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MATERNITY AND CHILD WELFARE WORK IN MADRAS.

The Maternity and Child Welfare movement owes its origin to the Great War of 1914. During the war, when the Western Nations mobilized their man-power, almost to the last adult they can lay their hands on, they found to their great surprise that 90% of the would-be soldiers were quite unfit for military service, as they were suffering from many congenital diseases which were in most cases preventable. Acting on the adage, that the children of a nation are its greatest assets, the entire world began to turn its attention, after the war, to the welfare of the children. As the health and care of the mother during pregnancy and at and after delivery are important factors to be counted in any child welfare scheme, Maternity and Child Welfare came to be clubbed together. India, which had, for ages, neglected the health of her children and their mothers, also woke up and, thanks to the All-India Chelms-

ford Maternity and Child Welfare League, welfare work was started in all the important Corporations and Municipalities in this country. Madras has been enjoying the benefits of the scheme for well nigh 15 years.

The Child Welfare work in Madras consists, generally, in lady doctors and health visitors paying visits to pregnant women in their homes, advising them in matters of health and hygiene, delivering cases free of cost at their respective residences or sending intricate cases to hospitals, with the consent of the patients and looking after the health of the mother and child during the first year of the infant's life. Poor children are given baths and fed with milk daily at the welfare centres. Health propaganda work and the holding of health and Baby weeks are among the other activities of the child welfare staff. The staff also treat out-patients, women and children, at the

child welfare centres, for common ailments and for ailments peculiar to them. The child welfare staff consist of 13 Lady doctors, 31 Health visitors and 82 midwives for the whole city.

According to the Annual Report of the Lady Superintendent for the year 1930, the total number of visits paid by the 13 lady doctors was 14,975 as against 13,416 in 1929. The total number of visits paid by the Health visitors was 1,27,320 as against 131,297 in 1929 and the total number of pre-maternity cases registered by them was 11,292 against 10,535 in 1929. Of these 8540 expectant mothers actually attended the centres for medical advice and treatment as against 6698, the previous year. The number of women and children treated at the out-patient clinics rose from 1,88,329 in 1929 to 2,02,441 for the year under report. The average daily attendance of women and children at the out-patient's clinics was 600 as against 520 in the previous year. 12600 cases of labour which is 49 per cent of the total number of births in the city and is the highest reached in the history of the child welfare scheme were conducted by the child welfare staff during the year. The maternal mortality was only 0.49, the same as that of the previous year and is the lowest compared to the mortality in the important maternity Hospitals in the City.

As regards infantile mortality, the rate was 157.2 for the year under review as against 171.6 per mille of the previous year. It was also the lowest on record in the history of the scheme. "It is also noteworthy" says the report "that in some years, the child welfare scheme rate and the city rate act in co-ordination which implies, perhaps that the causes which are responsible for the rates are identi-

cal but that the proportion of the deaths is greater for the city. Out of 1722 deaths which took place among infants during their first year of life, 463 babies died within the first ten days owing to their low vitality at birth. The majority of deaths was due to respiratory diseases (404), fever (334) intestinal disorders (324) nervous system (111), small-pox (60) etc." 717 children were taken on for milk supply during the year and the average daily attendance at all the centres for milk feeding was 427.15. 1,18,824 babies working out an average of 309.45 daily were given free baths during the year.

These figures, so far, indicate steady progress but we are doubtful if the scheme is now being worked along right lines. We are afraid that the child welfare centres are being slowly converted into dispensaries for women and children. It may be that treatment in these dispensaries serves as an incentive for maternity cases being brought within the operation of the child welfare scheme. But in course of time, the preventive aspect of the scheme will be forgotten or totally ignored and the lady doctors will be solely engaged in the dispensaries. From a perusal of the statement furnished on page 127 of the annual report of the Lady superintendent, we find that the diseases treated were not merely diseases and ailments of pregnancy but covered a wider range and included not only normal cases such as constipation, worms, malaria &c., but also Tuberculosis, eye, ear, nose and throat diseases, syphilis and gonorrhoea, which are quite outside the scope of the maternity staff. While we fully realize the value and importance of the maternity and child welfare work, we do not wish that it should deviate from its legitimate

duties. The Corporation has already opened several dispensaries in convenient centres where treatment for ordinary ailments for men, women and children is given free and the child welfare dispensaries are therefore superfluous. We are glad to find that the Corporation is going to appoint a committee to overhaul the present working of the Child Welfare Scheme and the sooner it is done, the better. In this connection we would like to bring to the notice of the Corporation, the following extracts from Lockett and Gray's book on 'Public Health Administration', which would give an idea as to how the child welfare scheme ought to be worked:—

1. "The care of the child should begin before birth, and for that reason prenatal work should be an integral part of the health department's child hygiene programme. In cities prenatal clinics can be organized, to which the public health nurses can bring cases for examination and instruction."
2. "After birth, the public health nurse can follow-up the infant's progress, aiding the mother with instruction and advice as to the child's care."
3. "A particularly fruitful field is the organization and instruction of "Little Mother's classes" among young girls, especially those who assist their parents in the care of the younger children of the family. The instruction in such classes begins with the care of the baby, and can be extended to the instruction of the older girls in the hygiene of pregnancy, and under favorable conditions, in sex hygiene."

