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A Journal Devoted to Healthful Living

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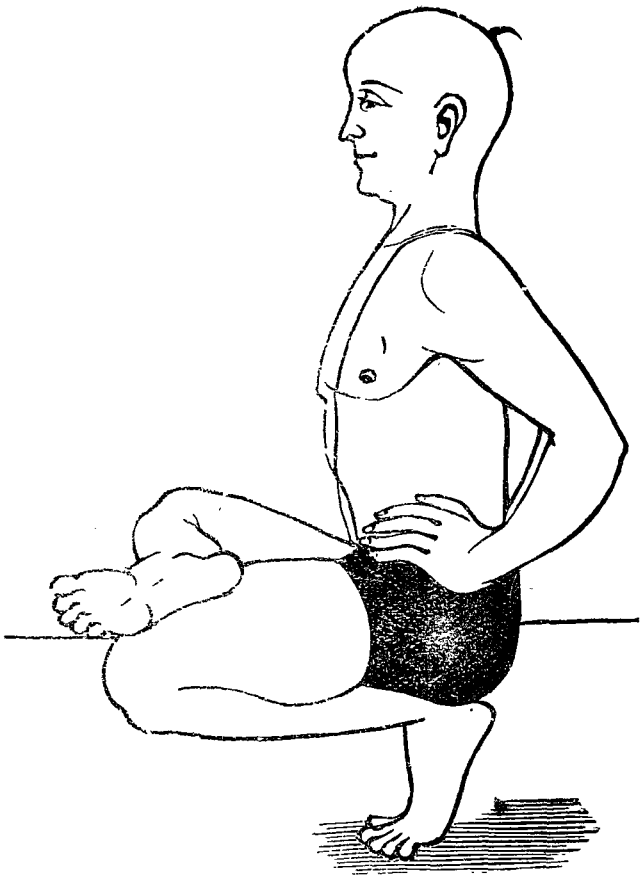
Editorial

Noise and Health

"SILENCE is Golden, Speech is Silvern", is an old saying with which, we dare say, all are familiar. This maxim is generally applied to cases where people, without the aptitude for speaking in public, or without previous preparation of the subject, 'rush in where angels fear to tread'. In a much wider sense, it means that it is better to be silent than to speak unnecessarily or irrelevantly. Silence always brings on harmony, avoids acrimony, and ensures one's health and happiness. In India, in ancient days, people preferred silence and solitude. 'Oh! Solitude!! where are the charms that sages have seen in thy face?' aptly describes the beauty of solitude. While silence is indispensable for concentration of mind and devotion to God, solitude is indispensable to provide a silent atmosphere. That was the reason why our sages ran away to the forests to secure solitude and silence, leaving the bustle and hustle of town life for men who hanker after wordly pleasures and pursuits. Even in the forests, absolute silence cannot be had, for there are beasts and birds and wild tribes to create enough noise to upset one's mental equilibrium. But, as the mind becomes steady and concentrated on a particular object, these noises do not penetrate their ears nor disturb the tranquility of their minds. We have read in our epics that those sages who lived in "Ashrams" in forests, amidst silence and solitude and who observed silence themselves, lived for centuries and were able to accomplish marvellous yogic feats



PAD ANGUSHTA ASAN

One of the many Yogasans practised by our sages for the health of the body, concentration of the mind and salvation of the Soul.

We have a living example to day in Gandhiji who, by observing absolute silence once a week and following the ways of our ancient sages in every detail, has earned the unique distinction of 'Mahatma' and is revered and respected by the whole world as a saint and super-man.

Modern Science has recently discovered that silence is an aid to sound sleep, while 'noises, even though not loud enough to awaken a sleeper, are recognised by the nerve centres and cause nerve reactions so that sleep is disturbed and rendered less refreshing than when undisturbed". Some people, however, get accustomed to noises and they require the stimulus of noises to make their brains work better or make them sleep sounder. Pavlov says that 'monotonous noises cause sleep by a sort of hypnotic effect'. This accounts for many people sleeping soundly while the train is in motion. Thus, it will be seen that 'continuous, monotonous rhythmical sounds appear to be less harmful than sudden, unexpected, intermittent noises such as the shrill whistles of locomotives, the shrieking of fire-engines and police car sirens and the blowing of factory-whistles'. Western nations steeped in industrialisation and urbanisation, have already begun to revolt against the street noises caused by trams, motor-cars, traffic whistles, cries of news boys, vendors etc., and are demanding suitable legislation from their Governments for the suppression of these noises which they characterise as injurious assaults upon their ears. People living in towns and cities in India are already beginning to experience the ill-effects of street noises. The motor cars, lorries and buses are the worst sinners in India to-day. They are a triple menace to the public. They produce noise and disturb sleep. They raise dust and cause disease. They kill and injure not only pedestrians and passers-by but also their inmates. Something must be done to prevent this Public Enemy No. 1 from claiming more and more victims year after year.

The question of prevention of noise has recently attracted the attention

of the Health Organisation of the League of Nations. In their recent report on 'Noise and Housing' contained in 'Bulletin of the Health Organisation Vol. VI, No. 4, August, 1937', they observe that, "there is a consensus of opinion that the widespread use of recent inventions, particularly radio-sets, by the public, the increase in motor traffic and modern methods of building and road construction have led to an increase in noise which is intolerable to many. Such noise is calculated not only to handicap the performance of work but to destroy the amenities of home-life and by disturbing rest and sleep contribute to ill-health in the community. It has further to be noticed that present-day buildings are for the most part deficient in adequate sound insulating properties owing to the methods of construction and the lightness and high conductivity of many of the materials. Although Science has yet to solve many of the problems of noise, it is definitely worth while to indicate the palliative and preventive measures which may be taken in view of the present state of knowledge and experience in various countries".

Among the measures which they recommend, the most important are:—

I. Measures Involving Minor Expenditure

1. The use of the quietest rooms in the house as bed-rooms particularly for young children:

2. The cultivation of public opinion that in the use of powerful wireless sets and other sources of sound, the feelings of neighbours are worthy of consideration;

3. The use of suitable ear-stops by individuals whose rest and sleep is disturbed by noises outside their control particularly by night workers who have to sleep during the day.

4. Reduction of internal noise in a dwelling:

(1) Good internal planning of the dwelling before construction;

(2) The use of sound-absorbing walls and ceilings.

II. Measures Involving Appreciable Expenditure by Individuals or Public Authorities.

1. Town-planning with a view to locating dwellings in quiet areas and as far as possible away from roads subjected to heavy traffic.

