NOVEMBER 1971

Herald of HEALTH

A Mixed Diet for Mental Health

by W. A. Townend

AFTER last winter's vicious 'flu had hit several of my friends, I asked some of them how things had been "up top" during the onslaught. You see, I was interested in their mental health during a body low.

Here are the confessions of six victims, starting with a—

Business Man: "Just before the 'flu got me I was face to face with a crisis situation in my business. During the days that I had the 'wot' the idea was turning over and over in my mind that the situation in my business was a hopeless one."

A Mother: "It suddenly seemed to me, and the thought plagued me, that my teen son (a good boy really) was an absolute no-hoper, as my mind kept dwelling on a silly thing he had done."

A Journalist: "My mind turned on what seemed to be an endless series of writing tantrums—it was never able to go beyond the first sentence of what might have been acres of new articles."

An Executive: "A recent rather lengthy and somewhat unpleasant interview just would not shift from my mind. I was haunted by it."

A Church Officer: "I even wondered if God had forsaken me."

A Professional Man: "A mistake I had made grew so large in my thinking during the worst of those 'flu days and nights that I was almost convinced that I should step out of my profession."

Each of these frank statements tells the same thing. They all add up to one clear conclusion: The condition of the body influences the state of the mind. Of course! For after all is said and done, the thinking machine—the brain—is an organ in the body!

Now anyone who substantially sampled a 'flu will realize that in using it to illustrate the relationship existing between the health of the body and the health of the mind, I am parading extreme cases. True. But I am sure you will agree with me that the idea is sound. Few of us will have trouble in calling up lesser, but like, experiences in our own lives. I think I can see us all coming up to the line together in concurrence that when the body is "in the pink," as we say, then the mind is "rosy" and when the mind is "rosy," the body has its best chance of being "in the pink."

Would you stay with me for another paragraph or so while we take a little longer look at this thing we loosely call mental health? We'll take a glimpse at the mixed diet for it.

Mental Health

By "mixed diet" we mean balanced diet, or in other words, a good variety of good things in good proportions and at good (or regular) times.

Let's now go and see the ingredients of mixed diet for mental health. It is certainly not intended, by the way, that the order of presentation determines priority, but simply that on every list something is at the top and something is at the bottom.

And here is encouraging news—getting one (a healthy body) and keeping one can be for many people a whole lot more simple and less costly than vitamin ads, "strong man" magazine, and health "specialists" may suggest. To illustrate: if a thing smells "evil" and tastes as bad, then it's not a bad idea to keep it outside of the body: for example, tobacco and liquor.

On the other hand if grown things that are green, yellow or red, smell good when fresh, and are recognized items of food then put them into the body in their freshest possible condition, and certainly, not fermented, which to many informed

To page 34

CLIPPINGS and COMMENTS

If you drink a lot of coffee and then sit in the sun, your skin can get old before its time, says Dr. George Reader, a New York specialist on ageing.

Sunlight reacts with the caffeine inside your skin cells, he says, breaking the chromosome blueprint so the cells cannot reproduce properly.

Dr. Reader states that you have the best chance of growing old in good health if you lead a tranquil life, don't sleep more than eight hours a night, walk to keep your weight down, and go easy on meat.

•

India had one-third of the world's blind population and less than two per cent of the blind children were in schools.

The government had recently started four training centres for blind teachers and 250 had been trained so far. A Braille course for the blind had also been started recently.

•

A long-lost tribe believed to be of the Stone Age and virtually isolated for more than 500 years has been found in the forests deep in the mountainous interior of Mindanao Island.

The short, dark-skinned and loin-cloth-wearing Tasadays, had been so cut off from civilization that they had never known cultivated plants, had never tasted salt, sugar or smoked tobacco.

A Philippino Manobo tribeswoman interpreter "understood less than fifty per cent of the Tasaday tongue, a member of the great Malayo-Polynesian family of languages."

PICTURE CREDITS

Cover: Colour transparency by Vidyavrata. 6, 13, 14, 16, 36—V. S. Powar; 9—Vidyavrata; 23—Signs.

Herald of HEALTH

Vol. 48, No. 11 November 1971

Editor: JOHN M. FOWLER, M.A., M.S.
Assistant Editor: C. B. Hammond, M.A.

MEDICAL CONSULTANTS

I. R. Bazliel, Ex-Maj., I.M.S. — S. J. Yawalkar, M.B.B.S., M.D.
C. A. Ninan, M.B., F.R.C.S.,Ed. — Elizabeth J. Hiscox, M.D.
K. A. P. Yesudian, M.R.C.P., D.C.H. — R. M. Meher-Homji, B.D.S.

ARTICLES

FEATURES

A SEVENTH-DAY ADVENTIST PUBLICATION issued monthly by the ORIENTAL WATCHMAN PUBLISHING HOUSE, P. O. Box 35, Poona 1, India.

SUBSCRIPTION RATES: 1 yr. Rs. 12.60; 2 yrs. Rs. 24.70; 3 yrs. Rs. 36.30; 5 yrs. Rs. 60.50; Foreign postage, Rs. 4.20 per year.

Foreign: Malaysia, $16.00.

SUBSCRIPTION PAYMENTS: Our representatives are authorized to receive cash or cheques and to issue official receipts for same. For orders sent to publishers, make cheque or money order payable to Oriental Watchman Publishing House, Salisbury Park, Poona 1.

REGIONAL OFFICES: Goa, Kerala, Mysore, Pondicherry, Tamil Nadu—13 Cunningham Road, Bangalore 1; Andhra, Gujarat, Maharashtra, Orissa—16 Club Road, Bombay 8; Bihar, Jammu & Kashmir, Delhi, Haryana, Himachal Pradesh, Madhya Pradesh, Punjab, Rajasthan, Uttar Pradesh, West Bengal—11 Hailey Road, New Delhi; Assam and adjacent states—Nongthymmai, Shillong; East Pakistan—130/C Dhanmandi Road, Dacca; Ceylon—7 Alfred House Gardens, Colpetty, Colombo 3; West Pakistan—Oriental Watchman Publishing House, 57 Multan Road, Lahore; Burma—Book & Bible House, 68 U Wisara Road, Rangoon.

CHANGE OF ADDRESS: Send new address, with wrapper from magazine, or reference number on wrapper, to indicate old address.

NON-RECEIPT OF MAGAZINE: Inquire at local post-office before informing us. If possible, send magazine wrapper when writing regarding non-receipt.

EXPIRY NOTICE: X on wrapper of magazine indicates subscription has expired.

Owned by the Oriental Watchman Publishing House, P. O. Box 35, Poona 1, and printed and published by V. Raju at and for the Oriental Watchman Publishing House, Post Box 35, Poona 1. 1'

the gift that keeps on giving...

The festival season will soon be here. What better way to remember your friends than with a gift subscription to *Herald of Health*, Asia's leading journal on health and home. This gift will prove to be unique—it will keep on giving all year long, long after the glitter and glow of the festivities are past.

Subscription rates: 1 year—Rs. 12.60; 2 yrs,—Rs. 24.70; 3 yrs.—Rs. 36.30. Foreign postage: Rs. 4.20 per year.

Lighten your home and the homes of your friends and loved ones with *Herald of Health*, the magazine that keeps on giving. Each month it brings vital information on child care, happiness in marriage, personality problems, mental and moral health, common diseases, home treatments and numerous other subjects of concern.

CUT OUT THIS COUPON AND

MAIL TODAY.

Editor
Oriental Watchman Publishing House
Post Box 35
Poona 1

Sir:

Please send a gift subscription of HERALD OF HEALTH for 1/2/3 year(s) to the following address so as to reach him/her by this date.....1971.

Name.....

Address .....

.....

I am sending a money order/cheque for Rs. 12.60 Rs. 24.70/ 36.30. Please sign the gift as from me. My name and address follows:

.....

.....

.....

.....

Editorial

MISSING PARENTS

Every now and then newspaper advertisements call for run away children to return home. "Missing" says the caption in bold print above a youthful portrait, and then follows a description of the person concerned. A reward is promised to anyone who can give clues leading to the location of the missing person. And the prodigal is generally offered the promise of acceptance, forgiveness, and harmony. "Come home," the ad will end; "everything is forgotten and your wish will be fulfilled."

The case of the missing child is pathetic. And yet more pathetic is the fact that behind every missing child is a missing adult—more often than not, a missing parent.

Take Saro, for example. She was born with a silver spoon in her mouth. Her parents were wealthy. They showered on her everything—even things she didn't need. The world was hers for the asking. That's how she grew. But then came college, and she found life different. She was least prepared for her new role. Soon papa's dear girl was in trouble. She called it love. Her parents called it shame and disobedience. She walked out, and then the ad followed her.

Or consider the case of Kumar. His parents ruled by the word of the law. They believed in the power of authority. Their word was final. They knew what was best for him. No questions should be asked. No doubt was entertained. Kumar's parents sincerely felt that authoritarianism and discipline are synonymous, and that their word and cane would assure their son's growth into responsibility. But in his mid-teens Kumar left home, leaving a simple note: "I am not loved in this house."

The story of Mani is quite different. He is the last in a family of eight. His father is a miner with a take-home pay of Rs. 150 a month. When the family's first child was born, the father was drawing a salary of less than Rs. 100. It was hardly sufficient for the three. Now the salary has risen by Rs. 50, and the mouths to feed by seven. Add to this the problem of inflation, and the name of the game becomes Survival How. So Mani decided to survive. He left home to the city—to work if possible, to pick-pocket if necessary. His parents cried for Mani, of course, but they could not afford an ad.

Saro, Kumar, Mani and hundreds like them point to the necessity of parental responsibility. Mature homes produce mature children. As we celebrate Children's Day this month, it will be well to ask the question: What are the ingredients of responsible parenthood? One of the finest books on the subject, *The Adventist Home,* by Ellen G. White, brings out at least three factors:

Understanding. "Do not treat your children only with sternness, forgetting your own childhood and forgetting that they are but children. Do not expect them to be perfect or try to make them men and women in their acts at once. By so doing, you will close the door of access which you might otherwise have to them and will drive them to open a door for injurious influences, for others to poison their young minds before you awake to their danger. . . .

"Parents should not forget their childhood years, how much they yearned for sympathy and love, and how unhappy they felt when censured and fretfully chided. They should be young again in their feelings, and bring their minds down to understnd the wants of their children."—Page 196.

Discipline. Discipline and punishment are not the same; one is positive, based on principles; and the other is negative, arising from anger. "Harshness and severity are [not] necessary to secure obedience. . . . Harsh words sour the temper and wound the hearts of children, and in some cases these wounds are difficult to heal. . . . Children have sensitive, loving natures. They are easily pleased and easily made unhappy. By gentle discipline in loving words and acts, mothers may bind their children to their hearts. To manifest severity and to be exacting with children are great mistakes. . . . Say what you mean calmly, move with consideration, and carry out what you say without deviation"—pages 308, 309.

Adequate care. When we have more children than we can adequately care for, we are morally, socially, and spiritually wrong. "[Parents] should calmly consider what provision can be made for their children. They have no right to bring children into the world to be a burden to others. . . . They commit a crime in bringing children into the world to suffer for want of proper care, food, and clothing. . . . Those who are not qualified to take care of themselves should not have children."—page 165.

—J.M.F.

What to do to avoid or prevent indigestion

Is Indigestion Your Problem?

by LIONEL ACTON-HUBBARD

EVERY sufferer has a different definition of indigestion: symptoms vary from one individual to another, and, of course, from one attack to another.

In general the following are the discomforts we associate with indigestion: pain in the stomach or in the chest, "heartburn," gas, distention of the abdomen, water brash or the regurgitation of acid, belching, coated tongue, unpleasant taste in the mouth, nausea, possible vomiting.

Industrial authorities know that millions of work days are lost every year due to indigestion with the resultant financial loss totalling millions of rupees. Only chest diseases take greater toll in day-to-day absence from work.

That type of indigestion which is caused by organic disorders need not concern us here. In conditions in which the digestive tract, "the alimentary canal," is severely disordered, digestion will suffer in direct ratio to the severity of the disorder. Gall-bladder disease, gastritis, ulceration of the stomach, anæmia, diabetes, and other glandular disorders—these and many more will result in indigestion. Generally one suffering from such ailments expects his digestion to be upset.