4. "The health department's work in improving the milk supply is a decided factor in infant hygiene. After the infant is weaned, probably diet is the most important single factor in its welfare. If a safe, clean milk supply, of low bacterial count, is available, an important step in the reduction of infant mortality has been taken. It must be backed up, to be effective, by adequate instruction of the mother, preferably by the family physician, as to the proper diet for the infant. If no physician is available, the health officer, or public health nurse, should give careful feeding directions."
5. "Sanitation also plays a part. Mothers should be instructed as to the necessity for clean surroundings, for the reduction of flies through elimination of their breeding places and of the places from which they can derive infection and as to proper ventilation. In towns and villages, health departments can take more or less direct action to bring about better sanitation. In the rural districts, however, education and persuasion are usually the only means available to improve sanitation."
6. "The health department should know, and keep in touch with the various social and philanthropic agencies, such as hospitals, foundling and orphan homes, day nurseries, Associated Charities, Red Cross, Salvation Army clinics, and all other organizations which

can in any way handle or assist the abnormal cases which come to its attention. By co-ordinating all such agencies with the Health Department, children's lives may often be saved or their health protected from impairment."

A word to the citizens of Madras. The Corporation is spending lots of money to reduce the present woeful maternal and infantile mortality in the city. The duty of the citizens, therefore, is to shake off their old superstitions and, without heeding the advice of the illiterate grandams in their households and engaging the services of inexperienced

barber-midwives for the care and confinement of pregnant women, avail themselves in larger numbers of the services of the trained and qualified Lady Doctors, nurses and midwives specially employed by the Corporation for the purpose, with the maximum of benefit and minimum of expense. Their willing co-operation in this direction will not only ensure a strong, healthy and virile progeny capable of warding off all infectious diseases that may invade the city from time to time but will also serve in the long run to economize the expenditure of the Corporation, thereby considerably lightening the incidence of taxation in the city.—Dr. U. Krishna Rau, Associate Editor, 'Health'.

TRATAKA OR EYE GYMNASTICS.

By

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(Continued from Page 60, Vol. X, No. 2.)

The possibility of eternal youth on the basis of elimination and nutrition was discussed in my first article. The importance of water-sniffing for the purpose of keeping the nasal passages clean (an organ which is neglected generally in our daily toilet and still which need to have the first consideration of hygiene) was outlined in my last article. Next in importance to the nose, the care of the eye may be considered as most essential for the well-being of an individual. In this article, therefore, I propose to deal with a few of the simplest methods the ancient yogins formulated to train the eye and keep this organ in its naturally healthy state.

It may be mentioned, however, that the main object of the various *Yoga* eye exercises may principally have been to induce concentration (the traditional basis of *Yoga* Culture) through rhythm of breathing movements and fixidity of the eyes which naturally end in abstraction and one-pointedness. What we are here concerned is their biological advantages which have been confirmed by modern scientific tests.

It has been acknowledged by the physiologists that the real eye is to be found in the optic nervous system and not in the eye-ball which is merely the terminus of the system subordinate to the vital organism behind it. The care of the eye, therefore, depends

largely upon the perfect nutrition drainage and nerve supply. If these are lacking, there is really very little chance of receiving any physiological benefit from the mere exercise of ocular hygiene for the hygiene of the eye is principally constitutional.

The modern tendency to eye-strain is largely due to the eye being constantly focussed at short distance. The cure for all reflex evils arising out of such an eye-strain is simple and consists in focussing the eye at a long distance e.g. the horizon. This should be practised for a few minutes, say, about five to ten minutes and repeated after an interval of every few hours. The *Yogins* suggest that looking at the sun and the moon have greater physiological advantages than mere looking at the horizon. The sun gazing is known as *surya dhyana* and the moon gazing is called *chandra dhyana*; and both are distinguished as gross forms of concentration. The technique consists in looking at the sun or the moon (when not covered over by the clouds) with the eyes wide open till the tears begin to flow from the eyes. No unnecessary strain should be experienced while doing so. Evidently this exercise as an eye- tonic seems to have been based upon the most remarkable discovery that the rays of the sun have not only a beneficial, but also a curative effect upon the eyes. The best time for doing these exercises is the morning and the evening—especially the time of sunrise and sunset. The moon and the star gazing which the *yogins* also follow is simple and harmless and could be followed when the nights are clear, taking care to see that the body is protected against cold or local chill during the night.

Gazing on the elements of nature viz. light, water, etc, is an advanced course

of eye gymnastics which the student of *Yoga* is allowed to follow after proper initiation in the easy and preliminary exercises suggested herein. The posture most suitable for the various eye exercise is *Siddhasana*.

Certain processes of *dhyana* as taught by Jaigisavya in his *Dharma-sastra* are also very useful as vigorous eye gymnastics. Furthermore, the higher practices like *Sambhavi mudra* etc. possibly taken from the older authorities and elaborated in the *Hathayoga* treatises, represent the most scientific means of training the eyes. The following four exercises will, however, be found most useful :

1. *The nasal gaze* : Take any posture and fix the eyes on the tip of your nose. Continue this for a period of two to three minutes. Then relax, close the eyes and do the next exercises. This is called *nasikagra trataka* or gazing on the tip of the nose.
2. *The eyebrow gaze* : Now after one minute of rest, fix the eyes between the eyebrows. Keep it up for a period of two minutes or so, and then close the eyes again for rest as previously advised. This is termed *bhru-madhya trataka* or gazing on the space between the eyebrows.
3. *The right shoulder gaze* : Then, in the like manner, keeping the body erect, the neck straight and the head steady, fix the eyes on the end of your right shoulder. Continue this for two or three minutes and relax as before. This is called *dakshina jatru trataka* or gazing on the end of the right collar bone,

4. *The left shoulder gaze*: Finally, maintaining the previous position of the body, fix the eyes on the end of your left shoulder. Keep this for a few minutes and then rest. This is termed *vama jatru tratika* or gazing on the end of the left collar bone.

