take some sample of blood say, 2 c.c. from both the donor and the recipient. Taking the donor to be A, and recipient to be B, we will judge the proper matching or otherwise as shown in the above *Diagrams, 1 & 2.*

In the case of proper matching, the cells of A and B remain separate and in the case of improper matching or incompatibility of the blood as it is called, the cells of A and B form groups by adhering to each other called ' agglutination '. If we see by naked eye, in the case of incompatibility, there will be visible dots on the slides showing the reaction of agglutination.

Every healthy individual between 18 to 60 years of age can donate without any harm or discomfort to himself or herself. Donating blood causes little pain and does not interfere with the daily duties of a donor. Well-fed people can donate blood repeatedly and some believe, with advantage to themselves. specially persons having high blood pressure. At each donation of blood, about half a pint is taken. The body makes up this volume in a few hours. Healthy individuals can safely give repeated donations every 6 to 8 weeks. Of course, it will be interesting to note that in foreign countries, the 'universal donors', earn their livelihood by donating blood and some of them have become really rich, as they can charge any amount of money from a needy patient at the time of emergency.

There are a number of difficulties to make this system of ' blood banking' practical. Blood contains solid and liquid constituents and will not keep for more than 10 days even under the best temperature conditions. In India, there are so many places where temperature goes up to 114°F. A laboratory with efficient workers must be set up for proper matching of the blood, when so many lives are at stake, and there are so many complications.

In India blood banks have been set up in every premier city such as Calcutta, Delhi, Bombay etc. All the provincial governments are trying their utmost to set up laboratories with qualified pathologists to look into the problem. A complicated apparatus for clarifying the blood for stocking has been constructed in foreign countries and some of them are already at work in some of the big cities. Let us hope that this problem will be solved in the short time which is at our disposal.

Apoplexy or Stroke

Apoplexy, often called a "stroke," is a condition which is rather common in elderly people, especially when stout and fullblooded. High blood pressure is usually present, the condition being due to the sudden rupture of a blood vessel in the head, thus allowing blood to escape into the brain. In the elderly, this accident may occur at any time and with little or no warning. Often it occurs in the night during sleep. All fat and elderly people should avoid sudden physical exertion, such as running to catch a bus or train, excessive emotion, stooping, and straining.

The signs of apoplexy are those of compression, insensibility, a flushed face, stertorous breathing, full and slow pulse. The temperature is frequently raised and one side of the body will probably be limp, showing that there is paralysis.

The treatment is the same as already indicated for head injuries—cold to the head and warmth to the rest of the body. The head and shoulders should be kept raised. In all cases of unconsciousness, the position of the patient should be regulated by the colour of the face When the face is pale, the head should be low and the feet raised If the face is flushed, the head and shoulders should be raised.—*Good Health.*

How To Step
Into A Healthful And Vigorous Old Age

By
Dr. D. A. GANGOLLI, L.C.P.S. (BOM.),
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N. M Mental Hospital,
Nanpada, Thana.

SOME people feel depressed and despondent when they see signs of senility coming on them; while others take senility for granted and look upon its advent with patience and indifference as though it was expected. Old age need not be a regret especially when it is accompanied by normal health and vigor. With the help of a clear and correct knowledge of human physiology and medical science, old age can not only be deferred, but, when it comes, it can be converted into a useful, healthy and vigorous life.

Senility is a term loosely applied to changes occurring in the human body with advancing age. These changes are not uniform for any given age and are dependent on other factors than age alone. We find the effects of senility vary greatly in individuals. Several times we come across with persons who show symptoms of senility at a period of life comparable to late middle age or early old age, which may be described as premature old age. Ordinarily, the age between fortyfive to sixty years is termed as middle age while that from sixty to eighty or hundred as old age.

The physical changes present in the senile are to a great extent caused by variation in the mineral and fluid constituents of the various tissues. There is loss of elasticity in the soft tissues and increased brittleness in the bones. There is loss of muscular strength due to decreased conductivity of the nerves Mental activity lessens due to changes in the brain cells resulting from alteration of mineral balance. These changes are brought about at any age due to decreasing power of assimilation of essential body requirements from a normal diet and may also be due to disease of a degenerative type of the vital organs of the body.

The endocrine organs form a vital factor in the human system. The greatness and importance of man is mainly due to his intellectual power which again is dependent on hormones produced by the endocrine glands.

The thyroid gland is of great importance to the growth and life of the body. The gland produces an internal secretion which is rich in iodine. This iodine content is of great importance as all the physiological effects of thyroid secretion are in proportion to the amount of iodine contained in it. The thyroid secretion, or **Thyroxine** as it is called, maintains the mental stability, body growth and the faculty of remembrance. If this secretion is reduced in quantity or its iodine content becomes less, then there is deterioration of mental faculties leading to imbecility. The basal metabolism is reduced with slow pulse, sub-normal temperature, loss of appetite and diminished excretion of urea and other waste products. The skin becomes dry, rough and wrinkled. Sexual functions are disturbed and in women amenorrhoea sets in.

The parathyroid bodies are very small in size but their secretion is vitally important in the economy of the body. If the parathyroid secretion

is less, there is emaciation, failure of growth, and glycosuria. There is insomnia and tremors in the limbs. The calcium metabolism of the body is disturbed leading to failure of the teeth and bones to calcify properly.

Ovaries in the female and testes in the male help reproduction of the human species. Milk which is the secretion of mammary glands in the female helps to raise the young ones.

The pituitary gland is responsible for producing a secretion which helps the growth of the body, mental development and growth and development of sex glands.

Besides these, other glands such as **Supra-renal, pancreatic** and **thymus** are also useful as they produce secretions which help the general development and maintenance of bodily and mental faculties.

With the approach of senility, the secretion of hormones becomes gradually diminished, and in the same rate, the bodily and mental activities become decreased. Senility becomes more and more pronounced as the endocrine glands shrink and their secretions reduced If these endocrine glands could be kept functionally active all through life, then symptoms of senility will not make their appearance.

As age advances,there is a tendency to degeneration of the functionally active (parenchyma) tissue and proliferation of the connective tissue.

The cardio-vascular system becomes widely affected, leading to degeneration of the muscular coat of the blood-vessels and loss of elasticity of the vessel walls. Calcium is deposited on the vessel walls leading to narrowing of their calibre and consequent decrease in the volume of blood flowing through them. As a result of the decreased nourishment reaching the vital organs, there is progressive mental and bodily enfeeblement. Blood-pressure rises as the heart has to pump blood through rigid and narrow blood-vessels. Rise of blood-pressure is usually evidenced by sensations of tingling and numbness in the limbs and giddiness. Sometimes, as a result of the increased blood pressure, the narrow and delicate blood vessels in the brain give way leading to paralytic symptoms. If calcium can be prevented from deposition on the vessel-walls and blood vessels remain healthy, then all the organs will receive their due share of proper nourishment and the onset of senility will be delayed. As the arterial system gets old, the individual also begins showing signs of old age.

As the body for the most part depends on the endocrine and cardio-vascular systems for its growth and soundness, it naturally follows that as old age approaches, these two systems get functionally weaker.

A few grey hair form the first signs of senility. About the age of forty, presbyopia comes in necessitating the use of glasses for reading and near work. The teeth become carious and loose and pus comes out of the gums on pressure showing the presence of pyorrhoea. As the teeth fall out one by one, the contour of the face changes and the chin appears prominent. Wrinkles appear on the forehead and just below the eyes. Skin is rough and looses its suppleness, and the body appears toneless. The synovial fluid in the joints acts as a lubricant in between the two contiguous surfaces of the bone ends. But as age advances the fluid dries up and even the simple and ordinary movements such as getting up or sitting down give rise to pain. Nitrogenous products which are ordinarily produced in the body like uric acid are not completely eliminated with the result they are either deposited in the joints or in the bladder forming stones and leading to urinary complications. Sexual power becomes gradually decreased. The prostate becomes enlarged leading to frequency of

micturition especially at night and later on to urinary troubles.

