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HEALTH

PRODUCED BY THE LATE Dr. U. RAMA RAU

A JOURNAL DEVOTED TO HEALTHFUL LIVING

Contents

A Journal Devoted to Healthful Living

HEALTH

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ERADICATION OF SLUMS

(Co-ordination of Work Essential)

THE Advisory Committee set up by the Prime Minister for devising a suitable programme for Slum Clearance has suggested that the eradication of slums should be considered as a part of urban development and all activities relating to social welfare, including the provision of fruitful employment, should be integrated to bring about the development of the depressed and slum areas.

The Committee has in its report recommended the entrusting of urban community development to one Ministry at the Centre which could integrate the activities of the other Ministries in respect of town-planning, slum clearance housing health, education and industries.

The Prime Minister had said that removing of slums was intimately connected with housing and future urban planning, and provision of employment for dwellers must form an important part of any clearance programme. Calcutta, is the worst-affected city in India from the point of view of insanitary living conditions, over-crowding and unemployment.

The worst slum-areas in the six cities of Calcutta, Bombay, Madras, Delhi, Kanpur and Ahmedabad will be taken up for treatment. In these States the urban community development organizations will be headed by administrators, who will draw up and implement, in consultation with the local authorities concerned the composite urban develop

ment scheme for the selected areas.

The short-time objective of providing the basic amenities in the existing slums should be carried out with expedition and vigour. From the data available, the slum population is believed to constitute from 7% to 60% of the total population in the big cities. Urban slum houses totally unfit for human occupation, are about 1.15 million. The slum clearance programme should be tackled both through short-term and long-term measures. As to the short-term objective, unless a master-plan or an interim plan is drawn up for a city or town, *the main emphasis should be on slum-improvement rather than on slum-clearance.* In the meanwhile,the preparation of master-plans for the development of large cities and towns should proceed apace.

Dealing with the long-term measures, the scheme of the Ministry of Works, Housing and Supply is based on the principle that there should be the minimum dislocation of slum dwellers from the fields of their employment.

We learn that a large number of machine tools like lathes, grinding, milling, sawing, drilling, welding and boring machines stocked in warehouses in various countries of the world which although outmoded for the present needs of the more advanced countries, could still be of use in India. If about 5,000 machines can be got for the Small-Scale Industries Organization of the Ministry of Commerce and Industry, pilot projects could be started for the benefit of slum dwellers in the six cities in addition to utilizing the machines for other programmes of Government for the development of small-scale industries. We are quite confident that with employment ensured, much of the argument of the slum dwellers against moving from their existing sites would have been removed.

Regarding the financial implications it is certainly difficult to appreciate a cut of 17 per cent plus 16 per cent on two occasions as a result of reappraisal of the Plan by the Planning Commission when in the other development heads under social services, of which housing certainly forms a part, the cut was far smaller. It should be possible by some slight adjustment to retain the Rs. 120 crores allocation for housing which has now been drastically cut down to Rs. 84 crores.

The Committee states that a terminal tax on goods and passengers travelling over a 100 miles and to cities with a population of one lakh and over, will bring in sufficient revenue to maintain the provision of Rs. 120 crores for housing in the Second Plan, if a corresponding reduction is not possible under some other head of development. Great care is needed to ensure that the collections made under terminal tax, find their way into the coffers of the local bodies charged with the eradication of slums.

CHILD'S DEVELOPMENT

III. Ages Six and Seven

(Continued from page 197 of HEALTH for Sep. 1958)

JACK HARRISON POLLOCK

DR. ARNOLD GESELL, who has studied thousands of children during the past 50 years, has shown that at different ages, youngsters follow definite growth patterns.

"It takes a child a long time to grow *but he must do his own growing,*" Doctor Gesell says. "And parents shouldn't try to hurry or retard that growth process. Parents need more than good will toward a child. They need knowledge of how behaviour grows."

Doctor Gesell and his colleagues carry on their child behaviour investigations at the private, non-profit Gesell Institute of Child Development, in New Haven, Connecticut.

Mainly a (1) research centre, (2) clinic and (3) teaching centre, the Gesell Institute attracts parents, doctors, psychologists, teachers, and students from all over the world.

This article deals with behaviour traits during the sixth and seventh years—a truly difficult period in a child's life.

Naturally, these behaviour patterns aren't followed by every child on a year-to-year basis. But even youngsters a year behind or ahead in their emotional development go through much the same stages. Variations depend on temperament, home environment, and general body type.

Six years: *A stormy period*:— Docile five is followed by stormy six. Actually, the break-up starts around five and a half. A typical six-year-old is in constant conflict, and violently emotional. When he's angry, one of his favourite threats is, "I'll kill you!" He may suddenly hug his mother and say, "I love you," and the next minute exclaim, "I hate you!" This outburst often results from mother merely moving one of his toys out of place.

Six is a rigid, negative, demanding, and unadaptable age. Fighting is natural; music lessons are not. It is difficult for a six-year-old to accept criticism, blame, or punishment. He has to be right, has to be praised, has to win. If he loses, tears and accusations flow forth that others are cheating. Ironically, it is the six-year-old who is more likely to be cheating and stealing.

At six, some trouble stems from a child being overplaced in school. In the Gesell investigators' experience, the average girl needs to be fully six, the average boy does better if he is closer to seven before starting first grade. Much harm is sometimes done by entering a child in first grade because he is "so smart," or "just a month under the required age."

Use techniques wherever you can. You can make it easier

for him—and yourself—by realizing that he is having a difficult time within himself as well as in his relations with others. Try to by-pass unhappy incidents.

Luckily, he is at his best with father. An inventive, far-sighted father won't wait until mother and child are embroiled. He'll step in beforehand, saving wear and tear on everybody.

Seven years: *Easier to live with*:—At seven, a child isn't nearly as aggravating as at six. Now calmed down somewhat, he is easier to live with even though he is often morose and moody.

Preferring to be alone, a seven-year-old wants a room of his own where he can retreat and protect his belongings. *Though he sometimes seems to be deaf, he hears what he wants to hear!* To show his dissatisfaction with life, his facial expression sometimes curls downward in a prolonged pout. Seven's complaint, "I wish I was dead," is typical and shouldn't be taken very seriously, even though it reveals how he feels.

Whatever he does at this age, he does intensely. For instance, if he becomes a good reader, he is a chain reader. But if he doesn't read well, don't worry. One mother, troubled because her seven-year-old son wasn't learning to read fast enough—despite remedial instruction—was reassured by Gesell investigators.

Seven is aware of his brain and uses it. If he gets tired, it's because he thinks too hard! If his family is too "mean" to him, he may threaten to run away. Seven is a great worrier, afraid of being late for school. Dr. Gesell recalls a seven-year-old who wrote a small, hand-illustrated "book" which included this line: "At five, children are very nice. They are good sleepers and eaters. *The End.*"

Tremendously concerned with himself and how others treat him, a seven-year-old hates to be interrupted. His things need to be protected, taken away from younger brothers and sisters. Don't usurp his place at the dinner table.

Some imaginative seven-year-olds develop the "adoption fantasy." The child assumes first that his parents don't treat him right. He then concludes that they really aren't his parents after all. From there, he imagines that he really comes from some rich family and that his present mother and father just "got hold of him" somehow and are now mistreating him!

Marvel at the fertile seven-year-old imagination. Sympathize with his discouraged moods and don't make fun of him. But don't take his complaints too seriously. The mood will pass.

Parents of a seven-year-old should steer a delicate course between being reasonably sympathetic with their child's complaints and not taking them too seriously.

(To be continued).

—(*Today's Health*, June 1958).

Facts to Know About the Change of Life

(Menopause)

RUTH and EDWARD BRECHER

(Fear and misapprehension—not physical changes—are the greater hazards in this normal phase of womanhood)

"THE most effective medicine that a doctor can give a woman entering the menopause," says a wise expert doctor "is the simplest—*an explanation.* He can explain to her that the menopause does *not* mark the end of personal attractiveness or sexual enjoyment. He can explain that the suffering and distress her aunt complained about so loudly are experienced by comparatively few women. He can explain that the menopause is a time of readjustment to a rich period of satisfying work, play and affectionate relationships."

Unfortunately, such explanations often come too late. Even the most skilled doctor finds it hard, during a consultation or two, to sweep out all the mental cobwebs and superstitions that a woman of 45 to 50 has accumulated through the years. "The time to educate women about the menopause," our doctor friend says, "is before the seeds of error are planted. I'd like every girl to learn the facts when she learns about menstruation."

What are the facts? At puberty, a girl's pituitary gland, located near the base of the brain, begins to manufacture and release into the blood stream a hormone known as gonadotropin. This substance stimulates the ovaries to produce a sex hormone called œstrogen. There follows over a period of 28 days or so the familiar monthly cycle. A follicle—an egg-containing sac—in one of the ovaries ripens and an ovum emerges from it. Then the empty follicle manufactures yet another hormone, called progesterone, which prepares the lining of the uterus for pregnancy. If no pregnancy occurs, this temporary lining is sloughed off, and menstruation follows. Ordinarily, a woman experiences this cycle some 350 to 450 times over a period of 30 to 40 years.

Eventually, however, the ovaries produce less œstrogen, and in time none at all; no follicle ripens, and no progesterone is secreted. The ovaries, as before puberty, become relatively inactive.

With the quieting of the ovaries, other endocrine glands step *up* their activity. The adrenal glands, perched atop the kidneys, increase their manufacture of œstrogen; the thyroid gland in the neck becomes more active; other glands, too, alter their parts in the "symphony," so that after a while the body establishes a new hormone balance. Thus a woman enters the third major era in her life, a little older, a littler wiser, no longer able to have babies—but otherwise not

so different in her 50's from what she was in her 30's or 40's.

A minority of women—one in eight to ten—have considerable physical discomfort during the change-over. The commonest symptom is the "hot flush"—a sudden rush of blood to the head and upper body. Many women find this embarrassing as well as uncomfortable. Other symptoms are less well-defined—headaches, backaches, fatigue or just a sense of feeling miserable all over.

The physical and emotional aspects of the "hard time" in menopause are curiously intermingled. The emotional consists of anxiety, depression and fear. A woman may worry that her relationship with her husband will be jeopardized. Some worry about their appearance. Many worry about the future. "Am I going to feel like this all the rest of my life?" is a common question, women ask their doctors. Such anxieties usually have no basis in fact; they are the result of the glandular changes occurring in the body.

About one-half of all women experience the menopause between the ages of 45 and 50; the other half before 45 or rather 50. A considerable number of women—estimated at 15 to 20 per cent—have no symptoms at all; they just gradually stop menstruating. The majority have a few hot flushes, feel depressed from time to time, but experience nothing they can't take in their stride.

For the minority who experience distressing symptoms, medical seience now has *two* remedies to offer hormones and reassurance. "Hormones are excellent,' we were told by a gynæcologist, "but reassurance is even better."

There are certain specific fields in which women frequently need to be reassured. For some, sex worries come first. These worries are unfounded. Among women who are sexually active during the years immediately preceding the menopause, the overwhelming majority continue to enjoy sex activities. Indeed, some women have reported increased sexual enjoyment following the menopause—perhaps because they are no longer troubled by fears of an unwanted pregnancy.

Women who are having hot flushes or other menopausal symptoms also need to be assured that these discomforts won't last for ever. Here the sympathetic doctor often makes a telling point. It is true, he says, that for some women menopausal symptoms may be spread over a period of a year or more. But this does not mean a year of uninterrupted distress. There will be weeks and even months along the way when they will feel as healthy and vigorous as ever.

Then there is the general fact of aging and appearance. But aging begins of course, on the day one is born; the menopause does not hasten the appearance of age nor does it cause women to put on fat. During this period, as always, fat comes chiefly from eating too much.

Some women, for example, develop harmless tumours called *fibroids* during their 30's or even earlier. During the menopause these may produce irregular bleeding, or "spotting." Because such bleeding is sometimes due to cancer, a woman should consult her doctor at once.

Menstruation also tends to be irregular during the menopause. Many women are prone to dismiss such symptoms as "just one of those things." But a prompt pelvic examination is desirable in all deviations from customary timing.

Finally, for the small minority who have a really hard time while the glands are adjusting, hormones can be prescribed—usually in tablet form, sometimes by injections—which will help to bridge the gap. In the absence of intense hot-flush symptoms, few gynæcologists prescribe hormones. Also it should be strongly stressed that hormone therapy *before* the menopause does *not* postpone it. On the contrary, excessive hormone treatment will extend the troublesome transition period and delay the achievement of a new healthy glandular balance.

One last point. Through the generations every kind of harm has been done by the old auntie who mistakenly attributed all the aches, pains and woes over ten years to her "change of life." Surely the time has now come for the rest of the female sex to speak up to save the coming generations of women unwarranted anxiety.–(Condensed from *Family Circle*, via *Reader's Digest*, September 1958).

Antibiotics in Influenza

Commenting that there is as yet no known chemotherapeutic antibiotic or other drug which specifically influences the clinical effects of influenza viruses, the latest issue of the Ministry of Health's *Prescriber's Notes* points out that the consensus of opinion among family doctors dealing with the Asian epidemic indicates that the uncomplicated cases call for no more than rest, copious fluids and symptomatic treatment with aspirin.

Few doctors feel justified in administering powerful antibiotics to every patient with influenza or, as is not unkown, to every patient with coryza during an influenza epidemic. Such indiscriminate treatment may appear to be a prudent course but neglects the very real dangers of sensitization, toxicity and the propagation of resistant bacteria.

Although treatment may differ from doctor to doctor and hospital to hospital, the indications for antibacterial treatment of some sort seem to be fairly clear-cut: (1) Pre-existing chest disease, *e.g.*, chronic bronchitis, bronchiectasis. (2) A history of recent or recurring severe respiratory infections. (3) The presence of heart disease. (4) Evidence of acute pulmonary complications at any stage of the illness and (5) The fulminating case.

Intramuscular penicillin, with or without streptomycin, was favoured in many hospitals and found to be very effective. During epidemics repeated injections can present difficulty in general practice and doctors may be obliged to employ oral therapy. In the presence of the indications listed above, tetracycline would be the drug of choice. Yet because there is no unanimity of medical opinion there are advocates of the use of sulphonamides and various antibiotics of limited range.—(*District Nursing*, April 1958).

The Private Physician's Responsibilities in Occupational Medicine

Col. B. DIXON HOLLAND, M.D., M.P.H.,
Secretary of the Council on Industrial Health of the American Medical Association

DISTINCTIONS customarily drawn between the physician engaged in occupational health and the private practitioner become less sharp when one compares the extent and the nature of the concern the two have for the health of the same individual—*the working man*. The distinctions must be further reduced. The full-time private practitioner must engage, under some formal arrangement, part time in occupational health services if the needs of the Nation for such services are to be satisfied.

Private practitioners are engaged in occupational health services to a greater extent than most of them realize. Practically all of them, except pædiatricians, have as patients individuals who work for a living. For the correct diagnosis and management of a number of diseases and symptom complexes, the physician must ascertain and assess all the factors that may have played, or may be playing, a role in their ætiology or aggravation. Bernardino Ramazzini (1633-1714), the father of occupational medicine, recognized this when he taught that the physician should ask his patient one question beyond those recommended by Hippocrates, specially "What is your occupation?" Information to be elicited with this question will help the doctor to determine which of the patient's symptoms and health defects should be charged to his working conditions or environment, and, of possibly equal importance, which ones should not be so charged.

A knowledge of occupational health, therefore, helps the doctor to diagnose and treat the illnesses of some of his private patients. Moreover, the knowledge gained from a familiarity with occupational illnesses may be applied to housewives, hobbyists, and children, who may use, without proper protection or direction, do-it-yourself kits, solvents, dry cleaners, pesticides, paint-removers, and similar materials, as a result of such exposure, effects similar to those encountered in occupational medicine, and may require similar treatment.

Another consideration requires private practitioners, collectively as well as individually, to be more interested and active in occupational medicine. It is well known that the vast majority of the employed population of this country work in establishments too small to have a full-time or even a part-time physician and hence are denied that protective health service which is the essence of occupational health. A substantial proportion of such establishments have nurses, but these nurses usually have little if any direction by a physician. A substantial proportion of such establishments also have arrangements with physicians to treat cases of occupational illness or injury occurring among their employees. Some even arrange medical examinations for employees and

prospective employees. However, if the majority of the country's work force is to be provided with protective health service of the sort that employees of larger concerns enjoy, it will have to be largely at the hands of the physicians in private practice in the community.

It behoves the medical profession, therefore, to encourage arrangements whereby physicians in private practice can provide occupational health service to all employee groups in their community, and to do so in a manner that is satisfactory to all groups concerned. The medical profession should make it possible for physicians in private practice to promote occupational health without risking ostracism by their colleagues.

To protect its enterprising members, the medical society must draw up and promulgate guides on the practice of occupational medicine, full time, part-time, or on call, patterned on applicable pronouncements by the American Medical Association, and administered fairly and consistently. Among these the most important are statements prepared by the Council on Industrial Health, particularly that on the scope, objectives, and functions of occupational health programmes.

Harmonious, cooperative, and effective relations between the plant physician and the private practitioner must be maintained because both are essentially interested in the health of the worker—the plant physician in his capacity as guardian of his health on the job and the private practitioner as his family physician. The genuineness and the effectiveness of their cooperation could have an important, if not critical, bearing upon the health of the worker. Each would derive improvement in his skill and capabilities, as well as peace of mind and satisfaction, from maintaining the closest possible cooperation and communication with the other.

In summary, the best occupational health services possible should be provided to as many of the country's working population as possible. This goal can be achieved only if a far greater number of private physicians serve industry, part time or on call. This requires, and should make for, the closest cooperation and understanding among all physicians in their capacity as members of the noble medical profession.—(*P.H. Reports*, U.S.A. July '58)

Spinach in the Diet

Some years ago spinach received a somewhat exaggerated rating, based chiefly on its iron content. Apparently, the pendulum has swung to the other extreme. The facts are that it does not contain unusual amounts of iron; potatoes, squash and carrots contain more per portion, for example. It contains moderate amounts of vitamin A, as do most green vegetables.

Spinach is a filling food with a low calorie content, an important aspect for dieters. The oxalic acid content is not significantly high, but because that acid combines with calcium, the calcium in spinach is not readily available. Many greens contain quite a bit of oxalic acid. Like all foods, spinach should not be overconsumed. When properly cleaned, cooked, and served, it can be a tasty side dish.—(*Today's Health*).

BITES and STINGS

Claud C. M. WATSON, M.B., Ch.B.

BEES', wasps', and hornets' stings are rarely dangerous except in the mouth or throat. For instance, a wasp may perhaps be swallowed in some jam!

When this happens the throat may become very swollen, making breathing difficult. Such a case must be treated as *an emergency*. Some people are allergic to bee-venom and they may collapse after a bee-sting and even go unconscious. In these cases the victim has probably already been sensitized by previous stings. Fortunately, a drug called *adrenaline* can be given by injection by the doctor. This generally produces a rapid recovery. But you have to get hold of a doctor quickly, or get the patient to a doctor quickly.