In this age full of stress and strain there are many of us who suffer from functional indigestion, which may be acute or chronic—there is apparently nothing organically wrong with us. This is the indigestion that makes life a misery for unnumbered thousands of us daily. This is the indigestion that results in chemists carrying stock lines in "remedies," antacids, etc. There is not a shred of evidence that such remedies improve the situation, because they do not get to the root of the cause of the problem.

Functional Indigestion

What, then, can one do to avoid or prevent functional indigestion?

There are some simple but quite practical rules you can follow, but first consider the structure of your digestive tract: In general it is a very long tube containing certain pouches and storage areas. From the walls of the tube pour out the digestive juices containing enzymes of one kind or another. The enzymes combine chemically with the food making other compounds, until the food is finally broken down into substances that can be transferred through the intestinal wall and into the blood stream.

Your digestive tract is loaded with bacteria which change according to the type of food eaten. Any undigested food is broken down by these bacteria, and gas is formed. *Food properly digested* proceeds on its way with no such difficulty.

The food mass is moved through your intestines by an action called peristalsis; if the mass moves normally at the proper speed, elimination of waste material is normal, and all is well.

Enzymes are perhaps the most

important element in the process of digestion. Enzymes are made of protein substances. This does but underscore the great importance of protein in our diet. Enzymes cannot be formed in the digestive tract unless protein is available for the manufacture of them. Lack of enzymes means food will remain undigested.

Another function of protein is to keep the walls of the digestive tract healthy and elastic. The muscles of the intestinal walls have the task of contracting almost continuously to break up food masses and push it along to the next step of the digestive process.

The indigestion sufferer may blame his condition on protein foods: "That cheese pie I ate last night"; or: "Eggs never did agree with me!" So he cuts down even further on good protein and the condition worsens. How many of us reach for a dry biscuit or a piece of toast when indigestion threatens —a boiled egg, some ripe fruit, and a glass of milk, is a far better idea.

Vitamins

Two vitamins of the B group are mentioned by specialists in relation to digestion. They are niacin and thiamine. A symptom of pellagra is indigestion. Pellagra is a disease of vitamin B deficiency, involving, chiefly, niacin. Thiamine is needed at all times in the digestive tract whenever we consume carbohydrates of any kind.

It is an essential part of the enzyme system for breaking down carbohydrates into easily digested substances. If you are eating beans, potatoes, bananas, nuts, peas, and other perfectly natural foods, then you are getting plenty of these two vitamins to assure you of good digestion of starches.

If, however, you are eating largely of refined cereals, pastry, bread products, sweets, soft drinks, and other starchy, sweet foods made of highly refined products,

Fear and worry, anger or irritation, nervous fatigue or strain, emotion or excitement all exert a strongly unfavourable influence upon digestion.

then you are certainly heading for indigestion. It may be that you are already a sufferer, for you will lack niacin and thiamine—it has been removed from your refined carbohydrate diet.

Niacin depletion over a *long* period may result in decreased hydrochloric acid in the stomach which will lead to further indigestion since this is an important digestive juice. A lack of thiamine changes the entire digestive tract. There is loss of appetite, the stomach and intestinal muscles cannot contract normally, and the food is not well churned and mixed with the digestive juices. Hydrochloric acid decreases as well as the flow of digestive juices from the pancreas and the gall-bladder.

Diet Planning

What kind of diet should you take, then, to guard against indigestion? First of all abandon the idea that certain foods "disagree" with you, unless you have a medically proven allergy to them. For instance, eggs are among the most easily digested foods in a healthy digestive tract. As far as possible take plenty of natural foods, fruits, legumes, vegetables, nuts, simply and attractively prepared. Use cheese, eggs, milk, meat substitute products, and this will give you your proteins. Leave out of your diet the sugars, smooth tasty starches and empty calorie foods, those refined beyond recognition—such foods are the hardest of all to digest.

Aids to Digestion

In addition to diet, other aspects of living are important if you would avoid indigestion. Do not race through meals. Thorough mastication is a part of the mechanism of digestion. It calls on the digestive juices to do their work. Carbohydrate foods should be well chewed, as this breaks down the food into small particles in the mouth where the digestion of carbohydrates begin.

Eat in a relaxed, unhurried atmosphere—do not bring problems to your table. There is much to say about your frame of mind and its effect on your digestion:

"Fear and worry, anger or irritation, nervous fatigue or strain, emotion or excitement all exert a strongly unfavourable influence upon digestion (especially in the stomach), both by suppressing the flow of digestive juices and by inhibiting the muscular activity of the digestive tract. Such conditions as introspection or concern about one's self, monotony or boredom, mental preoccupations or over-stimulation, have similar unfavourable effects and are often associated with lack of appetite, which in itself constitutes an unfavourable factor. . . . Peace and quiet, cheerful but not overstimulating companionship, appetizing food with attractive surroundings and table *decor*—all the facts that favour good digestion." —*Nutrition and Physical Fitness,* Saunders.

The clear association of "nerves" is apparent in the naming of one kind of ailment "nervous indigestion."

An attitude of gratefulness at the meal table is also helpful. "Thankfulness in the heart and voice in prayer at the beginning

To page 25

Protecting Our Environment

Second of a two-part serial by W. Frank Blair, Ph.D.

THE greatest impact on the global environment has come from the technological advances of the past two centuries, but particularly in the past fifty years. Major milestones in the technological revolution have been the invention of the aircraft and development of a world network of air transport, the great increase in the use of coal and petroleum rather than wood as fuels, the development of atomic energy, and the development of modern industrial chemistry.

There is essentially no component of our modern technology that has failed to affect adversely the environment of this planet but, until very recently, the developers and managers of this technology paid little or no attention to those effects. Industrial effluents were dumped into rivers; smokestacks belched the by-products of manufacturing into the atmosphere; the oceans, including their bays and estuaries, were regarded as sinks into which all manner of refuse might be dumped. The result has been a frightening increase in the pollution of the lands, waters and atmosphere of this planet.

Smog now blankets virtually all large industrial cities. Industry contributes heavily, but the motor-car plays a major role. This is why serious moves are under way in the U.S.A. to find a substitute for the internal-combustion engine. The use of lead compounds in petrol to improve performance, causes the introduction of this heavy metal into ecological systems by way of the exhaust gases. Carbon dioxide and carbon monoxide enter the atmosphere and could be having global effects on it. Significant increase in carbon dioxide in the atmosphere could have a "greenhouse" effect, leading to a warming of the earth's surface.

The increasing fleet of jet aircraft poses a special environmental threat. Unburned fuel enters the atmosphere and promotes condensation of moisture. Responsible scientists are predicting that the contrails of the large new jets of the next several years will produce a complete cover of cirrus clouds, to the extent that future generations would never see the sun! These jets also provide much of the noise pollution which technological man tolerates today, but cars and lorries and other forms of transport also play a part.

Atomic energy is playing an increasingly major role in our advanced society. Its use poses as yet unsolved environmental problems. Radio nuclides from past use of atomic fission or fusion have entered the earth's ecosystems. The tendency of these radio-active compounds to induce genetic change (mutations) has been documented in hundreds of experiments. Just what greatly increased use of atomic energy may do to mutation rates in man and other organisms, remains to be seen. Also, there is the problem of disposal of radio-active wastes as the use of this energy source increases. Thirdly, there is the problem of thermal pollution (euphemistically called thermal enrichment by the U.S. Atomic Energy Commission). Great amounts of heat are wasted during the operation of nuclear reactors: discharged into the atmosphere, this could lead to global changes in atmospheric temperatures; discharged into water, it would lead to modifications of the aquatic ecosystem of as yet undetermined magnitude, because

plants and animals are adapted to the temperature conditions under which they exist and are usually unable to adjust to significantly changed temperatures.

Solutions

Solution of the problems of environmental pollution created by our technological society, with respect both to the restoration of quality and future regulation, is recognized as one of the critical issues of our times. One concept that is emerging is that it is going to cost more to meet the needs of society and yet maintain a world fit to live in, than in the past era of disregard for the environment.

The whole problem of environmental deterioration stems from the fact that man has been able largely to escape from the population regulation that controls other species and hence has been able to increase enormously in numbers. However, even for man, with all his technology, there is a limit to the size of the population that the earth can support. The world population is increasing at a rate of about 126 million per year (1.2 per cent) and is expected to double by the year 2000! Increased production of food can mitigate the disaster that this increase promises but it is no long-term solution. Man must regulate his own population. This is the only solution.

Uneven Distribution

Another problem of human population is one of uneven distribution. In the United States, over seventy-five per cent of the population live either along the sea or on the Great Lakes. Thus some areas are dreadfully over-populated while the resources of other areas are inadequately used. The problem of huge cities is a world-wide one. Disposal of human sewage joins with industrial effluents in polluting the streams, lakes, and estuaries, and even where there is the most careful treatment, the introduction of the sewage results in overnutrification (eutrophication) because phosphates and nitrates remain and overfertilize the water. The result is great growth of a few kinds of algæ and other microorganisms. Full treatment of sewage has been rare in the U.S.A. because of the cost factor. Primary treatment of sewage removes only about forty to forty-five per cent of the impurities, mostly solids that will float or sink. However, fifteen of eighteen cities which discharge sewage into the Mississippi River have only primary treatment. This, along with industrial effluents accounts for the term "colon of America" now used for this river. River water taken below St. Louis was so toxic that even when diluted ten times it killed fish placed in it in less than one minute. This is only one example of polluted U.S. rivers. One-quarter of Lake Erie is described as "a vast reservoir of oxygenless death." Small wonder, for cities along its U.S. shores dump 1.5 thousand million gallons of inadequately processed sewage into this lake daily. Industrial effluents of indescribable variety contribute to the pollution. The Cuyahoga River (famed for being a fire hazard) drains into this lake, as do other polluted streams.

Concentrations of population also magnifies many other of man's adverse effects on the environment. Water supplies are depleted and become critical. Solid wastes must be disposed of. There is noise pollution of many kinds. Judged by experiments on man and other mammals, crowding and increased

population density has adverse psychological and physiological effects on the population.

Ecologists who are looking to the future recognize the desirability of finding methods to induce relocation of large segments of the population. They further recognize the necessity of *environmental zoning* as a basis for such relocation. Each geographic area should be developed in such a way and for such a purpose as to provide maximum benefits and suffer least environmental degradation.

Technological man has the tools and the knowledge to alter the earth's surface in vast ways. He can dig canals connecting oceans. He can dam any river that exists, and if cost is disregarded, he can move water from any part of a continent to any other for irrigation or other purposes. He has built and continues to expand huge highway systems—it is said that one million acres annually are covered with concrete in the United States. Huge distribution systems have been developed to carry away the electricity generated at his dams. In these projects, man has been no more thoughtful of adverse environmental effects than in his other activities.

Last year was one of unprecedented concern about environmental pollution and destruction in the United States and in Europe, and this year will see an intensification, not any lessening, of that concern. The president of the United States has formed an Environmental Quality Council from members of his cabinet.

At the international level the International Biological Programme (I.B.P.) participated in by fifty-seven nations under the sponsorship of the International Council of Scientific Unions (I.C.S.U.), is a research programme into "the biological basis of productivity and human welfare." As one of its activities the I.B.P. is conducting a feasibility study for a global network for environmental monitoring. I.C.S.U. has a comparable committee. The United Nations has proposed an international programme very similar to that of the I.B.P. under the name "Man and the Biosphere" (M.A.B.).

All of this mounting interest is encouraging but there is a common concern among scientists and politicians alike that time is running short.

We must accept the concept that restoration and maintenance of environmental quality is going to cost money. The idea of doing everything the cheapest way with respect to short-term costs must be balanced against the need for long-term environmental planning. ***

Make Each Day Your Best

by Edna Edeburn

As I tuned in my little radio at seven o'clock on a rainy morning, a voice over the ether sounded out this maxim:

"Health is what makes you feel that this is the best day of the year."

A sure way for making you feel that today is the best day of the year is to get your thoughts off yourself and onto someone else who needs them more. Will Durant's saying, "No man is happy until he stops thinking of himself," is truth for all time. One of Dorothy Dix's ten rules for happiness was: "Do something for somebody less fortunate than yourself. Minister to other people's troubles. It will make you forget your own."