2. Co-operation between the local authorities and industrialists in planning the lay-out of noisy plant and work.

3. Allowance of more time by local authorities for the execution of road-breaking contracts.

4. Reduction of noise at its source *e.g.*:—

(1) Reduction in the noise of road vehicles and generally street noise, particularly at night.

(2) Use of more effective silencers on motor-vehicles and pneumatic hammers.

(3) Increasing restriction of the use of motor horns by day or night.

(4) Restriction of speed of traffic in residential areas.

(5) Installation of quiet sanitary appliance.

5. Insulation of dwellings against external noise, *e.g.* :—

(1) Double windows ;

(2) External and partition walls providing agreed standards of insulation.

(3) Use of resilient floor coverings, *e.g.*, floating floors and suspended ceilings.

(4) Use of noise-filtering ventilators and ventilating ducts lined with sound absorbent materials ".

The report concludes with the following appeal, which we commend for the earnest consideration of the various Provincial Governments in our own country, which are responsible for Public Safety and Public Health :

" Health authorities, scientists, architects and engineers should be encouraged to face problems of noise without delay and side by side with the promotion of further research, technical instruction should be provided for those who are and who will be responsible for safeguarding the amenities of home-life and of residential areas "

Don't Fight That Tired Feeling; Rest and Relax

Fatigue is something most persons in this strenuous, struggling world resent and fight against. Fatigue should, however, be welcomed as a friend giving first-class safety warning. The person who feels tired all the time should find out why he is tired and take steps to dispel the cause.

Rest and relaxation are probably called for. Dr. Conrad S. Sommer, medical director of the Illinois Society for Mental Hygiene, says that most of us need to reorganize our lives. Fatigue comes to many people simply because they are trying to do too much—and often for not very good reasons. A yearly vacation, an occasional week-end of relaxation and at least one evening a week of really relaxing recreation are prescribed by Dr. Sommer as antidotes for that tired feeling.

Besides over-exertion, either mental or physical, there are a number of other causes of fatigue. The weather may make anyone feel tired. This may range from the not unpleasant lassitude of spring fever to the utter exhaustion experienced on a hot humid day in mid-summer.

Not much can be done about the weather, but eyestrain, **strain from exposure to continuous noise**, weakened arches, poor posture, hernia, and strain or relaxation of muscles, tendons and ligaments that support important body organs are important causes of fatigue that can be remedied. A physician's aid is indicated in these cases.

More subtle reasons for feeling tired are to be found in the field of personal relations. The complex, competitive manner of modern life makes it doubly hard to get along with people. To this strain is often added the stress of internal conflict, than which nothing is more wearing. It is less tiring and better for mental health to recognize the causes of such inner conflict than to try to bury or ignore them.—*Science News Letter.—The Doctor and OD Quarterly*

Nutrition in Health

By Dr. M. A. Ramachandra Rao, M.B., C.M.,

Chief Medical Officer, Puducottah.

It is a known fact that more than half the population of India are either under-fed or get food which is deficient in quality. As a result of under-feeding, people have a stunted growth and suffer from lethargy, with less vigour and activity, falling an easy prey to diseases and as a result of deficiency in quality of food, people suffer from various deficiency diseases, such as Night Blindness, Keratomalacia, Xerophthalmia, Neuritis, Paralysis, Bleeding Jaws, Softening of bones and teeth, Bowel diseases etc.

In the last few years there has been an awakening all the world over in the matter of improving Nutrition in Public Health. The various diseases produced after the Great War gave a sort of impetus to the Research Workers in Nutrition and since then numerous laboratory experiments have been done on animals and results similar to the diseases in human beings observed.

Now we shall ask, what are the purposes of food?

The purposes of food are chiefly two. The first purpose is to provide the materials necessary for the growth and repair of the body. Till we reach the age of 20 to 25, our bodies are continually growing and after that the growth is complete. During the period of growth as well as throughout life, some part or other of the body is in constant work, *i. e.*, the heart beats driving blood to every part, the lungs expand and collapse and by this act, take in the air through the mouth and nostrils and with it Oxygen which is essential for life and without which we cannot live and throw out the harmful gas, Carbondioxide that is generated by the body's work.

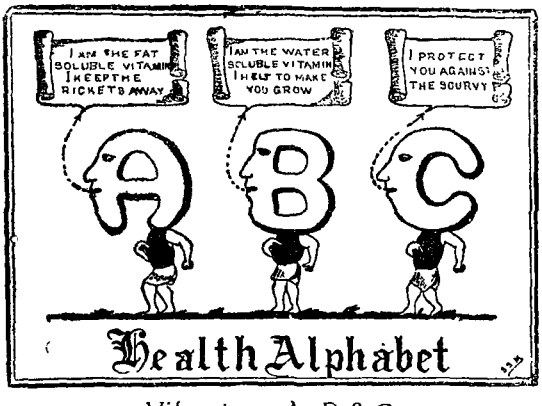
The stomach and intestines digest the food, selecting and transferring to the blood stream, the materials which the body needs for its growth, repair and work. The waste materials as the result of digestion and body repair are discharged by the bowels as faecal matter, by the kidneys in urine and by the skin in the sweat. The brain directs the body action and the muscles move the limbs. All this work and movement involve constant wear and tear so that the numerous cells of which our body is composed, are always in need of replacement and repair. The movements of the body either done consciously or unconsciously, generate energy and heat is produced. It is this heat that maintains the body in a normal warmth.

Therefore, the second purpose of the food is to provide the materials with which the body generates this energy. The growth and the repair of the body and the generation of energy and heat serve to maintain the life within us at the highest level of perfection. This is the purpose of food.

The Growth of the Body.

In the words of Sir Robert McCarrison, "the growth of the body is like the building of a house. When we wish to build a house we first select the different building materials that are needed: stone for the foundation; bricks for the walls; wood for the window frames and doors and tiles for the roof. But the stones, the bricks, the wood and the tiles are lifeless things. They cannot make themselves into the different parts of the house. So builders or workmen, whom we call stone-masons, bricklayers and carpenters must be employed to prepare the building materials and to put them together. According as the building materials are good, bad or indifferent and according as we employ good workmen, for each kind of work, so the house when finished will be good, bad or indifferent. It is much the same with the building up or growth of the bodily house: once badly built, it needs continual patching".

The body building materials in food are called proteins and mineral salts. These cannot by themselves build the



Vitamins—A, B & C.

different parts of the body. The assistance of certain vital forces is necessary and they are called Vitamins, as they are essential to life, like the workmen in the construction of a building. These Vitamins—which are called Vitamin A, Vitamin B, Vitamin C, Vitamin D, and Vitamin E, have each their own particular kind of work to do and all helping the other in the building of the whole body. The Vitamin A works principally on eyes, the lungs, the stomach and intestines. "B" on the brain, the nerves, the flesh or muscles, the muscles of the heart, stomach and intestines. "C" on the blood and "D" on the teeth and bones.