Emergency measures.—First aid depends on the sting. Bee-stings are barbed and usually left in the skin. The barbs must be removed. This is best done, not with tweezers, but with a needle sterilized in a flame. You scrape the sting out with the edge of a sharp knife. Dabbing the wound with spirit or calamine lotion will then ease the pain a little.

There is not much point to the old teaching that bee venom is acid: therefore, the antidote should be an alkali such as dilute ammonia, or a blue-bag, or bicarbonate of soda. There are in fact both "acid" and "alkali" glands in the sting. And indeed most of the damage is done by a histamine an *apitoxin*.

Anyone allergic to bee stings can be desensitized with a series of injections of the venom in gradually increasing strengths.

Horse-flies, mosquitoes, and midges can be a nuisance in the summer to gardeners and picnickers. They can easily be kept at bay with one of the many excellent insect-repellent creams and lotions on the market. These mostly contain DPM and oils such as citronella. DPM is short for di-methyl-phthalate and the important thing is that it should be in a strength of not less than 40 per cent in the cream or lotion.

Once bitten, the most soothing remedies are creams containing antihistamine drugs such as Benadryl, Anthisan or Piriton. Sometimes bites go septic and need antiseptic dressings or even penicillin injection, but this is unusual.

In parts of the Mediterranean, mosquitoes and midges are a nuisance. So if you are on holiday in such areas you must take the proper precautions. Use a repellant-cream or lotion and have with you one of those excellent aerosol bombs so you can spray pyrethrum round your room at night.

Ant-bites can be irritating. But they are harmless. Some caterpillars, such as the puss-caterpillar, shed hairs into the skin which becomes very itchy. The same goes for some of the larger millepedes which ooze a sort of venom on their skin.

All the British spiders are harmless. But in Italy lives the much-dreaded *Tarantula* spider. This curious creature can be quite large and does give a nasty bite. But contrary to popular superstition it is not in the least dangerous.

There are very poisonous spiders in America, called black-widows. They are as poisonous as snakes and have an unpleasant habit of lurking in dry earth closets, and inflicting wounds on the buttocks.

Jellyfish are primitive forms of life and relatively harmless. Most sea-bathers are acquainted with their stings. They are irritating rather than painful and produce a slight nettle-rash. Children should be kept out of the water if there are swarms of them about. But if they get stung, use an antihistamine cream, if you've got one, otherwise use calamine lotion.

Tooth and claw.—Dog bites and cat scratches are notorious for getting septic. This is, ofcourse, because their teeth and claws are dirty and often infected. The wound should be cleaned immediately with hot-water and covered with a dressing. It is wise to see a doctor as soon as you can. This is because there is a slight danger of the animals conveying the germs of tetanus into the wounds. So an anti-tetanus injection (A. T. serum) may be needed for this.

Anyone bitten by a mad dog must have a course of anti-rabies injections. For first-aid, apply a tourniquet to the limb and cut or cauterize the wound. Luckily, rabies has a long incubation period, so there is plenty of time to take precautions. The dog should be kept under observation for ten days. If it still shows no sign of rabies, it is harmless.

So the moral of all this is obvious enough. Don't get bitten at all by anything—if you can avoid it. But just in case you or the children get bitten, it does make sense to have a little extra equipment at the bottom of your handbag. I would suggest a needle, a small bottle of calamine lotion, and a small tube of a good antihistamine cream.—(*Family Doctor*, August 1958).

Walk this Way, Ladies

Are women bad walkers? Unsuitable shoes account for bad posture in walking, but that isn't the whole picture. Mr. Charles Neil, teacher of body management and Principal of the Re-Education Centre, quoted in the *Daily Telegraph*, says they should carry their bodies upright, but not braced like a soldier. Shoulders should be straight but easy. Don't tuck heads down into the shoulders—that leads to tension. If you are wearing low heels, take good strides, but in high heels take shorter steps and bend the knee more. Move from the hips and keep rock 'n' rolling for the dance floor.

"Women are especially prone to lean slightly backwards when they walk. This pushes the pelvis forward and results in strain." Here is Mr. Neil's method for dealing with tired legs and aching back: "Lie flat on your back on the floor with something soft but firm—for instance a rolled-up rug-under your thighs. And, as a long-term policy, follow the lead of Indian Ladies: *get of your chairs and squat.*

Why Do People Sometimes Faint?

We used to believe that the main changes during fainting resulted from temporary heart failure. Enough blood was not pumped out of the heart to keep the circulation going, particularly through the brain, and so consciousness was lost. This is not the whole truth.

For, recent work has demonstrated that the failure of the circulation is not so much in the heart as in the blood vessels.

If one faints because of the sight of blood or pain, or from standing for too long, the first sign is usually a yawn. Then the breathing becomes irregular, profuse sweating begins in the palms of the hands and on the forehead; and the patient gasps for breath and suffers from nausea, abdominal discomfort, and sometimes actual vomiting.

The heart-rate will be found to show an abrupt slowing; it may drop to below 40 beats per minute. The blood-pressure drops precipitously.

In spite of the great fall in blood-pressure there is an actual increase in the rate of blood-flow through the forearm, indicating that there is considerable dilatation of the blood vessels, not only of the general system but also of the kidneys liver and intestines.

The amount of blood pumped out by the heart does not fall during the faint itself; the explanation of the fall in blood-pressure is that the blood vessels in many parts of the body dilate very widely and so the resistance to flow through them falls.

Standing still in the upright posture results in a pooling of blood in the legs, which greatly reduces the volume of circulating blood. When the temperature is high, the skin vessels get dilated and have an increased volume of blood.

Prevention consists in ensuring that when you are standing still, you alternately tense and relax your leg muscles. By doing this you help to pump the blood in the legs through the veins back into the general circulation.

If you don't have to stand at attention but have to be in a crowd, you should move your legs more freely. In warm weather you should wear only light clothes. If you feel faint, lie down or sit, and put your head between your knees.

Recovery is extremely rapid, if you lie flat on the ground. You should not be propped up; you should not be given brandy. Within a few minutes the blood-pressure will have come back almost to the normal level; you should not attempt to stand up for you may even faint again.—(*The New Scientist*, London).

Abraham Lincoln's Recipe for Happiness

Do not worry; eat three square meals a day; say your prayers; be courteous to your creditors; keep your digestion good; exercise; go slow and easy. May be there are other things that your special case requires to make you happy; but, my friend, I reckon these will give you a good lift.—(*Abraham Lincoln*).

HOW TO AVOID CAR SICKNESS?

DICK GLOVER, M.R.C.S., L.R.C.P., London

There are two main causes of car sickness which may be encountered separately or together:—The so-called car sickness which is psychological, and true motion sickness.

The former occurs usually in the child of parents who fill the car with pots, towels, and newspapers, and spend their time gazing anxiously at the child for signs of pallor, hiccoughs, or undue silence.

Never, never suggest to a child that he might feel car-sick. He does not associate a car-ride with feeling ill *unless* his attention has been drawn to it.

A change of rhythm always predisposes to sickness. If you are setting out for a long run in the country, the car soon settles down to a constant rhythm. This gives the body a chance to accustom itself. On the other hand, if you suddenly come to a large town where you are constantly slowing down, stopping, accelerating, and weaving in and out through the traffic, the rhythm is constantly interrupted and your poor stomach, unable to keep pace, may revolt.

Your eyes also play an important part in producing discomfort. Trying to focus on objects moving rapidly past car windows predisposes to vomiting. It is wiser to let your child look at a picture book while sitting on your knee or on the seat, than to get him to count the telegraph poles whizzing past.

What about food? There is a temptation to argue that if you don't give a car-sick child anything to eat before setting off on a journey, you are protecting him from sickness. This is very unwise because, should he be sick, retching in vain is far more uncomfortable and dangerous than being able to bring something up.

Do gadgets fitted to your car help? I doubt it. Some people swear by a little dangling chain. Others keep their fingers crossed. This is just as sensible and just as likely to be effective! You'll get better results with applied common sense. Like this:—(1) Make sure that the car is well ventilated. (2) If you see that one of the passengers is looking pale or uncomfortable, stop the car and suggest that everybody gets out and stretches their legs. (3) Have some apples or oranges, barley sugar or biscuits, to nibble on the way. Accelerate and slow down gradually. (4) If you wish to prepare for emergencies do conceal the pots, towels, and the like under a rug and don't have them in view. (5) There are plenty of tablets which can help to prevent *mal-de-motor*. Most of them can be bought at your local chemist's. Only very occasionally is a doctor's prescription necessary.* As a general rule these tablets should be taken about one hour before the journey, as per instructions on the packet.

[*Note:—This is not so in India. A doctor's prescription is required under the Drugs Act.—Ed. Health].

—*Family Doctor*. London, via *World Digest*, Sept. '58.

What is Meant by Hiatus Hernia?

A HIATUS hernia consists of the abnormal protrusion of a part or the whole of certain abdominal organs through an opening in the diaphragm. The latter is, of course, the large dome-like muscular barrier which separates the chest and abdominal cavities. There are a number of openings in the diaphragm which transmit certain blood vessels and nerves, and also the gullet. The hiatus, or aperture, referred to in the question is the one through which the gullet passes on its way to the stomach. In most people the muscular margins of this hiatus embrace the gullet rather more than an inch above the stomach. However, the gullet is only lightly attached to the margins of this aperture and a certain amount of "play" in between them is inevitable, and indeed desirable.

Surgical treatment for hiatus hernia is only undertaken in a proportion of those patients with symptoms. The majority of surgeons are careful to limit operations strictly to those patients who do not respond to medical treatment, whose symptoms are progressively increasing, or whose hernias are accompanied by complicating features.

The principles of the operations are *first*, to put the abdominal organs back in the abdomen and *second*, to repair the stretched aperture around the gullet. This operation may be done either *via* the chest or the abdomen.

In many cases it is usual to operate *via* the abdomen because there may be associated disease there, for example, a duodenal ulcer or gallstones, which can also be dealt with at the same time. Sometimes there are certain complicating features which make operation *via* the chest imperative. *Both* these methods of approach may occasionally be needed.

To generalize about surgical treatment and its results would not be of much help to the reader. The important thing is that operation should be undertaken only when it is fully justified. The indications and justification for operation in any individual case can only be weighed up by the family doctor and the surgeon.

On the whole, there is little of importance from the point of view of the diet, though foods which cause belching and burping are best avoided. The individual patient generally soon finds these out for himself or herself. Patients who are much overweight are certainly more likely to be troubled by a hiatus hernia and therefore, it is wise for the obese to slim. Perhaps the effect of increased pressure in the abdomen is well illustrated by the pregnant woman with hiatus hernia. Symptoms are relieved after delivery.

The question of using alkaline powders and other medicines is very much one for your family doctor to decide. Self-medication is never a good thing.—(*Family Doctor*, August 1958).

A LIVING LEGEND

(A little-known human interest story about one of the world's best known people)

BORN prematurely in 1877, he weighed only three pounds, four ounces, and was given little chance to survive. He probably wouldn't have, either, were it not for the fact that his uncle was a doctor and gave him constant care. In return, the uncle insisted the boy become a doctor, but the boy's father wanted him to be a grain merchant.

As for the boy, he was hungry for music and showed remarkable talent. He studied the piano, played and composed waltzes, and he even started work on some operas.

When the boy was 18, Louis Pasteur died. He was thrilled to hear his uncle quote the great scientist's words: "It is within the power of civilized man to cause infectious diseases to disappear from the earth."

Finally, by playing on the fact that his father himself had once wanted to become a doctor, he convinced the old man of his desire to study medicine, and he entered.

After his graduation from medical school he entered military service where he found time to play the piano and compose military marches. Many of his compositions became standard fare among Europe's greatest military bands.

He stayed with medicine and *became one of the out-standing physicians of Europe.* During the 1920's he was invited to teach and practise in the United States where he could take advantage of extensive research facilities. He arrived to find that, because of his name, many people outside the medical profession thought he was a woman. He became one of the few doctors ever licensed to practise in New York without first taking the state examinations.

As his reputation spread, another legend grew along-side it; he would receive $500 for a consultation from a wealthy person, then spend a full day with poor patients. He wouldn't charge them.

He still practises medicine at 81 today, and his New York office is cluttered with toys from all over the world. One of his ways of greeting a new young patient is to play the piano for or with the child. Once a warm friendship has been established, he begins his diagnostic work.

The world owes him a debt of gratitude. Fifty years ago he began work on an early test for one of childhood's most horrible diseases.

This great man, **Dr. BELA SCHICK** is the discoverer of the Schick Diphtheria Immunity test which has saved thousands of lives.—(*Today's Health*, Aug. 1958).

A tomboy is a girl who hasn't yet discovered that her strength lies in her weakness.

SAFETY and FIRST AID

SPLINTS AND THEIR USES

(In the Form of Questions and Answers)

Carl J. POTTHOFF, M.D.

Q. Are splints used only in cases of suspected fracture?

A. No, any seriously injured body part should be kept immobile under first aid conditions. Splinting often is a beneficial method in case of severe lacerations, sprains and bone dislocations.

Q. Are splints used for all fractures?

A. Splints are used *only* when fractures involve bones of the extremities, especially the long bones.

Q. What is the basic purpose of splinting?

A. The object is to keep the broken bone and the adjacent joints immobile. If adjacent joints bend back and forth, the involved muscles pull upon the broken bone and cause tissue damage.

Q. How long should splints be?

A. They should extend well past the joint or joints they are to immobilize. For example, if the leg is broken midway down the shin, they should extend from buttock to heel. A common error is to use splints that are too short. Use splints that are unnecessarily long rather than possibly too short to keep a joint immobile.

Q. Should one splint or more than one be used when an extremity bone is broken?

A. One splint of proper length may adequately immobilize. Knowing the basic objective, you should be able to correctly decide whether another splint on the opposite side will insure more complete immobility.

Q. Suppose I forget on which side to place a splint, according to standard method; is there any rule to guide me?

A. You should consider your objective and the body contour. Usually splints on the sides or the flexor aspect are effective, because the primary problem usually is to prevent more flexion of the adjacent joints.

Q. Suppose a fractured limb is grossly distorted so that an ordinary splint cannot be applied?

A. The best course usually is to summon technically-trained help, meanwhile not disturbing the victim. But if immediate first aid is necessary, you must decide whether to straighten the limb and apply splints, or to immobilize the limb in the position found. Straightening the limb should not be done if the break is at a joint, because this will cause great pain. Any first aid method that causes pain is probably harmful. Generally one can immobilize a distorted limb by using a wide splint and a large amount of padding so placed as to assist immobilizing in the position of distortion.—(*Today's Health*).

What a Doctor Thinks of Teen-agers

RICHARD ASHER, M.D., F.R.C.P.

IT all depends whether you like teen-agers or not. To those who do not like them the expression conjures up the idea of gawky, irresponsible problem children, rude to their parents, extravagant in their habits, and interested largely in skiffle and sex. To those who admire teen-agers the expression suggests vigorous, fresh-minded, slim-bodied young people sweeping aside the rather stuffy prejudices of their elders.

Of course, neither of these opposing views is true, though each contains some grains of truth.

The word teen-ager should carry no overtones of approval or disapproval. It is a sensible term clearly applying to anyone from thirteen to nineteen inclusive.

These seven years are of particular importance because they are years of change and gain: change from childhood to manhood and womanhood, and gains in sex development, physical stature, and independence.

The independence is both financial and psychological. In other words, teen-agers learn not only to pay for themselves but to think for themselves. As a result of this, teen-agers come into conflict with their elders, whether employers or parents. The resulting trouble is called teen-age trouble. In some ways it would be as fair to call it middle-age trouble, because the older people are just as much the cause. They are the people who complain about the teen-agers.

It is the difference between their opinion and teen-ager opinions that leads to trouble and to difficulties.

These seven years that end in teen are years of physical good health, and the teen-agers I see as patients rarely have any serious bodily illness. Most of them have a minor illness or else some psychological problem.

Most of them are brought by their parents, and often the parents describe alarming symptoms, which their daughters and sons vigorously deny. So before trying to find the cause of the trouble I have to find out whether it exists at all, by seeing the parents and the teen-ager separately.

Very often the teen-ager is said to be abnormally languid and indolent or else excessively quarrelsome and snappy. In either case, a mysterious aloofness on the part of the teen-ager adds to the worry of the parents.

"He doesn't tell me a thing," the anxious mother repeats. "I don't know if he's worrying over something or if he'd feeling poorly."

An apparent floppiness and casualness is normal among teen-agers and it means nothing serious. It may be due to fatigue at work or school or else to boredom.

For those many teen-agers of both sexes who look forward to earning a good wage in factories at sixteen, the early teen years seem but a waste of time. School work often seems useless and dull, and authority something that merely enforces boredom.

The alleged quarrelsomeness and irritability is also rarely due to bodily illness. It is more often the result of a clash between the growing independence of the teen-ager and the growing solicitude of the parents.

Young people in their teens are just starting to have friends of their own, possessions of their own, and ideas of their own.

They do not want to share everything with their parents. And if their parents disapprove of their ideas, their friends, or their way of passing their time, it does not alter their tastes. Indeed, it somewhat confirms them.

The root of most discord between teen-agers and their parents is simple enough. Neither of them knows what it feels like to be the other. Adults, of course, have the advantage of having been teen-agers a good many years ago. They may be able to remember what it felt like. But recollecting a sensation is a very different thing from feeling it or understanding it.

It is very important for anyone concerned with teen-agers to remember, recollect, and, in imagination, relieve their own teen-age years again.

The ordinary parent recollects the hardships of his teens more readily than his youthful follies and foibles. Here is an important cause of misunderstanding between parents and children. If one person had to endure fairly rigorous conditions in childhood, it is no argument to justify similar conditions for his offspring.

There is nothing so galling to a teen-ager as the kind of remark that starts, "Why, when I was your age I had to be content with....." Or else, "You young fellows today don't seem to know what work means. Why, when I was a boy....."

The middle-aged often think the teen-agers rude and ungrateful because they do not realize this. Try to look at it from the point of view of your son or your daughter and you'll see what I mean.

These teen-age years can be a frightening time for a mother. She sees the provocative curves of her daughter's bosom enhancing the contours of a tight jersey.

Naturally she wonders how much to warn, how much to inform, and how much to restrain. Will too much sex talk give her ideas? Will too much lipstick make young men think of her as a loose young woman?

Sons, too, can be worrying at this time. They may discontent their parents by choosing elaborate hair styles, sporting fancifully cut suits, and spending hours at the cafe juke-box or wandering round the streets whistling at girls.

It would help parents' anxious minds to spend some time re-

collecting what they felt themselves at this age. Were they really in as much danger as their parents thought? Did they need much supervision to stop them getting into serious trouble?

One teen-age is very like another, and there seems little real evidence that teen-agers today are any wilder or more irresponsible than their parents were at the same age.

It is easy to get an idea that there is a teen-age problem because teen-age clothes, hair, and manners are so strange to middle-aged people.

I do not think there is really a teen-age problem. But there is a middle-age problem. How to stop middle-aged people from thinking that there is a teen-age problem?—(*Family Doctor*, London).

LIVING WITH OUR CHILDREN

Don't over-worry about their shortcomings; children have a happy knack of turning out much better than you expected

DOROTHY CANFIELD FISHER*

When my first baby was very young and I was bracing myself with all the serious-minded intensity of the modern young mother to do the right thing or die in the attempt, I remember seeking out my doctor with an impassioned plea for a definite rule of hygiene.