With the decrease in the digestive juice, the appetite becomes impaired. Liver is sluggish and leads to indigestion and constipation. Sleep is disturbed and if the blood pressure is high, there is insomnia. There is forgetfulness and inability to concentrate on any mental problem. Due to the small amount of blood flowing through the blood vessels, there may be slight anaemia and thermal disturbances especially in the limbs as by cold feet or hands. Persons approaching senility are far more depressed than ordinarily by slight illness and a repetition of these will gradually wear down their resistance.

The onset of senility at an early age should be partly preventable by careful attention to the person's physical condition by laying down a programme of life to combat this senile degeneration.

The person with the beginning senile symptoms should be free from mental worry and strain. He should pursue some pleasurable recreation which will keep him out of doors for a part of the day. Restlessness and excitability should be avoided as far as possible as they hasten the old age by bringing about greater disturbances in the endocrine and cardio-vascular systems. He should keep his mind occupied by cultivating some good habits such as reading and gardening. An open air walk early in the morning is always beneficial. Massaging the body with some oil such as cocoanut oil just before the morning bath is very helpful as it increases circulation, secretion of the endocrine glands and also keeps the skin healthy, supple and smooth. Though a cold bath is good, a warm bath is however preferable.Tea should be avoided, and smoking restricted. The diet must be easily assimilable and nourishing, not too heavy on the protein side. Milk and eggs form perfect food and are completely digested. Green vegetables and fruits should be added to the menu. Drinking of water during meals should be discouraged A glass of water immediately on rising helps evacuation of the bowels. He should pursue his bodily and mental activities in such a way that there is good margin for complete rest and relaxation.

How to Treat Fainting Cases

Fainting is probably the commonest of all conditions met with in first-aid work. It is due to temporary stoppage of the heart's action which may be brought about by a variety of causes, such as hæmorrhage, shock, emotion, weakness, etc. Here, the face is pale and clammy, the pulse weak or absent, respiration quick and irregular.

Treatment is to keep the patient in the horizontal position, or slightly raise the legs to send the blood back to the brain. Keep the patient warm and apply external stimulation such as friction, smelling salts, warmth over the region of the heart and stomach. When conciousness returns, hot stimulating drinks may be given. No attempt must ever be made to give the patient either food or liquid while he is unconscious as this may get into the wind-pipe and produce serious results. When fainting is due to hæmorrhage, the wound must be watched as the patient recovers, as bleeding may start when the pulse becomes normal.

Sunstroke, or heatstroke, is not very common in this country. The effects produced are congestion of the brain and spinal cord. The signs and symptoms are a flushed face, quick pulse, difficult breathing with faintness, giddiness, and thirst. There is usually a high temperature and the skin is hot and dry. The treatment is to apply cold or the ice bag to the head and also to the spine and to sponge the body with cold water continuously. Cold water may be given freely and later a tablespoonful of Epsom's salts. The patient must be kept cool and out of the sun.—*Good Health.*

How Much Sleep Do You Need?

By

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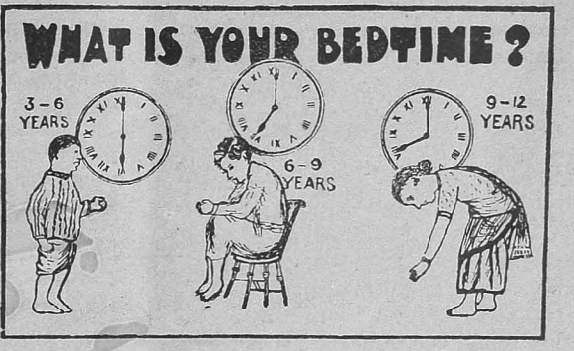
To most of us bed-room is luxurious termination of a busy day. It is, as the poet states it, "that heavens upon earth to the weary head." But we take sleep for granted unless, of course, unconsciousness refuses us its peace and solace. But to some busy folk sleep is a detriment to accomplishment and a nuisance, interfering with the chores and pleasures of active living. I made personal enquiries from different people of both sexes, prominent in literary, educational, scientific, political, commercial, and other pursuits, in which series of questions were asked on their sleep habit. The outstanding question was: 'How many hours do you find it necessary to devote to sleep in order to enjoy the maximum physical and mental efficiency'? The answers received constituted practical contributions to this fascinating subject.

The majority of these were emphatic in their views that life without sufficient sleep would be intolerable and impossible. Sleeping is not waste of time. If we are to make the most of our active working hours, we must be well rested. We must sleep deeply and enough. We must acquire the habit of becoming periodically unconscious as successfully as we hope to accomplish our daily task. Successful diurnal consciousness depends upon successful nocturnal unconsciousness.

But does every one need the same amount of sleep? The type of answers, received to this question addressed to the aforementioned persons on their personal requirements of sleep, gave scope for the following tabulation :—

5	hours	...	2.5%
6	,,	...	6.0%
7	,,	...	15.0%
8	,,	...	65.5%
9	,,	...	9.0%
10	,,	...	2.9%



In correct appraisal of your individual sleep requirements lies the real keynote of your success in active life.

Despite the assertion of some persons that most people sleep too much and that we can reduce the average person's sleep to four or five hours, over 65% of busy men and women require 8 hours of sleep, some require nine and a few ten hours. Sir Edmand Coke had portioned out his days as follows :—

"Six hours in sleep,
In laws grave study six
Four spent in prayer,
The rest on nature fix."

Sir William adopted a distribution much more earnestly to be commented :—

"Seven hours to law,
To soothing slumber seven,
Ten to the world allot,
And all to Heaven."

The elasticity of rules —Generally speaking, the amount of sleep required depends upon the individual's, perhaps, heredity and personal peculiarities and idiosyncrasies. Throughout the ages, and in many lands, attempts have been made to formulate rules on the required length of sleep for adults. Here are a few :—Eight hours for sleep, eight hours for work, and eight hours for play. *Seven hours sleep is Christian, eight hours sleep is human, nine hours sleep is beastly.* " Retire with the birds and wake up with them." Sleep until you feel you have had enough.

Since this is a matter of individualization, it would appear that the last mentioned rule is safe and sane. But here I fear that a percentage of us would not properly define the term "enough", especially the lazy folk. The quantity of sleep needed for a healthy adult is usually in direct proportion to the amount of physical energy spent in daily duties. An excess of brain activity and deficiency of physical exercise may mean less sleep and sometimes insomnia. Old age being the reflective stage of life requires less sleep. It is this tendency to reflection and reminiscence, the knowledge of life's brevity and the desire to live it all out, that is responsible for the deminished sleep, in the average old man and woman. However, in the event of such conditions as arteriosclerosis or auto-intoxication, the cerebral function may become abnormal, with great desire for sleep. But all things being equal, old folk in fair health sleep on an average of an hour or two less than they slept while they were younger.

Statement and personal experiences of some persons familiar to me. —Evidently, intrigued by the enigma of this phenomenon, a number of friends made a special statement and comments on their personal experiences of sleep. The Head Master of a local school here, who is an orator, well up in literature, and an educationist, states : "Since 1907, my maximum sleep has never been more than 1½ hours. I have often done physical and mental work with much less sleep". A well-known doctor friend of mine remarks, "I rarely enjoy profound sleep, more than two or three hours continually. If I can piece together a total of eight or nine hours broken not more than three times by period of wakefulness, I get up the next day feeling like a million dollars."

This plaint comes from a widely known philosopher and lecturer : "I find as many as nine hours of sleep desirable for me. Or rather I should call it nine hours lying in bed, because I have great difficulty in falling asleep. I have found no ways of overcoming it except those which would be more a nuisance than the evil itself."

Another friend writes : "My natural time for sleep is seven or eight hours, going to bed at 12 or 2 O'clock and being awakened at 8 to 9. After lunch, I take a nap for 15 minutes to 1 hour. Thus, in 24 hours, my sleep is 7¼ to nine hours. My opinion is that the average man and woman should have eight hours sleep ".