In addition to Proteins and Vitamins our food has other constituents. They are called Fats and Carbohydrates. They are spoken of as fuel foods. Just as a steam engine requires coal or wood as fuel for generating steam for its work, similarly these fats and carbohydrates are fuel foods containing great stores of energy. From them and from the proteins left over from the building and repair of the body, energy is liberated by the vital fire within us thus enabling the bodily engine to do its work. The water in our body helps greatly in the production of energy needed for its work. Sunlight and Air are also sources of energy to the body. Air is supplied by the lungs while breathing. Water is needed to maintain temperature of body and so we drink plenty of water. Air, sunlight, water and food are the things needed for proper nourishment, growth, repair, work and health of the body.

The essential ingredients of food are of five kinds—Proteins, Mineral, Salts, Fats, Carbohydrates and Vitamins. Each one is important and our

food must contain them all in just the right amount and kind. Every food stuff that Nature provides for our use contains some of these essential ingredients, but no single ingredient contains them all in just the right amount. So we must learn how to mix the different things we eat in the right way, so as to contain all these five essential substances in the right kind and proportion, about which I shall deal in the next article.

Nutritive Value of Milk

By Dr. W. F. Joseph,
— Medical Officer, Leper Hospital, —
— Chevayur, P. O. Puthiyara. —

MILK is an article of food provided by nature to man and is a perfect one. Its composition differs in proportion in different animals as shown in the table below :—

Milk.	Protein %	Mineral matter %	Carbohydrates %	Calcium %	Phosphorus %	Vitamin A units per 100 grm.	Vitamin B_1 units per 100 grm.	Vitamin B_2.
Cow's ...	3.30	0.70	4.80	0.120	0.093	180	...	++
Buffaloe's ...	4.75	0.80	4.45	0.203	0.125	162	...	...
Goat's ...	3.60	0.80	5.30	0.128	0.103	182	...	...
Human ...	1.18	0.30	7.20	0.034	0.015	208	...	...
Skimmed Milk Powder	38.04	6.83	50.94	1.370	0.995	—	165	+++

The chief protein of milk is called caseinogen. When milk is boiled a scum forms on the surface which is a rich mixture of protein and fat. If this is removed another layer of similar nature forms on the surface again.

The average consumption of milk per head per day in India is very very low. If the present average consumption of milk could be raised to 1 pint per head per day, there would certainly be considerable improvement in the general health of the community. At the present day, as a result of extensive trial and investigation, it has been rightly found that many diseases are caused by want of proper nourishments to the body. On this data, we have to infer that a food like milk which is within the reach of the rich and the poor alike, should form an inseparable part of every individual's daily dietary. In growing children and adolescents in particular, milk is very essential: for, it contains growth-promoting factors in abundance. For better bone formation and improvement in build and physique, milk should form a large proportion of our diet. It diminishes incidence of disease, increases our resistance and vitality and prevents rickets in children and dental caries. Expectant and nursing mothers require milk in proper quantities for their health and well-being as well as that of the children. Calcium deficiency in an individual is better made up by milk

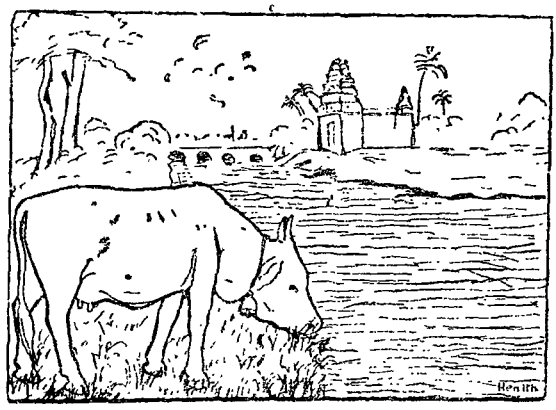
than by drugs and chemicals put up in the market in innumerable forms. Calcium in milk exists in a readily assimilable form. For an adequate supply of calcium to an adult, approximately ½ a pint of milk per day is desirable.

Milk is a dreadfully suitable culture medium for bacterial growth and hence great care has to be taken in obtaining and preserving it. From the udder to the point of consumption, strict cleanliness is an absolute necessity. Milk has to be boiled properly before use. Boiling does not very much lower its food value except that it loses a certain portion of its vitamin C. content and probably iodine.

There are many people in this country who have an aversion to taking milk as it is. To such people milk has to be incorporated in their common daily articles of diet *e.g.*, pudding, tea, coffee etc. The milk so used still retains its nutritive properties.

There is an erroneous notion among the lay public that skimmed milk loses all its nourishing properties and is useless for human consumption. The only defect in skimmed milk is the loss of its fatty constituent, which can well be substituted by suitable fats in the ordinary diet. Such separated milk is now available in the market at very cheap rates and is found to possess a high nutritive value as shown in the above table and confirmed by experiments in school children, lying-in-hospitals and dormitories. Cream and butter are of course very valuable foods, but they are incomplete by themselves and far inferior to either skimmed milk or whole milk. Undoubtedly, the fatty constituent of milk is a valuable adjunct, but its deprivation from it does not significantly lower its food value.

As stated elsewhere that milk favours bacterial growth, it is worth while to remember the names of a few common diseases transmitted through milk. Such diseases are Tuberculosis, Septic Sore Throat, Bacillary Dysentery, Typhoid and Paratyphoid Fevers, Diphtheria, Scarlet Fever and Cholera. Foot and mouth disease of cattle is also transmitted to



Cows must have pure water to drink and fresh grass to graze to yield pure and nutritious milk.

children by milk. Hence, everyone has to be careful to avoid contaminated milk and if one is not quite sure of the quality, purity and cleanliness of the milk that is supplied to him for daily consumption, the best disinfectant that is within reach of all is heat. Boiling milk for about 15 minutes kills all germs and is then quite safe for use. Never-the-less, absolute cleanliness in milking the cows, in keeping the cowsheds clean, washing the hands of those who milk the cows and the udder, of all dirt and using clean receptacles to pour out and receive the milk, are a few of the precautions that everyone has to observe in regard to the milk that is used for human consumption.

Dancing for Health

By Dr. S.K. Gupta, B.D., Sc. B.O., (Pb.),
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DANCING is usually spoken of as an art, but in its universal rhythmic sense, it is more than an art. It is a basic principle of life, a moving force

Dancing is a healthy exercise both for the mind and body.

of rhythm which pervades all the manifestations of nature. We see it in the movement of the stars. the ebb and flow of the sea, the swaying of the trees in the wind and in the free unconscious movements of animals. In this sense, the Universe is a dance.