"One set of old women tell me the baby will certainly have cholera and die if she isn't swathed in woollens, and another set say she will burst into prickly heat and hives if she has anything but the finest linen next to her delicate skin. Now, *which is right*?"

The doctor looked at me whimsically. "Let me tell you one thing, although doctors usually keep it a secret from mothers. A healthy baby is very apt to grow up all right, no matter what form of mania his mother's conscientiousness takes. Whether you use linen or cotton or wool, if you keep your baby warm and dry and clean and comfortable, you can't keep her from growing up, no matter how much you worry over her!"

At the time I thought this the most evasive of generalizations, but I have learnt to smile with my wise doctor over the needless trouble we all put ourselves to in our grim determination to do our duty as parents. For it is astounding to observe the almost perfect unanimity

*Dorothy Canfield Fisher gained firsthand knowledge of children by bringing up two of her own. Her father, an American University Professor, sent her at the age of ten to Paris for a year of schooling. Thereafter she often returned to France, studying at the Sorbonne, and settling in the Basque country during the First World War to do relief work while her husband drove an ambulance. She opened her house to displaced civilians and established a convalescent home for French children. She has written many novels, short stories and articles.

with which from wholesome, healthy homes and sane and cheerful families there emerges a new crop of wholesome, healthy, sane inhabitants of the world. Somehow, if children are given plenty of sleep and enough nourishing food, a reasonable amount of instruction, moderate scoldings, and a great deal of love, they develop from the troublesome, boisterous, immature beings into useful and conscientious members of the community.

All that we have done by worrying over them and by seeing dreadful possibilities in each of their foibles is to embitter in their lives a few hours which otherwise would have been sweet. We poison each small emergency with the anguish of apprehension until it swells up morbidly into a crisis, and, brooding over the possibilities of unhappiness involved in every trait of the children, we succeed in destroying a good deal of the happiness which they might be having at the present moment.

We can see no desirable future possible for our young boy because of his incorrigible carelessness. No threats, prizes, or exhortations can make him keep his room neat or prevent his bicycle being left out in the rain overnight. And as we prod and poke at him with various reforming devices, we peer anxiously and faint-heartedly into the busy, hard-headed, competitive world in which his faults will condemn him to failure.

But when he grows up, unsoured by our loyal attempts to make him into something he can never be, he has developed a winning personality, and, although still careless, his judgement is sound and his integrity rock-ribbed. In short, he is a great success. He is a distinct credit to us and we might have begun long ago to take more pleasure in his personality.

It is fatally easy for patients to lose a sense of proportion, and to fall into the mood when it seems that every painfully inculcated good habit of the children has given way to original sin.

If at such a time you have ever chanced to receive a visit from a gay, full-blooded young cousin at university, you may have been astonished to see how the mere presence of his infectious high spirits worked on the children and did more to exchange the moral atmosphere of the house from lowering cloudiness to breezy sunshine than all your dreary conscientious efforts to induce the children to "do what is right."

All the young growing things in our charge, which, under our cloudy sky of anxiety and concentration on faults, have been dropping with weak, perversity, draw themselves upright, quivering with reflected vitality.

We tough life at more points, we are the medium through which pass more electrifying currents of hope and interest and effort, and we are privileged to love and protect and enjoy more intimately than ever before or after. Never again can we live so fully and so deeply as now. Never again will we be so near the limped transparence of innocence or touch so closely a joyous acceptance of life as it is.

And yet we cloud the brightness of all these swiftly passing delights because our utmost efforts will not make the children perfect; we will not trust the miraculous principle of growth to unfold the capacities from the human soul far better than we can unfold them; and we face the future with apprehension and not with confidence.

We become fearful about habits in our children which we know cannot survive their natural growth, if that is kept vigorous and sane. We know that we ourselves went through just such unpromising phases; we know that our husbands have settled down for the most part from being careless, lazy, irresponsible boys into hard-working, responsible, competent fathers of families; and we see innumerable instances of frivolous girls turning into useful and warm-hearted and industrious mothers. But we darken the life of the children by our fears that just in their particular cases the laws of growth will not apply, that they will go on sucking their thumbs till they are up at university, and after they are married will not remember to wash their hands before lunch.

We can help them just as effectively to overcome their irresponsibility and fitfulness if we allow ourselves to believe that they will outgrow those qualities. And we can get from them and communicate to them something which is of infinite value, the belief that *life is good*.—(Condensed from "*Mother and Children*," published by Henry Holt, New York, via *Reader's Digest*, July 1958).

YOU NEED A GOOD HOLIDAY EVERY YEAR

KENNETH C. HUTCHIN, M.D.

A HOLIDAY should be a change not only of air and scene, but of life itself. There are those to whom a holiday should be a sort of convalescence in which to recover from fifty weeks of strain on body and mind. Others have a mental toughness which enables them to work under great pressure and to carry great responsibility without any trace of strain. Others again are under no undue physical or mental strain at their work, and they need a really stimulating holiday.

Do you have a job or does your job possess you? Well balanced men and women work for a living. Of the others, some are living for work and the rest are just working enough to get by. Some put everything they have got into the job. Others are always trying to take out more than they put in.

Some work until they drop, others only do a little work

between breaks. Tea-breaks, smoke-breaks, talk-breaks or even hair-do-breaks. Roughly there are these two main classes —the droppers and breakers.

The droppers are restless spirits who are so wound-up that they can never sit down. They must always be working at high pressure or playing at high pressure. By their time their holidays come round they need them desperately, but even then they cannot relax. It takes them at least a week to get unwound, to learn to laze. Then two weeks later they will be hard at it again for another year, and so on until they are burnt out.

If the droppers are trying to get too much out of life, the breakers never get enough. They never get the satisfaction of putting all they have into the job on hand. They are not really interested in what they are doing. They never get a sense of achievement at having done something well. Avoiding work comes naturally to them. They miss a great deal in life, but a lot of them never know it.

Relax :—People whose life is just one long rush should try to taper the work off before their holiday begins. I know only too well that hectic crescendo of work in which you try to get everything done before you go away. By the time you finally set off you are such a nervous and physical wreck that you wish you had never heard the word holiday. If this is your life you just cannot go on a restful holiday, because you don't know how to relax.

You must learn and you ought to learn now before it is too late. If it is only a week or two before you go on holiday, start slowing down the *tempo* now.

Let relaxation be your watchword. Even if you are an incurable dropper who cannot stop working, you can win some relaxation by doing something quite different.

Relaxation does not need to be sitting and thinking about nothing. It can be a complete change of activity. Working for others instead of yourself. Try working for charity instead of vulgar profit. It is the busy people who always have time to do the things that the others never find time to do at all.

Through learning to relax you will learn to enjoy the sort of holiday that will set you up for another year's battering. A quiet holiday of lazing and browsing, appreciating simple things like building sandcastles and playing cricket with the children.

It is not necessary to become liverish from inactivity in order to rest. There is nothing more tiring to some people than sitting still. Active people often find they can relax better if they take some pleasant exercise every day, provided this can be done without a lot of rushing around. A quiet game of golf or tennis followed by a swim or a warm bath are more relaxing to those of an active disposition than just sitting around getting bored and frustrated.

To the few who are talented, and to thousands who are not, a painting holiday provides one of the most enjoyable forms of relaxation. Middle-aged people are ideally suited to this pastime.

Many people who are not competent yachtsmen like mucking about in boats. For them, chartering a motor cruiser on an inland waterway will prove an enjoyable and, if they have a wife and enough chilren, a completely idle holiday. Sailing itself is more active. You will have no time for business worries on this type of holiday which is full of urgent decisions and pressing problems of its own. These are only a few random suggestions for restful holidays for droppers.

Important as the annual holiday is, it is even more important to give yourself a little holiday everyday. Set yourself the mental exercise of searching for opportunities for relaxing in your daily life. However relentless the pressure of your work it should always be possibe to let up at times. There are more suitable ways of achieving this than stretching out flat on the office floor or having a spot of shut-eye behind a locked door.

Granted that it takes a certain number of hours to perform your daily work, is it essential to begin and end it at the same time as everyone else? Can you work out a scheme to avoid the rush hour in the mornings? Can you travel earlier and get some work done in peace and quiet before everyone else arrives? In the tropics they work early in the morning to avoid the heat of the day. Why should you not do the same?

If the long week-end makes your life more hectic, cut it out. It is worth working on Saturday morning if it will reduce the pressure from Monday to Friday. The five-day week is *not* a principle worth dying for.

Don't compete in Britain's principal competitive activity—getting home from work. Stagger your own work if possible. Work longer some days in exchange for stopping earlier on others. Why not spend a restful half hour reading or writing after work? Go for a stroll or perhaps even have a swim. Or give yourself a longer, more leisurely lunch-hour and work on in the evenings until the savage denizens of the jungle have fought their merciless way home. Don't be one of the herd. You have to get by with only one life. So make it last.—(*Family Doctor*, July 1958).

If You're Going Abroad

Here are some useful tips on what to pack. Remember to include a shoe-cleaning outfit, especially if going to Spain; a pocket torch in your car; a towel for use on trains and for the unexpected bathe. Even in hot countries it can get chilly, so take a woolly with you and a light mac; you could include toilet paper and a first-aid tin. Glucose sweets are good for tiredness and travel fatigue. Another useful item is an air-cushion that can also be used as a bag, and a vacuum-flask for hot or cold-drinks will save you money.

Philosophy and Medicine

Prof. WALTER RIESE, M.D.,
and Prof. EBBE C. HOFF, M.D.,
Medical College, Virginia, U.S.A.

THE physician of the past would have regarded the isolation of medicine from philosophy, so characteristic of our time, as a strange and unintelligible phenomenon. In the early days of the Roman Empire, Celsus (*On Medicine, Prooemium*) stated that "at first the science of healing was held to be a part of philosophy; so that both the curing of diseases and the contemplation of the nature of things came in through the same authorities." He believed these authorities to be "those principally requiring this science, who had diminished the strength of their bodies by calm reflection and by nocturnal vigilance." This is a surprising anticipation of Jean Jacques Rousseau's doctrine of the origin of disease and of his views on the disease-precipitating effects of science, expressed in his Discourse.

Celsus referred to Hippocratic medicine as the first version of our art to become independent of philosophy. The medicine of Hippocrates, however, still largely utilizes philosophical methods and devices, such as observation according to rules, systematic reasoning, introduction of a restoring principle into the interpretation of morbid phenomena, a doctrine of the origin and causes of disease, and finally a most general view of human nature.

What we need is not speculative imagination or metaphysical dreams, but a controlled medical thought and philosophy of methods.

Not only was training in philosophical matters—logic and rhetoric—a basic element in medical education for centuries, but also *the physician of the past would never have thought of undertaking treatment of the sick before having gained insight into human nature, the mechanics and dynamics of the human organism, its relation to the rest of organized nature and inanimate matter, and even those forces withheld from his empirical knowledge and left only to his faith, but nevertheless realities to him. It is only very recently that this tradition has been lost.* He would have shrunk from the task of curing a patient before having faced the realities of life, birth, death, and disease as problems to be attacked and mastered by his trained and systematic reasoning. Although philosophers, in their turn, have always been attracted by the study of emotion, passion, sympathy, suffering, diet, health, death and disease, philosophy in general has relinquished its old prerogative to decide in matters concerning the human organism and has become in this respect content simply to follow experimental medical advance. Medicine itself has today largely preoccupied itself with a tremendous assemblage of factual knowledge, often, to a regrettable neglect of interpretation and principles. We must keep in mind the essential role of philosophy in medicine–both as understood by the physician of the past and as comprehended at present–as we trace the doctrine of cerebral localization.—(*Bulletin of the Menninger Clinic*).

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THE USE OF PENICILLIN NEEDS REGULATION

(W.H.O. Urges Precautions)

In the September 1958 issue of the Chronicle of the World Health Organization just to hand, the W.H.O. has urged the need for educating doctors, nurses and the general public concerning the proper use of this wonderfully efficient drug and the risk of sensitization that would follow its indiscriminate use. The world production of penicillin is now in the region of what is required for 250 million courses of treatment every year. It is therefore, of the greatest importance that all users of penicillin should be fully cognizant of the untoward reactions that may occur and of the precautions to be taken in order to obviate or minimize them.

"Penicillin is the queen of drugs and is no doubt the most satisfactory weapon known in that it does its work with utmost efficiency and negligible harm," as has been stated in a collaborative American Textbook on Pharmacology by Dr. V. A. DRILL.

"Can this opinion still he upheld in view of the increasing number of severe and fatal reactions reported in the medical literature?" is the question sought to be answered by the W.H.O. in their present report.

We offer no excuse for extracting relevant portions from it for the benefit of our readers.

"Penicillin come into general use in 1943 but the first death from penicillin therapy was not reported until 1946; three years later the second fatality occurred.

During the past ten years, however, severe reactions have been reported with increasing frequency and the number of fatal cases has multiplied rapidly. By 1955, some 560 severe reactions had been notified, 81 of them fatal, and by 1957 it was estimated that some 1,000 deaths from anaphylaxis due to penicillin had occurred in the United States *alone*.

The increasing frequency with which reactions have been reported in recent years is seen to be largely a natural consequence of the vast scale on which penicillin is now being used."

The general absence of untoward reactions encouraged a lavish use of penicillin. "Unfortunately, it has also encouraged its indiscriminate use. Penicillin has been widely prescribed for all kinds of minor infections and for conditions in which it is ineffective or not more effective than other drugs.

But the W.H.O. stresses that severe reactions occur only in patients sensitized by previous exposure to the drug. It is known that many of the fatalities that have occurred following the legitimate use of penicillin have been attributable to previous unnecessary medication.

"Naturally, the chances of a patient having had previous treatment of penicillin are today much greater than they were 10 or 15 years ago. The frequency of severe reaction to penicillin can be greatly reduced by taking a number of simple precautions. It should be possible to eliminate fatalities almost entirely if the physician giving the injection has, at hand, the necessary drugs to deal with an emergency."

Before administering the penicillin, the patient should be questioned carefully regarding previous exposure to the drug and any manifestations of an allergic diathesis in himself or his family.

The increasing frequency of untoward reactions to penicillin is due to the increasing use of the drug and especially to its uncontrolled, indiscriminate use; it should not be given for minor ailments or for diseases in which its efficacy is doubtful or not superior to that of other drugs.

"The sale of penicillin should be restricted by the introduction of regulations regarding prescription."

We are glad to say in this connection that the Drug Regulations in the Madras State have been sufficiently tightened and it is not ordinarily possible to obtain most of the drugs—penicillin is one—used in medicine without a qualified doctor's prescription.

Rigorous steps are therefore, needed in every State in India and in every country of the world to ensure that these drugs are not dispensed except under a doctor's prescription and advice.

CHILD'S DEVELOPMENT

Part IV: Eight to Ten years

(Continued from page 220 of HEALTH for Oct. 1958)

JACK HARRISON POLLOCK

Eight years.—Eight is exuberant, expansive, buoyant! In this stage, a child talks with his mouth full of food, eats too much, and has to let out his belt.

An eight-year-old often overestimates his ability, not always carrying through. The burst of energy with which he tackles new tasks is often followed by failure, discouragement, and even tears. Yet this doesn't stop eight from enthusiastically starting something new tomorrow.

An eight-year-old should be protected from trying to do too much and from excessive self-criticism when failing. Plan with him so that he will carry through better or not set himself such impossible tasks. An eight-year-old who is often late for school may be helped by having special chores at school which he is asked to perform *before* class starts. And if he tells tales or boasts, as many eight-year-olds do, yon can help him here by saying, "That's a good story, Tom. But what *really* happened?"

Eight prefers to work for an immediate cash reward rather than simply for the sake of helping. Many want just a hint or cue, not full directions, which they consider babyish. If full instructions are given, eight insists that they be worked "just right."

Still, an eight-year-old is ready for a good two-way relationship. He has more to offer than earlier, but he expects more of people in return. With mother, especially, age eight demands a close, understanding relationship. Though this may be a drain on a busy mother's time and spirit, a mother who can respond to it will be amply rewarded. If fulfilled, it may well pave the way for other successful personal relationships in the future. An eight-year-old gives a clear hint of the type of person he'll be later on.

Nine years.—*The Independent age*:—Nine prefers to withdraw from the family circle. Some call it a "neurotic" age. Extremely independent, a nine-year-old resists "bossing" by his parents. The average nine-year old is far more interested in friends than in family. This often shocks mother who has come to count on her central role in her child's life.

Though nine woos adults for what they can do for him (expeditions, excursions, shared interests), he is much less interested in the relationship itself than he was earlier. "Therefore, don't impose yourself on your nine-year-old," advise Gesell experts. He needs to have his maturity, independence, and separateness respected. If you are giving your nine-year-old too

many orders and he is rebelling, ask yourself if they are really necessary. When left to himself and his friends, and treated like the mature person he considers himself, nine displays remarkable self-reliance. Nine can be an age of perfecting skills, of solid accomplishment.

Many teachers report that the fourth grade is difficult to teach because nine-year-olds are individualists with marked likes and dislikes. Also, nine tends to be more of a worrier than eight. He is worried by low grades. Because he is particularly upset if he has to be kept back, any error in grade placement should be adjusted before the fourth grade. Unfortunately, some children manage to get through the first three grades, and their overplacement does not become noticeable until the fourth grade.

Nine often complains that his home and school tasks are "too hard," especially when he has an unpleasant chore to perform. His eyes hurt when he has to study. His hands hurt when he has to practise the piano. His stomach aches if he has to sweep the floor or clean the yard. When it's time to wash the dishes, he has to go to the bathroom.

All of these complaints should be respected within reason but be recognized for what they are: Nine has a way of meeting an unpleasant situation. They aren't generally dangerous physical ailments. Eventually, the complaints, worries, and rebellion diminish as the child approaches the peaceful age of 10.

Ten years.— *Equilibrium* :— From the parent's viewpoint, 10 is one of the nicest ages. A typical 10-year-old obeys easily and naturally. His parents' word is law and he cheerfully obeys it. "I try to be a good boy," a 10-year-old will honestly tell you. Ask him about almost any aspect of his behaviour and he will reply, "Yes I can do that. Mommy says it is all right for me to." Or: "No, Daddy says I'm not old enough for that". Ask him whom he loves best in the world and he answers: "My mother and father, *of course*."

Flexible in his behaviour, he doesn't take things too seriously. Ask him about some phase of his behaviour and he will casually reply: "Well, sometimes I do and sometimes I don't."

Ten, more than any age until 16, is one of predictable, comfortable equilibrium. Never again, after 10, will you as a parent receive the same wholehearted and unreserved acceptance of your actions and motives as you do from your son or daughter.

At 10, a child is not only satisfied with parents, family, and teacher but with the world in general. Pleased with life, he finds it easy to enjoy himself. He is friendly to people and expects them to be friendly to him.

Most 10-year-olds love to spend time with their fathers. Gesell would urge busy fathers to enjoy their 10-year-old's company and to let him enjoy yours. Don't make the mistake of waiting until he is a little older and more interesting. By that time, fathers may find that their child doesn't have time for them.