My own personal experience for the last 20 years is that if "I have less than 8 hours sleep for more than three nights in succession, it makes me long time the following day to get my brain in order. That is, I am perfectly able to do routine work, but any creative work is very difficult. The matter of sleep works in a kind of vicious circle. I cannot go to bed early if my work is not going well as I do much of my thinking late in the evening.

It is therefore obvious that while the sleep habit in each of us may

vary from those of every one else, the general trend in cross section seems to be an imperative need of an average of 8 hours of sleep out of the 24 hours.

Sleepless retiring.—We must discriminate sharply between the time spent in bed room and the time spent in sleeping. Sleeping 8 hours every night in the bed room may mean sleeping 8 hours, or seven or six or less. But it is sleep alone that gives us the maximal benefit of tissue repair. A person retiring to the bed room for 8 hours but who spends an hour or two of this period in reading or other chores may wonder why he rises tired. Physical rest and unconscious sleep are not synonymous. Rest in bed is partial relaxation which means little or no repair for the brain. To be rested, one who must spend an hour or two in ablution, cosmetic attention and reading in bed, should add to the time so spent the additional seven to nine hours of required unconsciousness of sleep as the total period to be spent in the bedroom.

Soundness of sleep.—The depth or quantity of sleep is measured by the presence or absence of dreams, the ease of waking by stimulation by light, noise, or touch on the skin, and the sense of restfulness on arising. *A period of five hours sound sleep—a sleep in which you are "dead to the world"—is far more restful, than a ten hours' span of semi-consciousness and tossing in bed, with an occasional nightmare.* Absolute rest pre-supposes so-called dreamless slumber, and *the result obtained is a desire to arise and be up and doing,* a feeling that the capacity for work has never been greater.

People sleeping out of doors or in amply ventilated rooms as a rule sleep deeply, hence, because of the quality, require less duration of sleep.

Reducing your sleep.—While occasionally it is heredity, habit is the major factor in the length of sleep required. Some learn to sleep ten hours and appear to need it every night; most want eight, others learn to require but seven, or perhaps six hours or less. In the majority of young adults, all that is required to change a nine hours' sleep habit to one of seven is a strong will. It is through the re-education of the bodily demands that the change is effected. This may be accomplished within a few weeks, and the individual is found in possession of an additional year of waking or active life out of every 12 years of existence. What wonders could be accomplished during that time! Pet hobbies and cherished ambitions may be pursued, and the golden apple of attainment won by the opportunity thus afforded.

However, not everyone can make such a change. Also, extremes must be avoided. The determination of nine hour-per-night individual to become four hour sleeper may result in injury to the nervous system, as Nature imposes on each of us a minimum of sleep period, below which it is dangerous to aspire.

That some eminent persons have been able to go through life with very little sleep is no precedent for the multitude. There have been some robust men and women of genius whom men and women of weaker clay must not try to imitate.

Deliberate reduction in sleep allowance is useful or harmful, depending upon the individual's irreducible minimum. We must guard against any tendency to harm the procedure. There are many who, through frailty of constitution or because of invalidism, must remain in bed longer than the average person. But speaking generally, it is best to sleep not the most, but the least number of hours consistent with normal health and efficiency.

The afternoon nap.—The nap as a pick-me-up has its analogy in the morsel of food for the same purpose—

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a momentary stimulant. Many stories may be related which deal with vicarious means of snatching a nap. Dr. Stegman points out the many and devious ways some people snatch a "snooze" during their daily chores. For example, a New York captain of industry found himself much refreshed by a brief sleep after lunch but discomfited if he prolonged it. So he "Snoozed" with a bunch of keys in his hand. Gradually, his grasp would relax. When the keys fell, he would be awakened. With some people it becomes a habit of taking a nap soon after lunch, and if they dont do that, it disturbs the rest of their day's activities.

Perhaps, what would be well for all is to break the continuity of the day's work by a short "cat nap." In some countries, an after-lunch nap as mentioned above is the habit, business being discontinued between 12 and 2 O'clock.

However, unless it be to compensate for previous deminished sleep, or in illness or convalescence, or excessive fatigue, an afternoon nap taken by those of robust body and mind for the mere sake of sleeping may lead to habitual indolence. Unless badly needed, the habit of sleeping twice a day indicates a monotony of existence, a deficiency of life's interests. Frequent afternoon naps lead to the craving for after-noon sleeping—a habit the strength of which is known to those who have experienced it. Also afternoon napping may lead to inability to sleep at night and to stubborn insomnia from disturbance of sleep rhythm. Generally speaking, the bed room during daylight should be regarded as the enemy to endeavour. Human capacity and latent ability may be smothered by habitual late rising and afternoon napping. The best safeguard against such habits is retiring to bed at a reasonable hour, plenty of fresh air in the bed room at night, as much out - door life and exercise as possible during the day, and a sufficiency of interests to keep the mind busy.

Unless prescribed by the physician for illness, too much sleep is unnatural and extremely harmful. In the average person normal health is not enhanced by a stay in bed of twelve hours or more instead of eight or nine. While the stout man is commonly the offender, there are many exceptions. In some persons who are undernourished, weight is further reduced to the danger point by the diminution of food intake through excessive sleep. Anaemia, incapacity for work, poor spirits, frequent attacks of the "blues", lack of lusture in the eyes, and nervous weakness follow. This habit is quite as exacting as are other bad habits to which human flesh is heir. *More sleep may create the craving for still more sleep, until even during waking hours there is a feeling of chronic langour.* Temperance in sleeping is quite as important as is temperance in eating, working, exercise and all other things in life. However, temperance in sleep is predicable upon an individual basis. What is one man's excess may be another's deficiency, hence we must study ourselves to determine what amount of sleep best suits our needs and conforms with our sense of well being and our maximum capacity for work and play.

Sleeping well is an art and a blessing. Some practise it flawlessly; all power to those lucky souls! Others, and the number is legion, are not so fortunate. These need guidance in the nocturnal charging of their batteries of energy.

The attainment of a healthy sleep habit is vital to a happy, successful life. The advantages of better adjustment to environment with improved social existence emanating from well rested minds in better functioning bodies may thus become a potent factor in the recovery to normal of an unhappy, maladjusted world.

Aluminium Cooking Vessels

By

A. S. SOMASUNDARAM,

Madras.

THE question of aluminium compound poisoning by the use of aluminium cooking utensils has been long attracting attention of all civilised nations. The Federal Governments of the United States of America once appointed a commission to go into the whole question and report upon aluminium poisoning. The report says that the use of aluminium vessels for cooking purposes or keeping edibles in them causes certain diseases of the digestive system which sometimes develop into cancer. Consequently, the Federal Government has published a book on aluminium poisoning which is being distributed amongst the people practically without any charge or price.

The British Medical Journal of October, 11, 1930, says :—

> "A patient complained to his doctor of an alteration in taste of food cooked in aluminium vessels. So, his doctor enquired from the medical fraternity through the Journal whether there was any authoritative information available, on the deleterious effects resulting from the use of aluminium as cooking utensils"

"L. S." wrote in reply to the above query, in *The British Medical Journal* of November 1st:—

> "That Sodium Bicarbonate has a bad influence on aluminium is correct. It should, however, be kept in mind that aluminium cooking utensils are invariably cleaned with a soda or a material containing soda, such as soap, special cleaning powders, etc., and that is at least as bad as the shocking habit of adding Sodium Bicarbonate in the process of cooking in aluminium utensils.

Dr. J. H. Clarke, M.D. London, Editor, *Homoeopathic World*, writes :—

> "A case has come to our notice lately of a man who suffered from distressing internal pains and was led to suspect an aluminium percolator, which he used in preparing his coffee. He discarded the percolator and promptly lost his pains. It would, therefore, seem the wisest plan to abandon aluminium and stick to the old iron and copper vessels.