The human being also shares this universal rhythm. The primitive man expressed it in impulsive movements which provided an unconscious outlet to his feelings. Later, when this natural gift was translated into the terms of beauty and form, so that it became a conscious means of self expression, the art of dancing came into being.

That dancing is conducive to longevity is suggested by Ted Shawn, the well known dancer, in the 'Dance Magazine'. He is careful to stipulate that by dancing he does not mean the "Perambulation of the ball-room floor, or the movements of the vaudeville and musical comedy stage, nor even the perversions of the ballet given over to violent repetitions of a difficult step to wring applause from a reluctant audience". What he does mean is "The use of the entire body in joyous and beautiful rhythmic gesture for good health".

Ante-Natal Care

By

Dr. S. Sankara Raman, M.B., B.S.,

Cuddalore.

In no other branch of Obstetrics have such rapid strides been made as in Ante-natal supervision, in recent years. Thanks to the increasing co-operation of the public, due to a sense of the realisation of the grave problems connected with the pregnant mother, most of which offer a simple solution if tackled properly, ante-natal work is rendered more easy and important. Many valuable lives can be saved when adequate ante-natal care is taken. The State which neglects this important branch of Preventive Medicine will surely meet with discredit and will have to account for a high puerperal mortality which, though cannot be entirely stopped, can be minimised considerably.

The first thing a Doctor must do when undertaking a case for ante-natal care is to put up a chart as follows. (This suggestion if followed, will be more useful than trusting entirely to the memory of the Doctor or the patient's relatives.) Name—, Age—, Number of pregnancy—, Last menstrual period—, Probable date of confinement—, Date of first visit—, Dates of subsequent visits—, Results of examination—, Nature of abnormalities if any—, Advice given—, Condition of the mother—, Condition of the foetus—, Labour, whether normal or abnormal—, Peurperium, normal or abnormal—, Condition of the child at birth—, Child's subsequent development.

The urine must be examined and the patient must be told not to wait for the next visit of the Doctor but to inform at once if there is :—(1) Bleeding. (2) Scanty urination. (3) Swelling of the face or legs. (4)

Headache. (5) Pain in the stomach region.

It is important to bear in mind that the advice given must be according to the means of the patient. There is no use of advising plenty of milk and orange juice to a woman who ekes out her livelihood by hard labour.

The pregnant mother must be told that pregnancy and labour are physiological phenomena and will prove otherwise only in those leading an artificial life, breaking very often the laws of Nature.

Exercise must be mild and regular. Badminton, Deck Tennis, Pingpong, brisk walking etc. must be advocated. There must be a period of rest before meals and also after meals. This is specially necessary in working class women.

Nervous strain must be avoided as also worry and shock. It is with these ends in view that the pregnant woman is decorated and made happy and also adorned with bangles and flowers.

Diet must contain all the elements necessary for growth. Milk, ragi, greens, fruits, cheese, butter, cereals, eggs, tomatoes and barley must be taken in plenty. Excess of meat should be avoided. The bowels must be regulated by mild laxatives. Fruit juices help the action of the bowels.

Teeth must be attended to. They must be cleaned both morning and evening.

The nipple must be drawn out in the later months of pregnancy so as to adapt it for nursing. Skin over the nipple must be cleaned with spirit, soap and water. Pendulous breasts must be supported.

Bath may be taken either in hot or cold water but must not vary from the usual one.

Clothing:—Pressure over the chest and over the waist must be avoided; warm clothing and light ones must be worn.

Sex life must be avoided at the time corresponding to the menstrual period and also the later months of pregnancy. Pressure symptoms due to over-filling of the stomach, accumulation of gas, distended bladder or a loaded rectum must be promptly and suitably corrected. Abnormal conditions as Anaemia, and intercurrent infections must be dealt with by the attending Doctor.

The causes of abortions or miscarriages must be found out and remedied.

If the above instructions are strictly followed by the pregnant mother and judiciously supervised by the attending Doctor, the day is not far off when India can lead the other nations of the world in the matter of expectation of normal life. The Indian mother, though by nature timid and affectionate, is steeped in superstition and the aim of the Doctor who hopes to do useful work, must be the weaning away of such influences by worming her way into the mother's heart.

The first bacterial infection of the intestine of the infant occurs as early as three to twelve hours after birth. It is not certain whether this infection occurs through the mouth or anus.—*Medical World.*

Deafness—Its Treatment

By Dr. T. P. Tiwari, L. M. P.,
Assistant Medical Officer, Mungeli, C.P.

TREATMENT of deafness in a large majority of cases is unsatisfactory. There are, however, certain types of deafness which do yield to treatment if the underlying causes are properly recognised and treatment is started early. It should be borne in mind that promptness in both recognising the cause as well as in beginning the treatment is a matter of extreme importance in many cases. I have endeavoured in the following few lines to enumerate a few causes which bring about deafness and also to say something with regard to their treatment.

1. Partial deafness on account of mechanical obstruction in the external auditory canal in the shape of large masses of wax or foreign bodies is not uncommon. Removal of obstruction is all that is needed by way of treatment.

2. Deafness is sometimes due to anæmia and general debilitated conditions of the body. Treatment should be directed towards the improvement of general health.

3. Deafness is sometimes met with after prolonged and heavy strain on mind and body. It is particularly so in persons with neurasthenic temperament. Rest, administration of tonics and change of scene are usually sufficient to restore hearing to normal.

4. Deafness in hysteria is not an uncommon feature. Treatment lies in removal of the cause.

5. Eustachian obstruction is a very common cause of deafness. Such obstruction may be due to presence of adenoids or enlarged tonsils. In acute inflammatory conditions of the throat, obstruction of the eustachian tubes is sometimes very sudden. Deafness is also equally abrupt and is almost complete. Early recognition of the condition together with an early commencement of the treatment gives the best chance of avoiding permanancy of the trouble. In cases of deafness, therefore, it is very important to make a thorough examination of the nasopharynx with a view to find out if any of the conditions mentioned above is present. On examination of the ear in such cases, one finds the drum to be sucked in and handle of the malleus looking unduly prominent. Treatment which must be started early should be directed towards the removal of obstruction. Enlarged tonsils or adenoids if present must be removed. Inflamed throat should be set right and the eustachian tubes should be forced open either by Valsalva's method or by politzerisation. In old cases, it may be necessary to force open the tube by politzerisation after introducing the eustachian catheter. These measures are enough in many cases to bring about an early improvement and deafness gradually disappears.

6. Certain drugs like quinine and arsenic have a tendency to produce deafness. Elimination of such drugs is the proper treatment.