You can improve your own state of health by your attitude toward everyday tests and trials in the drama of life. You may even surprise yourself. Begin on arising, and continue throughout the day.

Here are a few things you can do to help make today better than yesterday.

1. Give of yourself to someone in need, and make a new friend.

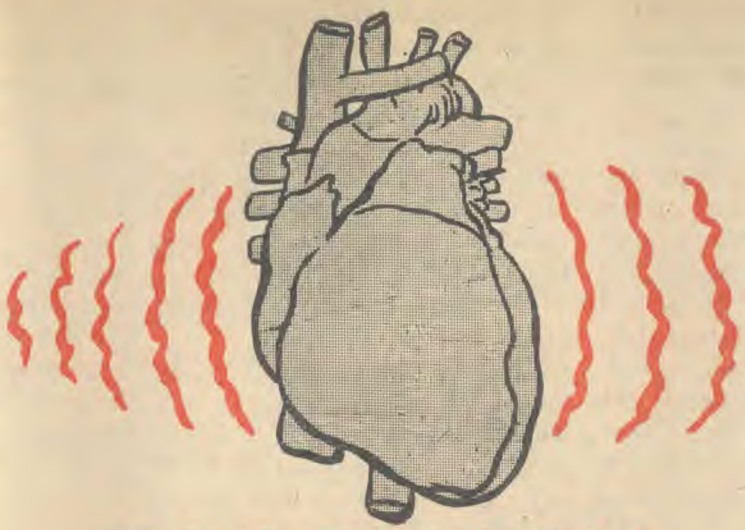
2. Look on the bright side of the cloud. The view is better.

3. Be charitable. Make allowance for the other person.

4. Keep busy at something. You will not have time to think of yourself.

What better time to start afresh than today? It is within your power to do better than yesterday. Today is what you began making yesterday, and tomorrow will be what you began making today.

May your determination to make each day better than the one before be your most rewarding resolve.



CORONARY HEART DISEASE

Second of a three-part serial by Paul Dudley White, M.D., D.Sc.

WE all need some form of labour. If we cannot get it by working physically on a farm or in the forest, we must plan for it ourselves by walking long distances, playing golf, swimming, or working in the garden. We can all devise some activity.

Some people say, "I don't have a garden."

My reply is: "But you always have friends who do have gardens or a farm in the country, so there's really no excuse. If you live too far from your office to walk to work, you may get off the bus a mile or two from your office. It will be good for your health. Look for a way to exercise."

Another reason for using the leg muscles may be the most useful thing I say here. It concerns several medical friends of mine who have died unnecessarily of pulmonary embolism (blood clots going usually from the leg veins to the lungs). This condition is much underdiagnosed. Often it is called something else, such as pneumonia, heart failure, or coronary thrombosis, instead of the actual condition of a blood clot in the lungs. The leg veins have a sluggish circulation when a person is inactive, sitting all day in a car, at a desk, or in front of a television screen, not using the leg muscles.

What Happens?

Some people subject to blood clots have a condition called thrombophilia. Their blood has a tendency to clot. In such people the blood can clot in the leg veins from stasis alone, not necessarily from any infection. The blood clot forms there, and if it is large or fragile it may break off, go to the lungs, and kill the person. Two of my medical friends have died quite recently from pulmonary embolism, unrecognized at first, when they might have been saved.

Thrombophilia is much more common than we think. It may be due in part to physical inactivity in people who think they are too busy to take any exercise. Such people often have swelling of the ankles. They think they are simply getting heavy. In the case of one of the two doctors I have mentioned already, a patient said to him, "Doctor, your legs are swollen. You had better see a doctor yourself." My friend did so, and the surgeon he saw diagnosed phlebitis (inflammation of the veins) in both legs, and finally decided the man was so sick that he must have his inferior vena cava (great vein) ligated, that is, blocked off, to keep clots from going to the lungs.

The doctor was in the recovery room after his operation when he died of a previously unrecognized clot in his pulmonary artery. It was blocking both lung branches, a fact that was not recognized at the time. He had seemed perfectly healthy a month before. This tragedy is happening to many people, thus there are several valid reasons why you ought to use your leg muscles as well as be careful of your diet.

In heart conditions, it is not inheritance of the genes but rather environment that counts more.

Fifty to a hundred years ago the life span was limited, mostly by infection. One of the patients at Massachusetts General Hospital who died in the middle of the past century, whose record I looked up, a woman aged forty-five, was officially diagnosed as dying of "old age." Old age at forty-five! That is inconceivable now, when we call old age sixty-five, seventy, or older.

I see no reason why we should not maintain mental and physical health and activity into the eighties, nineties, and even into the hundreds. There is no reason why we cannot if we are able to establish good rules of health at a young age.

A vital issue is that we adults must set an example to the children. We must establish rules of health for our children if they are to maintain vigour into old age. If they see their parents eating more than they should, especially of rich foods, and using cars wherever they go, naturally the children do the same. It is not inheritance of the genes, but rather environment that counts more in such cases. When the children are fifteen or sixteen years of age, they already eat too much and want an easy life.

Cardiology (the study of the heart, its action, and its diseases) was not called by that name fifty years ago when I began work. We knew quite a lot about infectious diseases, but until the 1920s we did not begin to diagnose coronary thrombosis (blood clot in the tiny arteries that supply blood to the heart itself)—today's heart attack—which is caused by atherosclerosis (a kind of rusting) of the coronary arteries. We began to see recognizable cases in the 1920s. We realized even then that we were in for it, because it began to increase in frequency and appeared at earlier and earlier ages.

Other kinds of heart disease exist and still need research and control, but they are not the subject under discussion now. They include especially congenital and rheumatic heart disease and high blood-pressure.

The specialty of heart disease began in the 1920s, and it was developing full blast in the 1930s. In the 1920s we began to organize, but only among the doctors. In our specialty societies we did not work in the field of public health at first, but we did call them "Associations for the Prevention and Relief of Heart Disease." In 1924 we established the American Heart Association by combining the local associations in New York, Philadelphia, St. Louis, Chicago and Boston. For twenty years this national association was just a quiet affiliation of doctors interested in cardiovascular (heart and-blood-vessel) disease.

There is no reason why we should not maintain mental and physical health and activity into the eighties, nineties, and even into the hundreds.

We were excited about the diagnoses we began to make in the 1930s and the brilliant new treatment of the 1940s. I would say that the 1930s were the ten years of diagnosis. We began to diagnose all sorts of things that affected the heart and blood vessels that we have never dreamed of before.

In the 1940s, stimulated by the war (although war generally retards medicine), research brought about two important events.

1. Introduction of the antibiotics, which began to prevent certain infectious kinds of heart disease.

2. Introduction of cardiovascular surgery, which became spectacular.

A criticism of mine is that what happened before the 1950s caused us to neglect much of the prevention of the very things we became so skilled in diagnosing and so clever in treating.

We doctors ought not to have to operate on the heart valves, repair the aorta, or put a new aorta. We ought not to be obliged to be diagnosing earlier and earlier coronary heart disease. By the time doctors can diagnose coronary heart disease (caused by atherosclerosis of the coronary arteries), even before angina pectoris (coronary insufficiency) comes—that is, before the first symptom—the patient has acquired a high degree of unrecognized trouble. How much more sensible it would be to prevent this disease or delay its occurrence. I am sure we can do it, as we now control infection.

In the western world the man lives on the average, seven years less than does his wife, owing to atherosclerosis. Candidates for this disease are seen early in life. We can recognize them from their family history; from diabetes or a high serum cholesterol, which also can be a family inheritance, and from other features. We recognize them to a certain extent from their body build and from their habits of living.

When I see a patient fifty years old with angina pectoris or a heart attack coming much too young, I do not stop with him; I ask about his sons, too. What is their state of health? Are they putting on too much weight? Are they smoking? Have they settled down early in life to an existence of physical indolence—that is, in a car, in front of a television, or at an office desk, without paying any attention to physical activity.

We are not mere machines, and we must recognize that fact. We are not just brains, even if we think we are. We still must have a good circulation of blood to our brains to keep them functioning!

***

How Safe Is Your Home?

by E. M. WATSON

WHEN you worry about the accident that may befall your child, what do you think of? An encounter with a car, or with machinery? A fall from his bicycle on the way to school? A football injury? Do you realize that an accident is just as likely to happen in one's own home as in one's place of work?

Yet most such accidents are preventable. Have you done all you can to prevent them in your house?

One of the first steps is to remove obvious hazards. Take time off *now* to do a safety inspection. Here is a guide to help you.

1. Is all electrical equipment in good order? Have necessary repairs done by a qualified electrician. Replace frayed cords.

2. Any long trailing leads that may cause tripping? If necessary, have an electrician install extra powerpoints.

3. Jug or similar flexes dangling to within toddler's reach? Replace with shorter ones.

4. Any unguarded fires? These can cause death or terrible injury.

5. Any curtains hanging within reach of fire or stove flame?

6. Are all knives and sharp implements stored where toddlers cannot reach them?

7. Have you thrown out all chipped or broken china and cracked glassware?

8. No highly polished floors or cement verandas to cause falls?

9. Are floors free of projecting nails, splinters and loose boards?

10. Have you checked mats and carpets for frayed edges or threads which could cause falls?

11. Is there good lighting where it is needed, e.g., over stairs and kitchen work areas?

12. Are all detergents, cleaning fluids, insect sprays and other dangerous substances, e.g., kerosene, also inaccessible to children? None stored in soft drink bottles?

13. Are all drugs and medicines clearly labelled and completely out of reach of youngsters, even with the aid of a chair?

14. Are toddlers' play areas fenced off from traffic? dangerous stairs? kitchen activities? other hazards? but still visible for supervision?

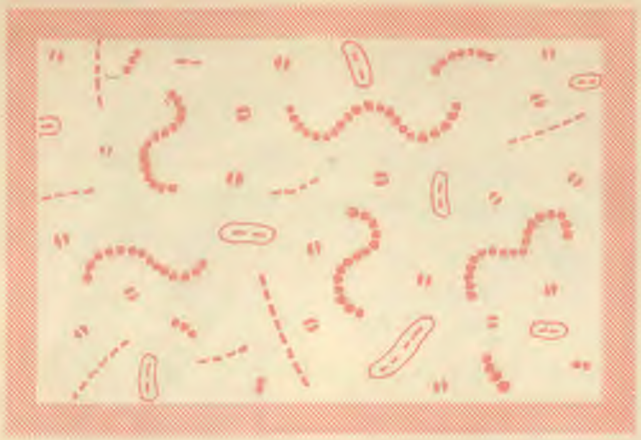
15. Is the yard clear of obstacles or sharp objects which might cause falls or injury?

16. Are gardening tools locked away so there is no danger of tripping and falling on, for example, a rake? Are potenially dangerous ones, like tomahawks, likewise inaccessible to children?

17. Any unguarded pools or fishponds?

18. No loaded firearms? Ammunition locked up well away from guns?

When you have made your house as safe as you possibly can, promise yourself you will stay alert and safety-conscious, because, with constant watchfulness, HOME ACCIDENTS CAN BE PREVENTED. ***



Venereal

There are several diseases classified under the general heading of venereal disease. The most common are gonorrhœa and syphilis. Gonorrhœa is the more prevalent of these two social diseases, but syphilis is the more dreaded.

In spite of public education and germ-killing antibiotics, venereal disease is on the rampage again. It is essentially a disease of young people, although lifetime progression and complication may result. Doctors estimate about half of all new cases occur between the ages of fifteen and twenty-four.

Even when venereal disease is treated early and cured, this result confers no immunity to later exposure, neither is there any natural immunity to venereal disease. An unborn baby can develop syphilis from an infected mother. A baby can acquire gonorrhœa while passing through an infected birth canal.

The Bible says that "the iniquity of the fathers" will be visited upon the children "unto the third and fourth generation" (Exodus 20:5; 34.7; Numbers 14:18; Deuteronomy 5:9). This iniquity of the fathers could apply to venereal disease. There are reports of third-generation syphilis, which means that babies have been born to mothers who had untreated congenital syphilis and that the grandmother also had syphilis. Many of the patients in mental institutions are suffering the ravages of syphilis of the brain and spinal cord.