Ten is docile, and it might seem at first glance desirable that he should remain so. But we don't really want our adolescents to be guided entirely by mothers' decisions. If a child is to grow up into a mature, capable adult, he must learn to think for himself must grow beyond the places where he is completely guided by what "Mommy says," according to Gesell investigators—(*Today's Health*, June, 1958). *(To be continued)*

SUCCESSFUL BREAST FEEDING

(Lesson to be learned from mothers in tropical countries like India)

Dr. D. B. JELLIFFE, M.D., M.R.C.P., D.C.H., D.T.M. & H.,
Visiting Professor of Tropical Medicine, Tulane University, New Orleans, U.S.A.

One of the striking features noted by child health workers, and anybody else, in the tropics is the universal success of breast feeding amongst the majority of women in these regions, which contrasts so greatly with the falling-off in incidence which has occurred in the Western world in the last few decades*.

Various explanations have been given for this undoubted fact. It is certainly quite unrelated to nutrition, as lactation is most successful in the least well-nourished mothers, and it seems likely that several overlapping influences may be responsible. To understand these, it is necessary to compare the home and community surroundings of the two groups.

The tropical peasant girl will be surrounded all her life by women, including her own mother, her relatives and neighbours, all breast-feeding successfully, uninterruptedly and unconcernedly, so that she can have no concept of the process being any more difficult than swallowing a glass of water. She will, also, not have been conditioned to consider breast-feeding as an immodest act to be performed only in secrecy.

The tropical village mother has not been exposed to the idea that other foods are available or at all suitable for her young baby, and certainly she has not had to face the barrage of "hidden persuasion" of high-powered advertising of animal milk baby foods, as does her Western sister.

Also, although she will not have reasoned it out, the peasant mother will have observed the fate of babies whose mothers die in childbirth and for whom feeding with inadequate quantities of ill-diluted, contaminated animal milk quickly leads to a fatal outcome, as a result of a combination of malnutrition and infective diarrhœa.

Briefly, then, the tropical peasant mother has more than confidence, as she is not aware

* [*Note* :—Alas ! This salutary practice seems to be declining in the Tropics, particularly among educated women of the middle and upper classes in India.—Ed. Health].

that failure of breast-feeding is at all possible, and at the same time, she has little or no knowledge of economically available substitutes.

The position of the present-day Western woman is almost exactly a mirror-image of this. She approaches breast-feeding probably without having seen a baby being suckled, and is only too aware of the likelihood of lactation failure. Milk preparations especially manufactured for infant feeding are easily available to her and her conditioning to their use by advertising has formed a continuous, but unconscious, part of her culture pattern from her own childhood. She knows that, at her socio-economic and educational level, babies can be brought up successfully on the bottle, and what is more, she also has the counter attractions of a fuller business or social life to distract her, often sub-consciously, from the task of breast feeding her infant.

It does, then, seem probable that failure of lactation in the Western woman, and, indeed, amongst the sophisticated upper socio-economic groups in the tropics—in India for example,—is mainly related to the worry, anxiety, uncertainty and *lack of wholeheartedness* with which breast feeding is approached, leading to psychological inhibition of the delicate "let-down," or draught reflex in the nursing mother.*

If this is, in fact, the case, then the most important message that the health educator in this field can learn from the tropical peasant mother is the need for the lactating woman to have both a real desire to breast-feed and, at the same time, confidence in her ability to do so.

How these changes can be brought about is debatable. *Firstly*, it is necessary for women—and medical personnel of all types—to really appreciate the psychological and, probable, biochemical and immunological advantages of feeding their offspring naturally on the food specifically adapted for them over millions of years of evolution. One obvious period for health education of this sort is while young girls are at school.

Secondly, preparation for lactation, should of course, be begun during pregnancy; so that the mother becomes accustomed to the idea, learns about the technique, and, if possible, has an opportunity to observe a mother who is successfully and tranquilly breast feeding her baby.

By these means, that is by preparation and example, together with guidance during the first few days when difficulty may occur, and possibly, in some mothers the use of small doses of sedative for this period only, the anxiety and uncertainty often found may be replaced, if not by the tropical mother's unquestioning success, at least by sufficient confidence to ensure normal breast feeding in many mothers.

* [*Note* :—The craze for society and club life, careers, and manly occupations among college educated girls in India are also responsible for this decline in the incidence of breast-feeding.—Ed. HEALTH].

CONJUNCTIVITIS AND MASTITIS IN INFANTS

"DON'T MEDDLE"

Dr. E. Hinden, M.D., (Camb.), M.R.C.P., (Lond.) writes :—

Two diseases which are indeed departures from health, but where the cause is rooted in neonatal anatomy and physiology are : neonatal conjunctivitis and mastitis. Plainly rational therapy depends upon understanding what has happened.

The first of these diseases, the "*sticky eye*," is a great nuisance in the first weeks of a baby's life. Estimates of its incidence vary widely—according as to how hard it is sought for—but minor degrees may be as common as 20% of all births. The chief reason for the condition—as for phimosis—is anatomical. In many new born infants, the lacrymal ducts which drain the tears from the conjunctival sac into the nose, are not yet patent; they are still solid cords of cells which have not yet broken down. In consequence the conjunctiva is a stagnant sump, and all such undrained pools in the body quickly become infected. But the organisms are usually harmless commensals we carry on our skins and the baby does not suffer. It is really an infection without inflammation. The important point about treatment is that it will be ineffective as long as the ducts are not patent, and it is not necessary as soon as they open. The usual story of the disease is that various drops are tried without avail; and then suddenly the whole condition resolves, and of course the drops then in use get all the credit! I feel the right thing to do is to use a mild, non-irritant eye-drop (such as *albucid*) in order to hold the infection in check, and wait patiently for the tear-ducts to canalize. Very occasionally this may be long delayed, and surgical help may be needed.

In conjunctivitis then, we have infection without inflammation and in mastitis we find the converse, inflammation without infection. The baby's breasts from about the third to the seventh day, are obviously inflamed–hot, red, enlarged and tender. Yet in the early stages they are not infected. The stimulus here is chemical. The hormone, *prolactin* which makes the mother's breasts active, is sometimes excreted in her milk and has a similar effect on the baby's breasts, in both girls and boys. The natural history of the disease teaches us that sometimes the inflamed breasts do become secondarily infected and may go on to suppurate.

How should we treat the condition? It must be said first of all that *the practice of squeezing the breasts* "to express the witch's milk" *is both cruel and dangerous*—dangerous because it causes tissue damage which positively invites infection—and cannot be condemned too strongly. The obvious thing to do is to combat the maternal hormone in the baby, using the same drug as we employ to still the breasts in a

nursing mother, *viz.*, is stilbosterol, in a dose of ½ to 1 milligram thrice daily for 3 or 4 days. In the majority of cases the mastitis resolves within that time. It is also a good plan to give the child an antibiotic, to try and prevent the fortuitous infection of the engorged tissues. It is only rarely that an abscess forms and needs to be opened.

Many of the conditions we are apt to consider as diseased, are in fact due to perfectly normal anatomy and physiology—normal, for the newly-born baby, no matter how *bizarre* they seem in a mature adult. It follows that if we rush in to remedy these seeming abnormalities, we shall certainly be meddling and may even do harm. A knowledge of the normal growth and development is essential for dealing properly with children, and at no time is it more important than in the neonatal period.—(*Mother and Child*, June 1958).

THE NEGLECTED ART OF BEING DIFFERENT

(Be yourself, whatever that self may be)

ARTHUR GORDON

WHEN I was eleven, my parents sent me to a summer camp. Part of each camper's uniform was supposed to be a Boy Scout's hat, low-crowned, wide-brimmed to be worn every afternoon when we lined up for inspection. But my parents, through some catastrophic oversight, sent me off instead with one of those U.S. Army campaign hats, vintage 1917. It was wide-brimmed, all right: when I put it on, I was practically in total darkness. As for the crown, it seemed to rise half a mile straight up in the air. Whenever I wore this monstrosity, instead of being an inconspicuous and somewhat homesick small boy, I became a freak. Or so I thought.

Looking back now across more than 30 years, I can smile at the memory. It was no joke at the time, though. I was miserable—utterly, abjectly miserable—simply because I was different from the others.

There must be few of us who cannot recall some such childhood episode, and fewer still who do not carry some of this deep-rooted fear of being different into adult life. But if we value leadership, achievement, and maturity, we have to overcome this childish concern.

The rewards of differentness are easy enough to see. No matter what field you choose—science, entertainment, business—the demand is for *individuals*, whose performance is above average and therefore, different. At any dinner party, the liveliest and most attractive guest is the one whose observations are stimulating because they are different. I have no doubt that a man's earning power parallels almost exactly his capacity to be able

to produce new ideas, to show unusual persistence or energy, to take chances—in other words, to be different.

The fear of being different, like most fears, tends to diminish when you drag it into the light and take a good look at it. At the bottom of such fear lies an intense preoccupation with self. That army hat, back in my childhood, might have caused some momentary merriment or teasing but the whole thing was too trivial to have lasted long. I was the one who kept it alive by agonizing about it. Recognize this self-consciousness as a form of egotism, and you are not so likely to be victimized by it.

It also helps to remind yourself that some of the disapproval or hostility that you shrink from encountering is probably imaginary.

Another way to minimize the fear of being different is to remind yourself, if you do run into resentment or ridicule, that few pioneers escape being laughed at or criticized. Most of the great religious leaders of history, for example, have been non-conformists. Christ was a religious revolutionist. He defied authority, as when He healed sick people on the Sabbath. He was not afraid to use violence, as when He drove the money-changers out of the temple. He upset convention, as when He sat down to dinner with publicans and sinners.

It takes courage to be different. But there is also an art to it: the gentle art of not antagonizing others unnecessarily. People don't object to differentness nearly so much as they object to the attitude of superiority that so often goes with it.

So be as different as you like, but be tolerant of your neighbour who does things his way.

If we all granted to one another the right simply to be ourselves, we would be different enough.

When Henry Thoreau was eight years old, someone asked him what he was going to be when he grew up. "Why," said the boy, "I will be I!" He was, too and it's what we remember him for today.—(Condensed from *Guideposts*, via *Reader's Digest*, September 1958).

Colour in the Hospital Wards, Conducive to Recovery

After years of near-mud (possibly the original was biscuit) coloured walls with woodwork of dark brown or institution green, it is good to learn that many of our larger hospitals are turning to softer pastel shades for ward decoration. Availing themselves of the free expert advice which many paint firms now offer, hospital boards are giving careful thought to the choice of colour schemes before embarking on large-scale redecoration, in the belief that this new use of colour will not only speed patients along the road to recovery but brighten the spirits of the staff.—(*W.D.*).

Dean Swift once proposed to tax beauty and to leave every lady to rate her own charms. He said that the tax would be cheerfully paid and very productive.

Facts to Know About Some Common Diseases

1. Gastric and duodenal ulcers.—Ulcers occur when the cells lining the stomach or duodenum lose their ability to withstand the digestive action of the acid gastric juice. Why this happens is not always apparent, but in some cases it is due to a lack of sufficient mucus.

There is a basic difference between gastric and duodenal ulcers. In patients with *gastric ulcer*, stomach acid production is usually normal or low, so the main fault lies in the cell's resistance. In *duodenal ulcer*, acid production is high, so that cells may be attacked even though they are functioning satisfactorily. That is the principal difference between the two types of ulcer, aside from location.—

2. Emphysema of the lung.—Emphysema means any swelling due to the unnatural presence of air in tissue spaces. It may collect beneath the skin following injuries and then is called subcutaneous emphysema. If air is formed under the skin by germs, it is known as false emphysema. In general, the word refers to the development of unnatrual air pockets in the lung.

The normal lung is filled with millions of tiny air sacs in which the exchange of oxygen and carbon-dioxide takes place. Severe chronic cough or an occupation that requires excessive use of the lungs, such as cornet playing or glass blowing, may cause gradual dilation of some of these air sacs. As this occurs, the sacs are unable to get back to normal size. At the same time, their ability to carry out the oxygen-carbon dioxide interchange is reduced.

In mild cases, this will not present much of a problem. If the emphysema progresses, more and more lung tissue becomes involved, and breathing efficiency is reduced proportionately. No way has been found to return the dilated parts to normal. An added problem is the fact that infection usually occurs in the mucus that collects in the sacs.

Until the recent introduction of more powerful drugs, little could be done to control the infection. Today the attending physician often can provide much relief for such patients and at least keep the infection under control. If the emphysema is found in a limited lung area, surgical removal may be possible. This will ease the breathing problem considerably.

Almost everyone will develop at least some emphysema with advancing age. Occasionally it is a congenital defect of lung tissue. In general, it is not an incapacitating condition, and people troubled with it can get around adequately as long as they stay within their limit of activity. By doing this, they will cut down the tendency for the emphysema to progress and also keep breathing difficulties at a minimum.—(*Today's Health*, May 1958).

LEARNING in LATER LIFE

(Old Age is No Bar)

"The capacity to acquire new knowledge for the deeper enjoyment of life is something that never dims," says Dr. THOMAS C. DESMOND of New York, writing in *Today's Health*.

OLDER people, like youngsters. have learning responsibilities. And they do not end on any particular birthday. Educators, physiologists and psychologists agree that when you stop growing, you start ageing.

Dr. Margaret Mead deplores the tendency to put the tasks and obligations of each phase of the life cycle into neat little compartments. "It is utterly false and cruelly arbitrary," she says, "to put all the play and learning into childhood, all the work into middle age, and all the regrets into old age."

Many young people make the mistake of thinking that education ends with a diploma. They handicap themselves by limiting their interests, their earning capacity and their happiness. But while this is a serious error for people of any age, it is doubly tragic for one who believes that older people can't learn. "And even if we can learn," an oldster may ask, "what do we need learning for at our age ?"

The old adage, "*You can't teach an old dog new tricks*," is fallacious, and is doing a great deal of social harm. You can teach old dogs new tricks if the dogs have an incentive to learn, if the teacher knows more than the dogs, and if the teacher knows how and what to teach.

Often the chief handicap the older learner has, is his feeling that he *cannot learn*. These attitudes are fostered in terms of what society itself is doing. Our culture actually creates the illusion that older people cannot learn.

Education also gives satisfaction apart from monetary considerations. It provides a sense of accomplishment. It may be more important that our middle-aged and elderly dose themselves with new learning to keep mental arteries from clogging up than that they dose themselves with vitamin pills on which millions of dollars are spent each year in a frantic effort to regain "buoyancy" and "vigour," both of which can be lost by lack of challenge and interests as well as by nutrient deficiencies.

Dr. Frank P. Graves, one of the great educators of our time, retired as New York State Education Commissioner. He had just about all the academic honours that could come his way, but he completed the course at Albany Law School, passed the bar examinations, and began the practice of law when he was in his eighties.

As people grow older they have to adjust to declining physical capacities. Vision may dim, steps may become slower,

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THE ANTISEPTIC A MONTHLY JOURNAL OF MEDICINE & SURGERY NOVEMBER '58 THE HEALTH A MONTHLY JOURNAL DEVOTED TO HEALTHFUL LIVING	ENGLISH	(c) DR L. VASUDEVA RAO, M.B.B.S.	HEALTH EDUCATION	(a) AND (b) THE ANTISEPTIC PRESS, MADRAS. — DO — — DO —	(a) THE ANTISEPTIC PRESS, MADRAS. (b) THE ANTISEPTIC & HEALTH MAGAZINE	15-11-1958	32	ROYAL OCTAVO	VOL. 36 NO 11	2300 COPIES	PRINTED.	Re. 0-25nP	DR. L. VASUDEVA RAO, M.B.B.S. 333-2/4, THAMBU CHETTY ST. MADRAS-1.

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hearing may not be as acute. These are not serious handicaps to people who anticipate them. They are part of the normal process of ageing. As you are you can't keep up with the younger folks physically. It is important, though, that *you keep ahead of them mentally.*

As we grow older we need to develop a basic philosophy toward life in the later years. Ageing is part of the pattern, a part of the life cycle. We can say what part of life is most important? There are countless examples of people who found fame, fortune and happiness not in youth or even middle-age, but in the sixth, seventh or eighth decades of life. The mature man is old enough to recognize the truth. He is more honest with himself and with others, for he has no gain in deceit or flattery. The truth is that new growth is possible in old age. There is new opportunity, freed from strivings on the job, to build a better life, a better person. *Old age is the time to prove the potentials of the later years, the value that age can really have.* He who has no inner resources and no basic philosophy will retreat in the face of hardships. The one who is fortified with these attributes will struggle and fight, and usually win.

Learning to utilize effectively the increased leisure is another responsibility. Retirement from employment means 40 extra hours a week to use as you please. This time can be the opportunity of your lifetime to do what you always wanted to do, but couldn't because of obligations. If not used wisely, the bonus time can turn into an eternity—pointless and profitless. Time is a surplus commodity to youth. But to age, time is in short supply and must be prudently invested to draw the full richness out of the climatic "third act" of life's drama. It is increasingly important that we distinguish between resting and rusting. The rest that is renewal of one's physical and mental energies differs from the rusting decay of one's energies. The more time on your hands, the faster the ageing process works. The less time on your hands the slower the process of deterioration. If time must be killed, stay the execution as long as possible.

The proper use of leisure is akin to the development of new relationships with spouse or children arising from greater dependence and increased free time. Many wives have noted the irritability and restlessness of their husbands when they first retire. There is an obvious need to fill the time previously taken by employment, particularly during the working hours. Many men have found that helping with shopping and household chores can not only lighten the load of their wives in a way that is appreciated, but it can be enjoyable as well.

Changing family roles.—From very ancient times the plea has come. "Do not abandon us in our old age; when our strength is gone do not forsake us."

The role of older people in our families has been undergoing changes, sometimes subtle, sometimes gross. Not only are grand-parents gone from the family home-stead, but the family homestead is gone, too. And the way of life associated with three-generation families is gone.

But if modern houses and apartments are designed so they virtually bar oldfolks living with their children, old folks today, reflecting more independence, do not want to live with their children. And is this bad? *We know that many children are plagued with guilt feelings when they do not want to or cannot have their parents live with them.*

Despite the severance of the older generation from its children and grand children, there remains a firm residue of almost magnetic quality which binds them together. What does the grand parent have to offer the modern family unit? It is a three or four generation perspective, a more mature approach to life, a sense of integration and judgement, a reservoir of experience, a sense of unity of life, all of which promote better planning and a more intelligent approach to life. And *fond grandparents provide the love and affection so essential for grandchildren.*

The meddlesome grandmother or the garrulous grandfather who bores visitors with recitations of his World War I experiences may find no ready welcome with their children or grandchildren. But grand parents who are alert to present-day happenings, have developed good sense, cheerfulness, and respect for the rights and privacy of others will find a helping hand and a ready welcome from all but the most callous of younger kin.

Sobbing to get Released

Fermenting of cocoanut milk to produce an alcoholic beverage is a fairly serious offence in some of the South Pacific Islands, and is usually punished by imprisonment. On one particular island, it is not uncommon for a relative of the person in gaol to sob loudly near the Office of the Senior Administrative Officer. When the relative becomes tired or is chased away, another relation continues sobbing, perhaps from another direction—but within *hearing* distance. This will continue intermittently all day long, but at night the sobbing is transferred to within hearing distance of the Administrative Officer's home.