The special value of these four eye exercises of Yoga lie in exercising and

strengthening the four important sets of muscles which pull the eyeballs upward, downward, to the right and to the left. These exercises help to equalize the strength of these four sets of muscles which generally control the movements of the eyeball. (For illustrations, practical details and technique of other various eye exercises, the reader may refer to *Yoga Personal Hygiene* by the same author priced at Rs. 10/-net.)

PLEASANT ODORS AND HEALTH.

BY

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Pleasant odors such are produced by perfumes have a definite influence upon human health. This is a fact which has been realised from quite early times, for the ancient Greeks recognized the influence of sweet odors and were particularly cognizant of their happy effects on the digestive apparatus. According to one of their historians, Athenæus, there was a time in Greek history when it was quite the fashion to use special scent bags for sweetening the air while they sat at table.

Some several centuries later, John Evelyn, the noted English diarist, proposed to make London the healthiest and happiest city in Christendom by planting around it hedgerows of sweetbriar, rosemary and jasmine. In fact, at a certain period still later, the sense of smell was so highly held in esteem that Professor Gustav Jaeger wrote a book, *Die Entdeckung der Seele*, in which he tried to prove that smell is the most important of our senses, the olfactory nerve, in fact, being the seat of the soul!

The use of certain perfumes is prophylactic to a very high degree. Every one knows of the refreshing and soothing feeling imparted by the citrine odors to the invalid. Lavender water, eau-decologne and attar of roses are among the perfumes which have been found effective in curing headaches and giving rest to the tired brain.

Sandalwood has been used successfully in relieving the nervous excitement so common in cases of fever. Balsamic odors from pine-needle cushions have been found effective in relieving insomnia; and neurasthenics declare that they feel easier when they use essential oils topically.

Sick children enjoy and are benefited by odors of sweet-pea, lily-of-the-valley and rose. Quite a few convalescents from accidents and surgical operations appreciate such scents as lilac, lavender and heliotrope, and when these are withheld from them they become restless, and unfavorable symptoms are manifested.

The influence of odors on the human body is so subtle that one becomes aware of their influence without the knowledge that they are supposed to influence health so profoundly. This is well illustrated by the following incident :

"I remember," says Sir W. Temple in his essay on *Health and Long Life*, "that while walking in a long gallery of the Indian House of Amsterdam, where vast quantities of mace, cloves and nutmegs were kept in great open chests all along one side of the room, I found something reviving in the perfumed air, and I took notice of it to the company with me, which was a great deal, and they were all sensible to the same effect, which is enough to show the powers of smell and their operations both upon health and humour."

A very well known example in which perfumes are taken advantage of in medicine as a quick restorative is the use of smelling salts or aromatic spirits of ammonia in reviving a person who has lost consciousness from whatever cause. This valuable medicinal aid was originated by Sylvius de la Boe about 1650 who called his medicine, *the Carminative Spirit Of Sylvius*. Originally it contained cloves, musk, salt of tartar and spirit of wine. It has been changed now, but perfumes still

play an important part in this famous restorative.

Perfumes play so important a part in human life that there is hardly a function in the human body which they do not effect. It is a well known fact that Richelieu was very fond of the perfumes of roses, and as a consequence he spent much time in his rose gardens. He claimed that their odor had a revivifying effect on his sexual ardor. This is a fact well known to many physicians and anthropologists who can cite numerous instances among both civilized and savage people in which perfumes of certain flowers play a very important part in the sexual life of the people.

With the greater perfection of instruments for physiological research it has been found that many foods and drinks are delectable not because of their flavor, but because of their odor. Vanilla is tasteless; the enjoyment of that flavor comes from its delightful odor. A person with a cold in the head cannot enjoy any vanilla-flavored food. In the same way the enjoyment of some of the best champagnes depend solely on their bouquet. The ancient Romans knew of the great value of certain odors to excite the appetite and they applied this knowledge in sprinkling their human victims with valerian so that the lions in the arena may enjoy masticating them with greater gusto.

CATCHING HEALTH.

While we catch disease with difficulty, we catch health easily; the wind is laden with it; the sky is covered with it, every morsel of wholesome food is charged with it, and the glorious sunshine carries health into our bodies with its warming rays. On every hand our contacts with Nature inoculate us with health.—Good Health.

HOW TO AVOID CONSTIPATION.

By

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Constipation is inability to have a free and regular action of the bowels daily. Normally an individual must have twice, at least once, opening of the bowels per day. The motions must be of a semi-solid nature and of fairly large quantity. When it is hard, of small quantity and irregular, we call it constipation. There are many going about with hardly any action of the bowels for days together. It is the starting point of ever so many diseases. Piles, fissures, fistula, and other anal and rectal complaints, are to be attributed to this. We all know that it is the usual cause of stomach-aches, indigestion and fevers. What is worse is, stagnation of dirty matter in the intestines helps the growth of organisms and absorption of poisonous substances into the blood circulation. This greatly harms the individual and either causes or helps in the causation of many diseases. How to avoid this is a big problem to be faced by each man or woman. It is not only important from his own personal hygiene, but also from the standpoint of upbringing of his children in a good state of health.

Cultivation of Habit: All systems of the body are working at a regular pace like a clock. The heart beats seventy-two times per minute, the respiration occurs eighteen times per minute, and the food that enters the stomach leaves it, passes through the small bowels, comes to the colon, and at last fills up the rectum after passing through the large bowel at regular intervals of time. When the lower bowel is full, it contracts and the desire for defaecation

occurs, and it too keeps up the time and takes place every day at the same time. If a man does not get regular action of his bowels, the fault lies in him. He has worked against nature and did not keep up to the regular time of the body. He has failed to cultivate the habit of regularly going to the stools and co-operating with the working of his own body.