When the writer was in Gujrat Jail, the authorities supplied us aluminium utensils for our daily use. I often had heard fellow-prisoners complaining of digestive troubles and bad, sour taste of food. We asked the authorities to give us utensils of iron or copper or some other metal. The Superintendent told us that the Government had replaced the old iron utensils by aluminium cooking vessels. The health of prisoners suffers in jail on account of many other reasons and this additional aluminium business shall in due course create new diseases and ailments. In the light of the above facts, it is quite necessary that the people should discard the aluminium vessels altogether. America has nearly discarded them. People in England also are finding out the danger of using such vessels. In India, on account of warm climate, low nourishment and bad hygienic conditions, the people have got the poorest health amongst the nations of the world. Therefore, I appeal to the educated people to kindly enlighten the general public on this point and persuade them to discard these vessels. Copper vessels are a great boon to the people of warm climates where cholera, diarrhoea and dysentery are always prevalent.

Reference:—"Natural Health".

Diet and Disease

By Dr V. K. Narayana Menon,
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Med. Inspector of Schools,
Ernakulam, Cochin.

A SOUND mind in a sound body is one of Nature's choicest blessings. A diseased body often begets a diseased mind, and *vice versa*. Diseases seldom or never attack a healthy body. And one of the main factors which keeps the body fit is good food. Good food in scientific parlance is the "Balanced Diet". It is a food which contains the essential food factors in adequate amount and in proper proportion. These factors are, as is now fairly well known, proteins or nitrogen containing foods, carbohydrates, fats, vitamins, mineral salts and water.

As opposed to this, is the faulty food or the "ill-balanced diet". Food is faulty when it is insufficient in quantity and also when it is unsuitable in quality. The quantity is estimated in terms of the energy in the form of calories of heat produced on combustion of the various constituents of the food. The quality is judged by the presence or absence of the various food factors in correct proportion.

Faulty diet is directly or indirectly responsible for the causation of many diseases.

It is a well known fact that long continued use of an insufficient diet lowers the body vitality and renders it a prey to infectious diseases, the chief of which is probably tuberculosis—a disease which seldom or never attacks a healthy body and which, if it gains a foot-hold in the body, can only be cured by a proper attention to diet. In the treatment of tuberculosis, both on the preventive and curative aspects, an adequate well-balanced diet plays an all-important role.

Ill-balanced diet with excess of any one food factor predisposes the body to certain diseases. Excess intake of carbohydrates is one of the causes of diabetes in the same manner probably as excess of proteid matter in the diet is responsible for the production of gout.

As a result of experience gained during the last Great War and largely as an outcome of experiments carried out on animals, certain very interesting facts have come to light—facts which have virtually revolutionised our ideas on the causation and cure of diseases and which have opened up new channels for research in the field of dietetics. These facts relate to certain accessory food factors in the diet, which have an important bearing on body metabolism and vitality.

These accessory food factors have been provisionally named vitamins—vitamins A, B, C, D, E and so on.

The existence of many kinds of vitamins has been proved. A few vitamins have more or less been isolated and many probably remain undiscovered. Prolonged ingestion of food lacking in any of these vitamins produces certain ailments which are now called "deficiency diseases".

Now, it is both instructive and interesting to study the effect on the the body if nothing else but rice is taken. Rice is the staple food of South India and there are several who live practically on this cereal alone mainly due to indigence but partly on account of ignorance of food values. Now, it must be remembered that the nutritional quality of rice depends to some extent on the way it is prepared for use. In the perfect condition, rice contains an excess of starch, some protein, little fat, small quantities of iron and phosphorus, very little calcium, some

vitamin B and a trace of vitamin A. It contains no vitamin C. Hand-pounded rice is of this quality. Raw milled rice is poorer in quality, in that it lacks vitamin B, or what is also called the antineuritic vitamin. It is now, common experience that if raw milled rice is consumed for a long time, rheumatic pains appear in the limbs and in some cases, the disease known as beri-beri develops. Substitute hand-pounded rice or take some vitamin B preparation and the symptoms disappear automatically. Absence in the food of the vitamins A and D brings about, specially in growing children, diseases such as rickets and xerophthalmia. The former is a disease affecting bodily growth and the latter is one which starts with a dryness of the eye and night-blindness and ends, if untreated, in total loss of eyesight. Xerophthalmia is the precursor of a more serious affection called keratomalacia. Rice is deficient in vitamins A and D and therefore rice eaters will do well to take milk or eggs. Cod-liver-oil, Shark-liver-oil and fresh goat's milk contain these vitamins in fairly large quantities and are very useful in curing rickets and night-blindness. The vegetable oils with the exception of Red-palm-oil do not contain these vitamins. It is useful to remember that a course of Cod-liver-oil cures a person of recurrent attacks of cold, when other measures have failed. This can only be explained by the fact that the vitamins raise the vitality of the body, thus enabling it to conquer the disease. Cold is caused through invasion of our nose and throat by certain germs or bacteriæ. None of the disease producing germs can flourish in a healthy body. Although food contaminated by the germs of dysentery, cholera, or typhoid be taken, they fail to cause these diseases if the lining of the stomach and intestines called the mucus membrane is healthy. Healthy body is certainly nature's best line of defence against diseases in general.

(To be continued).

Constipation

By B. S. PANT,
Chief of Aundh

I. **What is Constipation.**—"Constipation", says Bernarr Macfadden, "is a condition of the bowels in which the evacuations from the bowels are of insufficient frequency and amount, more or less fæcal matter being retained in the intestines."

Modern civilization with all its conquest of Nature has miserably failed to confer permanent and lasting health on civilized man.

On the contrary, the incidence of disease is appallingly great.

If one is called upon to express in one word the many and multifarious diseases from which the modern man is suffering, that one word will be *Constipation.*

"Constipation", says Dr. George Parrish, a well-known American physician and Health Director. "is the bane of existence—the enemy of the human race".

From *Constipation* start more than 90 per cent of ills, in as much as toxins or poisons from clogging food-wastes flood the system and attack you in your *weakest* point.

Let us explain in the words of Dr. A. B. Oslen, M.D., how *Constipation* affects the whole system: "Normally, in a state of health, the gate that separates the small intestine or diner, as we might call it, from the colon or garbage can, works in one direction only, that is, to let the waste substance into the large bowel. But chronic constipation, the bane of so

many millions in this country, weakens the gate, and after a time it loses its normal tone or strength and swings both ways. This allows the putrefying wastes again to enter the small bowel, thus directly interfering with both the digestion and absorption of food, and also poisoning the blood stream and thereby lowering vitality and opening the door to infection, leading possibly to colitis, appendicitis, inflammation of the gall-bladder," menstrual and pelvic troubles, convulsions, anæmia, skin-diseases, premature senility, paralysis, cancer, etc.

Says Sir Arbuthnot Lane, Bart., England's greatest doctor, "Poisons set up by *Constipation* give conditions favourable to cancer".

But the inroads of constipation are so insidious that the sufferer often ignores them finding nothing very much out of the ordinary.

II. **What causes constipation.**—"There are a thousand and one causes of constipation practically all of them being preventable or correctable". But all this apparent multiplicity of causes can be traced to diet or overeating, to bad habits and to lack of physical exercise.

"Few people ever enjoy completely perfect health. You realize it in your own case. How often you feel below par: Not sick, yet not certainly 100 % fit. Science now tells us why this is so. Wrong diet or overfeeding and lack of exercise is the cause", says a famous European doctor.

III. **How to prevent or cure constipation?**—By drugs? The tendency of people suffering from constipation is to turn to drugs for relief. They ask the doctor, "What shall I *take?*" He invariably prescribes some cathartic or laxative. But all laxative drugs perpetuate the ailment instead of removing it. It is a sheer folly to believe that drugs cure diseases.

"No laxative medicine", observes Dr. H. Clements, N. D., D. O., "can cure this trouble (Constipation). It is in itself a contributing factor to the building of the worst form of constipation."

"It cannot be emphasized too often," remarks the Vienna Nature Cure Association, "that poisonous medicaments are not curative. Unfortunately, a large number of people are obsessed with the idea that taking medicine will make them well more quickly than any other method. That is wrong, indisputably wrong."