After a few days and nights of interrupted sleep by this sobbing (which is most heartrending) the Administrative Officer, completely frustrated, releases the prisoner.—(*World Health*).

Taste and Tell

Twelve thousand school children are being invited to take part in a tasting experiment by a firm of chocolate manufacturers. Chosen by means of a competition, each lucky taster will receive a free packet of chocolate each month for six months. The snag is that to qualify for the next month's issue, the taster must fill in a questionnaire each time. In this way the firm hopes to discover exactly what the young customer wants in regard to shapes and sizes, flavours, and fillings, and also to find out the order in which the chocolates were picked from the box.—(*W.D.*)

Are You a SCATTERBRAIN?

JOHN GIBSON

(A fascinating scientific test that will tell you a lot about yourself)

ONE of the most ingenious tests for self-analysis is the Proverbs Test recently developed by Professor R. Gorham. Used professionally, it measures emotional attitudes and vocational aptitudes, and is a key to personality traits. With it Professor Gorham found he could spot types such as the *practical person*, the *scatterbrain*, the deeply *moral person*.

The complete test includes 40 proverbs and is published only for psychologists.

The shorter version that follows cannot be expected to have the accuracy of the full test, but it is fun to do and should lead to some lively discussion.

Read each of the ten proverbs and tick the interpretation that seems the most logical. Keep in mind that this is not a test in which you are necessarily right or wrong: it is designed to reveal only what the proverbs mean to you. The answers are on *page* 258 to which you should refer only after ticking all the ten.

1. *A tree is known by the fruit it bears.*
   - (*a*) Only a fool would look for apples in a pear tree.
   - (*b*) As the twig is bent, the tree will lean.
   - (*c*) A man is known by his deeds.
   - (*d*) Evil can never be disguised.

2. *Don't cross bridges until you get to them.*
   - (*w*) Don't burn your bridges ahead of you.
   - (*x*) Heaven helps a man who has faith in the future.
   - (*y*) Do today's job properly and don't keep fussing about tomorrow's.
   - (*z*) Don't worry about troubles till they come.

3. *The harder the storm, the sooner it's over.*
   - (*a*) The worst thunderstorms don't last long.
   - (*b*) It's calmest after a storm.
   - (*c*) Our large problems are often solved more quickly than our small ones.
   - (*d*) The harder one works, the softer one's bed.

4. *He thinks not well that thinks not again.*
   - (*w*) Your second thought is better than your first.
   - (*x*) Only the Lord loves a blunderer and even He finds it trying.
   - (*y*) Always double-check your work for errors.
   - (*z*) The good plan is the thoroughly considered plan.

5. *Set a thief to catch a thief.*
   - (*a*) Because a thief knows where thieves hang out.
   - (*b*) It is all right to employ a criminal if he can help justice.
   - (*c*) If you have a special problem, consult someone who has special knowledge about it.
   - (*d*) Evil must be its own downfall.

6. *Beauty is only skin-deep.*
   - (*w*) All women are sisters under the skin.
   - (*x*) A woman may paint her face but not her soul.
   - (*y*) Pretty wrappings don't make good merchandise.
   - (*z*) Character is more important than outward appearance.

7. *Too much water drowns the miller.*
   - (*a*) Never build on uncertain ground.
   - (*b*) You'll never get wet if you don't go near the water.
   - (*c*) Even good things can be overdone.
   - (*d*) Riches and ruin both start with an *R*.

8. *The thread breaks where it is weakest.*
   - (*w*) A stitch in time saves nine.
   - (*x*) A good man is not just 99 per cent good.
   - (*y*) One poor bit of workmanship can ruin a whole job.
   - (*z*) A flaw in one's character will show up under pressure.

9. *He who rides the tiger cannot dismount.*
   - (*a*) Don't tackle anything you can't finish.
   - (*b*) A tiger can't change his stripes.
   - (*c*) A risky venture is often hard to get free of.
   - (*d*) One moment of folly can mean a lifetime of regret.

10. *A change of pasture makes fat calves.*
    - (*w*) The grass is always greener in the other fellow's garden.
    - (*x*) Charity begins at home but never stops there.
    - (*y*) You can't eat the same bread twice.
    - (*z*) New experiences stimulate people. (*See p. 258*).

Tobacco Consumption and Mortality from Cancer And other Diseases

Here is capsule information taken from Dr. Harold F. Dorn's report (above title) given at the Seventh International Cancer Congress, July 8, 1958, in London. The study is statistical and did not include any clinical or laboratory research. Dr. Dorn is chief of Biometrics at the National Institutes of Health, Beathesda, Md.

Deaths (U.S. Government Life Insurance Policy Holders) in period of report (July 1954–December 1956 numbered 198, 926). This report covers 7,382 deaths. Smokers—6,203; non-smokers—1,179. (2,771 of smokers were regular cigarette smokers).

Ages of those studied—30 to 90 with majority between 50 and 70; service in Armed Forces between 1917 and 1940.

Death-rate from all causes of persons who used tobacco was 16 per 1,000 compared with 13·1 per thousand for persons who never smoked. Adjusted for age, the death rate was 32% higher for smokers than for non-smokers. Regular cigarette smokers had a greater death-rate from certain respiratory diseases such as bronchitis, pleurisy and emphysema, from ulcers of the stomach and duodenum, and from cirrhosis of the liver.

Cigarette smokers had a 58% greater death rate than non-smokers, lung cancer rate 10 times that of non-smokers.

Death-rate increased as the number of cigarettes smoked each day increased. Death rate of persons who regularly smoked cigars and/or pipes was not significantly higher than that of non-smokers.

Nearly two-thirds of the 6,203 deaths of tobacco users studied were attributed to diseases of the kidneys, blood vessels and heart. Death-rate from coronary heart disease was 63% higher for regular cigarette-only smokers than for non-smokers.—(***Military Medicine***, August 1958).

How to Live More Happily with Your Arthritis

(Rheumatoid arthritis and osteo-arthritis are two conditions which can be greatly helped)

MANY people do not know about the invaluable work done by the Empire Rheumatism Council engaged at present on a ten-year programme and seeking funds and contributions which will add up to the sum of a quarter of a million pounds to be spent very largely on research into rheumatism. Already the Council has set up a Chair of Rheumatology at the Postgraduate Medical School at Hammersmith, and an earlier Professorship was established at Manchester University.

Quite apart from its work on research and on spreading knowledge about rheumatism, the Council has prepared two very good little booklets, one on osteo-arthritis and one on rheumatoid arthritis. These booklets are delightfully illustrated and are intended for patients, to help them to understand their disease. But they cannot be obtained directly by patients. They are distributed free to general practitioners who, in their turn, pass them on to patients who might be helped by this material.

Rheumatoid arthritis.—Rheumatoid arthritis is only one of several different kinds of arthritis, and it affects moreover not only the joints but many other parts of the body. Because of this the tissues of which the body is made become weaker, the muscles waste, blood circulation becomes poor and the patient loses both appetite and weight. You may feel unwell and depressed, too.

With the joints inflamed, they are, of course, painful and stiff. It is the small joints like those of the hands and feet which are usually the first affected, although others may be later. X-ray pictures can show if there is any real damage, and if there is, this damage must to some extent remain.

Rheumatoid arthritis does not necessarily get worse and worse. On the contrary, in most cases you can expect to improve with proper treatment. Indeed, some people have such a mild attack of the disease that they do not feel ill enough even to go to their doctor. Of course, if these fortunate people happen to give themselves treatment, however silly, they think it is the treatment that has done the trick, and the more bizarre or perhaps expensive the treatment, the greater will the credit be!

Sooner or later, often sooner, but usually with some ups and downs, the disease "burns itself out." The fire of the disease goes out and you are simply left with the ashes. Quite simply, therefore, your doctor tries to do two things. He tries to reduce the activity of the disease, "to put the fire out." And he tries to reduce as much as possible any existing damage to joints, to ensure that they remain useful.

You will notice that the above description makes no reference to a cure. Rheumatoid arthritis is one of the many diseases of which the cause is quite unknown at present. Until the cause is known, and even then, it is by no means certain that a cure can be found. This fact must be faced by anyone who has rheumatoid arthritis, but this is not to say that you will not get completely—or partly—better. In fact, the majority do so.

If you are prepared to cooperate with your doctor conscientiously for as long as is necessary, you will in fact have a very good chance of being neither seriously nor permanently disabled.

Osteo-arthritis.—Osteo-arthritis has no connection with rheumatoid arthritis and will not cause you to develop it. It makes a joint painful and stiff because the wear and tear of living has caused damage to its moving surfaces. Another name is "degenerative" arthritis, a term which emphasizes the effect that growing older has on all the tissues of our body and not only the joints.

If you are a sufferer you will by now be wondering why you should have pain and stiffness in a joint, when many of your older acquaintances seem to get about more actively and without pain.

This question cannot always be answered with certainty, but often your trouble can be attributed to a mild deformity present at birth or occurring during childhood of which you were unaware, but which now demands attention. Wear in the moving parts of an engine which has been imperfectly constructed occurs much more rapidly than it does in a well-built one.

Sometimes osteo-arthritis follows an injury, such as an old fracture involving a joint, or less dramatically an injury to a structure inside a joint, such as a torn cartilage of the knee. Again it may follow unusual and prolonged strain on a joint. For example, in washerwomen who, because of constant wringing movements, develop pain and stiffness in the joint of their thumbs; or in wicket-keepers because of repeated minor injuries to their fingers.

So far we have considered osteo-arthritis which affects only one joint, and tried to explain why this may have happened to that particular joint. You will, however, probably say to yourself, "I can understand why this one joint is troubling me now, but surely later my other joints will catch up with this one, because they are all degenerating all the time and if they get like this one I shall be a cripple." Fortunately this is not true because the degeneration of ageing alone seldom causes the pain and stiffness called osteo-arthritis unless something is added to make the degeneration more rapid and more severe than usual.

In general, nature provides a machine capable of carrying out the reduced physical demands that ageing imposes upon it.

A seventy-year-old knee-joint will resent a game of Rugby football but few men of seventy would wish to play the game! Sometimes, however, the joints that have had to carry the body-weight, such as knees and hips, do assert themselves as we grow older, and may prove very troublesome, but the symptoms they cause are usually mild, and respond readily to some restriction of activity.

By the way, osteo-arthritis is not caused by: Acids, Infections-poisons-drugs-food-constipation-cold-damp.

The booklet on Rheumatoid Arthritis ends, after a discussion on treatment, with a most useful set of questions and answers. Is rheumatoid arthritis hereditary? Does damp have anything to do with the cause? Are there any surgical operations that are helpful? And many more. This book knocks on the head a row of old wives' tales.—(*Family Doctor*, September 1958).

Answers to Proverbs Test on page **254**

The most logical interpretations of these proverbs are the "*c*" and "*z*" choices. If you scored seven out of ten you are normal in your perception, in your ability to interpret subtleties of speech and thought. Eight out of ten means you are sharper in comprehension than most. Nine out of ten indicates that you have an exceptional grasp of ideas. Ten out of ten? You're a philosopher!

Answers "*a*" and "*y*" are likely to appeal to the practical-minded person. If you ticked one "*a*" or "*y*" there's a hint of a practical streak in your nature. Two such answers indicate a distinctly practical outlook, and three mean that practicality in your outstanding characteristic. More than three suggest that you carry practical-mindedness to an extreme which might mar your enjoyment of life.

Answers "*b*" and "*w*" are scatterbrain choices. They appeal to the person who cannot or will not concentrate and whose mind flits from one idea to another. One "*b*" or "*w*" answer does not mean much but if you picked two it hints that you have a frivolous streak. Three such answers would be a certain indication of scatterbrainedness. Four or more and you'd better think seriously of drastically disciplining your mind.

Answers "*d*" and "*x*" are the choices of someone dominated by concepts of good and evil. Such a person is likely to judge others on the terms of his own rigid moral principles. On this test he can easily be attracted to an inaccurate answer merely because it seems like a noble sentiment.

If you picked one "*d*" or "*x*" you probably have a sound moral streak in your character. If you picked two you may be a little more righteous than necessary. Three "*d*" or "*x*" answers could be a warning to loosen up a little, lest you make your friends uncomfortable. Four or more such answers hint that you may need spiritual advice, for even righteousness can be carried to excess.—(Condensed from *Woman*, London, via *Reader's Digest*, September '58).

Unique Microscope

A unique microscope, known as the MUF-4, permitting the study of the optical qualities of the cell and the dynamics of chemical processes taking place inside it, has been designed at the Leningrad Institute of Cytology of the USSR Academy of Sciences. A model of this microscope is now on display at the Brussels World Exhibition.—(*Soviet News: USSR Bull.*, Sep. 1958).

Curing of Fresh Paddy for Immediate Use After Harvesting

While rice from stored paddy possesses desirable cooking properties, rice from freshly harvested paddy cooks to a pasty mass, and yields a thick viscous gruel during cooking. It does not also swell to the maximum extent like old rice. The following method of treatment of freshly harvested paddy gives a rice which looks and cooks like old raw rice and possesses, besides the nutritional properties of barboiled or home-pounded rice. The cured rice also possesses the higher swelling property characteristics of old rice.

Treatment of paddy.—The treatment, which is a very simple one and can therefore be adopted by all rice par-boiling mills, consists in steaming the fresh paddy in the steaming kettle or tank until steam emerges from its bottom and top and then keeping it in the hot condition for about one hour. The paddy is then dried by æration either in the shade or in mild evening or morning sun with occasional turning. Drying in the hot sun is to be avoided as cracking will occur and broken rice will result. As the paddy is not soaked in water prior to the steaming, the drying of the paddy is quick (about one hour) and the milled rice appears like raw (*not* par-boiled) rice itself.

Cost of treatment.—The cost of steaming and drying involved in the treatment is a nominal one (less than a rupee for 100 ***seers*** of rice) and the consumers would gladly bear this small extra cost in consideration of the improved cooking qualities conferred by the treatment. The cost of treatment should be considered to be very small indeed as the difference in cost between old and new rice in commerce varies between 10 and 15 rupees per *palla*, depending upon the availability of old rice.

Varieties suitable for treatment.—The steaming treatment described above is essentially one of very gentle parboiling. For this reason, the grain treated by this method is not as hard as fully parboiled rice and there is, therefore, greater breakage during milling than is normal for fully parboiled rice. The hard varieties of rice which are conventionally used for obtaining raw rice can, however, be subjected to this steaming treatment to obtain a produce resembling old raw rice. If the steaming treatment is more prolonged, then an opaque rice that cooks hard like par-boiled rice can also be obtained. The coarse varieties of rice that are comparatively soft undergo high breakage when subjected to the steaming treatment in its present form. Some other modified form of treatment seems to be necessary to impart sufficient hardness to these varieties.

Nutritive value of the treated fresh rice.—Besides possessing the appearance and cooking characteristics of old raw rice, the treated fresh rice also has the

nutritional value of home-pounded or par-boiled rice. It has more thiamine, for instance, than the untreated raw rice. The steaming treatment is therefore, an ideal method of supplying a nutritious form of raw rice. Even old paddy can be subjected to the steaming treatment to improve the nutritive value of the rice. As the paddy is not soaked in water, the treated rice retains its opaqueness unlike fully par-boiled rice which is translucent and has an yellow tinge.

Consumer acceptability.—Consumer trials in Mysore have shown that the treated rice is accepted readily by the habitual consumers of both raw and par-boiled rice. The availability on the market of the cured fresh rice will be a great benefit, especially for the poor and middle class people, who cannot afford to pay the very high price for old rice.—(*Food Science*, Mysore, August 1958).

TOMATO: THE LOVE APPLE

"It is wonderful to think of all the delightful and delicious things you can do with tomatoes"—says EVELYN ROSE

The tomato, or if you prefer to think of it as *pomme d'amour* or pomodoro, has been a delight to the eye and to the palate since the first little Aztec Indian boy sank his teeth into one nearly a thousand years ago. We, in Britain, grew it in the flower border until Victorian gardeners banished it to the vegetable patch. Why I don't know, because a ripe red tomato is as decorative as it is delicious.

Its use today is almost universal in cookery, for it blends happily with any dish. It is excellent and digestible either cooked or raw. The best tomatoes are those you grow yourself. In winter, fresh and tinned tomatoes are one of our cheapest sources of Vitamin C. And in summer they are very refreshing, and the perfect accompaniment to any cold food. They also pack happily with picinic sandwiches.

A ripe home-grown tomato needs little embellishment. It is at its best served raw with a little salt to point up the flavour. For cooking the cannel Italian tomatoes are good. These southern tomatoes have a fruity flavour which combines well with meat or fish, and their colour remains a deep red however long a casserole may simmer in the oven.

For quick summer soups, canned tomato juice is useful, because it needs no sieving and has a bland flavour. Canned juice also seems to me to have the smoothest flavour for a cocktail.

Talking of cocktails, don't smother your tomato juice in Worcestershire sauce. If you like it, a few drops are enough. But why not try a squeeze of lemon juice, a pinch of sugar, salt and celery salt and a tiny pinch of Cayenne pepper for a change? Whichever way you choose, a tomato cocktail is an ideal summer appetiser.

It is better to keep tomatoes in the larder as *frig.* tends to spoil the flavour. If they're a little under-ripe, put in the sun to ripen. For salads, mis-shapen tomatoes usually, a good cheap buy, are just as good as perfect symmetrical ones. But for cold or hot stuffed tomatoes, you need good firm ones which can be excavated without risk of collapsing. A chilled tomato soup on a hot summer's evening is a wonderful restorative.—(*Family Doctor*, June 1958).

Care of Children

(SORE BOTTOM)

Query:—Here is a question from West Wickham. My four-year-old daughter Margaret frequently suffers from very sore buttocks, obviously caused by the passing of her water. Her bottom is very bright red and angry-looking and she complains of the soreness. I try to ease it by applying zinc and castor oil cream. Do you think that something she eats could be the cause? She does suffer from hay-fever and occasional asthma attacks. I have also noticed that the trouble does seem to be worse if she has been eating bacon or ham, and wonder if salt, of which she is very fond, has anything to do with it. She eats very well but drinks very little. (B.M.A's *Family Doctor*).

Answer:-Our (B.M.A.) specialist says if it is your little girl's urine that is causing trouble, there is likely to be soreness around the front passage and on the inner side of her thighs. And if she wets her knickers, that will make her buttocks sore. They will also be sore if her motions are frothy and loose, which may be due to too much sugar or fat in the diet. Also watch out for thread-worms. If you do reduce the fat a bit, be sure to give her halibut-liver oil drops each day during the cold weather. Try increasing the fat again later on as a child's tolerance to fat varies and can be upset temporarily by a cold. An attack of asthma may affect it.

Her urine may be rather concentrated and acid; so encourage her to drink plenty of water, flavouring it with fruit juice if necessary, and add a pinch of bicarbonate of soda to these drinks. She should not need extra salt on her food; only that used in cooking. Providing she takes rose hip syrup, there is no need to worry about her not eating fruit, but always give her the opportunity of having it.