Gonorrhœa is transmitted primarily by sexual contact, usually in a promiscuous manner. It can produce sterility in either sex. It involves chiefly the mucous membrane of the genito-urinary tract by causing a purulent discharge. Usually there is burning and/or frequency of urination. These signs and symptoms may be slight or nearly absent in the woman.

Infants and children, especially girls, are quite susceptible to the causative organism of gonorrhœa (the gonococcus) through direct inoculation by fresh material. It is possible that innocent babies and children can become infected through contaminated hands, bath water, or towels. A newborn baby may acquire a gonorrhœal eye infection from an infected mother. Untreated cases can progress to ulceration of the cornea and possibly lead to blindness.

Complications in the male from delayed treatment or lack of treatment are numerous. They include direct extension from the urethra to the prostate gland and other accessory gland structures of the genital system. Permanent sterility may be the end result. The inflammatory reaction may cause tightening of the urethra or chronic infection of the prostate gland, with lifelong complications.

In the female local complications result from extension of the infection to the adjacent glands and internal organs and various parts of the female reproductive system. An abscess may develop, or there may be infection of the cervix, the uterus, and the Fallopian tubes. Closure of the infected tube may result in sterility. Further extension of the infection may cause pelvic peritonitis or symptoms stimulating appendicitis.

Crippling gonorrhœal arthritis, probably the most common systemic complication of gonorrhœa, can occur in either sex. Permanent stiffness of a large joint such as elbow, wrist, or knee can occur. Eye complications may be associated with the arthritis.

Syphilis, sometimes called "bad blood," is a highly contagious venereal disease. If not treated early, it develops into a dread chronic illness that can affect almost any part of the body. It is characterized by frequent relapses. Then it may lie dormant for years before exhibiting late serious symp-

Diseases Today

by JOHN R. SPENCER, M.D.

toms of heart, large arteries, and central nervous system.

When acquired, syphilis if untreated progresses through several stages:

Primary Syphilis. Early syphilis develops generally about three weeks (the time may vary from two to ten weeks) after infection at the site of contact, usually in the mucous membrane of the genital area, in the form of a nonhealing painless ulcer, or sore, called a chancre. It may be overlooked, especially in the female. Diagnosis is by isolation of the causative organism, a spirochete, a spiral-shaped bacteria, called Treponema pallidum, scraped from the chancre and isolated by a special process called a dark-field microscopic examination.

Secondary Syphilis. The secondary stage of early syphilis is the most contagious stage, because there are many infectious lesions present. A visible body rash, or eruption, usually appears two to ten weeks after the appearance of the chancre.

Later other parts of the body may be affected, causing swollen lymph glands, lesions of the mucous membrane in mouth and throat, red eyes, mucous patches on the tongue, or patches of "moth eaten" baldness on the scalp. Flat moist lesions develop in the skin folds. Jaundice may appear as a manifestation of liver involvement. Inflammation of the long-bone coverings may cause a condition called periostitis. It is possible to develop syphilitis meningitis in the secondary stage. The blood test is strongly positive. Spirochetes from the lesion may also be identified in the laboratory by the dark-field examination.

Early syphilis can be treated successfully in about ninety-five per cent of cases.

Early Latent Syphilis. A quiescent or a symptomatic stage, which usually terminates in two years after the initial infection. There may be no findings or symptoms, but the disease is still infectious. The blood gives a positive reaction, but the spinal fluid is negative. The patient still may be effectively treated and cured in this stage.

Late Latent Syphilis. This stage develops if the disease has been present for more than two years. It is a symptomatic stage involving the central nervous system or the heart-and-blood-vessel system. Nodular or ulcerative lesions may develop in any part of the body.

Tertiary, or Late, Syphilis (Third Stage).

Neurosyphilis. Neurosyphilis, beginning in the late latent stage, develops in about twenty-five per cent of cases. It is diagnosed by a positive spinal-fluid examination.

The following complications are the result of advanced, or third-stage, syphilis. They are examples or types of neurosyphilis.

Tabes Dorsalis (*Locomotor Ataxia*). This condition results from degeneration of the spinal cord. It may occur twenty years or more after the original infection. Symptoms and findings include difficulty in walking, balance defects, acute abdominal pain that may simulate appendicitis, double vision, bladder problems, impotence, spasms of coughing, and slow-healing lesions of feet or toes.

General Paresis. This condition is caused by spreading of the syphilitic infection to the brain. Such general symptoms as headache, memory changes, weight loss, insomnia, and easy fatigue develop. The patient often acquires slovenly habits, various personality changes, ideas of grandeur, euphoria, depression, agitation, and speech difficulties. Gradual or sudden psychosis may develop. The symptoms and changes may progress to complete dementia. Untreated paresis results in death, usually within five years.

Cardiovascular Syphilis. This manifestation is an incapacitating and dangerous complication of late syphilis. Probably ten to fifteen per cent of untreated cases of syphilis develop degenerative lesions of heart, aorta, and large blood vessels. The diseased aorta may develop pouches, or sacs, called aneurysms, which may rupture. The heart valves become inefficient, and there is eventual heart failure. Cardiovascular syphilis and neurosyphilis may coexist.

Congential Syphilis (Not Considered the Acquired Type). The unborn fœtus may develop syphilis from an infected mother, especially if the disease has been present less than two years. Estimates indicate that in untreated prenatal cases twenty-five per cent of babies may die before delivery and another twenty-five per cent soon after birth.

Manifestations of congenital syphilis include skin and mucous membrane lesions: such bone and cartilage deformities as a deformed nose (called saddle nose): notched, or saw, teeth; and eye lesions. The spleen and liver may be enlarged. The central nervous system may be involved, and the disease may progress somewhat the same as in acquired syphilis.

Venereal disease can cause blindness, heart disease, disabling arthritis, permanent crippling, deformed bodies, demented minds, and even prevent reproduction.

Children should be taught the dangers and pitfalls of promiscuity and venereal disease. Parents should progressively instill their minds with the heartaches that result from ignoring the social and moral laws of the land and of God. They need to learn how to protect and preserve their health. They must develop definite opinions and a determination to remain pure. Proper knowledge will prepare and fortify the child to withstand the later sexual urges. In addition to having a clear conscience, a clean body, and freedom from worry over the possibility of venereal disease and pregnancy, their future marriage will be much happier.

The key to prevention of the many complications of gonorrhœa, syphilis, and other forms of venereal disease is avoidance of any intimate or sexual exposure outside of marriage. A blood test and a medical examination for venereal disease should be done on each partner before the marriage ceremony. In most countries a law requires them. Should an unfortunate circumstance occur and venereal disease be contracted or even suspected, an immediate examination including a blood test is imperative so that any necessary treatment can be started without delay. Venereal disease can be cured in its early stages. Why risk a few moments of illicit pleasure for a possible lifetime of sorrow? ***

ELDERLY people fall into two main classes: those who have continued throughout life to lead active outdoor lives, such as farmers and labourers, and those who have lived a sedentary existence, who find themselves at the age of sixty or more with leisure time to devote to some sort of physical activity.

For those who have always been active there is no objection to their continuing the exercise to which they have been accustomed all their lives. Constant practice has trained the heart, muscles, and nervous system, so that there is litttle strain. Care should still be taken to avoid excessive fatigue.

The retired business man must take things easy. In his case his muscles, heart, and nervous system require re-education, and this is a slow process. A form of exercise that calls for a minimum of heart strain and the maximum of muscle used is advisable.

Hiking

Walking is an excellent form of exercise. The walker can choose his own speed and distance, and there is no reason for overfatigue. Walking is available at all seasons and in almost all kinds of weather. In open hill country with good views it is an ideal kind of exercise. Walking in the city does not provide the same advantages as country hiking. The jarring impact on the feet from pavements and hard roads is not comfortable, and in time leads to fatigue.

EXERCISE AFTER SIXTY

by A. P. HERMAN

Cross-country hiking is most desirable. Choose different routes and explore the countryside. New surroundings will add interest to your rambles. Perhaps you would like to join a walking club. The companionship, new personal contacts, and shared experiences will enrich your life. Take the opportunity to cultivate erect carriage, deep breathing, and an energetic stride. Cultivate the play spirit.

Why not try horse-back riding or bicycling? A little cycling is excellent for those arthritic knee joints, for the rotation of the pedals produces a combination of active and passive movement that is highly beneficial.

Swimming is an ideal exercise because all the muscles are brought into play, but there are some who will do better to avoid it. The sudden contact with cold water creates a shock that not every system can withstand. If weather conditions are unfavourable, there is a liability to chills.

Gardening in moderation provides excellent exercise. Stooping promotes suppleness of the muscles of the back and abdomen. It is not recommended for those with high blood pressure, especially in hot sunshine. The elderly gardener should always wear a hat, and confine his work to the early morning or late evening. He should not persevere too long at heavy jobs, but should alternate heavy tasks with lighter ones.

How about golf? It depends on ability and mental attitude. For the man who plays badly, the game is not recommended. Incorrectly played shots put severe strain on the muscles. Repeated efforts to get out of the bunkers or long grass tax temper and physique. The mental depression produced by a series of bad rounds is out of all proportion to the importance of the occasion.

But if you can strike the ball with effortless rhythm, and seldom leave the fairway, you may confidently expect that golf will prolong your life. The mental tonic of competing with younger men is exhilarating, and golf is one of the few outdoor games where this is possible.

Muscle Tone

The man over fifty is not particularly interested in developing muscle. What he desires is general health and muscle tone. For this reason his exercise should be mostly of a general nature, such as walking, swimming, gardening, and golfing.

A few gentle exercises will help keep you young and limber. Try the ones suggested here, and do them regularly, so as to keep yourself in trim.

The following exercise uses the muscles of the upper chest, and encourages better posture and stimulates lung activity.

Lie face up on a narrow bed or bench. Hold a book in each hand, and straighten your arms to right angles to the body. Holding the elbows stiff and beginning with the hands as low as you can get them, carry them slowly upward until they meet above the chest. As you lower the books, inhale deeply. As the arms come up, exhale gradually.

The following movements, for exercising the muscles of the waistline, should be practised in late afternoon or at bedtime. Lie on your back with your feet under something heavy enough to hold them down. Fold your arms across your chest, and rise slowly to a sitting position without bending your knees.

If this seems too difficult, lie on your back, lifting first one leg and then the other, holding the knees stiff. Before long you will be able to do the sit-up, for the abdominal muscles respond to exercise promptly. Do not exceed fifteen or twenty repetitions.

Best of the mild movements for the small of the

To page 29

CHILDBIRTH WITHOUT PAIN

First of a two-part serial by Dr. Macquarie Street

THE birth of a baby completely free from pain?

It all sounds like wishful thinking, the ultimate aspiration of every mother-to-be.

But it is not really a fanciful dream. This long-sought-for hope of every potential mother is actually being accomplished every day of every week of every year.

As a matter of fact, a gradually increasing number of doctors throughout the world are following the "No Pain" routine that has been around now for several years.

Do not mistake me. We are not advocating a substitution of pain by anæsthetizing the entire system. That would be all too futile.

What this simple story is about is the complete abolition of pain in childbirth. Instead of enduring the searing agonies which normal labour has come to mean in the minds of the majority of mothers, there is wide-awake pain-free consciousness throughout. The mother is "with it" for the duration of the whole routine.

As a matter of fact, she hears that first tentative cry of her newborn babe the instant it occurs. And the magic of that is far greater than can be explained. She is wide awake, fully conscious, and completely aware of her surroundings and the fact that the tiny infant has finally arrived.

Slow Acceptance

The concept of pain-free childbirth is not new. However it was not until 1942 that the earliest rumblings were heard. In that year Dick Read, an unknown but well qualified London obstetrician first published his marathon work: "Childbirth Without Fear."

The initial views he propounded did not meet with much enthusiasm from the medical fraternity. Like many things new and revolutionary, it takes years of hard work, and often much ridicule and scorn, before acceptance finally secures a tiny toe-hold.

With the passage of time, Read's ideas are gradually catching on. Now his general principles are almost universally taught. Even though the full system is not widely used, the basic ideas are tremendously popular.

Dr. Read claims that every natural body function should operate smoothly, effortlessly, painlessly. The crowning achievement in the life of every women is, basically, reproduction. Her entire system is geared to this end. Love, courtship, marriage, and every incidental element along the line find their ultimate reward in giving birth to a baby.