This cultivation of habit must be started from early childhood. The baby should be held out after each feed from the very beginning. A clever mother or nurse by this way will be able to start the regular habits in a child. This habit should be continued at all costs by the supervision of the mother and even when the child goes to school the call to stools should never be neglected. This regularity of habit must be persisted even in an adult. It is the first important thing to ward off constipation. The best time to answer calls of nature is either before or after morning coffee. The body works in such a systematic way that if you go to stools at a certain time today, you will have the call at the same time tomorrow. But on no condition this desire should be suppressed because, by that you disorganise the working of the body and the clock goes out of order. The habit of keeping regular time is lost and the bowels get constipated. Re-education of the habit in the constipated is a difficult task. The constipated individual must work with the system and not against nature. An effort should be made at the same time every morning, remaining at the closet

at least for ten minutes and trying at regular intervals. This may be assisted by taking a cup of cold water just before going to the stools. If this fails, the introduction of a glycerine suppository or an enema may be tried. By perseverance and patience you are sure to succeed in re-education of the daily habit, which will greatly help in removing constipation.

Diet: The bowels are constructed to hold a large quantity of matter. A certain amount of fullness and consistency of its contents form the necessary stimulus for defæcation. But by civilization we are accustomed to take foods, which leave very little residue. Bread, biscuits, polished rice and such other things will be almost completely absorbed and no residue left. But vegetables and fruits on account of their containing a large amount of non-absorbent material will leave behind a large residue. The constipation is often due to this insufficient quantity of waste material in the lower bowels, which forms the stimulus for their contraction and expulsion of the fæces. Fresh green vegetables must be taken in large quantities with each meal. Fruits, either fresh like plantains, oranges and mangoes, or dried like prunes and dates, must be taken after meals. Onions when taken will also greatly assist in the opening of the bowels. A large quantity of fluid is absorbed from the food during its passage in the large intestine. So if the fluid taken is of insufficient quantity, the stools naturally become dried and hard. By this the quantity of the residue becomes less, and the hard stools require greater effort to bring it out. Thus it is important that a sufficient quantity of fluid is taken with and between each feeding.

Exercise: When the muscles of the body are not properly developed—are weak and flabby—the working capacity of the individual is proportionately less. So also when the muscles that come into action in the opening of the bowel namely the muscles of the bowels, the muscles of the abdominal wall and the muscles of the buttocks are weak, the defæcation is deficient. By exercise we can develop these muscles. The exercise is one of the most important means of preventing constipation. Walking, Swedish and other exercises to develop the abdominal muscles, massage to the abdominal muscles and faradic current applications to the abdominal wall will greatly assist in the development of these muscles. These exercises will also tone up the muscles of the bowel wall. Constipation is more common in those of sedentary habits and it must be stressed into their mind that exercise is more important than anything else.

Purgatives: These act by hurrying the contents of the upper intestine into and through the lower bowel and by increasing the fluid contents by prevention of absorption. But these are no cure for constipation. The disadvantages of its constant use are (i) increasing doses being required as times goes on, (ii) by overstimulation of the bowel it becomes flabby and distension is a troublesome sequelae, (iii) it prevents the absorption of water and nutrient matter, and bacteria flourish better in the watery contents of the bowel. By constant use of purgatives you only aggravate the condition rather than cure constipation. But liquid paraffin is non-absorbable and acts only by giving bulk to the faeces and also as lubricants. It does not interfere with the absorption of foodstuffs and water from the intestines, and especially useful in

softening hard masses in the rectum. It is not a purgative in the true sense of the word. So liquid paraffin or any of its proprietary preparations can be safely taken to assist the action of the bowels. The best time to take it is at bed time.

Constipation in Childhood: The common cause of constipation in babies is under-feeding. In breast-fed infants when constipation appears, it is a sure sign that mother's milk is becoming

insufficient. In those cases breast feeding should be supplemented with artificial feeding. In artificially-fed infants constipation can be relieved by increasing the quantity of food taken or by giving orange juice. A little extra fat as top of the milk or codliver oil may also help in opening the bowels. Children require a good quantity of fluid, especially in hot countries like India. This can either be given with the food or between feeds.

MROW—KOOH.

By

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hope to thrive well on this account. For many long years, I have been thriving well, but of late my position is becoming very precarious. How I love these hot climes! My sweet home is in the tropics. I shun the Temperate and Frigid Zones. They are ill-suited to me.

It pleaseth me and it is to prevent the annihilation of my race that I lull people into false security that I am not only harmless but have actually claims for utility. But those that have closely studied me know exactly what my

M I a Siamese, Chinese or Japanese? Of what origin am I? Very few people know what actually my origin is. The greater the mystery that clouds my origin, the better it is for my well-being. I do

mission in life is. This is the very class which I look upon as my mortal enemy. Their studies, their life-work, in short their very profession, well, their mission in life are all at war for my destruction! But I care two straws for all their much-vaunted campaign against me. The members of this class cross the seven seas into far-off climes with the special object of studying my origin, childhood, adolescence, and old age with a view to cause my destruction and finally my annihilation from

this world. I am capable of doing great harm to the humans, and with this work I mean to go on, for, quite a long ago, I made up my mind that it should all be a fight to the finish.

