# Tire 8 alth MATIONAL LTH JOURNAL

JANUARY 1942 57th YEAR OF PUBLICATION \* Symptoms of Heart Trouble

\* Hope for Nervous Disorders

\* Why You Need a Health Checkup

\* Food Combinations

\* Beware the Pork Parasite

\* Pain in the Leas

# The Younger Generation Chooses



\*HESE newlyweds have made health the first line of defense for a better and stronger America. They will have a balanced diet and a balanced program of living. It means radical changes in eating habits.

But what to do about coffee! Health demands steady nerves, not coffee nerves. A shopping tour discovered ZOY-KOFF, the hot drink that gives real pleasure and satisfac-

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MADISON COLLEGE,

YOUR



- ► MEDICAL terms are confusing to the lay-man, and no wonder! For instance, "estrogenic" to the doctor became Esther Jenny to a troubled subscriber who wrote us.
- ► STOMACH ulcers and other peptic disorders are a real problem in the British military service, for about one fourth of the medical cases of the army are due to these ailments.
- ▶ ROACHES may soon have their powder made up in Nile blue. This isn't specially blended to suit their personality or complexion, however. Fatalities have occurred in mistaking white roach powder for baking
- LIKE a glass of reindeer milk? Reindeer sent to the Canadian Arctic from Alaska have been found to be much healthier than domestic cattle. These herds, says Doctor Had-wen of the Ontario Research Foundation, are not bothered with tuberculosis and contagious abortion.
- ► ONE out of six Washingtonians (D. C.) carries the trichinosis parasite. This high incidence was revealed after examining 2,300 specimens of post-mortem material from Washington hospitals. This percentage is believed to be indicative of the infestation in similar group populations elsewhere in the United States.
- DOCTOR LEHMAN of the Ohio State University says that the greatest thoughts of the world are contributed by young men between thirty-five and thirty-nine instead of by the older men. Doctor Lehman arrived at his conclusion after making a study of the philosophers of the last five hundred years, notthe ages when they produced their best works. This doesn't mean that we shouldn't listen to grandpa.
- ► TUBERCULOSIS and venereal diseases are being methodically attacked by our health departments, but alcoholism, which is perhaps our greatest health problem, receives but little more care than the local jail can give, says Science News Letter. And there are 100,000 sufferers from this condition. Dr. Horatio M. Pollock of the New York State Department of Mental Hygiene estimates that mental ailments due to alcohol cost the United States annually more than \$178,-000,000.
- ► RATS whose diet was supplemented with the B vitamins were found less susceptible to noise than those on a regular normal diet. This reaction was reported by Robert Patton of the University of Pittsburgh. Just what relation the behavior of rats under these circumstances might bear to the behavior of human beings, is not clear, but there may be something in this to think about. Perhaps the adding of B vitamins to British bread may help lessen jittery London nerves, and cases of breakdowns.

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#### Coming Next Month

Nor a cold, we hope, but you will find "Some Helpful Facts About Colds" in the February issue. The doctor calls the common cold Public Malady, No. 1. . . . Tired, rundown, easily fatigued, feel the need of a tonic? Then read, "Don't Waste Money on Tonics." The best tonics are very inexpensive, within the reach of anyone. . . . Water is good for washing, and drinking, but it's also a good medicine, in fact, about the best. The first of a series on water treatments. . . . An article for expectant mothers and expectant fathers, too, "How Expectant Mothers Can Keep Healthy." . . . "Stay Away From Diet Chuck-holes," Part II of the series, "Driving Rules on the Highway of Life." . . . "Septic Sore Throat and Other 'Strep' Infections," Part II of "Contagious Diseases of Childhood." . . . Something all housewives long to serve, "Dinner Dishes You Will Remember With Pleasure," with lots of recipes. . . . "What Modern Science Can Do to Help Your Vision." You've often wondered about all these instruments the doctor uses when he tests your eyes. This article will tell you why. . . . And all the helpful information in the many departments, counsel that will aid you in everyday living. February is famous for great men. The February Life and Health will be remembered for its good articles.