Pain Not Critical Factor

Therefore, there is absolutely no reason why pain should be a critical factor in the final end point to this succession of pleasant circumstances.

The tortures of childbirth are well documented. Even the Bible gives a vehement record. In Genesis 3:16, God says to Eve: "I will greatly multiply thy sorrow and thy conception; in sorrow thou shalt bring forth children."

Unfortunately, the attitude over the centuries has been that pain is a natural accompaniment of labour. Any interference, therefore, is contrary to nature's normal operation, and should be avoided.

Unfortunately, also, the great drama of childbirth has been handed down through the succes-

sive generations of civilized people. The torment associated with it has been invariably magnified. Today modern, emancipated women embark on pregnancy *knowing* they are "in for it."

Pain, suffering, agony are to be their lot. This is all part of the concept. This is the firm belief indelibly etched upon their thinking processes.

And as it so happens, the overwhelming majority meet such a fate. Almost without fail, their worst fears are confirmed. If anything, the situation is often worse than imagined. Thereafter, successive pregnancies terminate in even more difficult deliveries. The vicious circle swirls around. It never stops.

Children Indoctrinated

In due course, the mother's growing daughter is indoctrinated with the terrors of the labour ward. Thus the unhappy picture of disaster is perpetually maintained.

There is little doubt that the progress of modern medicine has made outstanding advances in devising increasingly effective ways of knocking out pain. Today extremely efficient drugs are available to mother in labour. Pain killers (injections and tablets), together with the anæsthetics have never been at a more efficient level.

But these only abort pain. They are not nature's answer to nature's system. They are completely foreign. It is possible to have absolutely pain-free childbirth without the necessity of modern pain-killing drugs and anæsthetics.

The more civilized man becomes the more finely attuned his senses become. This is well documented. As science progresses and produces newer and better ways for achieving wonders, modern man suddenly finds he cannot live without them.

The current American trend, for example, is to keep a woman in labour completely anæsthetized from the waist down, not only during her confinement, but also for several days afterwards.

Each new discovery is inevitably used to the fullest extent. The body automatically attunes itself to the so-called benefits as they become available.

Fortunately this state of affairs is not so widespread, although there are indications that it is definitely on the way.

The point that needs emphasis is that uterine contractions are an

During labour, it is essential that the muscles remain relaxed. Only in this way can the trap-door gradually open, increase in size, and allow the final passage of the infant.

integral part of normal labour. But contractions are not "pains," although the two words are invariably used to denote the same thing.

Contractions are necessary to make the muscle fibres of the womb shorten, and so push the baby out. There is a conscious awareness of these movements. It is essential, for at a certain stage the woman suddenly senses a desire to push or "bear down." In this way she can help nature bring about the actual birth. Without this awareness, she would not know when to lend a hand.

However, the womb consists of two main sets of muscle fibres. There are the longitudinal ones. These muscles shorten gradually during the labour.

The others are the circular muscle fibres. These guard the womb opening. They are like watchmen at a little trap-door.

Nature's Processes

During labour, it is essential that they remain relaxed. Only in this way can the trap-door gradually open, increase in size, and allow the final passage of the infant.

It is well known that these muscle fibres are under control of the part of the nervous system called the "sympathetic." This system is very important. Besides the uterus, it supplies every organ and blood vessel in the body.

It is nature's protective mechanism. If the system suddenly becomes endangered in any way, it automatically prepares the body for "fight" or "flight". Everything is geared to protect. It is an automatic, instantaneous reflex action over which we have little control.

Lots of extraneous sensations can be picked up by the brain, and unconsciously channelled into this system. It's a bit like an inbuilt computer system.

The sensations that come up from the uterus with contractions reach consciousness in the brain. It is at this point that danger lurks.

Although the sensation is one of tightness in the lower part of the body, in a person over-ridden with fear and the intense belief that she is due to experience pain, a false train of reactions immediately sets in. Besides the uterine sensations, her fears are also fed into the computer system. The collective impulses almost immediately become consciously registered as actual pain.

Worse still, the computer feeds this detail into the "fight or flight" part of the brain. An immediate reaction takes place. The sympathetic nervous system is stirred into activity.

Wrong Reactions

Thinking that action is required, impulses surge downwards and cause an immediate contraction of the circular muscle fibres guarding the gradually dilating "trap door" entrance to the womb.

This instantly impedes nature's normal function. The body is trying to open the trap door. The wild, ill-advised nervous impulses are doing the exact opposite. Results: True pain, therefore, inevitably follows. The whole process gradually goes from bad to worse. True pain, coupled with the inherent fear of further pain collectively sets up a wild, vicious cycle. The situation deteriorates. One set of circumstances is fighting against the other. Trouble is inevitable. It cannot be otherwise.

At this stage, the patient's worst fears become tangible. Everything she has read about, and listened to, and secretly feared is becoming a definite reality.

The worse fear becomes, the worse the pain becomes. Tension, fear, anxiety secure an even firmer grip as the hazardous hours gnaw slowly into the night. (Most confinements it seems, happens at night.)

Backache, stomachache, and even heartache reign supreme. Anything that will lessen her burden is instantly grasped, whether it be injections, the anæsthetic mask, anything.

This is the ever-so-common picture witnessed regularly in an average labour ward.

Crux of the Matter

But did you notice a few paragraphs back that the crux of the entire process was casually mentioned.

In the interests of clarity I shall repeat it. It is of paramount importance.

"In a person over-ridden with fear and the intense belief that she is due to experience pain, a false train of reactions immediately sets in."

In this brief sentence lies the answer to the entire system of Childbirth Without Pain.

In this issue we have briefly discussed the method whereby pain and discomfort take place.

In our next issue we shall outline in detail the method whereby all this unnatural, unnecessary agony can be simply and effectively avoided.

It has worked for countless thousands of other mothers. It can just as simply work for you. ***

INTRODUCING BABY TO SOLID FOOD

by DOROTHEA JONES

Because all human beings are composed of what they eat, the defects that show up in children and in adults are due largely to the kind and quality of food eaten, especially during the growing period. Food must contain the greatest possible number of nutritional factors, known and unknown, in as near their natural state as possible. Food that is whole, food that has suffered the least amount of tampering with, is the key to good health.

Eating habits are not inherited, they are developed. The wise mother takes time and patience to teach her child good eating habits. Many feeding difficulties of the first few years of life are the result of abnormal and unpleasant child-parent relationships, most of which are avoidable. Remember, mothers, any tension or emotional upset you have is telegraphed to the baby; therefore, approach each mealtime with calm expectancy and patient understanding. Trouble is sure when mealtime becomes a hassle of forced feeding.

Milk is the normal food for babies, and when mother's milk is not available a modified cow's milk formula or a formula should be used.

A small amount of solid food may be introduced at four or five months of age. Babies differ. Some have a large appetite that is not satisfied by the calories in milk.

A new food should be offered once a day in small amounts—one to two teaspoons. A small spoon fits a baby's mouth better then a regular teaspoon. New foods are accepted best if fairly thin and smooth. If the baby spits the food out, it does not mean that he does not like it but that he has not yet learned how to swallow it efficiently. It is wise to offer the same food daily until baby becomes accustomed to it. Do not introduce a new food oftener than every week or two.

Babies are such individualists that it is impossible to prescribe a given amount of food. The infant's appetite is the best index to the proper amount, and respect for his wishes will avoid many problems. If he shows a definite dislike for a food, do not use it for a while, and then bring it back without conflict and introduce it in small amounts. New food often is best accepted when baby is hungry.

Food Dislikes

Never force feed. Family food dislikes are contagious, and they should not be made known to the infant. The baby will like most foods if conflicts over them are avoided. Good eating habits as well as poor ones are established early. Eating should always be a pleasant experience.

During the second half of the first year babies become less demanding when it comes to food, and the intervals between feedings can be lengthened until a pattern of three meals a day is established. Some babies prefer taking solid food before the milk and some after the milk.

During the second half of the first year infants show increased readiness to chew rather than merely swallow. This is an indication that it is time to offer coarser

To page 30

SMOKING AND SURGERY

by J. DeWitt Fox, M.D.

It was 6:00 A.M. My telephone rang. The nurse on the line said, "Your patient scheduled for surgery has a 100.4-degree temperature, Dr. Fox."

"Cancel the operation," I said.

Going to the hospital, I checked the patient carefully for the cause of his rise in temperature. No cough or recent cold. Lungs clear except for a raspy cigarette bronchitis that coarsened his breath sounds. No sore throat. No abdominal symptoms. Back and left-leg pain unchanged from that of the herniated lumbar disc for which surgery was planned. No calf tenderness suggesting thrombophlebitis (blood clots associated with vein inflammation).

Puzzled at first, I finally caught sight of a burning cigarette in the ash tray. "Were you smoking this morning before your temperature was taken?"

"Yes, about ten minutes before," he admitted.

I called the nurse, and we took his temperature again. After a cigarette, his temperature was above 100 degrees. After no smoking for a half hour, washing his mouth with warm water, and letting normal temperature return to his mouth, we found it a normal 98.6 degrees.

This case may be an isolated incident of elevated temperature due to smoking, with unnecessary cancellation of surgery, but it cost the patient a week off work before we could reschedule his operation. This is but one small link between smoking and surgery.

Most surgeons prefer patients to stop smoking before they have surgery. And what a golden opportunity an operation is to stop smoking. The doctor has prescribed it, and with the patient off cigarettes for a week or two he will feel so much better that he will be encouraged to leave them off completely thereafter.

By now you are tired of the old wheeze: "Cigarettes cause cancer." Cigarettes do more than that. They close coronary arteries. They bring bronchitis. Cigarettes help sell coffins.

But something you may not realize is that every smoking surgical patient runs a greater risk of complications after his operation than if he did not smoke. This risk ranges from coughing, which can open up a wound, to pneumonia, which can be exceedingly serious in the upper-abdominal surgical patient, to thrombophlebitis, from which a blood clot may travel to the lung and even prove fatal.

Smoking not only constricts the arteries and capillaries of the body, thereby slowing the circulation, but also favours clotting within the blood vessels. As Dr. George Griffith, famed University of Southern California heart specialist, has noted, heparin is fixed, taken from the blood stream, by smoking. It is fixed in the tissues; therefore, the blood becomes thick and easy to clot. With the body's own protective blood thinner removed by smoking, the

SMOKING—Medicine's Worst Problem

"Smoking is the most severe problem the medical world faces. It causes three of the major killers—emphysema, lung cancer and heart disease."

That's the opinion of Dr. Charles Tate, chief of the chest disease section at Jackson Memorial Hospital (U.S.A.).

"Back in the 30's," Dr. Tate says, "lung cancer was so rare that we [doctors] wrote reports about it. But since World War II the incidence of lung cancer has increased alarmingly."

There is no adequate treatment for lung cancer, he says. "Yes, we operate every day, but we save very few. Only five per cent of patients with lung cancer will live five years regardless of any known form of treatment."

Of all the people who shouldn't smoke, mothers head the list. Babies subjected to smoking adults and smoke-filled rooms may develop smoke irritation and spasm and die.

patient is more than ever vulnerable to thrombophlebitis within the veins or blood vessels of the legs or other parts of the body, not the least of which are the heart and the brain.

Add to this the slowed healing of the wound, uncomfortable convalescence because of increased pain, and lowered resistance to infection. All these complications are related to the fact that smoking causes tightening of the blood vessels. When your tissues, skin, or wound are deprived of adequate blood, wound healing is prolonged, skin temperature is lowered, tension builds up in muscles, and pain increases, to say nothing of poor circulation of the blood generally, which makes your body more than usually prone to infection.

Lungs are kept cleaner these days in modern hospitals with the addition of the new breathing machine called IPPB (Intermittent Positive Pressure Breathing). This device helps the patient to breathe deeply and washes his bronchial tubes with a detergent solution or simply normal saline, to moisten the nose, throat, and bronchial tree.

The expense of such treatments is considerable. Much of the benefit from these treatments is aimed at the smoking patient, to help clear his respiratory passages and help him breathe deeply, and loosen mucous plugs that might give him pneumonia after the operation. However, he can partly neutralize the effect by smoking.