To confess to you the barest truth—I have killed many people; and some, times when the mood is not for murder as such, I delight in injecting such subtle poison that I make people ill or incapacitate them from attending properly to their bread-winning pursuits. People have unanimously adjudged this act of mine so loathsome and mean that they delight to cry me down as a wretch, a mean creature, a crawling worm, a cursed thing to be trampled under foot—in fine, they have nick-named me.... Well! Just when I am trodden under foot, I take the fullest opportunity to wreak my vengeance on my tormenters, for a friendly Providence knows better how to look after my welfare than do my hateful enemies. God has sung a different tune to me, and taught me differently how best I can clear my way for my well-being.

From what I have stated, I don't know if you will be justified in calling me a beastly person.

As an adult, my height can easily be gauged by the ordinary and lowest denomination of linear measure. As regards my bulk, I am as thin as the thinnest cocoanut fibre! I should say I am quite masculine, but the softer sex of our race, for good or ill, is larger than the male. My head is fine, my body finer, and have I a tail? It is finest.

You may kindly suppress your smiles for good. Darwin and Huxley put you in a bad fix and made you descendants of monkeys; and you have lost your tails by evolution. The ends of the spinal column are the remnants of the long past monkey tail. Am I no crea-

ture like you? Should I not have a tail, which, in your case, you would fain hide? You have your teeth; so have I mine, and very sharp ones too. If I get at a thing, I cling to it like a leech. I wouldn't blink facts; I delight in sucking human blood.

Out in India, I have two homes; The morning of my life will see me on *terra firma* my first home. In the nucleus state of my life I feed on the worst that the human body throws on the ground; the human night-soil is my element, where I am all life—rather, all life in the making—for a day or two, then I come out of my shell like womb, and quite a lovely baby. As a baby, don't you think it is the morning of my life? I am on firm ground now and this is my first home.

In the nursery of the first home, my life is all a life of starvation. I am utterly uncared for at this stage of nursing, if it could be so called—it is all an apology for nursing. As a result of this neglect I am reduced to a physical wreck, a starveling, indeed, and dwarfed out-right; no chance to grow; no chance to thrive and multiply. This state of affairs goes on for full twenty-four months. Cursed am I, for as long as I am on the ground.

I abide my time; I pray to Providence to release me from the bondage of this home, which is more a curse than a blessing to me. Don't you style me a cynic for speaking thus. You have a parallel in your own human experience. A poor boy can't endlessly remain in his father's home. "A man am I now and a man's duty I must do," speaks the boy's still voice from within, and he speaks with grim determination. He sets up his own home, and "increases and multiplies." So should I have a home where the work of the pro-

pagation of my species shall be carried on without molestation and under congenial and quite favourable conditions. The journey which I am about to commence will take me to an abode, which will be my second home.

Verily, now, I lie in ambush. I let some one come along bare-foot; or let some one work with his hands where I lie in wait.



The human feet or hands touch me and woe to them? I quickly cling to the person's skin.

I begin to dig into the skin and, within a very short time, burrow through and enter a blood-vessel. It is all a miracle! It is not necessary for me to pass through the skin viz. a cut or where the skin has been damaged. I can make my way even through a perfectly healthy skin. After getting into the blood, I sail on to the heart, where the heart with commendable love of neighbour sets me in a hot current of blood which lands me into the lungs. In the lungs I burrow into the air spaces and crawl along the air tubes, until at last I camp for a short while at the back of the throat. Presently, a flood comes along and I am washed down clean to make my

way through the stomach, and I arrive at my destination in high glee. I am transported with joy to see this my second home, to which Providence has conducted me with safety and at the proper place in the bowels.



I take hold of the lining with my mouth and hang on without molestation.

After offering thanks-giving to the Great Giver of Gifts, I commence my work of gnawing the lining of the bowels. Soon I begin to suck blood and inject a bad poison into the person's blood.



I make the person's blood become thin, watery and not as red as it should be and this makes the person's skin look pale and sick.

By sucking blood and injecting poison, I make him very weak, incapacitating him for heavy work, and he cannot do his work properly. Greater havoc in store! I cast a spell on him, so that he finds it difficult to breathe after slight exercise. He has pains in different parts of the body, great weakness of the legs, he is often dizzy, the feet and legs have an inclination to become swollen, the face is very pale and the heart kicks up a row, off and on.



Persons in whom I have my habitation, i.e., my second home, develop, now and then, strange tastes and often have a desire to eat such indigestible things as lime, raw rice, dirt, charcoal, hair and feathers.

Some of those that are caught up by my spell are indeed miserable and quite ill, and develop sores on their legs and their faces are swollen. My presence in a person is all a spell, such that he does not even suspect that I am inside of him. He neither feels sick nor weak. But if he is a prey to some other sickness, I always get the upper hand, and I play my foul game with the

attendant results of my evil actions. I count as victims of my spell about ninety for every hundred in this unfortunate land.

I always go to the root of things. I attack boys and girls mercilessly, and will not allow them to grow or become strong as the normal ones. Their brain and mind are reluctant to develop to the fullest extent.



The young ones are unable to learn rapidly, and they forget quickly. They are very stupid in school.

But some specialists, who have crossed the ends of the world for my sake, come to the rescue of these boys and girls and by a few phials of their poison exterminate me most mercilessly. Then the boys and girls make very rapid progress both physically and intellectually.

I am indeed a dangerous sort. I am a pest, a sickness. I cause much poverty and long suffering by weakening the body and making it easy for dangerous germs, such as cholera, typhoid fever, dysentery, diarrhoea, tuberculosis, and

pneumonia to attack the body and produce disease and often death.

Wounds and ulcers are sluggish and would not heal up, as I have a preponderance in the blood compared to the germs in these sores.