7. Deafness is occasionally seen in prolonged specific fevers like enteric

fever. It is supposed to be due to toxic neuritis. No special treatment is necessary. Deafness gradually passes off.

8. Deafness is often a senile phenomenon. No treatment is known to be of real value.

9. Chronic suppuration in the middle ear resulting in destruction of the membrane and ossicles is a very common cause of deafness. Middle ear suppuration should therefore never be lightly treated. There is not only a danger of mastoid and other intracranial complications arising out of it, there is also a likelihood of the disease becoming chronic with eventual destruction of the conducting mechanism and consequent deafness. Once the destruction has taken place and deafness definitely established, treatment is not of much avail.

10. Thickening of labyrinthine walls with consequent fixation of stapes is another cause of deafness which, in these cases, is however seldom complete. The condition cannot be definitely accounted for. It is not uncommon in women and may begin after a confinement. Onset is gradual and is not generally associated with catarrhal phenomena in the nasopharynx. Treatment is not satisfactory. Use of artificial devices in the shape of speaking trumpets does improve the hearing to some extent.

11. Working in noisy places like factories gradually leads on to deafness. Treatment is entirely palliative. The ear should be protected with suitable pads to prevent the noise from securing a direct entry. There is no satisfactory treatment in the event of deafness becoming absolute.

12. Syphilis is responsible for deafness in some cases. Appropriate specific treatment should be taken recourse to.

13. Injuries involving the membrane or the internal ear almost always result in deafness. In cases of injury to membrane, the parts should be kept clean and aseptic. The membrane gradually heals up and hearing is almost completely restored to normal. Injury to internal ear results from either a fractured skull or punctured wound and is a much more serious condition. Even if recovery were to take place, deafness remains unaffected.

14. Deafness is sometimes a congenital condition. Such persons are also almost always dumb. There is no treatment for this condition.

Much deafness could be prevented if proper attention were given to the ears of children, both of pre-school and school age. Dr. Burt R. Shurly urges a nation-wide movement to inform people just what should be done to lessen the number of persons who are hard of hearing. The dangers of an acute and suppurating ear should be made known to all parents and teachers. Hearing tests should be given in the schools, so that defects can be discovered early.

It is estimated, continues Dr. Shurly (*Annals of Otology, Rhinology and Laryngology*), that acquired deafness in child-hood is in 10.6 per cent of the cases the result of disease of the nervous system, such as meningitis for the most part; 28.3 per cent from infectious diseases and 61.15 per cent from ear disease and injury. Scarlet fever, measles, influenza whooping cough and diphtheria take their toll, although scarlet fever and diphtheria are diminishing, thanks to the newer medical procedures.—*Good Health* (*U. S. A.*)

Childhood Troubles

By Manda Venkata Narasimha Rao, B.A., B.L.,
Berhampur.

HEALTHY and sturdy expectant mothers are fit to build strong children and launch a soul. Weak children are certain cares and uncertain comforts as they are born with troubles. When a child emerges from the warm, cosy womb chamber, it is assailed by atmospheric pressure, light and wind, and strives to adapt itself to its new environment. Lying helpless, naked and unable to move, this innocent thing has to be nurtured with tender care by its fond mother. A child's troubles find expression in crying when hungry, cold or hurt and are relieved under mother's intelligent care.

One Mother-Fed Baby is equal to 3 Artificially Fed Babies.

During the second six months of life, the child has to face a new series of troubles arising from bad feeding, exposure, weather changes and teething troubles. The skin of a new born infant is very delicate and suffers easily under the slightest pressure or irritation. When it begins to cut the milk teeth, troubles set in causing suffering to the child and anxiety to the parents and when it has to be weaned, great care is to be used in the choice and regularity of feeding or the stomach and the bowels will resent.

In hand-fed children, distempers increase four-fold by the use of impure or over-boiled milk, irregular feeding, and dirty cups and spoons. When weaklings are born, bowel and bronchial complaints occur demanding careful nursing and treatment. In the hottest part of summer, several children die from the effect of heat. Children are also carried off by epidemics as measles and cerebro-spinal meningitis. Mortality is greatest in the first year of birth owing to the above troubles and when children have survived three months they are able to resist weather and other changes and keep tolerably healthy. Children, born of mothers suffering from starvation, venereal disease, tuberculosis, malaria, dysentery etc., become too weak to survive the onslaughts of their afflictions. The chances of life are great among breast-fed children, and the chances of death are numerous in hand-fed infants. In very poor families who cannot afford milk, the children are fed with tapioca and rice conjee with

dire results.

The most cruel practices still obtain among children of lower orders in India in the process of healing sickness causing suffering or death. Accidents also account for some deaths such as suffocation by clothes, burns by cloths catching fire. Some unlucky children die at the hands of servants who put them to sleep by administering opium to save themselves from worry.

A child's future health and happiness depend upon the nourishment it receives in early life and to build strong bones and teeth and to prevent rickets in children, the latter must be made to be playing naked in the sun. The breast-fed child of a healthy mother gets the best nourishment. The open air schools or the village pial schools are the best places to which children should be sent to learn.

Hand-fed children thrive well on Milk-Maid Milk and Glaxo Milk as they are rich in Vitamin A. A little Cod Liver Oil Emulsion placed on the tongue daily builds bonny babies. Sickly children from the very outset must be under the care of a physician. The Maternity and Child-Welfare institutions established throughout the civilised world have caused greater attention to be paid to the health and well-being of mother and children, and diminished infant mortality. A healthy child is a national asset and is indispensable to nation building. A woman is gifted with amazing patience and endurance to war the trials of motherhood.

Small-pox and its Prevention

By Dr. Haridas De,

Late Senior House Physician,
Campbell Hospital, Calcutta.

SMALL-POX is a fatal disease which carries away thouands of lives in a year. The very name is terrible and is shocking to hear. People, specially the lay public of the rural areas in Bengal, fear the disease so much that they are afraid even to pronounce the name 'Pox' directly. They call it as "Favour of Mother Sitala". Whether it is favour or otherwise of the Goddess, it is undoubtedly a horror, giving the most troublesome symptoms, causing people to vacate the affected villages or areas out of fear.

Considering the truth of the old adage that 'an ounce of prevention is worth a pound of cure', a few humble suggestions are given in this small article about preventive measures against small-pox.

Small-pox is one of the most easily preventable diseases, as it responds very quickly to preventive measures. So, by taking necessary precautions, the epidemic nature of the disease can be easily checked and thus heavy mortality by the disease also may be much reduced.

Small-pox prevents small-pox. One attack confers immunity throughout the whole life. Though a second attack

or very rarely a third, are also heard of, the subsequent attacks always become milder in type and seldom prove fatal.