If you are a smoker, consult your physician or surgeon. If he advises stopping smoking a week or two before surgery, by all means follow his instruction. It may help clear your lungs, making your anæsthetic more effective, so that less of it will be needed. It will also help prevent thrombophlebitis by improving the circulation of blood through the legs. If you have any peripheral vascular disease (blood-vessel problem of the legs), this is doubly important.

Should you be having abdominal surgery, coughing after surgery can be not only painful but downright dangerous during the early postoperative period unless done with caution. Many a repeat operation has been necessary because of postoperative coughing that broke sutures and caused a hernia.

Finally, stopping smoking before surgery will put your body in much better condition to ward off any infection after surgery by improving your general circulation and by increasing your resistance against germs.

If you have been advised to stop smoking before or after an operation, may I urge you to take advantage of the golden opportunity to stop smoking altogether? You will be glad you did, and your doctor will be happy.

Try stopping smoking and see how you feel. Your food will taste better, your sleep will be sweeter, your cigarette cough will stop, your raspy throat and voice will clear up (an especially important point for smoking women). The coarse, rough voice develops from exposure to irritating substances.

***

DRINKS FOR THE SICK CHILD

by ERNESTINE M. SCHINDLER, R.N.

Bewildered, Mrs. Pandit replaced the telephone receiver on its cradle. Dr. Sharma had said, "Ravi's temperature of 101° will need watching, but until other symptoms develop, all we can do is wait. Be sure to force his fluids. And call me back this afternoon."

"What did the doctor mean—force fluids?" she mused. "How can I persuade Ravi to drink when he refuses water and food?"

Mrs. Pandit's plight is not unusual, for forcing fluids on a sick child is a feat that takes some doing. But it is important to a quick recovery from any illness.

What is the reason for this simple treatment? When an acute illness strikes, the fever usually goes up, and of course the skin loses moisture through perspiration. Other organs of excretion become more active, and more fluid must be taken by the patient to keep up the fight. Scientists are not certain why the temperature rises, but they believe that this process aids the body to destroy the harmful germs.

The very young healthy baby is no particular problem as to diet. Usually the doctor will prescribe his entire schedule, including food and water.

As the child grows and develops, he assumes likes and dislikes for certain foods and drinks. These inclinations are more pronounced in illness. Hampered by his lack of appetite, he really needs an incentive to drink.

Liquid Diet

Variety and surprise aid wonderfully in getting a child to drink. Liquid should always be given frequently in small amounts. In planning a liquid diet for your child, try to keep these basic rules in mind.

1. He should drink at least one quart daily—a larger amount is desirable.

2. He will more easily tolerate drinks that are neither sweet nor heavy if he is vomiting or nauseated. Ginger ale or a similar carbonated drink is refreshing to him.

3. Follow normal eating tendencies throughout the day. Offer hot drinks in the early morning. Offer warm drinks before naptime and at bedtime, for they promote rest.

4. Because the temperature usually reaches its highest peak in midafternoon, cold drinks give comfort then.

5. Serve cold drinks warm enough and hot drinks cool enough to allow him to drink immediately.

Unless the doctor gives a specific list of fluids to offer the child, you may give him all kinds of fruit juices, ginger ale, hot or cold milk drinks, soups, cracked ice, and water.

Variety

You would be wise to make a

list for the day in order to be sure of variety. The comfort of the patient, cleverness in presenting fluids, and planned surprises help in making a fluid-forcing campaign successful.

You might try the following hints:

1. Set an alarm clock or a timer to ring at one-hour intervals as a signal for the child to drink. The younger child has no conception of time, and following the bell usually delights and interests him. It will remind you, too.

2. Offer liquids in small amounts of about four ounces.

3. Use coloured straws, for they make drinking fun.

4. You may substitute soft drink bottles for glasses at times. Anything that breaks monotony will give the child more interest in the beverages.

5. Dress up soups with animal biscuits.

6. Tiny toy cups and tea kettles add lots of fun, for the drink can be poured by the child. If you do not have any small utensils, try a tiny glass accompanied by a cream pitcher to use for pouring.

7. Make the child comfortable for eating. If he is confined to bed, you can quickly transform an old cardboard box into an overbed table. With a knife, cut an arch in each side so that it will fit over his legs—then adjust the height for comfort.

8. Commercial or improvised beverage shakers help the child feel that he is preparing his food, and he will have more interest in drinking it. Many drinks such as fruit juice or drinks can be combined in the kitchen, then carried to the child for the shaking process.

9. Keep a detailed account of the amount of fluids consumed as a record to report to the doctor. The task of forcing fluids is a challenge, but it is an indispensable aid in assisting nature to combat disease. Without a doubt, your sick youngster will be more comfortable if he drinks copiously. ***

INDIGESTION

From page 7

of the meal will make for better health."—E. G. White in *The Ministry of Healing.*

Exercise and Posture

Poor posture may result in the stomach and intestines being badly out of proportion, crowded, overlapping, so that they cannot function as they would. Tight clothing should be avoided. Certainly much remains to be desired as far as posture is concerned. Good posture is partly the product of good eating (protein, vitamins, and minerals to provide good muscle tissue) and partly the result of habit and exercise.

Don't allow your abdominal muscles to become flabby so that you exhibit a "paunch" out front. It may indicate that your stomach and other digestive organs are out of place, since they do not have the support they need from these exterior muscles. You need to develop these muscles over a period of time, and all you need is determination. Wherever you are and whatever you are doing, practise pulling the muscles of your abdomen in, in, in—until you can control them at will!

Walking is the best exercise you can engage in. Aside from providing a perfect time and place to practise good posture, walking will improve your circulation. (Yes, even circulation to your digestive organs, thereby improving your digestion.) It will improve your appetite so that you will eat heartily—not excessively, but heartily—of proteins, carbohydrates, mineral fats [unsaturated], vitamins, and minerals. It will help to abolish constipation, if that bothers you, and it will relieve boredom, nervousness, worry, irritation and hence improve digestion!

"Walking in all cases where it is possible, is the best remedy.... In some cases want of exercise causes the bowels and muscles to become shrunken, and these organs that have become enfeebled for want of use will be strengthened by exercise. There is no exercise that can take the place of walking. By it the circulation of the blood is greatly improved."— E. G. White in *Counsels on Health,* p. 200.

Over-eating

One last caution about indigestion. There is no doubt that over-eating plays a big part in indigestion. Pushing away from the table at the end of a too big meal, with grunts, groans, belches, and a leaden feeling inside, is not to be advised. It is interesting to note that if you are eating a diet of natural foods you are not so likely to over-eat!

Nearly all the harmful effects that arise from over-eating are due to the concentration leading to a definitely excessive consumption of the carbohydrates. A bar of chocolate for example, contains as much sugar as a dozen apples. The tongue would know when to stop eating apples, but not the bar of chocolate!

Here's to happy, healthy eating. ***

SLEEPING INTELLECTS

by HAROLD SHRYOCK, M.D.

Last November 17 the Los Angeles *Times* carried the story of a thirteen-year-old girl who, beginning in infancy, had been made a virtual prisoner in her parents' home. A former neighbour commented that she had lived across the street from these parents for three years before she realized that they had a daughter. When the girl was finally discovered by an investigating social worker, she appeared "wide-eyed," "extremely nervous," "pale as a ghost," and readily "frightened by other people."

Here was a child who was apparently normal at birth but who had been deprived of the circumstances which stimulate intellectual development. Now, at age thirteen, she still wore diapers and was unable to carry on intelligible conversation. She made a few "mumbling sounds in her throat" but had no vocabulary of ordinary words.

This case raises the question, Is intellect inherited or developed? It appears that this child had normal mental equipment at the time of her birth but that her isolation from human contacts prevented her intellect from developing.

It is doubtful, as a result of her thirteen-year handicap, that this girl will ever have a "normal" personality. Her intellectual powers remained dormant throughout the formative years of childhood.

Someone has said that the human infant is the

You Should be Glad If Your Child is Curious

world's most important natural resource. But the infant has no way, as yet, for communicating nor has he any basis for making decisions even in his own interest. He has great potentialities, however, and if his parents provide circumstances favourable to his development, his can be a worthwhile future.

As with other "natural resources," the infant's potentialities must be developed. A failure here permits his intellectual capacities to remain partially or even completely dormant.

There are some parents who suppose that the first six months of a baby's life don't count as far as the baby's intellectual and emotional development is concerned. They believe, mistakenly, that all that is important is to keep the baby clean, warm, and well-fed. How unfortunate such a concept!

Quality of Growth

On the contrary, the experiences of an infant's very early life determine the quality of the child's growth and development, intellectual as well as physical. It is during these early months that a child begins to use his brain. His brain is ready to function, but as yet he doesn't know how to think. He is just now being exposed to the experiences that give him something tangible on which to focus his budding mentality. Even though he does not yet understand language he does have the capacity to sense his parents' love and tender regard. With this as a beginning he orients all other experiences in his tiny world in ways that contribute to his awareness of life as it affects him.

An expectant mother admitted that she and her husband differed somewhat with regard to their first child. The husband had come from a large family and contended that their baby should enter into the various activities of their home right from the start. The wife, equally desirous of doing the best by their child, felt that it should be kept in a separate room and that it should be protected from distracting influences.

In responding to this young woman, I apologized for having to agree with her husband and stated that it is good for a baby, even during the first few months of life, to have contacts with things and with people. Even though, at birth, there are parts of the brain that are still in the process of development, an infant is already able to receive sensations of hearing and taste as well as those more vague sensations that come from the skin and the organs of digestion. Sensations of smell and sight are not yet perfect, but within a few weeks even these will bring significant impulses to the brain.

It is the incoming sensations as they reach a baby's brain that command his attention. The baby who is kept isolated from what happens in his home is deprived of the very sensory experiences that would promote his intellectual development. Without sensations, his brain has no tools to work with. These sensations provide his only means of getting acquainted with his surroundings.

Sensations

Even from the start an infant fusses and cries when his sensations are unpleasant, but he relaxes and seems to feel comfortable when they are pleasant. By the age of two or three months he makes attempts to prolong those sensations that he enjoys and to avoid those he does not like. Herein we have the beginnings of personality.

A baby who is shielded from his surroundings to the extent that he does not have enough sensory experiences, or one who receives too many sensations which are unpleasant, tends to lose interest in his surroundings; and this loss of interest deprives him of normal progress in his development.

In the second half of his first year a baby develops the urge to move about. By now his brain is not only receiving impulses from his sense organs but is sending them out to his muscles. Of course, he had been using his muscles since several weeks before he was born, but those early movements were mostly reflex in nature. Now, as he approaches one year of age, he must co-ordinate the action of his muscles so that his movements serve a purpose. He puts great effort into his attempt to stand up in his crib. The development of his brain has proceeded to the point that he uses the movements of his body to help satisfy his growing curiosity about the things that surround him. By crawling from place to place he touches new things, puts them into his mouth to taste them if he can, and in other ways increases the number of sensations that contribute to his learning processes.

Active Child

Parents may be exasperated with an active child approaching one year of age, because of his "getting into mischief." It is curiosity that prompts his activities; and as he tries to satisfy this curiosity, he is

Baby's emotional responses develop along with his intellectual capacities.

learning very actively. Of course he cannot be allowed entire liberty to follow his inclinations; but he should be permitted, within limits of reason, to explore, to examine, and to become acquainted with things about the house.

In this important period of exploration, there is one other thing that a child needs in addition to the opportunity to touch, taste, and move about. He needs the presence and influence of someone to help him evaluate his sensations. He needs guidance as he begins to attach meaning to his simple experiences.

What we are saying is that the baby's emotional responses are developing along with his intellectual capacities. He watches people who are close to him to see how they react to the taste of a certain food or to a certain sound or to the pet dog or to another child. When his mother smiles as she gives him some new food, he expects this food to be agreeable. If his older sister expresses terror when the dog comes near, he assumes that he, too, should avoid dogs.

Many of the childhood fears that carry over into later life are entirely unfounded and could have been avoided if the child's mother or some other family member had introduced the child tactfully to the new experience. The baby whose father carries him on a walk through the woods on a stormy day will not be so fearful of storms thereafter, for he has observed his father's pleasure at the feeling of wind against his face or the sound of thunder in the distance.

Intellectual Progress

We can measure a child's intellectual progress more objectively after he passes his first birthday. By this time he is learning how to use words. A young child is a keen observer, and he learns how to use words by noticing how other people use them.