Tetrachloride and oil of Chenopodium, these are my mortal enemies! I have the greatest antipathy towards them. In fact, they cause my death. And I am much pained to see people taking to them. To crown an unpleasant and death-like business, the British Govern-

ment in India have euphemistically dubbed this massacre of the innocents "Rural Sanitation Campaign"!

"Health" readers, the following is by way of Epilogue, if you please. You fancy that the heading has gone topsyturvy. You are quite right. "MROW-KOOH by MADNANAJAR P.!" Reading it aright, or right to left, you will see that it is HOOK-WORM, by P. RAJANANDAM, [C. C. W. O. (First class), Member R. S. G. B.]. Good-bye to you all!

THE STATE: AN EDUCATED INDIAN AND HIS HEALTH

By

MR. CHOWDERY JAVANDLAL DUTT, M.A. LL. B.,

Vakil, High Court, Ajmer-Merwara.

We live in an age of merciless competition. So hard has become the struggle for existence amongst nations and individuals, that the slightest inadvertance is sure to cause disaster. A very brilliant Indian graduate, who stood first at a competitive examination, was not selected for a post in the Imperial Service, because his health was not up to the standard, and had to give place to the second best, who satisfied the Medical Board. An uncle of mine, who got a good job in a bank, fell ill, and was discharged because he was not entitled to any leave under the Standing Orders.

This is an age of masters and experts. Jacks cannot survive. We all long to go to the best surgeon, to the best doctors, to the best lawyer and to the best engineer, who can almost guarantee us, the virtual consummation of our heart's desires, and we are prepared to spend money like anything over such persons. Anyone, who aspires to rise to

the top, must work from the very commencement—nay, he must come into the world with that ambition in his blood. His parents must prepare the ground from the earliest.

Best results naturally demand best exertions; for though, it may be true, that some persons are born rich, and others have riches thrust upon them, yet their number is exceedingly small, and the truth remains true as ever, that nothing worth having is possible in life, without self-determination and devotion to one's duties. Best exertions necessitate a serious strain upon human energy in order to obtain best products. It will be decidedly a gain, if the quality of products could be improved without any corresponding increase or with a proportionate decrease in "strain upon human energy." A more decided gain will it be, if on obtaining the best possible products, a larger balance of human energy could be left conserved in the body for being expended in the

regular battle of life. A nation, which owns the maximum number of such human entities, is bound to be prosperous. Hence it is the duty of every state to care for the health and vigour of its citizens. A healthy state must produce healthy citizens; healthy citizens, in their turn, will make it healthier and stronger.

The average educated Indian, generally, has a delicate health so much so that if need be, it will be rather difficult for him to carry a sack or two of grain, across a mile or so. Is it an exaggeration? Is it a surprise? Go to any school or college, and see the pale faces of boys, their drooping eyes and fallen cheek. Look at the fine print of books, and imagine the amount of work to be done. College work leaves no time for the young student to mix freely with his parents, friends and relatives. B. A. students have to work for 12 to 14 hours a day. Even the small intervals of rest or walk are crowded with oral discussions on economic, scientific and mathematical problems. Courses themselves are all uniform, horses and donkeys in the same stables. No care is taken to test the natural tendency of the brain whether it is economic, scientific or medical. If I was to be ultimately a lawyer, what good has it been to me the study of higher mathematics, chemistry, physics, history and geography. Who would ever compensate me for the pain I felt in storing unpleasant and dead historical dates and events into my brain. I always considered that as absolutely futile, and feel it bitterly now. Would not a lot of energy have been saved and conserved for the study of law? Who is responsible for this waste?

The young Indian does not get a sufficient quantity of the things needed

to develop his latent powers to the full. He does not get pure air, pure water and pure things to eat—their quality, at least, in the bigger towns is not above suspicion. In these days of motor traffic, it is difficult for people living in cities like Bombay and Calcutta, to get sound sleep even at night. It would be interesting to calculate the extent of prevalence of nervous breakdown amongst the educated Indians residing in the Metropolitan towns.

The Indian student, after he has completed his course, is faced with several health retarding circumstances. Not only is he misplaced in his profession, he is actually low paid or underpaid. A B. A. or an M. A. can be had for Rs. 50, 60, 70, and this is no more than the amount he spent at the College Hostel. Now he is burdened with wordly or family anxieties—if he was not so already in student life. Exhausted and fatigued he comes home from the daily work, and is unable to afford any refreshment. His face does not redden with the glow of real pleasure, even his smile is artificial. He has not intimately known what exercise is, or if he does so, he does not seriously take to it. Like the proverbial cartman, who sleeps in the cart, and permits the bullocks to go on their way, he has slept over all problems of health. Every time he falls ill, he determines to be more careful and regular!

With so many forces to act and react upon an educated Indian, it is no wonder that his health is not what may be desired. There cannot be the least doubt that there is a very urgent need for a change in the system. A careful handling of the problem, and the factors which have bearing upon it, will go a long way, towards making the educated Indian really healthy. In India, cir-

cumstanced as it is, the problem of improving the health of its educated citizens is bound up with the larger and more complicated problems of politics and economics. Never in the history of the world was the struggle for existence keener than now; and never in

the history of India, was there greater need for improving the health of Indians. India's future is in the melting pot. It is the duty of the Government to secure to each citizen, the maximum of full health—providing factors.

HOW MANY MEALS PER DAY?