A balanced diet and proper bodily exercise will prevent and cure constipation. We shall, however, confine ourselves to exercise only in this article.

As more unhappiness of the civilized folk is due to constipation than to any other ailment, it follows that any form of exercise that will prevent and cure constipation will claim more votes than its rival.

Considered in this light, the *Surya Namaskar* exercise is pre-[illegible] calculated to give tho[illegible] to the abdominal [illegible] enti[illegible] stimulate th[illegible] bowels, o[illegible] thorough [illegible] matter of [illegible]

The [illegible] [illegible] exe[illegible] of se[illegible] one o[illegible] of the walls [illegible]

[illegible] look at [illegible] *Namaskars* will show t[illegible] positions are specially designed to give to the abdominal walls those stretching and contracting movements, which best secure the elimination from the colon. And we want to emphasize this particular feature of *Surya Namaskars*. In no other form of exercise do we find these

stretching and compressing movements in a systematic manner.

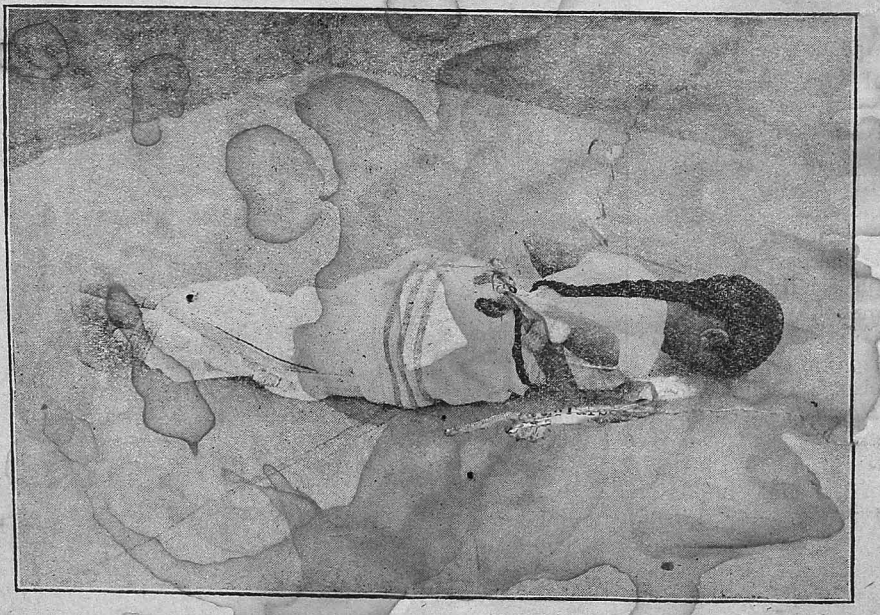
In addition to the vigorous abdominal and intestinal movements required to be made in doing *Surya Namaskars*, one has also to say loudly the Bija Mantras, *hraum*, *hrim* etc. Of these, the Bija Mantra (*hraum*) acts on the end portion of the colon, rectum and anus. This is borne out by the fact that the bowels, if reluctant in their function before bathing early in the morning, will open freely after about half an hour or so on finishing this splendid exercise.

You will, perhaps, ask—"Why should [illegible] the *Surya* [illegible] course, [illegible] course normalizes the bowel functions but builds you [illegible] over. No daily employment can do this; all employments can at best develop and strengthen some parts of your body at the *sacrifice of others.*

IV. **Personal experience.**—Constipation or the reduced activity of the bowels seemed in our case to be a family complaint passed down from father to son. This ailment ran throughout our family. Our parents, brothers, and sisters suffered from constipation and consequent piles. But this hereditory tendency is most likely nothing but a continuation, from

generation to generation, of the same dietetic and hygienic errors".

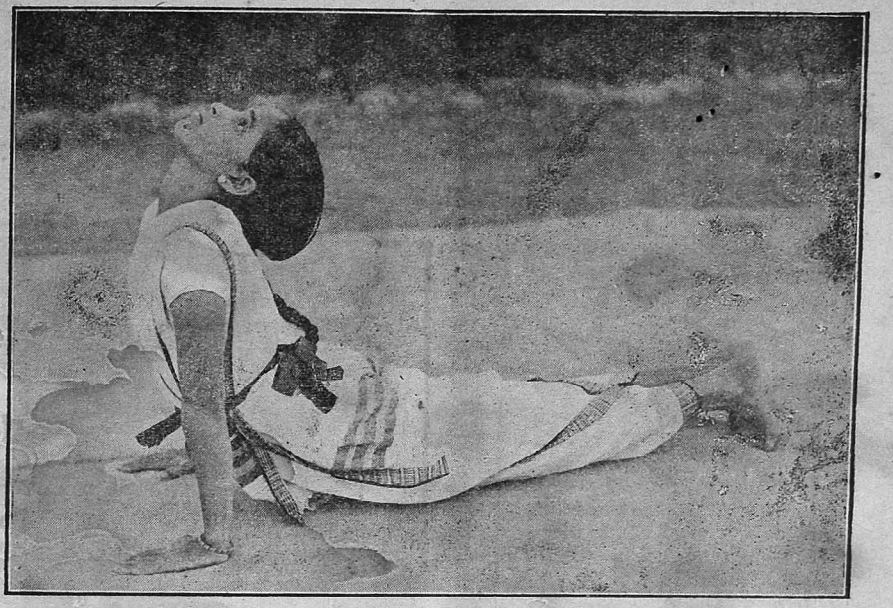
For though, before we took to *Surya Namaskar* course, some twenty years



ago, we did a lot of other exercises systematically and continuously for several years, we suffered from constipation and naturally attributedit to heredity. This constipation produced piles which had to be removed by operation in about 1909. The removal of the piles gave us great relief, but constipation was still there. But

to prove beyond all doubt that had we taken to *Surya Namaskars* from our boyhood, there would have been no constipation and no piles.

V. **Conclusion.**— We, therefore, affirm that of all the forms of physical exercise, the *Surya Namaskars* stand first and foremost in preventing and curing *Constipation* which is



since we commenced doing systematic *Surya Namaskars* with *Mantras* in 1909, constipation—the arch enemy—gradually diminished, until it totally died away within a couple of years. Today, we are quite free from it, though it is a matter of general experience that constipation has a firmer grip in advanced age. This fact goes rightly regarded as the bane of civilized man, since it is the primary and prolific source of all diseases that man is subject to.

Then, bestir yourself, good reader! Begin *Surya Namaskars* today and attain Health, Efficiency and Longevity, which God intends for you.

Constipation: Report of its Effects on Thirty-Two Children

Joseph Schwartzan and [illegible] stock, Arch. Pediat. **58**:251 (Apr). '41.

An investigation of the effects of constipation on 32 normal children was undertaken. "The conclusion reached was that the big bugaboo, constipation, was and is still being superfluously over-emphasized. It was further felt that constipation was merely a signal of some other factor which was altering the body physiology, and that it probably was this factor which was the cause of the abnormalities, if any, rather than the constipation. Therefore, constipation as such should not necessarily be considered a cause for alarm and hasty action. However, if accompanied by abnormalities, it should be considered the effect rather than the cause of the condition, and as such is a safety alarm signal which awakens the dormant attention to further and careful investigation for the etiological factors involved."—ORR, Buffalo.—*A. J. D. C.*

A CASE OF SNAKE-BITE

By Dr. B. BHATTACHARJEE,
A. M. O.,
Borsapori Tea Estate Hospital,
P. O. Numaligarh, Assam.

Agarsai, a tea garden cooly, was bitten by one suspected young cobra on his left heel, just over the tendo-achillis on 21-4-37 at about 10 A.M., while he was hoeing in the garden about a quarter mile away from the Hospital. He put a ligature on the thigh and came to the Hospital immediately within 10-15 minutes after the bite. The patient on arrival was found to be well without showing any symptoms of snake poisoning.