We do the child a favour when we help him to build his vocabulary. Parents should make a conscious effort to use words properly and to pronounce them correctly, for the child will follow the parents' example.

And here we come to a fine distinction between what is good for a child and what is harmful in the matter of preparing him for the formal education which follows a few years later. It is a good thing to encourage a child's curiosity and to be of help to him, tactfully, in making discoveries and in helping him to find answers to his questions. The danger comes in intellectual "force-feeding." The young child's learning of words and of facts should be in the natural setting in which these words are useful and the facts interesting.

One of the easiest and most effective ways of teaching a child to use new words is by reading or telling him stories. Every child loves stories, and in the course of hearing a story he may even ask the meaning of some word so that he will better understand the story. This kind of learning does not overtax the child's brain because it is given in response to his request. There is no danger of exceeding a child's capacities so long as it is the child asking questions rather than the parent imposing information on an unwilling child.

The most satisfactory way of awakening the intellect of a preschool child is to share new experiences with him. Be patient in answering his questions when he accompanies you to the market; for here he is learning about things, about their names, about their usefulness, and even about the meaning of the money that is necessary to pay for the purchases. Allow him to feel at ease in asking the questions that are prompted by his curiosity.

Lines of Rhyme

It is easy for the preschool child to learn a few lines of poetry or a few verses of Scripture. Memorizing comes much easier at this time of life than at any subsequent time. Read him the verses a time or

The most satisfactory way of awakening the intellect of a preschool child is to share new experiences with him.

two and allow him to comment and ask questions. A day or two later read him the same verses. After the third or fourth reading, the child will probably tell you in advance the words to be found in the next line.

Never make fun of your child's questions. If you do not know the answer to a question, make an honest effort to find out. Thus the child will gain confidence in your interest in his learning. As his fund of information increases, encourage him gradually to find answers to his own questions, particularly when this involves a bit of simple reasoning. To some of his questions you can reply, "What do you think?"

If he simply responds, "I don't know," then suggest to him how he may go about finding the answer. As his intellectual powers increase, encourage him to reason from cause to effect. Try to keep such activity in the context of an interesting game, congratulating him when he reasons correctly.

Just as the case cited in the opening paragraphs represents the extreme in neglecting a child's intellectual development, so there is another extreme to be avoided—that of pushing a child in his intellectual performance beyond the reasonable limits of his developing intellect. The classic "Sidis case" represents this other extreme. Professor Boris Sidis, brilliant professor of abnormal psychology at Harvard University, determined to prove some of his theories about the learning potential of the human brain by using his newborn son, William, as the subject of an experiment. Professor Sidis suspended alphabet blocks so that they would be visible to the baby while lying in his crib. At age six months, Baby William could pick out every letter in the alphabet.

The programme of rigid discipline continued. By age two, William could read textbooks. At four he could type simple stories in either French or English. At five he invented a method for determining the day of the week on which any date in past history had fallen. The boy's rigid programme of study deprived him of opportunities to make friends of children his own age. In fact, he lived a very lonely life and recoiled from all contacts with people outside of his immediate sphere.

The "Sidis Case"

By age nine he had completed the requirements for college entrance, but the admissions office at Harvard made him wait until he was eleven. In the meantime, there were many things that normal boys know how to do that William was unable to do. He could not swim or throw a ball or find his way home from the woods. Even after he entered college, his classmates considered him not as a companion but as an intellectual curiosity.

William had to take time out during his college course to recover from an episode of mental illness. Even so, he returned to college and was graduated with honours at age sixteen. He could perform remarkable intellectual feats, but William did not enjoy life. He often spoke to his friends about his desire to commit suicide. He shunned invitations to give lectures or to display his intellectual genius before groups of curious onlookers. He took a job as a clerk in a shipping company. His resentment of his father became almost an obsession; and when the father finally died, William refused to attend his funeral. William died at age forty-six after living an unhappy, unproductive life.

But between the two extremes cited lies the middle of the road, which wise parents can follow and which will give the children a definite advantage in their development, both intellectually and emotionally. The essence of this middle-of-the-road approach may be summarized thus. (1) Give first attention to your child's physical well-being. (2) Recognize that in his early years your child should be free from major conflicts and anxieties. (3) Be companionable with your child; spend time pleasantly with him; read to him and tell him stories that are both interesting and informative. (4) Strive to *develop* your child's intellect, not to *dominate* it. (5) Encourage your child's curiosity and help him to find answers to his questions. (6) Avoid "pushing" your child in the hope that he will start school at an early age. (7) Set your child a worthy example. (8) Recognize that the development of desirable personal traits and of stability of character are more important than the ability to perform intellectual feats. ***

EXERCISE AFTER SIXTY

From page 17

back is the bow. Standing erect with knees stiff, bend double, reaching as near the floor as you can. As strength increases, carry the extending arms in line with the body throughout the movement.

The human body must have some physical movement to keep it in trim, no matter how old it is. The worst thing of all is to take no exercise whatever. It has been said that many an old man has been hurried to his grave by an elevator. Stairs provide excellent exercise for old hearts, if taken slowly. They are miniature substitutes for hills, which if not too steep are ideal heart tonics. Old hearts need some exercise, but it must be gentle exercise. It is better to walk ten miles in one's own time than rush a hundred yards for a train.

For the best results, do your exercising with a right good will. See how much fun you can squeeze out of all your active efforts. Maintain your good humour as you indulge in recreation or work with other people. Keep looking on the bright side of life even when circumstances may be somewhat irritating to you.

When you remain cheery and interested in your game, recreation, or work, you give your body the double benefit of the exercise and the even effect of a pleasant temperament.

Furthermore, you make your relatives and friends happy. It is a good thing to know that people enjoy your company. It makes life worth living.

A good rule to follow is to stop any exercise that causes extreme shortness of breath, pain, a sense of oppression in the chest, or excessive fatigue. Never go beyond your limit, but do get enough exercise. It will go a long way toward keeping you healthy. ***

From page 21

food, such as toast and less finely strained fruits and vegetables.

The most rapid growth period is the first six months after birth. The baby's appetite will change as growth slows. This attitude is normal, and is no cause for worry. If the child is not hungry, let him wait until he is hungry. After the meal pattern has been established, when he is not hungry let him go without anything, but let him understand that he gets nothing to eat until the next regular meal. Some children refuse to eat at mealtime to get attention and then eat enough between meals to take care of their needs. Thus is begun a harmful eating habit.

What to Give

Cereals. There are various baby cereals on the market fortified with iron and vitamin-B complex. Strained cooked oatmeal is also an excellent starter. Any kind of wholegrain cereal combination cooked and liquefied is very good.

Fruit. Scraped and finely mashed banana allowed to stand ten or fifteen minutes is well tolerated as an early fruit. Pureed fruits usually are well tolerated and liked. Scraped raw apple is a great favourite. Many infants who are slow in accepting new foods prefer fruit.

Vegetables. Yellow and green vegetables, which are moderately good sources of iron and vitamin-B complex, usually are introduced about midway of the first year. A blender is a great convenience in preparing baby's food.

Opening a bottle or a can of baby food is convenient, but it certainly is not the best way to develop a healthy child. Make your own baby food. It is much cheaper and better nutritionally for your baby. Almost any fresh cooked vegetable (carrots, spinach, peas, and others) may be liquefied with a little water or milk. At first they should be strained through a fine strainer to remove coarse particles.

Small portions of raw celery and/or carrot may be liquefied with water, strained, and given in a bottle. Toward the last of the first year and at the beginning of the second year, vegetables without skins from the table may be mashed finely and fed to the baby.

Protein and Starch. Toward the end of the first year, when baby's chewing equipment is working, toast, baked potato mixed with milk, pureed peas, pureed green lima beans, and pureed green soya-beans may be added.

Liquefied almonds, cashews, and other nuts may be introduced, or fine nut butter may be used sparingly.

If a baby is breast fed, weaning usually is advisable when he is from six to nine months old. However, if possible, weaning should be avoided during extremely hot weather. To begin with, substitute one bottle feeding for breast feeding per day. Try a cup instead of a bottle, which often is taken as readily as a bottle.

Before the infant is a year old he should be permitted to experiment with feeding himself. The ability to feed himself is an important step in his development of self-reliance and a sense of responsibility, with favourable repercussions in the years that follow. By the end of the second year he should be largely responsible for his own feeding.

All babies need vitamins B, C, and D. Your pædiatrician should help you with this matter.

Here are a few don'ts to guide you in feeding your baby.

1. Don't fret over the amount of food an infant eats or refuses to eat.

2. Don't use food as a reward or a punishment.

3. Don't talk about a child's likes and dislikes in front of him. He catches on early, and a lifelong antipathy for the disliked foods may be developed if you emphasize his childhood eating habits.

4. It takes time and patience to train a baby in good eating habits. Feed solid foods slowly. Don't push them in fast. Teach him early to chew thoroughly.

5. Don't scold or discipline at mealtime.

6. Don't allow the child to develop a taste for concentrated sweets and refined foods. Never put sugar on cereal or other foods to induce him to eat them. ***

Household Hints

Light Switches

Paint the tips of electric light switches throughout the house with luminous paint to make them easy to find in the dark.

*

To Freshen Nylon

To freshen and whiten nylon, soak overnight in a solution of hot water and borax, rinse well in hot water the next day.

*

Photographs

Cotton wool dipped in methylated spirit will clean unprotected photographs without destroying their polished surface.

*

Picnic Cooler

Fill a hot-water bag with crushed ice and place it in the bottom of the picnic basket to keep the food cool and fresh.

The Doctor Advises

A SERVICE FOR OUR SUBSCRIBERS

Vitamin Comparison

What is the difference between natural and synthetic vitamins?

Chemically there is no difference between natural and synthetic vitamins. One is made in the laboratory the other is made in nature. Both have the same chemical composition; otherwise, they would not be designated by a specific name. Both have the same effect in supplying the needs of the body.

The laws of chemistry are the laws of nature, and they never vary. For example, two parts of hydrogen and one part of oxygen unite to form water, never anything else. In like manner the combination of the elements found in any vitamin produces the same end product whether in the laboratory of man or in the laboratory of nature.

At times in an emergency state of health it may be necessary to supplement the diet with vitamins from a bottle; but everything else being equal, the source of our vitamins should be our daily food, because in nourishing and healthful food other needed elements are present.

Psoriasis

Could you suggest treatment for Psoriasis of the scalp? Is there a cure for it? Will dieting help?

Psoriasis is a chronic skin condition for which as yet medical science has not found a cure. It may disappear for a time without any treatment and may recur after apparent cure.

On the scalp, cut the hair short and expose the scalp to sunlight gradually increasing the time daily up to thirty minutes. Then a topical corticosteroid ointment or cream (such as Milicortin Vioform) may be applied. This is repeated at night and covered with a cap of thin plastic. In the morning the cap is removed and the head shampooed with a very mild soap, and the ointment reapplied several times during each day. Treatment must be continued patiently every day until lesions clear.

If constipation is present, do not use mineral oil to control it.

Best results follow use of X-ray, quartz light and certain other treatments that can only be given by a skin specialist. In psoriasis of the scalp, it is especially important to put the case in the hands of such a doctor.

There is no clear evidence that it is infectious, and it is not contagious.

The general health should be improved. Eliminate flesh foods and animal fats from the diet and use very little salt, milk or eggs. Eat freely of fruits and vegetables and avoid tea, coffee, tobacco and alcoholic drinks. Use very little sugar or sugar sweets.

Catarrh

I am suffering from catarrh. I have been treated by many doctors, but my sneezing and constant headaches have not been any better. Would you suggest a remedy and also let me know whether too many medicines damage the kidney or other parts of the body.

Your symptoms of catarrh sneezing and headaches suggest that you have allergic rhinitis. There must be something that you are allergic to, and you will have to find out what it is. It may be the dust from the pillow, mattress, a cat or dog, some food or some dust from outside, as hay or pollen. You will have to find out by trial and error what this substance is and avoid coming in contact with it. Any infections that you may have in the throat or in sinuses must be treated promptly. I find that the tablet called "Zeet" is helpful. One or two tablets taken under your doctor's care at the onset of symptoms might help you.