To soothe the sore parts let her sit in a bowl of warm water in which some bicarbonate of soda has been dissolved, one teaspoon to the pint, or in which a bag of fine oatmeal has been squeezed. Dry her gently but thoroughly and powder with baby powder before applying the

zinc and castor oil cream. Or for a change use a plain calamine lotion. See that her knickers and pyjamas are not too tight.

If the soreness does not clear up quite quickly, do go to your doctor and take a specimen of her urine in a clean bottle.

LEFT HAND or RIGHT

DAVID GUNSTON

Medical examination of recruits for the Fighting Forces in the recent war showed that a far higher proportion of men were left-handed than was the case in the First World War. This concrete evidence lent proof to the expert view that left-handedness is much more widespread than it used to be. It is difficult to say whether or not this trend is due to actual hereditary changes, or whether it is merely brought about by a more enlightened attitude towards this peculiarity on the part of parents and teachers, who no longer force naturally left-handed children to use their right hands, as was once considered the right course to adopt.

At the moment about four or five people out of every 100 are left-handed. Yet not so very long ago it was shown that of every 100 persons born left-handed, only seven remained completely so throughout adult life, which was striking proof of the almost superstitious attitude which led people to stifle the tendency in the young in the belief that it was "not normal." Yet for that 4 or 5 per cent it is perfectly normal.

But there is, of course, much more to it than that. Just why that small but consistent percentage of the population should naturally find it easier to use their left hands in preference to their right is not known, even at this advanced era of science. Neither is it fully understood why the majority of people should be right-handed, anyway.

The oldest explanation is that our ancestors always fought first their animal and subsequently their human enemies with their right hands, instinctively using the left hand to protect breast and heart. Warriors of old always held sword or dagger in the right hand, and shield or buckler in the left, so as to be ready to parry blows aimed at the heart.

This was all presumably based on the notion that the human heart lies on the left side of the body, but in fact it is only very slightly to the left of the centre Science tells us that the body's centre of gravity is to the right, and that the average person has a right side of the body which weighs anything up to 15 oz. heavier than the other. This, however, is probably due to the normal tendency of right-handedness, and is not a cause of it, since the right hand and arm of right-handed persons are always better developed than their fellows.

Although the reasons for this mystifying pattern of left and right still elude us, we do know that it is fundamental in origin and usually hereditary. It is now realized that the primary use of one hand, always controlled by the opposite side of the brain, is part of a wider activity which also affects eyes and feet. Whilst most human beings are right-handed, there is less definite pattern with feet, although there is a widely held belief that the majority of people have a better left eye than a right.

For a problem so widespread in its application—for the so called "peculiar" left-handed occur in all races at all times—surprisingly little scientific work has been done on it. Extended research is, however, at present being carried on at the Glasgow University in Scotland, and although the study is far from complete, some interesting conclusions have emerged already. To obtain them, more than thirty pedigrees of left-handed people, involving a total of some 500 persons, have been subjected to careful scrutiny.

Left-handedness is passed on by parents to their children, and is not the result of training, early circumstances, or the accidental loss of a parent's arm during pregnancy, as is sometimes believed. Left-handed boys are about one-and-a-half times more frequent than left-handed girls.

There also seems no doubt that the tendency is inherited more often from a left-handed mother than from a father, and occurs most frequently among children both of whose parents are left-handed.

Normal parents do, of course, occasionally have left-handed children, but much less often.

According to some authorities, the foot first used by a baby learning to walk is invariably a guide to its "handedness" as it grows up.

Provided a child is allowed to develop its inborn tendency without hindrance, there is no cause for parents to worry, and nothing abnormal at all. Whilst there is little evidence for the idea that naturally left-handed children who are forced early in life to use their right hands like other children develop serious neurotic tendencies, it is true that such children may have their mental growth upset and some time may elapse before they continue normal development.

Left-handed adults suffer little real disability of a physical kind, although psychological harm may be done to them, especially when the follies of childhood are continued by other grown-ups, when ignorance leads others to regard them as peculiar, freaks, or abnormal.

Sometimes a left-handed man in a manual job finds his tendency a nuisance, when benches and tools are designed for right hands instead of left; but even then there are some spheres where the left-handed man is most useful. Shipyard rivetters

usually include one left-handed man in their teams since he can carryout jobs in awkward positions which give ordinary workers much trouble.

The desire to use the left hand, even to a partial degree, is never accompanied by any lowering of intelligence, as was once thought. Indeed, many gifted people, including musicians, writers and artists among them, use their left hands for their work in preference to their right.—(*World Digest*, October 1958).

No Dangers from Chest X-rays

(FEARS DISPELLED BY A B.I.S. BULLETIN)

FEARS of radiation resulting from chest X-rays were dispelled by Dr. J. H. Harley Williams, Secretary-General of the National Association for the Prevention of Tuberculosis, at a press conference in London called to "Reassure the public and overcome any unconscious anxiety they may feel" about X-rays.

"One day I hope we will be able to prevent cancer—as we can now prevent TB—through X-rays and by using then freely but cautiously, in the *right way at the right time.*" said Dr. Williams. "We cannot get on without the use of X-rays in diagnosis and in treatment."

"The X-rays used for diagnostic purposes employ only a tiny charge of radiation. To reach a danger point, such X-ray examinations would have to be done hundreds of times more often than is ever contemplated for any one individual."

As to the number of times any person could safely undergo a chest X-ray, Dr. Williams said: "Once or twice a year, perhaps more often, there is not the slightest risk.

Stringent precautions are taken to protect not only the patient but the radiologist and his staff. Modern X-ray tubes do not allow rays to be scattered where they are not wanted.

The Truth About Sun Glasses

More and more people are beginning to wear tinted glasses, some constantly. Can they be harmful because they necessarily make the Eyes more sensitive to light? "*Vision*" the Journal of the Association of Optical Practitioners, London, gives the answer to this question.

"Wear them *only* when *absolutely* necessary and even then when it is certain that the discomfort is not due to some deep-seated perhaps serious fault. Under normal conditions of light both natural and artificial the eye's protective mechanism is quite adequate." If subjected to prolonged exposure to excessively bright light then alone would tinted glasses provide comfort.

Don't have the tint too heavy—the lightest that seems comfortable is your guide, and it should not markedly change colour values. But if you find bright light hard to bear, it may be due to some weakness or disability that needs correction by orthdox spectacles or even further attention. Don't take chances; take advice. It is better than always having to see the World "through a glass darkly."—(*World Digest*, Sept. 1958).

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HEALTH

FOUNDED BY THE LATE Dr. U. RAMA RAU

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CHILDREN'S DAY 1958

IT is a splendid gesture that the nation makes to our beloved Prime Minister by celebrating his birthday every year as Children's Day all over India. Independent India is a child and has an exceedingly wise and kind parent to foster and promote its interests.

In laying the foundation-stone of the *Bala Bhavan* at Delhi on the 14th November 1958, Prime Minister NEHRUJI said that it was the birth-right of every child to have education, love and affection, proper clothing and food and opportunities to progress in life. The importance of caring for children in all schemes of national regeneration was strikingly brought forth when he stated on the occasion of the Children's Day celebrations that "somehow the fact that ultimately everything depends on the human factor gets lost in our thinking of plans and schemes of national development in terms of factories and machinery. It is all very important, and no doubt we need them, but ultimately, of course, it is the human being that counts and if the human being counts, he counts much more as a child than as a grown-up."

Very few statesmen in the history of the world have so completely moulded a nation in their own image. Abraham Lincoln in the last century did so in the United States of America and Shri JAWAHARLAL NEHRU has now done the same for the States of India. Ensuring the welfare of the children of India is indeed a very big and illimitable problem and according to Shri D. P. KARMARKAR, the Union Minister of Health, a

third of the total population of India which is roughly estimated to be about 39 crores to-day, consists of children below 12 years of age.

The system of joint-family life, which in former days ensured the proper care and upbringing of children in a disciplined emulous atmosphere, has disintegrated to a great extent, what with the incessant exodus from the villages to the towns and cities which offer varied diversions and amenities, and also the growth of a spirit of individualism in the younger generation—each one for himself and not for the family as a whole. The problem has thus become vaster and more difficult. Both the Central and State Governments as well as non-official organizations engaged in child-welfare work have been tackling the problem in all sincerity and seriousness. As our Rashtrapathi Rajendra Prasad said the other day in his broadcast to the nation, "these varied and various activities should be carefully co-ordinated."

It is indeed a wise thing to choose and concentrate on one main theme relating to child welfare, for the Children's Day every year in order that specialized attention may be focused on that aspect during the following period. This year, the theme selected was "The child that is sick must be nursed and the child that is physically or mentally handicapped must be helped." This involves wide schemes, for medical care to the child is today on no special or better footing than that for the adult. Regarding malnutrition, the recently introduced system of providing mid-day meals to all school children, is praiseworthy as it is calculated, if properly worked and efficiently supervised without room for leakages, to promote both education and health.

The problem of child welfare is such a stupendous one and is becoming still more so with the increase in population that unceasing and zealous efforts in a missionary spirit are essential to resolve it; and "Children's Day is the one day in a year," as Mrs. Indira Gandhi said in her broadcast "when everybody is reminded of his duty towards the children of the nation.....The idea is that parents and teachers, guardians and other adults are reminded of the rights of children." And in this holy task, we have the sagacious lead of our indefatigable 69 years young Prime Minister Shri Jawaharlal Nehru.

Your skin is a good tell-tale guarding your health. Just a change in skin colour may reveal a hidden hæmorrhage or disorders of the liver, gallbladder and adrenal glands. Persistent itching or recurrent boils and skin infections may indicate diabetes. And skin eruptions may be the first signal that a particular drug is not proper or safe for a patient.—(*Good Health*).

HOW MUCH DOES BLOOD-PRESSURE MATTER?

(It is possible to worry yourself sick about almost anything. Blood-pressure is one of the biggest worry-makers today. Needlessly so. A sensible attitude comes from knowledge that blood-pressure is something we all have.

Kenneth C. Hutchin, M.D.

Thousands of people worry about their blood-pressure who have no need to worry at all. Regularly I see patients who say, "How high is my blood-pressure, Doctor?" Strictly speaking, you might as well say, "How long is a piece of elastic?"

Your blood-pressure varies from hour to hour, from day to day. It is different when you are standing up and when you are going about during the day than when you are in bed at night.

Emotional disturbances, nervous tension, your state of mind, even fleeting angry thoughts can make the blood-pressure go up twenty, thirty or forty points. Many people who have a perfectly normal blood-pressure at other times, have a raised one when they have a medical examination. Very often they do not even realize that they are nervous about the examination. There may be no suggestion of nervousness in their manner.

Unfortunately, it is just on those occasions when it is important for the blood-pressure to be normal that it goes shooting up. A medical examination which is vital to a man's future, perhaps an insurance examination or a medical check-up for a new job, is quite likely to cause a rise in blood-pressure. In fact, it is sometimes impossible to get true readings on these important occasions even with repeated attempts and with the patient lying down quietly.

Blood-pressure is usually measured nowadays by the doctor listening through his stethoscope to the pulse-beat of the arm artery. This artery is at the elbow just below the inflated rubber bag of the blood-pressure machine known by the frightening name sphygmomanometer.

As he listens, the doctor blows up the bag to a pressure well above what he expects the upper limit of your blood pressure will be. This presses the walls of the artery together so that no blood can get through. Then he gradually deflates the bag. At the moment when the pressure falls to the level at which a pulse-beat can just break through the compressed artery, a distinct tapping sound is heard with each heart beat. This is the systolic pressure. As the bag pressure lowers, the sounds change in character and loudness and when the diastolic level is reached they suddenly become muffled. So the doctor has an upper and a lower figure to work on.

Misleading results.—A man's blood-pressure may be normal when taken by his own doctor with no weighty decision hanging on the result. The same man may go the next day to the

medical examiner of an insurance company and be turned down because of a raised blood-pressure.

Then, again, there are people who worry about their blood-pressure and go and see the doctor full of fear and forebodings. In these circumstances it is not surprising that their blood-pressure is up at the time of taking it. After this, perhaps, they go at regular intervals to have the pressure read. It may be up a little one time and down a little the next. This is, as often as not, simply a reflection of their own apprehension.

As you will readily see, it is often very difficult to get a true reading of the blood-pressure. Some experts maintain that the man or woman should be lying down for as long as twenty minutes before the pressure is taken at all. You may imagine that this ideal cannot always be achieved by the busy doctor with a crowded waiting-room.

High blood-pressure is not a disease. It is simply an abnormality. It may be a sign of disease, but it can also stand alone.

Just as you get a raised temperature with many different conditions, some serious, some relatively trivial, so your blood-pressure may be raised in many different conditions and circumstances. In fact, you only have what doctors call a labile blood-pressure. That means that it is only raised from time to time. It may be high at certain times of the day, or after exercise, or under unfavourable circumstances. But at night or when you are at rest it is much lower.

People with this type of blood-pressure have no cause to worry, and most doctors agree that it is doubtful if they should even be told about it all. There is no need to tell them because their condition requires no treatment. It will not cause symptoms, if they simply don't know of its existence. And it will not shorten their lives.

Even more constant and persistent types of high blood-pressure, so long as there is no disease of the heart, the blood vessels or the kidneys, can be comparatively innocent. And remain so for many years without giving rise to any symptoms at all.

It is a fact that many patients never have any symptoms until they are told about their high blood-pressure. Then they begin to worry about it.

After that they may have what we call functional symptoms. A patient who has these symptoms is not imagining them, but they are rather like pegs on which he hangs his worries about his blood pressure. They may be such symptoms as a sense of fullness in the head, headache, dizziness, pain in the chest or palpitations.

Concern about their own blood-pressure is more harmful to these people than the blood-pressure itself. New drugs are constantly being put on the market to cure high blood-pressure. In their place many of them are of great value, but they can set up a vicious circle.

The more drugs are given, the more the patients have

their blood-pressure checked to see the effect of the drugs. And then the more they worry about the results. And yet they are really in the same state as many thousands of men and women who go about feeling quite well, but unexamined and quite unperturbed.

What is it they fear? They may carry a secret dread of being suddenly struck down with a stroke or a heart attack. But if it has been proved that there is no serious underlying disease, their fears are groundless. Every experienced family doctor has several patients of this type who have remained in the same state for ten, fifteen or twenty years without any deterioration of their general condition.

These people must do the one thing that they probably find most difficult. *Stop worrying.* Perhaps they ought to reduce the pace at which they live and couple this with a slight reduction—not a drastic limitation—in eating, drinking and smoking. They can be helped by mild sedatives, but no drastic drugs are necessary or advisable.

There are, of course, certain cases of high blood-pressure where, without treatment, the outlook is not good. It is in these cases that the new drugs now available are of immense value. Experiment and research are going on constantly and the position looks most hopeful even in the treatment of the most serious cases. Although treatment with these new drugs requires pretty close medical supervision, it is effective. In most cases the drugs will bring the blood pressure down and enormously lessen the risk of dangerous complications.

As with so many other problems, drugs alone are not the complete answer. Many of these people live at high pressure and it is essential that they should reduce the *tempo* of life considerably. A good proportion of them are over-weight, and it is important that they should make a determined effort to reduce their weight to normal. Weight reduction is a serious business in these cases and it has to be taken seriously.

Forget it.—*Above all,* the patient with any form of high blood-pressure should *not* regard himself as an incurable invalid. He is not. He should not go at frequent intervals to have his blood-pressure checked. He would be far better to forget all above it. The actual figure of the blood-pressure reading is of no great consequence.

"Aren't you going to take my blood-pressure, Doctor?"

This question, spoken at the door of the surgery when the doctor is about to say goodbye, is usually asked by a patient who has supposedly come on some other errand. This situation is typical of the person who knows he has a raised blood-pressure and is worrying about it far more than the doctor.

The doctor has probably gone into the whole subject thoroughly. He knows all about the blood-pressure. He knows whether there is any underlying

disease and if the condition is a potential danger. The patient has probably been reassured and advised to dismiss it from his mind. But that is what he will not do, and every time he comes he tries to manoeuvre the doctor into taking his blood-pressure again. He could not do himself more harm if he tried.

Beyond a certain peak there is a general tendency for the blood-pressure to fall with age. On the whole, old people suffer more from the effects of low blood pressure than high. Those who do have a high blood-pressure often feel better than those with low blood-pressure.

Statistics show that high blood-pressure is less dangerous to elderly women than to men of the same age. There is, in fact, an old medical saying, "Old ladies thrive on high blood-pressure," but old ladies usually lead a gentler life than old gentlemen. Taken by and large, they smoke less and drink less, and probably eat much less. If they worry, they are more likely to worry about smaller and less pressing problems. They are more given to restful occupations like knitting and sewing.

All through life women are less restless than men, and here lies their advantage. If men would only try to model their lives on those of the most placid women they know, they too might live reasonably and well in spite of their high blood-pressure.—(*Family Doctor*, London, September 1958).

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Home Convalescence

Many people can be released from a hospital two to three days after an uncomplicated operation and cared for at home until fully recovered. From a ten-year study of early hospital discharges, they list these advantages:—convalescence is shorter and pleasanter; the family doctor has a more prominent role in caring for his patient; family and employer get the patient back sooner; the hospital has more beds available, and it costs less for the patient. The patient must be in good general health, and comfortable and walking; there must be someone at home to care for him; the family doctor must be available to check his progress, change dressings, remove sutures and give drugs as needed. Generally, they say, people who have had appendectomies, thyroidectomies or hernia operations can be sent home on the third day.—(*G.P.*).

Daily spells of dizziness:—were suffered by a young woman. Allergy tests showed she was sensitive to sweet potatoes; but because she only ate them once or twice a year, that didn't seem to be the cause. It happened that a consultant, an otologist, was a stamp collector and knew that postage stamp mucilage is made from sweet potatoes. In her job, the girl had to lick stamps every day. She was given a sponge to moisten the stamps and her dizzy spells disappeared.—Dr. Gordon D. Hoople, Otolaryngologist, Syracuse Medical College.

I cannot give you the formula for *success*, but I can give you the formula for *failure*—try to please everybody.—(*Herbert B. Swope*).

CHILD'S DEVELOPMENT

Part V: Eleven to Twelve Years

(Continued from page 245 of HEALTH for Nov. 1958)

JACK HARRISON POLLOCK

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RECENTLY the most illuminating information about the puzzling adolescent years has been uncovered at the Gesell Institute in New Haven, Connecticut.

Many of the adolescents studied at the Gesell Institute were observed regularly from infancy and early childhood. "We grew up with many of the children," explains Doctor Ilg, the Institute's pædiatrician-director.

Result:—The trail blazing Gesell adolescent study, offers new and reassuring hope to parents in understanding and guiding their growing sons and daughters.

11 years: divine and obnoxious.—"What happened to our wonderful 10-year-old child?" many puzzled mothers and fathers now ask. An untamed lion, the average 11-year-old tries to rebel from home, school, and church authorities. Some typical remarks of 11: "Oh, he stinks!" "She's a real dope!" At his worst, 11 is a rude, argumentative bundle of energy who shouts, threatens, wriggles, tumbles, flies into rages, holds grudges, blames others for his own faults, and makes himself generally useless or obnoxious around the house. Yet away from home, he can often behave divinely!