Efficient *vaccination* and revaccination are the only and most powerful safeguards against small-pox. By the term vaccination, we mean innoculation of the human body with vaccinia which is nothing but living virus of small-pox made attenuated by its passage through cows and this living virus acts as an immunizing agent

Smallpox Vaccination Protects

givi g immunity, against the disease. But, this immunity, unlike that of an attack of the disease itself, remains for about seven to nine years only. So re-vaccination plays also an important factor in the prevention of the disease. The position of small-pox vaccination is unique in medical science.

In India, Government and Local Board or District Board Authorities maintain adequate staffs of trained vaccinators and the public get vaccition and revaccination free. But, the lay public, specially the uncultured lower class of people in our country, though they always try to suppress an outbreak of the disease, yet for reasons best known to themselves, avoid vaccination and thus become positive source of an epidemic. So, mass education is urgently necessary in our country and vaccination, as in other countries, should be made compulsory in our country too.

Small-pox does not visit a town or village if every one is properly vaccinated but if some persons remain unvaccinated, an epidemic may set in when the unprotected suffer heavily. So, it is the duty of every person to protect himself and his family by getting vaccinated in time.

Much organised Vaccination and Propaganda should be made by the Public Health Department, insisting on the uneducated public to protect themselves by vaccination. The best period of the primary vaccination lies between the third to fifth month, when the health of the child is not impaired with dentition which causes several complaints. In the time of epidemic, even infants of four days old should also be vaccinated (without any harm) as they are prone to the disease.

Re-vaccination should be made at the age of 9 to 12 years and there is no harm if one gets himself vaccinated every year. It becomes, moreover, beneficial as the previous operation might have proved unsuccessful due to any reason.

The duties of a medical man attending a case of small-pox are :

(1) To advise the patient to be removed to an Isolation Hospital.

(2) To arrange for immediate vaccination of the rest of the members of the house. Vaccination within 5 days also proves useful in preventing the disease.

(3) To inform the Health Authorities at once to take necessary preventive measures.

(4) To give necessary instructions about the disinfection of the contacts and materials.

Enteric or Typhoid Fever

By Dr. R. K. Misra, L.M.P.,
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It is an acute specific disease of world-wide prevalence, and caused by Bacillus typhosus. It spreads by the contamination of the drinking water and food, by infected human excreta, urine and sputum. It may occur at any period of life and throughout the year. No sex is exempt.

The chief site of lesion is in the small intestines. This is a disease in which almost all the organs of the body are more or less affected.

How to recognise the Disease ?

It has a continuous fever, which shows marked daily excursions and irregularities. The course of the disease in un-complicated case, is from 3 to 4 weeks.

The patient, quite healthy before, feels suddenly so much depressed and weak, that he is unable to perform his ordinary work. He suffers from severe frontal headache, back-ache, chilliness, loss of appetite, abdominal pain, bleeding from the nose, a tremulous, tongue and disturbed sleep. There may be marked constipation or slight diarrhœa from the very beginning of the disease. There is ladder-step like rise of temperature, pea soup stools, tympanites, gurgling in the right iliac fossa, red-tipped dry tongue, twitching of the muscles, muttering delirium, aimless picking at the bed-clothes, leading to so-called typhoid state.

The superior-lymph nodes are enlarged throughout the body in some cases. The disease has a dicrotic pulse *i.e.*, the pulse is slow in proportion to the rise of temperature.

As soon as there is tympanites, severe abdominal pain, an increased pulse rate with rigor and collapse, one should be cautious of the dangerous symptom—perforation. The next worst symptom of the disease is intestinal hæmorrhage (bleeding), which occurs in the third or fourth week. There is sudden fall of temperature, pallor, sweating, a rapid feeble pulse and extreme prostration.

Single large bleeding is not so dangerous as repeated small bleedings.

The disease can be confounded with a number of diseases, such as Acute miliary Tuberculosis, Malaria, Kala-azar, Typhus, Round-worm infection Influenza etc.

Treatment.—Prophylactic : Prevention is better than cure. In India, poverty is a great bar, both to the sanitary and social progress. We should pray to God for the good-will of the present Provincial Government to solve this problem. It is a matter of great pleasure that the Congress Ministry has taken up this task and the days are not far off for India, when the mortality rate which had reached so high, will gradually fall to the bottom.

The points to be observed as prophylaxis, are as follows :—

1. To secure a good water-supply.

2. Arrangements for the provision of suitable latrines and proper disposal of excreta.

3. Protection of the food-stuffs against the flies. The shop-keeper should be instructed to preserve sweet-meat etc., in glass or fly-proof almirahs.

4. Compulsory vaccination during an epidemic.

General Management.—Since the disease has a long course, the entire success of a case depends on its general management. For the benefit of the lay public, I like to describe in brief, the chief points, to be observed, for the management of a case.

1. The patient should be removed to a Hospital earlier.

2. If Hospitalisation be not possible, suitable nursing and absolute cleanliness are all important.

3. The patient should enjoy absolute rest in bed in a well ventilated room. The room should be quiet and the visitors, restricted from frequent visits.

4. The attendants and the nurses must be vaccinated.

5. A suitable arrangement for the disinfection of the clothings, discharges, utensils etc., used by the patient, should be made.

6. The patient be made to use bed-pan and urinal from the very commencement of the attack.

7. In extreme cases, stools to be received in a pad of wool, which should be changed frequently.

8. The physician in charge of the case should instruct the attendant or the nurse to keep a daily record of the following :—

(1) Record of temperature every 4 hourly.

(2) Pulse and respiration chart.

(3) Number of urine and stools passed, their character and amount.

(4) Number of food and fluid intake. This will give an idea for the selection of the diet of the patient. The temperature may rise due to errors in diet.

(5) Sleep—its character.

(6) Hydro-therapy *i.e.*, use of water both externally and internally.

(7) Any such symptoms indicative of intestinal bleeding or perforation, for calling in of the attending physician.

(8) Change of the position of the patient 3 hourly, with a view to prevent bed sore and hypostatic congestion of lungs due to pressure.

9. To remove constipation, use of glycerine suppository instead of any purgative by mouth or soap-water enema.

10. After each feed, clean the teeth and swab the mouth with thymol lotion (gr. x to 1 pint of water), with a soft linen. Carefully remove the coating of the tongue with a curved whale-bone. Paint ulcer with Mandle's pigment.

11. Soften the crust of the lips and nerves with liquid paraffin first and then apply white vaseline.

12. Douche nose with saline lotion (ʒ ii to 1 pint) and apply white vaseline.

13. To prevent bed-sore on the back and buttock, sponge the part

first and then rub methylated spirit and dust the parts with dusting powder containing zinc oxide, boric acid and starch.