Bed Wetting

My daughter who is fourteen still wets her bed at nights. Is this a habit or a disease? The many treaments that she has taken have not proved helpful. What could be done to help her?

A fourteen-year-old-girl should have confidence built up. She should not be ashamed, blamed, criticized and punished for getting wet at night. Get her an alarm clock and set it for an hour after retiring and again four hours later, and be sure she is wide awake for urinating.

She should drink lots of water—eight glasses each day, but most of it should be before 4 P.M. She should take no sugar, but eat fruits with the morning and noon meals. Milk should not be used in the evening, and suppers should be very light and eaten by 6 or 7 o'clock. Tea and coffee must be eliminated entirely, and the food should not be too spicy.

Sometimes these cases are due to a congenital defect or to some disease of the urinary tract. So if she does not improve soon, she should be thoroughly examined by a specialist in urology.

Filariasis

What is Filariasis? What causes it and what treatment ensures permanent cure?

Filaria is a parasitic worm of the thread-worm family causing filariasis, a tropical disease. There are several forms of the disease, some carried by mosquitoes others by blood-sucking flies.

On entering the skin these larvæ invade the lymphatic vessels and by this means travel long distances through the body. The female worms lay eggs which causes inflammation and soon begin to block the lymph flow, resulting in lymphangitis and marked allergies, with frequent attacks of fever.

There is at present no adequate drug treatment available for any of the filarial infections. One of the newer medicines, Hetrazan, available in syrup or tablet form, is of value in killing the smaller worms that are circulating in the blood stream. But the adult worms in the tissues are relatively safe. We suggest that you see your doctor about any specific types of filariasis which may concern you.

Polio

My fifteen-month-old-brother has polio. What is polio, and why is he not improving despite treatments?

Polio is an acute disease of the spinal cord which commonly attacks some nerves to the extremities causing paralysis of certain muscles which result in shrinking of the muscles. In treating this disease, attempt is made to keep as many fibres of the muscles as possible working by the use of hot packs and proper exercise. This treatment has to be given early, starting within a few days of the onset of the disease, and is not of much use after a year. There is no magic medicine which will cure polio, but there are polio shots or oral vaccine which the baby should have taken to prevent the malady from developing in the first place.

Exhaustion

When I am about to wake up from sleep, I feel conscious of what is going on, but am not able to move any part of my body. I find it very difficult to wake up from this morbid sleep. Why do I feel this way?

Are you getting at least seven hours of sleep at night? What you describe suggests exhaustion. Have you fallen into the habit of taking sleeping pills or cups of tea and coffee to keep awake?

Sedentary workers need to exercise the body more. Try to get regular vigorous exercise, at least walking or jogging two miles a day. It may be well for you to have your blood pressure, blood count and blood sugar checked. A hypoglyceme state (blood sugar below 50) can cause one to be drowsy.

Try following a good programme of sleep and exercise. Eat a well balanced diet at regular times, leaving off tea, coffee, smoking and other injurious habits. Then life itself will take on new meaning and your sleep will be really restful.

The Fire that Helped Tim Grow

by ELLA ELKINS

Tim was the smallest boy in the first grade. "I wish I could do something to make myself grow," he wished. "I can't run as fast as the other boys. And it is no fun to be chosen last for games every time."

So Tim thought and thought. But no matter how much he ate, or how many hours he slept, or how hard he stretched each morning, he didn't grow as fast as the other boys at his school.

"I guess there is nothing that I can do," he decided at last.

Then one day during noon recess when he had run as fast as he could to the swings hoping to get one before they were taken, he heard two girls talking.

"Poor Tim. He didn't make it to the swings in time again."

The other girl answered. "No matter how fast he runs, he never gets to the swings in time. Someone is always ahead of him. He sure isn't like the other boys. He hardly ever talks, and when he does it is hard to hear him."

"I feel kind of sorry for Tim," the first girl said. "He gets left out of almost everything."

Just then one of the girls looked toward the school. "Oh, let's run. There's the teacher with her whistle. It must be time to go in. Maybe we can be first in line. Come on, I'll race you!" The girls ran and Tim ran too.

The teacher blew the whistle, and all the boys and girls lined by the door. They chatted and laughed while they waited for the signal to be quiet.

The teacher held up her hand. "Ready? Mark time. Left-right, left-right." She opened the school-room door. "Quietly march!" she said.

Suddenly Tim yelled, "The school's on fire!" He pointed to the roof.

Everyone looked up. There was a small circle of dark smoke coming from the rooftop where some electric wires went into the building.

"Go tell the principal, Tim!" the teacher said. "The rest of you children turn around and walk over to the fence as quickly as you can and wait there. Remember, no running."

Tim saw the faces of the children around him turn pale. His hair felt prickly on his neck, and his legs felt stiff. At first he couldn't run, but he did. He ran to the principal's office while the others hurried to the fence and waited.

The principal rang the fire-alarm bell, and all the boys and girls in the other classrooms marched out to the fence too.

Soon they could hear the fire engines with their sirens blowing coming toward the school.

"Who was the first one to see the fire?" one of the bigger boys asked.

"It was Tim," almost all the first graders said together.

"Well, good for you, Tim!" the older children said.

The big red fire engines swung into the schoolyard. The firemen unrolled the big hose and soon were dousing the roof with water. Then a fireman put a ladder up against the building. He climbed up and looked at the place where the smoke had been pouring out. He hacked away at the burned spot with his hatchet. Then the men below put some more water on the place. At last the fire was completely out.

After it was all over, one of the firemen walked over to the fence where the children were still standing. "Who saw the fire first?" he asked.

"Tim did! Tim did!" they all said as they pointed to the little boy.

"That was a fine thing you did, Tim," the fireman said. "You saved your school, and maybe you even saved your friends' lives and your own. It was a little fire because you saw it in time. The roof can be fixed, and then it will be as good as new, thanks to you." He gave Tim a pat on the back and walked back to the fire truck.

Tim smiled. It made him feel good to have the fireman say such kind words to him. He stood up straight. And he didn't feel quite as small as he had felt before.

The roar of the big motors faded away as the trucks went back to the fire station. But no one at the school ever forgot what Tim had done. Now he seemed much bigger even in the eyes of his friends. He was no longer the last one to be chosen at games, and when Tim ran to get a swing, his classmates were eager to give him a turn. Everyone felt that Tim was the hero. ***

A MIXED DIET FOR MENTAL HEALTH

From page 2

people is simply a nice-sounding way of saying "sour" or "rotting."

Remembering that the body has about 100,000 miles of pipe line (arteries, veins, capillaries) it is good sense to keep them clean and clear of blockages. What does this mean in actual practice? Well, avoid or reduce the intake of animal fats which seem to be known cholesterol-formers, which (cholesterol) in turn blocks the body's pipelines.

Just one more simple tip before you begin lumping in a healthy body in your mixed diet for a healthy mind.

Blood. Great stuff, really. Carrier of food and life—take-away-er of rubbish—that's your blood. Give it a good chance and it will do you a good job. Daily vigorous exercise, that's it. Walking? Nothing better, say many. Jogging? The best, say the enthusiasts.

Time for the second.

And here it is? LOVE. Henry Drummond, devout Scottish scholar of a century ago called it "The Greatest Thing in the World." To be healthy and to keep healthy every mind needs great chunks of it every day. Truly, love is wonder-working food for the mind. To set out deliberately to love the unlovely is to administer deliberately a tonic to the system. Try it. Start today.

Great food for making great minds is LOVE. (But don't confuse "love" with "sex." They aren't necessarily the same.)

Third. And do beware: BELIEF.

"Old stuff," "out of date," you protest. And you're pretty right, too.

It is popular to doubt. Minds are being trained to doubt. "A cultivated capacity to doubt, to disbelieve, is the hall-mark of the intellectual," I was told the other day. Impressed? Not me! And I will tell you why. Not very much of the *product* of today's costly castles of doubt impresses me. And I happen to know just a little of the mental tragedies of the "believe nothing absolutely" disciples. Sadly, many of them are mere youngsters.

You need *belief*—like a healthy body and love—a big, big helping in your mixed diet for a healthy mind.

Well, with healthy minds in mind, let us now list their three-course menu:

Sound Body
Love
Belief.

Great food for making great minds! Try some of it. Why not all of it? And why not start today? ***

MEDICINE TODAY

More on Meningitis

U.S. Army scientists say a vaccine against Group C bacterial meningitis is proving nontoxic, highly capable of producing immunity, and protective. In field trials, there was an approximate nintey per cent reduction in disease among recipients of the vaccine.

A limited supply is available for military use. Indications of possible increases in frequency of another strain (Group B) among some who received the vaccine produced a decision to limit use to military situations of high Group C disease incidence.

Work on a Group B vaccine is under way. But there are problems in producing immunity.

Another vaccine, against the third major bacterial meningitis, Group A, also has been developed by Walter Reed Army Institute of Research. It is reported to be nontoxic and immunogenic. Further clinical work is needed, however, to determine its protective effect.

—*Today's Health*

Critical Listeners Make Stutterers

Stuttering does not begin in the mouth of the child but rather in the ear of the listener. Speech pathologist Ronald Goldman of Nashville, Tennessee, U.S.A., points out that the normal two- to six-year-old child talks with many repetitions, prolongations and hesitations. When parents frequently react by slowing down the child, asking him to think before he talks, or making other unrealistic demands, and even punishing him, the stage is set for stuttering. The child begins to force his speech, close his eyes, prolong his words or not speak at all.

Goldman advises parents: Strengthen the child's concept of himself as an adequate speaking individual. Focus on what he is saying and not how he is saying it. Never tell him to "stop and start over" or fill in words for him when he hesitates.

—*Science Digest*

Heading Off Hepatitis

Risk of a patient's acquiring hepatitis from a blood transfusion seems to decrease when human red blood cells are separated from plasma (liquid part of the blood), frozen, thawed, washed, then mixed with a protein substance called albumin.

Reporting after a four-year-study, James L. Tullis, M.D., John Hinman, M.D., and associates of Boston say they don't know exactly how the process affects the potentially liver-damaging hepatitis virus. They believe an important aspect is mixing thawed red cells with a hepatitis-free solution such as albumin rather than the blood plasma.

—*Today's Health*

Personality Quotient

Educators recognize that factors other than intelligence influence academic success. Now a new series of personality tests has been designed to accompany traditional achievement tests to help predict a student's future scholastic performance.

The exams, created by Gene M. Smith, Ph.D., a psychologist at Massachusetts General Hospital and assistant professor at Harvard Medical School, have been given to more than 13,000 student nurses, elementary and high school pupils in the Boston area.

"The results show that students who make maximum use of their intellectual abilities are the ones who score highest on our measures of responsibility, dependability, self-reliance, resourcefulness, conscientiousness, persistence, desire to learn, determination to succeed, and other allied traits," says Doctor Smith. "These traits—combined with confidence in one's ability to learn and the belief that one's effort will be rewarded—help distinguish the academic winners from the academic losers."

Personality traits are measured by a questionnaire filled out by the student and by asking the student's classmates to rate him on these aspects.

—*Today's Health*

by RAYMOND SCHUESSLER

Your memory is like any muscle—the more it is exercised, the stronger it gets. Here are some time-proven suggestions for keeping your memory in good shape:

1. *Intend to remember.* Remembering is largely a matter of motivation; you have to *want* to remember.
2. *Understand what you are trying to remember.* Naturally, vague or illogical things are difficult to recall.
3. *Organize what you know into meaningful patterns.* It's easier to find what you want in a well-kept filing system.
4. *Become genuinely interested in what you want to remember.* A rabid cricket fan has no trouble remembering players' batting averages.
5. *Use as many senses as possible.* Repeating a name aloud, for example, when you are introduced to someone, involves sight, speech and hearing.
6. *Associate what you want to remember with what you know.* Every fact you possess is a hook on which to hang new facts.
7. *If you can't find a logical association for a new fact, invent your own.* And the wilder the better.
8. *If you have a great deal to remember, spread it over a few days.* The more the memory is "crammed," the more quickly it forgets.
9. *Review what you want to remember.* Repetition is essential to an effective memory.
10. *The best time to memorize is before bedtime and immediately after rising.* In this way, your mind and subconscious mind will have had undisturbed time to mull it over.

Registered No. MH—40.