Jealous of younger brothers and sisters, no other age gets along as badly with them as does 11. Even if she is an angel, mother is now the butt of the child's sharpest criticism. Many 11-year-old boys and girls now do things just to spite their mothers!

Eleven also tries to *alibi* out of household chores. Some girls swear "because it sounds real grown-up." But boys swear when they get mad—or hungry! A boy now seems to be endlessly opening and closing the refrigerator.

A 11-year-old is ready to fight for his bedtime rights, citing evidence when "other kids" go to bed. He can be allowed certain latitude on weekends and vacations, but parents should crack down other times, advise Gesell experts.

Eleven often turns on the radio while doing his homework. A new interest in popular phonograph records is appearing. In books, this age prefers animal, insect, and nature stories. Eleven is also beginning to thumb through popular magazines.

Boys get into first fights over the most trivial things. But the quarrel is only half of the pattern; making up is the other. Girls also get intensely "mad" at each other but patch up things when they spend the night at one another's house. Though

boys cheat more, girls are more likely to steal—especially merchandise on shop counters. Sometimes these excitement-seekers go in groups of three or four to shoplift.

This age wants a tough, challenging teacher who won't "treat us like babies." The most endearing teacher "cracks jokes." A favourite method of competition is pitting boys against girls in spelling, arithmetic, and history games. Eleven tires easily and illness often keeps him out of school. Because a youngster's temperature often ranges from hot to cold, many 11-year-olds continually open and shut windows. When finally let loose in late afternoon, a pupil is apt to run wild.

The typical 11-year-old girl is very conscious of her breast development and occasionally complains to mother about nipple area soreness. When one breast develops faster than the other, there is frequently a nightly check-up. Though many girls are pleased by these growth signs, others embarrassedly hunch their shoulders to hide the evidence.

Girls' attitudes towards boys of their age is often: "They're all pests!" Another girl described an admirer thus: "A shrimp, he weighs only 59 pounds and is awful skinny."

The typical 11-year-old boy weighs less than half of what he will at 21 and now shows less outward puberty signs. Some boys have a "fat, blown-up" look. Many are now curious about why girls sometimes don't go swimming. The sixth grade is a good time to help boys and girls understand sex through well-tried films, believes the Gesell Institute.

Though girls now are beginning to want a chestful of beautiful clothes, boys want money—lots of it! Allowances are often saved to buy a violin or bicycle. Eleven is now starting to judge you and other grown-ups critically as individuals. Your child isn't rebelling against you personally but against his own complex inner depths.

Keep your demands few but firm. Some parents get 11-year-old cooperation by making deals: "You help me wash the dishes and I'll help you with your homework." Others make lists of things they want their youngsters to do—and let them choose, say, three out of 10 items.

12 years: wildly enthusiastic.—Boundless enthusiasm typifies 12. No wonder he needs a period of idleness or day dreaming from time to time—it's nature's way of recovering from this too-intense enthusiasm.

A child now "loves" everything. A girl's favourite expressions include: "I adore him!" "It was divine!" "I can't wait till tomorrow!" "Wonderful!" "Oh, joy!" But her opposite feelings are often equally intense. Though she may love tomato juice, she may hate stewed tomatoes. One of her men teachers may be perfect—but a woman teacher impossible!

Warm, bubbling, outgoing 12 loves to take the initiative. Your child will now often arrange a picnic, cook a meal, organize a school project, or start a juvenile newspaper. In 1860, a 12-year-old girl wrote to candidate Abraham Lincoln persuading him to grow a beard.

Many 12-year-olds now use the library regularly. Before going to a movie, 12 first wants to know who is in it and what it's all about, and if it's well-done. Some boys take on paper routes to earn money, and girls start baby-sitting outside the home.

No longer is clothes-buying a problem, even though clothes are still purchased with mother. If scarves are in style, girls will want them. If corduroy pants are in fashion, boys will demand them.

Besides clothes, many new possessions clutter up a 12-year-old's room, including pictures of school teams, dogs, horses, movie stars, clippings, and ticket stubs. This age gets along much better with mother, father, and younger brothers and sisters.

Now more interested in boys than *vice versa*, girls often try to sit near them in class. Some boys begin hiding girls' pencil cases or wallets. A girl often leaves a party unhappy because a boy didn't ask her to dance or spoiled everything by clowning or rowdiness. Parents should provide the necessary control at parties, advise Gesell experts.

At 12, a girl usually takes her biggest physical step toward womanhood. Her breasts fill out, and by the end of 12, most girls have started to menstruate. Many ask their mothers to keep it a secret, especially from their fathers. They don't mind a best friend knowing, though.

A boy now usually knows about, even if he hasn't experienced, ejaculation. Erections now occur often from non-sexual excitement including rope-climbing, bike riding, fear, and rage. A 12-year-old boy may prefer getting sex information from a friendly counsellor than from his parents. If he does turn to a parent, it is generally to his mother. Lacking a counsellor or an understanding parent, a boy will secure his information (or misinformation) from playmates or the dictionary.—(*Today's Health*, July 1958).

Know Your Own Weaknesses

It has been my experience that the people with a gift for society—the best friends, the most humane judges, the wisest statesmen—are people who have given much time to finding out about themselves, to measuring frankly their own weaknesses, and so learning through much error where their happiness, and hence their usefulness, lies. The man or woman who tries to live up to the public picture or the neighbour's picture of him is an anxious one. So with nations as with people, they can best negotiate from strength when they know their own weaknesses.—(*Alistair Cooke in an address*).

VITALITY from the BEEHIVE

EVER since the days of the Olympic games of ancient Greece, athletes have been eating honey as part of their training, since it increases their endurance and mental alertness, gives them quick recovery. Today, honey plays a big part in the training diets of mountain climbers and swimmers.

Honey alleviates one of mankind's greatest scourges, the hang-over. Dr. Oluf Martensen-Larsen, Denmark's leading alcoholism expert, discovered that honey is a simple, effective cure for the morning-after condition.

To sober up twice as fast, and to lessen the effects of alcohol on the body, Dr. Martensen-Larsen gives this simple remedy: Eat a quarter-pound of pure honey, wait a half-hour, then eat another quarter-pound.

Why is this natural sweet a magic rejuvenator? Honey's "magic" lies in its chemical composition. Taking the nectar and pollen of flowers, bees transform it into the most ideally digestible source of energy. Naturally fortified with vitamins, minerals, and medicinal properties, it is an almost perfect food substance for any diet.

As a carbohydrate, honey is a simple sugar. It dissolves easily in the digestive system, is absorbed quickly. It is the only natural sugar of its kind—being 99 per cent pre-digested when it reaches your table.

The dextrose or lævulose in honey is the sweetest of all sugars; it is also the mildest, the easiest to digest, and the best source of quick, lasting energy.

Compare these easily digestible qualities of honey with those of refined, white sugar. Refined sugar is a nutritional death-trap that holds its victims in its clutches, while robbing their bodies of all vital nutrients. It is one of the most dangerous and lifeless substances ever palmed off on the public as food.

White sugar cannot be classified as human food, it produces nothing that is sustaining to the vital organism. The essential quality of food is its ability to sustain.

Since there is no sweetening material better than honey, it should always be used in preference to refined sugar. Its use can protect you against diabetes, nephritis, chronic kidney disease, and many other disturbing conditions.

Honey is "oats for the heart." It is the power supply for this most important organ. This biological power engine we call our heart must keep on working and, at the same time, must absorb its fuel without interruption.

With honey, the heart can refuel while the motor is running throttled down. This is not the case with refined sugar.

Man's use of honey as food, preservative, and medicine dates back to the earliest days of recorded history. The ancients believed this natural sweet meant a great deal to their survival.—(*Herbert Jenkins*).

Are You A Hypochondriac?

(TEST FOR YOURSELF)

"TWENTY simple questions" is a game you can still play without a television set and this pattern of posers just might give you a diagnosis that only very brave doctors dare make" says John Wakefield.

Pencils and a piece of paper are the only equipment needed for this highly personal research. Just tick off the answer that sounds like you and scribble down (*a*) or (*b*) or (*c*) or (*d*) all according.

1. *When a casual acquaintance asks a casual "How are you?" do you*

(*a*) make a suitable noise; (*b*) say "Not too bad"; (*c*) say "Not at all well"; (*d*) describe your symptoms in elaborate detail?

2. *When you first get up are you*

(*a*) in rude health; (*b*) reasonably fit; (*c*) not quite up to the mark; (*d*) surprised you are still here and able to get up?

3. *If your doctor congratulates you on your splendid condition, is he*

(*a*) a grand chap; (*b*) mistaken; (*c*) incompetent; (*d*) a liar?

4. *Last time you were ill for any reason, did your doctor*

(*a*) tell you to stay in bed for a couple of days; (*b*) advise a complete rest and time off from work; (*c*) prescribe a brand-new wonder-drug, never before used in this country; (*d*) say he'd never seen a worse case in twenty years?

5. *When you were getting better, did you tell your friends the doctor said*

(*a*) it was just a chill; (*b*) it was touch-and-go for a while; (*c*) you just missed a complete breakdown; (*d*) nobody else could have survived such slings and arrows?

6. *If you get a funny feeling in the back of your neck, do you*

(*a*) think about something else; (*b*) wonder what it could be; (*c*) ring up the doctor; (*d*) start to wonder how your husband/wife will manage on their own?

7. *In your opinion does your doctor*

(*a*) do his best for you; (*b*) do his poor best for you; (*c*) fail to give proper weight to your theories; (*d*) lack all sympathy?

8. *When you tell friends about your condition, are they*

(*a*) properly sympathetic; (*b*) reasonably interested; (*c*) mildly bored; (*d*) offensive?

9. *Are you quiet confident that your troubles are*

(*a*) shared by thousands of others; (*b*) unusual; (*c*) rather special; (*d*) unique?

10. *Do you find your work when you struggle back to it*

(*a*) pleasant; (*b*) bearable; (*c*) irksome; (*d*) just too much for you?

11. *When you catch cold, do you*

(*a*) just cough and sneeze; (*b*) run a temperature; (*c*) have a feverish chill; (*d*) just miss pneumonia?

12. *If you get a twinge in your back at the week-end do you*

(*a*) stop gardening; (*b*) send out for a bottle of liniment; (*c*) have a couple of days in bed; (*d*) start at arthritis in the medical dictionary and work down to Zoophobia?

13. *When recovering from your cold or your twinge can you eat*

(*a*) anything that's set before you; (*b*) most things; (*c*) nothing rich because of your liver; (*d*) only a few steamed scraps?

14. *Do you use aspirin, sleeping tablets, sedatives or tranquillisers*

(*a*) when the doctor orders! (*b*) seldom; (*c*) just once a week to be on the safe side; (*d*) every day because they are the only things that keep you going?

15. *When you get a pain is it*

(*a*) just a pain; (*b*) a gnawing pain; (*c*) excruciating; (*d*) quite indescribable?

16. *When the doctor prescribes medicine for you, do you*

(*a*) stick to the prescribed dose for a day or two; (*b*) finish the bottle off; (*c*) go back for more; (*d*) pour it away because you know no medicine can help you?

17. *During a dizzy spell, do you*

(*a*) sit down for a bit; (*b*) cut down on smoking; (*c*) try that bottle of medicine Aunt Emmy left; (*d*) retire to bed and insists on a complete overhaul?

18. *Now you come to think about it, is your heart?*

(*a*) in the right place so far as you know; (*b*) all right now you have checked it; (*c*) given to stopping and starting; (*d*) upside down, or surrounded with damp wind?

19. *Do you feel fittest when dressed in*

(*a*) as few garments as necessary for comfort and decency; (*b*) sports clothes; (*c*) warm underwear for safety's sake; (*d*) long woolly drawers and red flannel?

20. *If asked to describe your present ailments, would you say*

(*a*) got none; (*b*) nothing much wrong; (*c*) it would take too long; (*d*) it would take too long but that won't stop me?

(*Now turn to page 280 for your score*)

Try the Things You're Bad At

It is a great pleasure to do something you are good at. It is a small but unarguable one to do something you are bad at. Last summer I cleaned an outdoor overflow tank, removing from it the conglomerate evidence of a violent winter and spring. I did it awkwardly, slowly, doubtless stupidly, but with a peculiar satisfaction, richer in certain ways than the satisfaction I get in writing this essay, which is a job I know I can handle with passable competence.—(Clifton Fadiman in *Any Number Can Play*).

STEP LIVELY!

(You can improve the way you walk—and feel better for it)

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Myron Stearns writing in *Family Herald*, says:—"Without being aware of it, you walk at least two or three miles, possibly six or eight, every day—stepping from room to room, about an office, to the car and back, shopping. Hours of it. But *how* you walk rarely occurs to you. Why should it? You developed your own particular walk so long ago that it has become a part of you.

But the way you walk is also a part of your posture—so much so that it helps to determine how you feel at the end of the day. Consequently, you can improve your sense of well-being by learning to walk better.

Just what is a good walk? Dr. Lulu Sweigard, long a teacher of posture and a leading authority, says: "An ideal walk is easy, graceful and rhythmical, with no waste motion. You step straight ahead, using the whole length of the foot. Try to avoid twisting or swaying your hips. Breathe deeply, as though you were breathing up and down through a well in the centre of your body, right down to your diaphragm. Your three big weight-masses—hips, chest and head—should be in an erect straight line.

"We develop our walk-pattern as children," Dr. Sweigard continues. "Later, all sorts of things—sickness, badly fitting shoes, the habits of people about us—change this pattern."

Take the matter of toeing in or out. Red Indians toed straight ahead; they were natural walkers and covered great distances tirelessly. But from childhood most of us have been taught to "toe out." It's supposed to look better. Yet it means loss of efficiency, rolling forward off the side of the foot, increasing the danger of an in-turned instead of a straight ankle.

Notice the way others walk. A young semi-invalid I knew began watching from her bedroom window the walks of passers-by. Many of them instead of carrying themselves blithely erect, walked in a sort of "toppled S" pattern: forward to the hips, slanting backward from hips to shoulders, and then the head thrust forward again. You can observe the same thing in the walk of many acquaintances. How much unnecessary work, my invalid friend wondered, did muscles have to do when a person walked like that, instead of with the big weights (hips, chest and head) balanced one directly above the other? She started thinking about the degree of muscle-strain that might be saved. Eventually she regained her health and became a leading teacher of posture.

As you watch others walk, you will become increasingly aware of your own walking habits. And if they are wrong habits, you will see how they may be corrected.

"Many people," Dr. Sweigard says, "take steps that are two

short or too long. Each person has to find his own right step, of course. If the other things are right—toes straight ahead, legs swinging straight ahead with a minimum of wiggling or swaying of the hips, the shoulders relaxed, letting the arms swing naturally, good breathing and rhythm—the length of your step will regulate itself without exaggerated effort on your part."

Listening to the way individuals walk—perhaps in a corridor outside an office, in the entrance hall of a block of flats, coming up the steps to your home—will explain better than words the matter of rhythm. You will note that few people walk with any bounce, or lilt. One foot usually comes down harder than the other, a step that is anything but rhythmical. Or you may hear the uncertain, foot-dragging shamble of a tired or listless person. Presently you will find yourself listening to your own walk and trying to make it more rhythmical, more alive and enthusiastic.

New walking habits can be formed only through constant, concentrated practice. But the rewards are well worth working for. Anything that you can learn to do with greater ease and less effort, hour after hour and day after day, will increase your chance of better health. Consider how the blood, after being pumped from the heart through the arteries far out to the extremities, manages to get back to the heart again, largely against the pull of gravity. Among other things it's helped along by innumerable tiny muscle tissues within the veins. Like all our muscles these tend to take their tone and vigour from the condition of the greatest in each group; improve your big walking muscles, among the strongest in your body, and your entire circulatory system, prime key to health, is bettered.

The greatest reward of all, however, is the sheer joy of walking. When I was an undergraduate I left a camping party one moonlight night and walked 15 miles back to college. I did it in just under three hours, carried along by a tremendous elation that I still remember. I became more and more aware of that miraculous thing, the human body: my body, functioning in what seemed perfection. I have never forgotten the thrill of it. And I have recaptured it, in part, many times in the course of less ambitious walks.

Blind men tell me that one of the most important things in their training is to learn to step out boldly and confidently; once they learn that, other things become easier. To improve your walk does not require the courage needed by a blind man to step off into blackness; but it does require confidence, self-discipline and the conviction that you are improving yourself.

Remember that both your mind and your emotions are inextricably related to your muscles and your muscle tone. By improving your walk—and by *walking*—you will improve your posture, benefit your general health and add to your sense of fitness and well-being.-(*Reader's Digest*, August 1958).

The Care of the Eyes of School Going Child

During school life we meet with some new as well as some old problems in the care of the eyes. Fresh activities bring new dangers, and by mixing with a larger number of people there is greater chance of infection. So at this age parents and teachers need to be particularly watchful to prevent trouble.

Smallpox:—A child vaccinated in infancy, when he enters school at the age of five, will not have sufficient protection against this illness. He must be re-vaccinated before he starts school, and again every five years during school life, or more frequently if there is smallpox in the neighbourhood. If vaccination is properly done it causes very little discomfort.

The protection of the child during play:—We should teach our children:—(1) Not to let off fireworks unless a grown up person is present along with him; (2) not to play with dangerous toys, such as pop-guns, and sharp arrows, etc. and (3) not to run whilst holding a sharp pen or pencil, and to sit down when using scissors.

Improper diet as a cause of eye-troubles.-*Vitamin A deficiency*:-The lack of this vitamin can be recognized in school children by dryness of the conjunctiva (the skin covering the eye), and sometimes by chalky triangular patches on the exposed white part of the eye. In serious cases the cornea (the middle part of the eye) also looks dull and lustreless. All these signs are serious and when you see them you should take the child to your doctor for advice. By the time a child has reached school age it is possible to recognize another sign of this deficiency—night-blindness.

A child who is night-blind cannot see as well at night as he does by day, and may even run into a tree at night. Most children of this age are able to tell us if they find it difficult to see at night. This is an early sign and the deficiency can be easily cured and further damage to the eye prevented by giving the child a tea-spoonful of shark liver oil twice a day. But the very fact that the child is night blind shows that he is not getting enough Vitamin A in his food, and unless this is put right the cure will not be permanent. He must if possible eat at least some of these foods every day milk, eggs, sweet potatoes, green leafy vegetables, and those fruits which are red or yellow inside. So try to grow papiya, drumstick, and mango trees round the house, and fence off a small piece of garden in which to grow vegetables.

An ill-balanced diet causing pain and burning of the eyes:—If we want to keep in good health we must eat several different kinds of food. The food eaten in the poorer homes, and often in school hostels consists chiefly of rice and other grains with only small quantities of the other essential foods such

as pulses, milk, *dhal*, green leafy vegetables and fruit. Such ill-balanced diet with its excess of starchy foods may be one of the causes of burning and pain in the eyes. Other signs of this faulty diet are sodden white patches at the corners of the mouth, and a sore tongue which is often found in school children between the ages of nine and eleven. He or she, for it is often a girl, is growing fast, and is always hungry, and readily eats any available food. As this is usually starchy the diet becomes very ill-balanced. The remedy lies not in decreasing the amount of rice eaten, but in increasing the amount of other kinds of food.