14. Parts soiled by discharges should be sponged, dried and dusted with dusting powder.

15. *Diet.*—It is a sin to give any solid food during the febrile period of the disease. It is only allowed when temperature remains normal for more than 3 days. The diet should be easily digestible, nutritious and less irritable to the intestines. Milk should form a major part of the diet. The milk should be diluted with barley water preferably 2 chhataks of milk mixed with one chhatak of barley water, given every 2 hours, both in the day and night; milk with Glucose is also very efficacious. 2 to 3 pints of milk are all that is required for a typhoid case.

In case the milk is not digested as is evident from diarrhœa etc., it should be citrated (gr. ii of sodacitras to ℥ i of milk) or whey water with lime juice and sugar, or albumin water should be allowed. During the course the fruit juice diluted with water should be allowed regularly. Indiscriminate use of fruit juice should be disallowed, since it upsets the digestion.

Water should be given in large quantities between the meals. In favourable cases the use of alcohol is not necessary. Indications for its use are :—

1. Just before and after cold-bath.
2. Severe toxæmia.
3. Dry-brown tongue, a feeble irregular pulse.
4. Severe diarrhœa.
5. Less quantity of urine passed.
6. Old age.

Alcohol should be used in the form of Brandy. One to two ounces of Brandy in 24 hours is all that is required for a case.

"There is quite a formidable array of diseases that may be caused by using infected milk. Among them are scarlet fever, **typhoid,** septic sore throat, tuberculosis in various forms, dysentery, Malta (or undulant) fever, abscesses, and even infantile paralysis. So you see how important it is that we take great care to protect ourselves from these dangers by knowing how to keep milk in the best possible condition, free from dirt and germs.

On the other hand, there are the diseases and disabilities that may occur from *not* using milk, such as decayed teeth, rickets, intestinal disturbances, scurvy, pellagra, low resistance to bronchial and sinus infections, etc."—*Leonara L. Warriner, R. N. in O. W.*

ECLAMPSIA—

By Dr. Nirmal Chandra Chatterji, L. M. F.,

Jhenidah, Jessore.

ECLAMPSIA is a disease of womb which is generally manifested by general convulsions and unconsciousness during pregnancy. The causal factor of the disease is a great toxin circulating in the mother's blood before, during or after delivery.

Now-a-days, it is becoming so common in India that people should have some preliminary knowledge about the disease. Because, the disease is still more a preventive than a curative one.

An eclamptic patient always passes albumin in the urine which becomes thick and scanty.

So every husband should keep a careful watch about the quantity of his pregnant wife's urine. She may complain of head-ache or giddiness, which sometimes is due to rise of blood-pressure. Generally, these symptoms appear at the fourth month, since then mother's urine is to be examined for albumin and blood pressure should be taken.

As regards the dietetic control, what should always be aimed at, is to prescribe plenty of bland fluids such as dhal water, glucose, alkaline water, whey etc. The diet must be very simple and easily digestible with high caloric value. The mother also is to take light exercise as walking in the morning. Whenever any suspicion about the disease arises the husband should consult a doctor.

Thus, if due precautions are taken, eclamptic toxins can very rarely creep into the mother's blood and if detected, early treatment will always help in preventing a fatal end. There is no specific treatment in late cases of eclampsia. So the maxim "prevention is better than cure" can well be applied here.

The greast loss in initial weight has been found in jaundiced infants.

Almost all infants excrete small quantities of albumin during the first days of life.

In the last months of fœtal life, a considerable deposit of iron salts is accumulated in liver.

Consider the sensitiveness of the young infant to alimentary injuries, as well as the increased permeability of the intestinal wall.

There is no reason for treating the loss in weight therapeutically unless it be excessive in amount or continues beyond its normal time.

The size and weight of the mother do not always determine the size of the newborn child, and great variations in both directions may occur.

The amount, concentration and appearance of the urine during the first days of life are dependent on the variable intake of fluid at the time.—*Medical World.*

The Bactericidal effect of Perfumes

A RECENT French paper was discussed in the *Manufacturing Chemist* which tended to show that the germ-killing power of a mixture of two essential oils was greatly superior to the killing power of either oil alone. Investigations of the bactericidal effect of mixtures of essential oils are not frequently made but a correspondent has brought to our notice an investigation of the germicidal value of eau de Cologne. This was made by P. von Gara, who published his results in *Zbl. Bakt., Abt. I,* 1934, Vol. 132, pp. 110—119.

Gara examined seven commercial brands of eau de Cologne, and found that all of them, when undiluted, had an extraordinarily high bactericidal value *in vitro*: dense suspensions of bacteria were readily killed, and even the resistant spores of *B. subtilis* were immediately rendered incapable of germinating. Dilution of the eau de Cologne with water greatly reduced its germ-killing properties; if the dilution was more than 2 parts of water with 1 part of eau de Cologne the mixtures were unable to kill the bacteria completely when in contact with them for one hour.—*Indian and Eastern Druggist*, March '38.

Antimosquito Campaign

The Spring Mosquito Nuisance.

EVERY year, during the early spring, there is throughout northern India an enormous increase in the numbers of culicine mosquitoes, commencing as a rule towards the end of March, reaching its greatest height in April, and dying away in May. Although they are harmless as regards the spread of malaria, these insects constitute a very real pest. In the worst years the plague is so bad that whenever an almirah is opened or a curtain shaken, a cloud of mosquitoes emerges.

The mosquito concerned breeds in any kind of stagnant water, whether clean or foul. Favourite breeding places are stormwater drains with their catch-pits, sullage pits, disused wells, water in disused tins, earthenware pots, barrels, garden tanks and receptacles of all kinds, sump-pits quarry pits, water used in building construction, borrowpits etc. It will breed in the cisterns and pans of water closets, and in the traps of bath-rooms, whenever these are not in daily use. When suitable breeding places are available, larvæ are produced in enormous numbers so that a single small collection of water may produce many thousands of mosquitoes.

Unless the greatest care is taken, not only by the anti-mosquito staff but also by householders themselves, an annual recrudescence of the spring mosquito nuisance, in greater or less degree, is inevitable.

The public are invited to co-operate in the campaign by seeing that their cisterns and wells are mosquito-proof, that hydrants are not leaking, that anti-formicas, drains and gulley traps are

treated with phenyle solution twice a week, and that no receptacles which may hold water are left on the roof or in the compound, either on the ground or suspended from trees. All broken ground in compounds should be levelled and all rank vegetation removed.—*Patna Journal of Medicine*

A Few Health Commandments.