Treatment.—Two ligatures were put to the leg and thigh. The site of the bite was incised and allowed to be freely bled. Pot. Permanganate crystals were packed into the wound and 10 c.c. of the solution 1 in 20 were injected around the tendo-achillis with several punctures. Antivenom serum was out of stock and therefore not given.

In the meantime, the patient was feeling giddiness with hazy vision and feeling of numbness and prostration. His temperature was subnormal, pulse slow and weak, 56 p.m.,-respiration shallow and laboured—36 p.m. Some chickens were then promptly collected. The anus of one of these was snipped with a sharp curved scissor and immediately applied over the wound. The chicken died instantaneously. It was replaced by a second one which also died within a few seconds. Altogether ten chickens were applied in this way, one after another. Of these, nine died but the tenth one survived, although applied to the wound for a long time and was found quite normal. This, evidently proved that the snake was obviously a poisonous one, all the poison being sucked in and absorbed by the nine chickens that died. It is interesting to note, that the chickens gradually took more and more prolonged time before each of them died, leaving the last one completely unaffected. Certainly, owing to gradual suction and absorption of the poison, the quantity of venom was also proportionately diminished, hence, as a

Intimate knowledge of the principles of First Aid, is a great desideratum especially among the laity in the hot and snake-infested tropics.

matter of course, each of them gradually took more prolonged time before it was dead.

Simultaneously with the absorption of all the poison, the patient felt quite alright and practically normal. His pulse improved with good volume and tension and was 72 p.m., respiration 20 p. m., recovery was complete within two hours.

Comments and opinion of the medical profession, as to the efficacy of this treatment, as also any scientific explanation and notes of cases are invited.

My grateful thanks to my Chief Medical Officer Dr. W. J. Moloney who took keen interest for this simple but wonderful method of treatment and very kindly permitted me to publish this note.

Reference :

1. The Antiseptic, vol. xxix, No. 6.

PLANNED MEDICINE

BY A B. AND M. M. H.

In this second world war, the limelight has for some time been focussed on the U. S. S. R., and her resistance against the efficient and industrialized German war machine has been greeted with acclamation. In these acclamations, one detects a frequent note of surprise, a surprise which possibly indicates a lack of acquaintance with the progress made during the last two decades in the U. S. S. R. in all spheres of planned activities. That the planning of medicine is desirable is indicated by the articles, meetings, and discussion devoted to this very subject in the United Kingdom. It seems, therefore, a fitting moment to show how a nation who believes in planning has achieved the successful and nation-wide application of these plans as far as the medical world is concerned.

Tsarist Russia had 13,000 qualified doctors, that is to say, less than 1 per 7,000 of population, while in rural districts the proportion was actually 1 per 21,000. The Soviet Government has taken as a standard 1 doctor for each 1,000 persons, and has rapidly progressed towards this goal —in 1935 the proportion of 1 to 2,000 was reached. That the advance is due to the scheme for attracting young men and women to this branch of public service, instead of placing barriers in their way, as is not infrequently the case in the United Kingdom, is no secret. The applicants appeal to the Soviet of their community, and if this council thinks them fit persons (*i.e.* mentally and culturally amongst the most able of people of their years !!) they are recommended to a medical school. During their training they are given a monetary grant to cover cost of living, the cost being borne mostly by the Soviet which recommended the applicant. The course lasts five years and is rather more practical than in this country, starting with service as dresser or clerk in hospital. An interesting feature of the course is found in the collective reports made by groups of students on the health conditions and medical administration in a particular area, with a view to giving them practical experience of the co-operative work they will carry out later. Outside observers agree that the finished products, while displaying a fair level of skill and ability, have a lower percentage of men of outstanding brilliance than in pre-revolutionary Russia and other countries to-day. This may be due, however, not to faults in the scheme itself, but to as yet undeveloped aspects of that scheme.

When qualified, the doctor is a civil servant, receiving a salary from the State and having an annual holiday

with pay; those in rural districts have six months' study leave every three years. In the cities, many doctors hold two appointments and draw two salaries; others give their leisure to research; others (a very small proportion) to private practice.

The hospital organisation in the cities revolves round the main idea of Socialist medicine—that the person must be *kept* healthy in order that he may give unrestrictedly his contributions to the welfare of the State which is synonymous with his own welfare and to his own enjoyment of life. The emphasis lies largely on the activities of the prophylactorium. In large cities such as Moscow and Leningrad, "the population is divided for medical purposes into units of from 40,000 to 80,000 people; the health activities of each unit are centred round a prophylactorium. Each unit is again divided into groups of 2,000 or 3,000 persons, with two or three doctors, and one or more nurses or health visitors in medical charge of each group. In addition to these clinicians, there are sanitary officers who deal with factory hygiene as well as sanitation. The clinical staff see patients in their homes if necessary, but patients who are well enough come to the prophylactorium." There are periodical inspections by the clinical staff at the prophylactorium to see that there has been no loss of health on the part of an individual found healthy at a previous inspection. The city is equipped with small clinics, equivalent to a G.P's consulting room, where medicines are prescribed and handed out. The prophylactorium handles "hospital cases," and the specialists in residence here are "on call," as are the clinicians in charge of the groups of 2,000 to 4,000 persons. Industrial groups are arranged within the factories, ranging from one or two first-aid posts and a general hospital in such factories as the immense Stalingrad tractor works. First-aid posts and hospitals have access to the help of the prophylactorium. The clinicians have the power to recommend and to see that patients are given holidays with pay, when necessary, to be spent at any of the numerous health resorts financed and administered by the medical services. Hail the day when in England one will be sent to spend the Government's time and money at Bournemouth, Bridlington or Blackpool!

The influence of the medical services extends even to the enforced provision of restaurants near large municipal concerns, or in the factories where, in addition to ordinary meals, special diets necessary for those undergoing treatment may be had on demand—a doctor is not allotted the futile task of prescribing the unobtainable. Every wage-earner is insured against sickness in the fullest sense. Two months' work at one establishment entitles him, on falling ill or being placed in quarantine, to his full wages, free medicine or hospital care, or the services of such specialists as dentists, oculists and surgeons, free drugs, medicine and appliances. Cash is paid to him from the first day of his illness—there is no waiting. For the benefit of those who foresee complications arising out of so benevolent a scheme, it might be pointed out that as a rule the Soviet worker sees no advantage in shamming sick or malingering because increased effort of workers has the direct effect of bettering their own living conditions.

In rural districts (remember the distances to be travelled in this vast country) there are attached to the health centres "flying squads" of doctors, specialists and nurses, equipped to travel by plane or motor ambulance. They are "on call" to outlying districts. Another "flying squad," much more highly organized, travels from place to place coping with epidemics which the local clinicians have been unable to handle.

Women receive free medical treatment in pregnancy and childbirth.

Wage earners have twelve or sixteen weeks leave of absence with full-time wages, and are set free from work, when they return, at intervals of three-and-a-half hours for half-an-hour so that the infant may be breast-fed. The practice of abortion is candidly recognized and sympathetically controlled, with the result that U.S.S.R. is the country in which abortion is least practised.

In English history we find that factory reforms existed on paper many years before they were put into practice; only when they were made possible economically and when a committee controlled their carrying out did they become effective. Thus, rather than enumerate further the many beneficial aspects of Soviet medicine as it exists, we would conclude by showing how the plan was made feasible. Its feasibility hangs on two main factors; the first is the existence of a central control—a simple administration for a clearly defined end, where bureaucracy does not confuse the issue. Simple, as the best plans usually are—where the voices of charitable organizations, private enterprise and government control are all crying aloud in the street, and very often crying in conflict, there can reign nothing but confusion. The second is the important factor known as economic security, without which foundation the best of health organizations might well topple and collapse.