Prolonged experience and careful observation of suffering humanity have proved to physicians that a considerable amount of chronic ill-health is due to excessive consumption of food and unquestionably it is true that many more people enter an early grave through over-eating than through over indulgence in alcoholic liquor. Nearly 30 years ago, Professor Chittenden, the great American bio-chemist, proved by practical experiment on human beings that the amount of food necessary to act as body-fuel and tissue building material was surprisingly small; since then the scientist in the laboratory and the layman in the school of practical experience have confirmed all the findings of Chittenden. Not only has it been proved and confirmed theoretically and practically; but physiological experiments go further and show that any excess of food not required by the body mechanism, clogs the system like grit in machinery and throws a great and unnecessary burden on the eliminatory organs such as the liver, kidneys and skin. Unfortunately not only is there the additional strain of expulsion on the liver and kidneys, but not unfrequently the surplus food undergoes decomposition in the colon and the poisonous products resulting therefrom are absorbed into the system and by their chemical reaction on the delicate

cellular structure of the tissues the latter tend to lose their vitality and functional utility.

Of the three great food principles, protein, especially of animal origin, is the most liable to stagnate and undergo putrefactive changes in the colon. The primary function of this important food element being tissue building and not, as commonly supposed, energy producing, a very small amount is required to supply the body needs, and all excess makes the blood-purifying organs work at a physiological disadvantage. In addition to the dangers of decomposing protein food, all flesh foods have the increased disadvantage of containing urea, uric acid, creatinin and other toxic bodies which are inseparable from the continuous biochemical changes constantly going on in animal tissues. Against this combined attack stand the liver and kidneys, and in order to realise more clearly the danger to the body it must be remembered that the human liver is not so capable of turning the super-abundant protein into urea and uric acid and eliminating them from the body as the liver of *flesh eating animals*.

Taking into consideration all these facts, we have got to deal with two questions, namely, "How many meals per day, and how much food at each meal?" While experience teaches that

a few people have the maximum of good health on two meals a day, most people get along better on three meals taken regularly and so spaced that five hours pass before the stomach is again burdened with food. This arrangement enables the stomach to have the proper amount of rest demanded by Nature. The common custom of morning and afternoon tea, especially if associated with a late supper, is a pernicious habit and a futile cause of dyspepsia and other unpleasant symptoms significant of disordered function of the stomach.

The answer to the other equally important question of quantity at each meal is more difficult to state, as different occupations indicate different amounts of food. For instance, the

man doing hard manual work requires much more energy producing food (fats and carbohydrates) than the student or bank clerk, although the latter requires just as much tissue building food (protein). The best guide is the unperverted appetite, and clinical experience teaches that in health and disease, Nature seldom fails in her indications.

An important adjunct in the promotion of good health in the sedentary worker is an occasional fast of a day or two, during which time nothing is taken internally except orange juice and a little honey. This regime not only rests the digestive organs but enables the liver and kidneys to eliminate more freely the end products of the surplus food that is usually consumed.—O. D.

SILENCE : AN AID TO GOOD HEALTH.

BY

ALI JAMAL AFINDI.

It is remarkable how few people realise that talking too much is an indirect cause of many maladies. "Silence is golden;" but it was not said for the mere reason of making a slogan; for both silence and over-much use of the speaking apparatus are now scientifically proved to have very definite influence on health.

Let us first examine the action of talking: When a person speaks, not only the vocal cords and the muscles of the tongue and the neck are working, but the entire mechanism of breathing, the chest muscles and the lungs are brought into play. But, above all, those finest adjustments of the nervous system, centred in the brain, assume one of the most com-

plex activities ever imposed upon the human frame. The nervous system is performing its highest functions. Impulses are sent to the brain; they are translated in its centre, and orders to act are issued by the brain to the various muscles enumerated above; thus three actions are performed in rapid succession.

TALKING IS AN INTRICATE PROCESS.

It is calculated that no less than eighteen muscles, big, small, are working when a man speaks. Thirty-three nerves operate in the action and 29.3 per. cent. carbon-dioxide is added to the blood-stream, along with other waste products, in the exertion of

talking. The extent of mental and physical fatigue can be judged from the statement that, in order to eliminate all the waste caused by ten minutes' talk, 45 minutes' normal quiet life is needed. This is the physiological aspect of speaking. The proof of these somewhat scientific determinations can be furnished by every-day experiences of any of us. Whether we are talking in the street, at a tea party, or delivering an address, a varying degree of exhaustion is felt.

These, then, are the effects of over-indulgence in too much talking; and now let us review what can be gained by silence. In the first instance, in place of taxing our various capacities, as indicated above, we conserve our energies. That, in itself, is a good sign. But the stored energy is beneficial in the direction of building of the body.

NATURAL PHENOMENA.

The normal functions of the body, according to the Eastern conception, are, firstly, to repair, and, secondly, to increase the strength of stamina, of one's physique. When the body is in repose, food is being consumed through ordinary physiological processes, and nutrition is being distributed to the muscles, nerves, etc.; every organ and tissue of body is receiving its just and proper share. Natural phenomena are being worked out in just proportion, the balance of health is properly maintained. Some portions are being given to enrich the blood, others to muscle and bone, to the brain, and the surplus is stored as fat. The government of the body is at peace. The Law of Nature is being faithfully obeyed. Robust, good health is the result.

But as soon as silence is broken, the above fine adjustment is disturbed. It

is deranged in direct proportion to the extent of "breaking the silence." Muscle after muscle is brought into activity, more blood is being supplied to them in order to have them do more work, for a "speaking war" is on, the nervous system is working at white heat; the whole camp which was in repose, in orderly prosecution of its functions, is bristling with activity. An abnormal state of things has been ushered in; with the consequent results of additional wear and tear of the body and the mind, leaving a man fatigued, tired out and susceptible to infection of disease because his power of disease resistance is depreciated. And all this because he led himself to talk more than he should,

FOUR HOURS' SILENCE EACH DAY.