1. Health must be earned.
   Health never comes without effort.
2. Remember, an ounce of prevention is worth more than a pound of cure.
3. Wash your mouth first in the morning.
4. Mouth is the gateway to your health and you must guard it well.
5. Chew your food well as your stomach has no teeth.
6. Keep your teeth in perfect trim —They are your instrument for mastication of food.
7. Unmasticated foods never digest well—hence your teeth are of paramount importance.
8. Clean your teeth before going to bed if you are in the habit of doing it once in 24 hours.
9. Septic matter from the mouth may poison the entire system.
10. Exercise of the teeth is essential —chewing of hard food *e.g.*,sugar-cane, crusts etc. give exercise to the teeth and their supports.
11. Have your teeth atttended to every year.
12. Childrens' teeth should not be neglected. Their health depends on the good keeping of them.
13. Do not suffer from tooth-ache, consult a qualified dentist at once ; he would be able to save you from lot of unnecessary waste of time and money.
14. Eat plenty of leafy vegetables with your meals and drink plenty of pure water.—*Indian Dental Journal.*

Are Sweets Harmful ?

ARE sweets really detrimental to the child?—Well, yes and no. It must be remembered that sweets are made up of either glucose or sucrose (cane sugar). Both of these sugars are very concentrated foods, supplying fuel to the body in a very available form which requires little digestion. Here lies one of the principal dangers—the child's appetite for simpler and more wholesome foods may become blunted as a result of satisfying his hunger with such highly concentrated food as are sweets.

Aside from their concentrated food value, sweets are deficient in all other nutritive elements : they contain no vitamins, no mineral salts such as calcium and iron, and therefore the diet is likely to become unbalanced. Children who eat large quantities of sweets may in this way become deficient in those elements that make for healthy growth and more particularly for healthy teeth. Sugar left in contact with the teeth tends to decompose, resulting in an acid product that tends to destroy the tooth enamel. This local action on the teeth, associated with the general upset of calcium balance, certainly helps to bring about tooth decay. We would stress, therefore, that an excess of sweets, especially during the growth period, may lead to harmful results. Recent research work tends to indicate that an excess of sugar or starch in the

diet may predispose to nasal catarrh and respiratory infections.

What, then, are parents to do when it comes to this question of sweets for their children? The ideal thing would be never to allow a child manufactured sweets of any kind, but to cultivate instead his appetite for natural sweets such as are found in fresh or dried fruits, including raisins, dates, figs, etc. That this is not always possible, we readily agree, especially when one considers that parents so often set a bad example in this respect. How can we expect our children to do the right and best thing for themselves when they see their parents doing just the opposite? We as parents must set the proper example in our eating habits. Our children's habits, whether we like it or not, are always a reflection of our own! In respect to manufactured sweets, we would at least recommend strict moderation. Certainly, sweets should never be given to a child between meals; if a small quantity is allowed it should come immediately after a meal.—*Good Health (London.)*

The Smoke Nuisance

THE right to pure, unadulterated air is certainly one of the inalienable rights of every human being. The smoker has no more right to pollute the air which I am breathing than he has to taint or pollute the water which I am about to drink. What would be done to a man who deliberately dropped into my well a sack of Quassia chips or asafetida? Has any man any better right to defile with tobacco smoke the air of the street along which I am walking or the street car or cab in which I am riding, or the public room in which I am sitting?

The growth self-assertiveness of smokers and their indifference to other people's rights and feelings, may help toward a reform by arousing the great body of non-smokers to the point of protest. A concerted effort of all non-smokers would perhaps result in restricting the license of smokers, to the comfort and well-being of thousands of non-users of tobacco whose rights are now trampled upon.—*Good Health (U. S. A.)*

Married Men Live Longer.

SOME month ago figures from Canada were published indicating that married persons die less frequently at given ages than single ones. Data have been compiled for American men and women by the Metropolitan Life Insurance Company and point to this definite conclusion: " One rule holds consistently throughout life; the married male is favoured over the unmarried." Men get greater advantages than women from the married state in the matter of mortality. From the ages thirty to forty-five years, the mortality of the married men is less than half that of the single. For married women between thirty and sixty-five the advantage is only 10 per cent. over the unmarried. Among young wives twenty to twenty-four years, the mortality is slightly higher than among the unmarried. When men have lost their wives, their mortality is twice as great as among men who remain married. Women who have lost their husbands have only a slightly higher death rate than married women of the same age.—*Medical World.*

It, assuredly, is only custom which can diminish in us that natural horror of cutting the throat of an animal which we have fed up for butchery.—Voltaire.

* * *

Diphtheria.

"Diphtheria is most fatal in very young children, who cannot complain of a sore throat. Many young lives would be saved if only parents would make it an absolute rule to examine the throat of *every* ailing child—no matter what the child complained of".—*Dr. C. T. McMichael, M. O. H. Paisley.*

* * *

Go To Bed When Feverish.

Fever is a beneficial symptom within certain limits when the body is fighting microbial invasion, says Dr. Bernard Fantus in an article on fevers. But the seriousness of the condition is not always in direct proportion to the severity of the fever. A slight rise in temperature does not invariably mean little danger. Even in mild cases of fever, absolute rest in bed should be insisted on, since thus Nature may align all the vital forces to fighting the infection.—*S.*

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Drink and Driving

Two or three ounces of whisky, which is a comparatively small quantity, have been shown by psychological tests to diminsh attention and power of control, to reduce the capacity to learn, to affect adversely the reasoning powers and to affect the powers of making movements dependent upon rapid and accurate co-ordination.

The curious thing is that drivers of motor-cars often think that their powers are improved by taking alcohol and that they are quicker in seeing what goes on around them andoare more skilful and ready in the driving of their cars. That feeling is an illusion, because it will always be found that the taking of alcohol affects the qualities which are necessary in the driving of motor-cars.—*Lovat Fraser, M. P.*

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The Soda Habit Harmful

The frequent use of soda is an exceedingly common practice, and is generally regarded as quite harmless. Formerly used only for the purpose of neutralizing acids supposed to be present in the stomach, it has in recent years been used as a remedy for a condition known as acidosis, in which there is supposed to be an excessive accumulation of acids in the blood and tissue fluid. The condition lowers resistance, increases the liability to infection, and is frequently accompanied by headache, susceptibility to infectious colds and rheumatism, and of various conditions to which the term dyspepsia is commonly applied.

Recent studies of the stomach and conditions of health and disease have clearly shown that soda is quite capable of doing much harm. It destroys the acidity of the gastric juice and so interferes with the functions of the stomach. Instead of seeking health by swallowing large doses of soda, an effort should be made to find the real cause of the sickness.—*Oriental Watchman.*