"The goal of (Soviet) medicine," said Dr. Semashko, "is not only healing but prevention of ill-health; it is to create the positive health of the nation." On this we are surely all agreed, and following on it we see the need for planning. Above is a scheme in outline: are we not justified in saying that the recognition of the need for planning is but the preliminary to the application of such a scheme in the United Kingdom?—*U. D. S. M. Gazette.*

Topics from Medical and Health Periodicals

Soap Opus

SO many different kinds of soaps.
Are offered for our fondest hopes
Of having skin you love to touch,
Perhaps they promise us too much.

Soap in liquid, soap in cakes,
Soap in powders, chips or flakes.
Soaps of numerous different makes,
Have they really what it takes?

Superfatted, tar or pine,
Mild, and not too alkaline,
Milled or processed, coarse or fine,
Purity more than ninety-nine!

Some soaps float while others, sink,
Some are yellow, white or pink,
Some are perfumed, some just—
Well, I don't know what to think.

I may have dishpan hands, who knows
Crepy neck or large-pored nose,
Or other things described by those
Soap-operas heard on radios

For my hands, my back, my chin,
What soap's best for latherin'?
Why can't I just forget the din
And choose my soap to suit my skin?

—*W.W.B., in Jnl. A.M.A.—The General Practitioner.*

Daily Sugar Allowance should be Two Tablespoonfuls

TWO tablespoonfuls daily is recommended as the maximum allowance of sugar by *Hygeia, The Health Magazine.*

In answer to an inquiry as to the effect of sugar in the diet, *Hygeia* says: "One pound of sugar provides 1,800 calories and nothing else. It contributes none of the nutritionally important protein foods as whole grains, fruits and vegetables.

"The eating of white sugar, either cane or beet, in large amounts, may place a burden on the pancreas. The pancreas secretes a substance which is necessary to enable the body to use sugar as a fuel food. If the pancreas is impaired or injured, its ability to secrete insulin is also impaired and as a result the body loses its ability to burn sugar.

"There is also evidence that excessive consumption of sugar may weaken the protective power of the liver and thereby cause numerous so-called bilious symptoms. Brown sugar has the same effect as white sugar. Eating sugar in excessive amounts may make one feel dull and bilious because of these reasons".—*Illinois, May, 42*

Groundnut as Human Food

(Note issued by the Nutrition Research Laboratories, I R F. A., Coonoor.)

GROUNDNUT (Arachis hypogaea Linn) is really a leguminous plant, although in their chemical composition groundnuts resemble nuts such as cashew, almond and walnut more closely than they resemble pulses. The plant is a native of Brazil, from whence it spread to Africa and Asia. It has been cultivated in the tropics and sub-tropics for several centuries, and in India groundnut is an important crop. It is grown chiefly in Madras, but Bombay and the Central Provinces are also important centres of production. In normal times groundnut oil and cake are exported in large quantities to the United Kingdom and the continent of Europe. As a result of the War, exports from Madras Province dropped from 760,000 tons in 1938-39 to 282,000 tons in 1940-41.

The reduction of the export trade has produced a disposal problem. One method of disposal would be its wider use as human food and this raises the question of its nutritive value. Per 100 grammes it contains about 25 to 33 grammes of protein, 40 to 50 grammes of fat and 10 to 20 grammes of carbohydrate. It is rich in phosphorus, but not in calcium. As regards its vitamin content, it contains some of the B vitamins, notably B_1 and an important member of the B_2 group, nicotinic acid in fair amounts, but no vitamin A. Groundnut oil, like most vegetable oils, is devoid of this valuable constituent Vanaspati or vegetable ghee, which is usually made from groundnut oil, does not contain fat-soluble vitamins A and D.

Experiments with Groundnut.—Suppose half to one ounce of groundnut were distributed daily to poor children in schools. It is not to be expected that such a supplement would be as effective in improving their state of nutrition as a glass of milk. On the other hand, groundnut, taken in small quantities, is perfectly good food Its high fat content makes it a concentrated food, with a high caloric yield per unit of weight. Since many poor school children are under- as well as malnourished, any supplement which increased their total food intake would be of value. In normal times peanuts sold very cheaply in small paper bags are very popular among poor children in London

Groundnuts as such have never been used as a staple human food anywhere in the world. Consumed in large quantities they tend to be nauseating, probably because of their high fat content. Their main use has always been as a source of oil, the 'cake' which remains after the extraction of oil being employed as cattle food and manure. It is said that groundnut cake is used as human food in Spain. In the U. S. A., so-called 'peanut butter' has been fairly widely consumed, and in that country roasted peanuts are very popular. The inclusion of groundnut flour in small quantities in wheaten biscuits has been suggested.

The idea that groundnuts could be used in India as an important article of diet, replacing equivalent quantities of cereals such as rice may be dismissed. They could however, be consumed in somewhat greater quantities as an addition to ordinary diets, either in the form of roasted nuts or as a sweetmeat with jaggery. Even a slight increase in consumption would help to dispose of surplus stocks. In the present circumstances it is unfortunate that they cannot be strongly recommended by the nutrition worker as an exceptionally valuable food, but there is no reason why their use as human food should not be extended.—*Ind. Med. Gazette, Oct., '42.*

National Nutrition Campaign

AS part of the war-time National Nutrition Campaign, Federal Security Administrator Paul V. McNutt urges that Americans become nutrition conscious. It has been brought out that only about one-fourth of the American people are really well fed and that approximately one-third of all men rejected by Selective Service for reasons of physical disability had defects related to malnutrition.

Some twenty-odd Federal agencies engaged in this problem have formulated a slogan "U.S. needs us strong—Eat Nutritional Food." No more silly dieting, living on skim milk and other juices, no more one meal a day, no more "reach for a ducky instead of a sweet." As part of the war programme, nutrition must be translated into three meals of nourishing well-cooked food for every individual.

The national nutrition "food guide" follows:

"Milk and Milk Products—at least a pint for everyone—more for children—or cheese or evaporated or dried milk.

"Oranges, Tomatoes, Grape fruit—or raw cabbage or salad greens—at least one of these.

"Green or Yellow Vegetables—one big helping or more—some raw, some cooked.

"Other Vegetables. Fruit—potatoes, other vegetables or fruits in season.

"Bread and Cereal—whole grain products or enriched white bread and flour.

"Meat, Poultry or Fish—dried beans, peas or nuts occasionly.

"Eggs—at least 3 or 4 a week, cooked any way you choose—or in "made" dishes.

"Butter and other Spreads—vitamin-rich fats peanut butter, and similar spreads."

"Then Eat Other Foods You Also Like."

—*The Medical Woman's Journal.*

Cheese

CONTRARY to a popular belief, cheese is not really hard to digest for normal persons, Doris McCray Cedar Rapids, Iowa, points out in a recent issue of *Hygeia, The Health Magazine* "But," she qualifies, "it should never be added, as a superfluous item, to an already complete meal. Cheese should be served with bread, toast or crackers, or other cereal food, and with fruit and vegetables, as is the common practice...To serve cheese with pie at the end of a heavy meal that included meat obviously would be superfluous."—*Illinois.*

The Prevention of Heat Sickness

HEAT sickness can be prevented by a few simple rules of diet, proper living habits, and the replenishment of salt lost from the body through excessive perspiration. In most cases, the programme of prevention of heat sickness ends with the use of sodium chloride tablets, plain, or combined with sugar, which are provided to the workers in convenient dispensing containers. This is an essential part in its prophylaxis but the individuals who do their work in abnormally hot or humid environment as well as the entire population exposed to very hot weather must be educated to a twenty-four hour programme of prevention of heat sickness.

* * *

DIET IMPORTANT

First consider food. This should consist of an easily digested high carbohydrate, low fat diet with an adequate amount of beverage such as water, fresh fruit juices, milk, carbonated drinks, and possibly tea or coffee. Strong alcoholic drinks should never be used in hot weather. Beer and ale are permissible in small quantities. Frequent small drinks of beverages are safer than a large amount at one time which leaves the individual bloated and frequently causes nausea or vomiting on resumption of work. Ice cold drinks must be sipped slowly. Fried foods, canned or overripe corn, canned meats, or heavily spiced foods such as sausage are difficult to digest and predispose the hot weather worker to gastro-intestinal complaints. The large meal should come after returning home from work; a light, easily-digested but nourishing meal before work and at lunch.