Two drops of the zinc and boracic eye drops should be put into the eyes twice a day.

Note:—If the child is not better in a day or two he must be taken to a doctor or an eye hospital, as this faulty diet is only one of the causes of pain and burning of the eyes.

Pain due to inflammation of the eyelids:—Several kinds of germs or viruses make the inside of the eyelids, red, painful and swollen. If the lids are swollen a few drops of the zinc and boracic eye drops can be put on a clean cloth and rubbed into the edges of the lids. Then after any discharge which may be present has been washed away, put two drops of the same eye drops into the eye twice a day. Instead of this you can of course use any special drops given you by your doctor. This will usually relieve the pain and swelling.

Trachoma:—This is an inflam mation of the eyelids which is far more difficult to cure, and which if not treated properly will cause a great deal of trouble in later life. For this reason you must consult a doctor or go to an eye hospital for advice for any eye trouble which is not quickly cured.—(*The Journal of the Christian Medical Association*, March 1958).

How Did You Fare?: *(Answers to Quiz p. 276)*

The scoring is painless and goes like this. You count 5 for every time you ticked off (*a*), 3 for every (*b*), 2 for (*c*) and 1 for (*d*).

If you have scored over 90, you are either inhumanly fit, or outrageously untruthful.

With a score between 70 and 90 you are a reasonably normal and healthy being with just enough worries to keep you happy.

With less than 70 and more than 30 you should begin at once looking for something worth worrying about outside yourself. If your score is less than 30, then you are a confirmed hypochondriac and you are likely to remain that way until the end of time.—(*Family Doctor*, September 1957).

The common idea that success spoils people by making them vain, egotistic and self-complacent is erroneous; on the contrary, it makes them, for the most part, humble, tolerant and kind. Failure makes people bitter and cruel. —(Heinemann).

THE VALUABLE PRUNE

(And its Great Dietetic and Nutritional Virtues)

Prunes had their origin in Western Asia in the area near the Caucasus Mountains and the Caspian Sea. Then Central Europe and the Balkan states became the great prune-producing areas. To day about three-fourths of the world's prune crop comes from California. The fertile, mild-weathered Santa Clara, Sonoma, Napa, San Joaquin, and Sacramento valleys there provide ideal growing conditions.

In spring the prune trees have beautiful fluffy white blossoms. About August 15th the fruit is mature and fully developed and ready to be harvested. An average tree will produce from 150 to 300 pounds of prunes a year, whereas spectacular ones have been known to bear 1,100 pounds.

The age-old question of "When is a plum a prune?" may be answered this way. All prunes are plums but all plums are *not* prunes. Only those varieties of plums which can be sun-dried without fermenting while still containing the pit become prunes once they are dried.

The most popular variety is the French or *prune d'agen*. It was brought to California in 1855 by a French immigrant, Louis Pellier. These are unsurpassed in quality with their high sugar content, fine texture, and smooth, small pits.

When completely ripe, prunes fall or are shaken to the ground, from which they are gathered by hand. Sun-drying was the original method for drying prunes, but is rarely used now. Today practically all prunes are dried by artificial dehydration. Filled trays are stacked and placed in dehydraters where air flow, air temperature, and humidity are carefully controlled by the use of forced draft and artificial heat. Prunes are sufficiently dried for storage in 18 to 24 hours. About two and a half pounds of fresh fruit dry out to become one pound of prunes.

During recent years there have been notable improvements in both processing and packaging of prunes.

One of these important improvements has been in the curing of the fruit. The old-fashioned method of drying prunes in the sun, with its many disadvantages, has given way to controlled dehydration in modern dehydration plants. Prunes "in bulk," packed in open boxes, have largely been displaced by prunes in modern, convenient, tightly sealed consumer packages which bring the fruit to the consumer in a more acceptable condition.

Cooked prunes have moved from their traditional position of an inexpensive dessert into a preferred place at the breakfast table and as an ingredient of many salads and desserts.

Prune juice before breakfast has become a *must* for many people.

Prunes in their many forms are an indispensable part of special dietaries. Pædiatricians and geriatricians in particular,

not to mention proctologists, are relying heavily on the benefits of prune-containing diets. Low sodium diets practically unknown twenty years ago are commonplace today, and so are special reducing diets in which nutritional balance is so very important.

Prunes have exceptional nutritional value above all the nine other commonly eaten fruits, *viz.*, (1) Bananas, (2) Raisins, (3) Oranges, (4) Pine-apple, (5) Peaches, (6) Apples, (7) Grapefruit, (8) Lemons and (9) Pears. Prunes have the highest over-all rank, being first in Vitamin A, first in Vitamin B_2 and first in Niacin. On the basis of vitamins per average serving, prunes are richest in Vitamin A, richest in Vitamin B_2 and richest in Niacin.

Prunes are again definitely in front when compared with the same nine fruits for important minerals, as they have the highest rank for Iron; highest rank for Copper; second rank for Calcium and second rank for Phosphorus.

So when you alternate them on your breakfast table you enjoy a high nutritional balance of important vitamins and minerals.

Whether you alternate peeled oranges, or a glass of orange juice, with a dish of prunes for breakfast, or eat your oranges or prunes as purchased, these two fruits ideally complement each other in important vitamins and minerals.

California Prunes have long enjoyed a reputation as a gentle natural aid to regularity. As tested by the techniques of Magnus, Macht, and Eddy, the laxative properties of prunes are not due entirely to colloidal or emollient effects in the intestine, as has been previously supposed, but would seem to depend also on their containing an agent soluble in water, alcohol, and pyridine.

Results of Cowgill-Anderson tests indicate that the laxative qualities of prunes are not lost when combined with other ingredients as in prune bread. Water extracts of prunes (prune juice) also exhibit laxative effects. This is both important and convincing.

While this property seems to be evident in prunes whichever way they are consumed, some people who eat prunes primarily for their laxative quality report better results when the prunes are eaten raw just as they come from the package. They act only as a gentle stimulant so that the results are in every way natural and normal.

"Working all morning without breakfast is like spending money before we earn it," according to a professor of human nutrition. Prunes are a wholesome, hearty fruit and ideal for breakfast since they are a rich source of energy.—(Condensed by T. N. S. R. Chari from a booklet on *The Valuable Prune*, by C P.A.G. Association of California).

Most people say that *as* you get old, you have to give up things. I think you get old *because* you give up things.—*(Senator Green*, on completing 87).

PUBLIC HEALTH PROGRESS IN CHINA

LI HSIU-CHEN

Deputy Director, Plague Prevention Department, Ministry of Public Health of the People's Republic of China

The movement for the elimination of the four pests (flies, mosquitoes, rats and grain-eating sparrows) and the observation of public health rules are highly important measures in the health protection programme of the people of New China. It became an all-out patriotic campaign throughout the whole country in 1952, both in the urban and rural areas. As a result of the extension of this movement since then, some of the dreadful contagious diseases like schistosomiasis, kala-azar and malaria etc., have diminished, and in certain counties, municipalities etc., they have been practically eradicated.

In 1958, when the wave of the nation-wide leap forward movement in socialist construction reached its height, the patriotic public health campaign has also made great achievements. Beginning from the winter of 1957, when the movement was launched, up to the present, in a short period of only about ten months, enormous numbers of rats, sparrows, mosquitoes, flies and other harmful insects were exterminated. Numerous areas were freed of the four evils entirely, and a significant change has been evident in the hygienic aspect of town and country, also in the sanitary conditions in individual hygienic habits.

The present improved condition of the Chinese village is well brought out in the following poem:—

"I have passed through countless villages.
All the streets are clean!
The snow-white farm houses look attractive and new,
Against a background of green wheat ripples.
They give me a pleasant feeling.
A new spirit permeates the village life.
Who cannot but feel great happiness!"

The Chinese people have come to realize that the elimination of pests and the promotion of public health help promoting labour efficiency, developing rural economy and generally raising the standard of living of the people. Though busily engaged in agricultural and industrial pursuits, almost the entire population under the guidance of the People's Government are coordinating their work with public health activities.

Not only male adults and children, but also women take an active part in the campaign. In some cases, women play a positive role and quite a few of them became leaders in the movement.

The spirit of mutual aid and co-operation is fully manifest in the organization teams designed to help the sick, crippled, lying-in or pregnant mothers.

Under the leadership and encouragement of the ruling party

organizations at various levels, the campaign for the promotion of public health and elimination of the four pests will certainly progress further and permeate more deeply among the great mass of the people. At present 733 counties and cities have practically been freed of the four pests. In the course of the campaign, the initiative and creative spirit of the masses have been brought into full play and utilized for the prevention and control of epidemics. This popular mass movement has caught on and is playing a positive role in speeding up the building of a strong socialist China, where modern industry, modern agriculture and modern science and culture will bring great happiness to the people.—(Condensed by T.N.S.R.).

CURE FOR INSOMNIA

FREDERICK BIGELOW

MANY of those who suffer from sleeplessness will agree that it is the bad habit of night-thinking that keeps them awake. What can we do to break this habit—to rid the mind at bedtime of worries, excitements and apprehensions?

There are certain simple procedures that should be of inestimable help. The writer has learnt, for instance, to employ one apparently childish device with such effectiveness that when clamorous thoughts come between him and sleep, he can banish them instantly.

Imagine that your mind has taken the form of a large school slate which rests on your knees. Imagine, further, that automatic writing by an unseen hand records before your eyes every thought that intrudes upon your resting mind. Fortunately, you are armed with a damp sponge, and you are quick to erase every thought that appears upon the slate. You are watching the slate with all the alertness of which you are capable; and the game is to erase the writing as it appears, before the unseen hand can even complete a single sentence.

You must keep your slate black and clean at any cost.

Does it sound absurd? Well, it brings results.

Again, nothing could be easier than to imitate the slow, deep, rhythmical breathing of sleep. Do it thoughtfully and critically. Listen closely to the sounds you make and notice if your breathing is smooth and regular. You will find something soothing in the very listening. What is more, you will notice that this close attention to your own breathing helps to keep out intrusive and irritating thoughts.

It is quite likely that after a very few minutes a sense of peacefulness and well-being will steal over you. In a moment or two the rhythm of simulated sleep will become the rhythm of sleep itself.

There are other resources at our command. Every medical man knows what can be accomplished by the proper sort of bath.

The unfortunate thing about it is that the more unpleasant your bath the more effective it will probably prove. You are not permitted water of genial warmth, nor a vigorous rub-down. Your bath must be of such a tepid temperature that you emerge almost shivering. You must pat yourself dry. After this you will find yourself a little damp and chilly.

You make a bee-line for bed and put your light out, thoroughly hating yourself. Presently the chilliness begins to abate and a mild, genial warmth takes its place. As you become more and more comfortable, there follows a blissful period of 15 or 20 minutes during which, if you put the brakes on your racing mind, you have a good chance of sleeping.

To utilize the same principle when you wake in the night and fail to drop off to sleep again, try this: throw back the bedclothes and remain uncovered until you have become uncomfortably chilly. Then cover up again and see if sleep does not come to you as you get warm.

Another resource to invoke is reading in bed. But you must have proper pillows—not mere bed pillows but hair-stuffed cushions that offer a firm support and hold the body comfortably upright to make reading easy on the eyes. When reading to induce sleep, the writer recommends non-fiction rather than fiction. Hard books are better than easy ones.

This use of books is to force the brain upon the horns of a dilemma. It is required either to engage in vigorous action that would tax it under the most favourable conditions, or to surrender unconditionally to sleep. Readers who have never tried this method will be surprised to see how readily their minds will surrender.

We often hear patients complain that they fall asleep easily enough, but wake in the early hours of the morning and cannot soon drop off again.

The writer would offer these imperfect sleepers one practical suggestion in which he has great faith: he would ask them to make a habit of keeping their eyes closed when they wake. The sharp impact of even moderate light upon the retina may drive sleep farther away.

None of these suggestions will put you to sleep—that is the business of nature.

They will, however, give nature a chance to go about her routine without avoidable interference. The mind is a creature of habit, and new habits cannot be established instantly; but ten consecutive nights of trying out any of these ideas should show which are most helpful in your own case. Give them a fair chance, and you may be rewarded far beyond expectation.—(Condensed from *Hearst's International-Cosmopolitan* for *Reader's Digest*, Nov. '58).

"FROZEN SLEEP"

New Frontier in Surgery

(By chilling patients to subnormal temperatures, surgeons are now successfully performing operations that once meant almost certain death)

J. D. RATCLIFF

NOT long ago French physicians reported a case of a woman, seven months with child, struck with eclampsia, the dread convulsions of pregnancy. The one slender hope of saving her life was surgical delivery of her infant, and in such cases the chances of saving the baby's life are virtually *nil*. To calm the convulsions and to increase her chances of surviving the operation, the doctor used hypothermia, "frozen sleep." Unavoidably, the infant was also cooled. Not only did the mother recover; the baby lived too.

How does hypothermia work? Patients are first put to sleep by conventional methods and then cooled. When body temperature is dropped from a normal 37° C. to 30° C., oxygen requirements are cut approximately in half, and all bodily activity jogs along at well below its normal rate. Normally, brain cells, the most sensitive in the body, cannot get along without oxygen for more than three or four minutes without damage. With mild hypothermia the time can be doubled or trebled—thus giving, in operations where the heart is stopped, for instance more time for major repair work.

Suggestions that hypothermia might be of value in the operating room first came from observations in the animal world. Faced with stress situations such as winter-food-shortages, many animals hibernate, reducing the flame of life to a flicker. Their body temperatures may drop at times to a few degrees above freezing; their heart action may slow to two or three beats per minute; metabolism may be reduced to one-fiftieth or normal.

Eighteenth century surgeons noted, for instance, that when limbs about to be amputated were packed in snow, pain was minimized and shock reduced.

In the late 1930's and early 1940's, Dr. Frederick Allen of New York performed hundreds of experiments with chilled laboratory animals. His work led Dr. Lyman Weeks Crossman and his associates at the New York City Hospital to pioneer "refrigeration anæsthesia" in such surgical cases as amputations and in the treatment of severe and extensive burns—overcoming shock, pain, infection and toxæmia.

Beginning in January 1953, Dr. Henry Swan and colleagues of the University of Colorado School of Medicine in Denver immersed anæsthetized patients in baths of ice water until temperatures dropped as low as 21·1°C. Hearts of cooled patients were clamped off for as long as eight and a half minutes with

no brain damage—ample time for intricate surgery. Of the first 15 patients thus treated there was but one operative death.

Sample case: a 26-year-old woman was weakened and wasted to invalidism by an ailing heart. The trouble had been pinpointed as a hole between the two heart chambers. Blood, instead of being pumped in orderly fashion, swished to and fro through the opening. The patient was anæsthetized and cooled to 22·2°C. Then the heart was clamped off. It took the surgeons seven and a half minutes to enter the quieted organ and stitch up the defect. Two months later, the patient was able to resume household duties.

While hypothermia pioneers were recording such triumphs, other research groups were building heart-lung machines which would take over the heart's pumping function and the ærating function of the lungs. With such machines, it was hoped, surgeons would be able to stop hearts and have all the time they wanted for operations. But drawbacks soon appeared. Machines large enough to take over the entire pumping job of the heart (about five quarts a minute), were costly, intricate, difficult to manage. Smaller, cheaper machines, which pumped one or two quarts a minute, worked well but failed to supply the brain's oxygen needs. Haste was still required in open-heart operations.

A number of surgeons now asked:—*Why not combine small heart-lung machines with hypothermia?*

Conventional methods of cooling patients—by immersion in ice-water, applying ice-packs or using blankets containing brine-circulating tubes—took one to two hours to drop temperatures to 30°C. The warming-up process was similarly long and tedious. There must be a quicker way, thought Dr. Ivan Brown, of the Duke University Medical School. Why not, for example, cool the blood as it was being pumped? Then the blood-vessels themselves would carry it to all parts of the body, cooling the patient in a matter of minutes rather than hours. After surgery the blood would be rapidly rewarmed by the same process. Work with animals indicated that such a procedure might work with humans.

In Britain, the great pioneer of heart surgery, Sir Russell Brock, directed his laboratory technicians to construct a simple blood-cooling machine. From 1953 he used it at Guy's Hospital for many of his operations with great success. In 1956 Dr. Brown asked the Harrison Radiator Division of General Motors if, as a public service, company engineers would design a blood-cooling apparatus. Eight months went into its creation, and it turned out to be a marvel of ingenuity. Hot and cold tap water is piped into the compact heat-exchanger, a modified shower valve plus a delicate thermostat mixes the water to the exact temperature wanted. It is then circulated round small stainless-steel tubes which carry the blood.

In 30 operations, the heat-exchanger has cooled or warmed patients in six to ten minutes. By giving the precise temperature wanted with such rapidity, it has, says Dr. Will Sealy, "in many cases represented the margin between success and failure."

Dr. Brown had such a case. One of his patient's four heart valves was all but closed with calcium deposits. After cooling *via* the machine, Dr. Brown clamped off the blood supply to the heart, approached the valve by the way of the aorta—the main artery from the heart. Opening the valve to normal size and suturing the point of entry required six and a half minutes. Then the clamps were removed, the patient rewarmed to normal temperature. The surgeons were on the point of closing the chest, when an event occurred which under other circumstances might have spelt disaster. A portion of the suture line along the delicate, weakened aorta gave way.

"Start cooling again," Dr. Brown directed. Speedily he was able to clamp off the heart once more, and to reinforce the weakened aorta with Ivalon, a synthetic spongy material. The patient made a normal recovery.

Hypothermia is proving a powerful ally in brain surgery, especially in the treatment of aneurysms—where weakened brain arteries balloon out, threatening to burst and cause sudden death. With a patient cooled to about 30°C. and the brain's main blood-supply cut off for periods of up to 20 minutes, surgeons can now set to work repairing such weak spots with new confidence.

Hypothermia has also proved useful in controlling raging fevers, in repairing injured or diseased arteries and in aiding the recovery of patients suffering from head injuries. An injured brain tends to swell, pressing against the skull wall; major blood-vessels may be pinched, or centres which control respiration or body heat may be choked off, causing death. Because hypothermia minimizes swelling, accident victims are sometimes cooled for periods of up to two weeks, permitting healing while the patients are in peaceful sleep.

Not long ago, for example, a 65-year-old man, struck by a taxi, suffered broken legs, abdominal and head injuries. In a coma when he reached the hospital, he was given almost no chance of recovery. But five days in hypothermic sleep put him on the road to recovery and at the end of three weeks he was released from hospital. In Dublin a badly shocked man of 82, with a perforated intestine, was kept under hypothermia for nine days and made an excellent recovery.

Says Dr. W. G. Bigelow: "It is quite possible that within the next few years prolonged interruption of the circulation at very low temperatures will be achieved."

When and if this happens, extensive unhurried operations beyond the reach of today's scalpels may well become the order of the day.—(Condensed from *Liberty* in the *Reader's Digest*, for Nov. '58).

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AUTHOR and SUBJECT INDEX

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AUTHOR INDEX

HEALTH 1958—SUBJECT INDEX