The Moulana Sirhang of Persian-Kurdistan, whose extraordinary preservation of natural faculties is a byword in the Middle East, practised a period of four hours of complete silence every day. Away in the fastnesses of Kurdistan, he attained the age of 114 years, his eye-sight was keener than mine at 36, his power of climbing the hillside amazed me, for I could not detach myself from his grasp when, to prove his strength, he gripped both of my wrists in his enormous hand: and yet he was no giant.

His secret, he told me, was a strictly regulated diet and the observance of a daily period of silence. The one kept him alive and fit, he told me, and the other preserved his health. And I on my own part, can attest that that lesson is not lost on me; for since I have tried to keep mute for a time every day, I have escaped practically every form of infectious disease, not even excepting colds and influenza; and, of course,

certain diet precautions have also been taken.

We should not, however, confuse talking and speech, in their ordinary sense, with what I have in view. In common with other organs of the body, the vocal cords must also have exercise, that is to say, a whole day's fast of the speech, day in and day out, is *not* indicated; but the point is *excess of talking*. Believe me, if every man and woman honestly put themselves

through a searching self-examination, they will find that we can easily do without at least half of our talk.

In addition to cutting down talking, try to cultivate the habit of silence in a gradual way, a few minutes at a time. Begin with ten minutes. It is astonishing how difficult it is to be in repose for that period; but soon it grows upon you, and as it grows it increases the joy of life and health is enjoyed in a true sense.—*Health for All*.

QUIET WHEN YOU EAT!

Scientists working under the direction of the United States Government Health Service have proved that eating your meals in quiet surroundings will benefit you a great deal more than taking food where you are constantly disturbed by noise. Sound shocks the nervous system, and the stomach, closely bound up with the "sympathetic" nervous system, reacts more strongly than other parts of the body to such stimulation—especially when it is in the midst of receiving a consignment of food. With all its attention, figuratively speaking concentrated on the proteins, carbohydrates, fats, and vitamins being fed to it, it has a lower resistance against outside disturbances. If you eat in the vicinity of an active

riveting machine, you will get indigestion. Soldiers who were forced to eat in the dugouts while a bombardment was going on not far away emerged from the war with ruined digestive systems.

A nervous stomach—that is, one which is disturbed again and again by unusual noises while it is performing heavy work—always produces indigestion. Noises always—or practically always—make a good stomach into a nervous stomach. So—it is better to eat less, and eat in peace, than to partake of a full meal in surroundings that disturb the stomach—even though you may not be aware of this disturbance while you are eating.—*Modern Living*.

APPLE PEELINGS PREVENT SCURVY

"Who can say that the year's intake of apple peeling has accomplished in averting national scurvy?" This suggestive question is asked by the editor of the *Journal of the American Medical Association* in calling attention to the abundance and the value of this most popular fruit. The annual crop of ap-

ples in the United States, we are told, exceeds one hundred million barrels.

The apple has qualities that assist the movement of the intestine. It also has antiscorbutic (scurvy-preventing) potency, but apple juice must be used in liberal amounts to be effective.

"In the good old days," says the *Journal*, "we were wont to munch our apples without paying any especial attention to the skin of the fruit. The advent of bacteriology brought warnings of the dangers lurking in germs; and accordingly the apple was subjected to peeling before it was eaten. What a pity! For the scientists assert that

the apple peelings are antiscorbutic; and the latest reports from England not only verify this but point out that the concentration of vitamin C (the scurvy-preventing vitamin) in the tissue of the apple increases as the skin is approached from the core and is *more than six times as great in the peel* as in the flesh near the core." —*Win Good Health*.

DENTAL SUPERSTITIONS

That dental work should not be done during pregnancy.

That every child costs the mother a tooth.

That diet during pregnancy can have little to do with the teeth of the child, because the child does not get teeth until he is at least six months old.

That baby teeth have very short roots.

That the habit of thumb-sucking will correct itself as the child grows older.

That when the nerve is taken out of a tooth all trouble with that tooth is over.

That when a gum boil disappears the tooth that caused it is well again.

That all gold crowns are a menace to health.

That after the extraction of a tooth for systemic reasons, the trouble will clear up immediately.

That the removal of infected teeth will cure all diseases to which human flesh is heir.

That after an extraction the wound will heal better if the mouth is frequently rinsed with mouth ashes.

That a dentist should be consulted only when there is need for an extraction or for filling.—*Hygeia*.—*The Indian Dental Review*.

THE RELATIONSHIP BETWEEN PREGNANCY AND MENSTRUATION.

(Werner *Wiener Klinische Wochenschrift*, October 2, 1931) discusses the question as to what period of the menstrual cycle is most favorable for impregnation.

It was formerly thought that the first days after the cessation of the flow represented the time when a woman was most likely to become pregnant and this opinion was supported by the statements of women during the war whose husbands were at the front and visited their homes at comparatively rare intervals. However, experiments upon ani-

mals, where all the conditions can be controlled much better than when studying human beings, have tended to refute this idea. Extensive experiments have been performed upon rabbits and dogs and applying these results to a somewhat critical observation of mankind, Werner concludes that the most favorable time for fecundation in the human being is from the eleventh to the seventeenth day after menstruation. The optimum is from the twelfth to the fourteenth day. During the rest of her cycle a woman is sterile.—*The Urologia and Cutaneous Review*.

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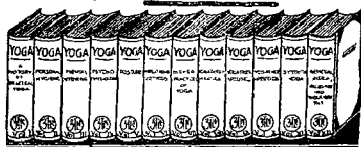
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