* * *

HASTE SHOULD BE ELIMINATED

Living habits should provide some recreational facilities such as gardening, reading, fishing, or other light activity but must not encroach on the workman's seven to nine hours of sleep. A cool shower or tub bath before going to work and repeated on completion of work does much to minimize the effects of a hot job or warm weather. Sufficient time must be allowed for going to work to avoid running or undue excitement in getting there on time. Once on the job the worker should continue to be calm and should use the minimum effort compatible with efficient handling of his work. Avoid unnecessary running. Eliminate all non-productive motions.

* * *

USE OF SALT

The use of salt tablets should be limited to 10 grains every two hours. Some men will tolerate more than that but the percentage of gastric upsets is high. More than 10 grains every two hours should rarely be necessary in the most extreme heat tolerated by man. The actual salt loss during working hours may exceed this amount but should be supplemented by the regular dietary intake. Added energy is sometimes provided through the addition of invert sugar to the tablet which also increases its palatability. Some individuals who do not tolerate the plain salt well can use the sugar and salt combination or an enteric-coated tablet. In the latter case sufficient time should be allowed from ingestion until the salt is needed by the body to permit the dissolution of the coating and absorption of the salt. Such tablets have been recovered in the stool with only part of the coating dissolved. This should be blamed to the type of coating used.

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FIRST AID FOR HEAT SHOCK

Men employed at glass or metal furnaces, in rolling mills, open pit mines or in similarly hot environment should be instructed in the recognition of heat shock and heat retention as shown with the use of a thermometer. Through the prompt first aid treatment before medical aid arrives the patient may avoid serious injury —L.S. ARLING, M.D.—*Minnesota Medicine, May, 42.*

Effect of Alcohol on Heredity

HEREDITY is the transmission of the qualities of parents to children. If conditions are right, the process of evolution is always toward the betterment of the species. This has been splendidly illustrated by the improved specimens of plants and animals.

All life originates from germ-cells. The cells that unite to form the future child are highly sensitive and possess the power of development, a power no other cell possesses.

The characteristics of the father and mother are represented in these cells; as are the parents just before and at the time of conception, so is the child likely to be. Thus the character, life and health of the child depend upon the condition of the cells which unite to form life. The conduct of the parents from childhood is impressed upon these cells.

If these cells are normal and surrounded and fed by pure blood a normal and well-developed child is the result; if however, these cells are surrounded by blood, that is poisoned by alcoholic, syphilitic or other toxic substances, the cell is in a poorly nourished condition to begin its journey of life. Nicloux has demonstrated that alcohol from the blood of a mother is readily found in the tissues of an unborn child.

It is an undisputed fact that the mental and physical condition of the mother before the birth of the child exerts a lasting influence on the child. Many instances prove the father to be equally responsible with the mother.

The latest teachings on these subjects indicate that men and women may influence the quality of children they will produce. It does not prove, however, that children born of alcoholic parents must be below normal, but it is proven that by weakening the cells of the unborn child, it is predisposed to the diseases and mental weaknesses of the family These can be partly and at times they seem to be wholly overcome by education and good surroundings, but they many times re-appear to curse the next generation with renewed force.

Sir Victor Horsley says, "Evidence indicates that for a child to be 'well-born' at least two generations of healthy men and women must have played their part honestly and well."

To be able to do this well, the masses must be taught that alcoholic indulgence may affect the physical, mental and moral condition of the unborn child.—*American Issue Publishing Co.*

Vegetable Soup

THERE is no better way of getting all the good out of vegetables than by using them in soups.—*Good Health.*

Tuberculosis

CROWDED living conditions, mounting prices of necessities, increased mental, emotional and physical strain—inevitable by-products of industrial defense activities—are factors dangerously favorable to the increase and spread of tuberculosis.—*Kendall Emerson, M.D., Ohio State Medical Journal.*

The Intoxicating Cigaret

INTOXICATION means poisoning. One may be intoxicated with opium, cocaine or tobacco as well as with liquor The word *intoxication* has become associated with the use of alcoholic drinks because of the very pronounced effect of alcohol when freely used. As a matter of fact, tobacco is not only as much of an intoxicant as is alcohol but is in fact more injurious. Nicotin is a far more deadly poison than is alcohol and at the present time is doing a vast deal more harm than alcohol is doing.—*Good Health.*

Aviation Deafness

P.A. CAMPBELL and J. Hargreaves (Ach. of Otolaryngology,) classifying the deafness of aviators into four types on the basis of their study of hearing in army aviators, write, "The decrease in oxygen at high altitudes may also be a factor in fatigue. It has long been recognised that changes in the pressure equilibrium between the outside and the middle ear, such as occur in flying, cause changes in hearing acuity at the lower tone level. If such 'insults' are repeated tissue changes take place in the middle ear rendering the hearing loss permanent. These changes are intensified if there is any pathological condition in the Eustachian tubes Advances in aircraft design and flight regulations should reduce the the danger of loss of hearing in aviators (Medical Times)—*Indian Medical Review.* p. 23, May, '41.

A DOCTOR called on one of his patients who was expecting her 25th child.

Doctor: "How old are you, Mrs. Jones?"

Mrs. Jones· "44, Docor"

Doctor: "Well, don't you think you had better stop having any more children? You're not so young, you know."

Mrs. Smith: "This is my last one doctor."

Mr. Smith: "Yea, doc, this is the last one.'

Doctor: 'Well, how do you know, that's what you've been saying for the last 25 years."

Mr. Smith; "Well, you see doc. we just found out what was causing it."—*Medical World.*

First Aid in the Home

Head Injuries and Fainting

THE brain is the centre of the nervous system and the seat of the intellect and the emotions. It is highly-specialized organ, consisting of a collection of nerve cells and fibres. The brain controls and co-ordinates all actions of the body and is the seat of the will. Any injury to this organ, therefore, must always be a very serious matter.

The brain is situated in the cranium, or skull, the bones of which, being fairly strong, protect it from injury to a large extent. In cases of severe injury, however, the skull may be either bruised or fractured A direct blow upon the dome of the skull may produce a fracture, or the base of the skull may be cracked by indirect violence, such as by falling from a height upon the feet. Blood coming from the ear after a serious accident is very suggestive of a fracture of the base of the skull.

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Concussion and Coma

EVEN a blow on the head which is not sufficient to cause a fracture may interfere with the functions of the brain and so produce insensibility. This may be profound, giving rise to complete unconsciousness or coma or, if less severe, it may produce only stupor. In the latter case the patient may be aroused with difficulty, but in the former he is completely unconscious.

Concussion is the term applied to the condition of the brain following a severe head injury. The functions of the brain are disturbed and the patient is in a state of stupor which may deepen into coma. His face is pale and the skin cold The breathing is shallow and the pulse quick and weak. If there is hæmorrhage into the brain, or the skull is fractured, concussion may be followed by compression. In this case the signs are different, for the face, instead of being pale is flushed, and the breathing is heavy and snoring in character. The pulse is full and slow and paralysis in certain parts of the body may come on.

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Treatment for Head Injuries

THE emergency treatment for head injuries is to apply cold to the head and warmth to the rest of the body. The ice bag or cold water must be applied to the head continuously while hot bottles and rugs are applied to the trunk and lower limbs The patient, of course, must be kept absolutely at rest and if possible in a darkened room. There are some people who think that in cases of head injuries where stupor or coma is likely to come on, the patient must be stimulated and kept awake. This, however, is quite wrong, and in all cases of head injurfes the patient must be kept as quiet as possible and made to rest. Only in cases where insensibility is due to poisoning should a patient be stimulated and kept awake. No case of injury to the head or spine should ever be treated lightly. Even when apparently trivial at the time, it may later prove to be serious, and it is always best to call in the doctor at the time, in case complications develop.—*Good Health.*