# LOOK FOR YOURSELF

This chart indicates what Dole Pineapple Juice contributes to the daily allowances for specific nutrients recommended by the Committee on Food and Nutrition of the National Research Council. The left-hand column gives recommended amounts. The right-hand column represents the percentage of the recommendations found in a 6-oz. serving of Dole Pineapple Juice.

Percentage contributed to daily	ed to daily THIAMIN B1			ASCORBIC ACID C		
recommendations by a 6-oz. serving of Dole Pineapple Juice	REC. N.R.C. MGS.	DOLE	REC. N.R.C. MGS,	DOLE		
AVERAGE WOMAN Moderately Active	1.5	20%	70.	17%		
X Very Active	1.8	17%	70.	17%		
Sedentary	1.2	25%	70.	17%		
Pregnancy	1.8	17%	100.	12%		
Lactation	2.3	13%	150.	8%		
AVERAGE MAN Moderately Active	1.8	17%	75.	16%		
<b>%</b> Very Active	2.3	13%	75.	16%		
Sedentary	1.5	20%	75.	16%		

Authoritative analyses and assays accepted by the Council on Foods and Nutrition of the American Medical Association show that a 6-oz. serving of Dole Pineapple Juice (approximately 100 calories) contains 240 I.U. (12. mg.) of Vitamin C (Ascorbic Acid) and 100 I.U. (0.3 mg.) of Vitamin B<sub>1</sub> (Thiamin).



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### DOLE Hawaiian Pineapple Juice HAWAII





If you have pains or other symptoms which make you feel that you have heart trouble, don't get excited and worried. Read what may be their significance. Page 8.

THE will to keep well is what most of us need-the will to reduce, the will to take things easier, the will to take time for exercise, sufficient sleep. Page 10.

School days, and the first bouts with contagious diseases. See that your child is protected in every way. Page 12.

PAINT does more than pretty up your house; it serves as an effective seal against moisture and deterioration due to oxidation or rot.

DISAPPOINTMENT and defeat come to every one. We are not singled out for these experiences, but we must learn to face them with fortitude, courage, and faith, believing that they are just another hurdle in life to be taken in our stride. Page 14.

In children leg pains, or growing pains, are serious and should not be treated lightly. In adults they may signify arthritis or just unromantic flatfoot, but both of these conditions need attention. Page 16.

WHEN your body engine begins to "squeak" and spit and sputter, you'll wish you had had it checked earlier and had necessary repairs made. A word to the wise is sufficient. Page 17.

THE facts on food combinations. Have you wondered about them? Page 19.

One in six is infected. Trichinosis, not easily diagnosed, is altogether too prevalent. Page 20.

Is nicotinic acid the same as nicotine? See editorial statement, page 36.



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#### Our Editorial Policy for 1942

OST of us leave 1941 with few regrets and enter 1942 with some forebodings. National defense and war are the topics of the day. With the political and international import of events a journal like LIFE AND HEALTH does not deal. But there is one feature of national defense that comes very definitely within the orbit of our editorial policy, that is, better health.

One of the most encouraging developments of the whole defense program is the emphasis being given to health. Never before in the history of the country has so much been said of the significance of health in relation to national stability. Both governmental and private agencies are vigorously promoting health principles. And most particularly they are discussing health in terms of diet.

All this is very interesting for a journal that looks back over half a century of time and recalls the long, uphill task of arousing the public to the vast importance of good health, and especially the relation of proper diet to good health.

As we enter 1942 we do so with our editorial policy and emphasis unchanged. We shall continue our calm, practical instruction on preventive medicine. We shall present articles that tell mothers and fathers, housewives, young people and children, how better to care for their bodies, so that they can maintain buoyant health and ward off disease. We shall speak of the value of such seemingly simple things as exercise, rest, and right mental attitudes. But above all we shall stress the importance of proper diet.

#### New Features in This Issue

With this issue we begin a further enlargement of LIFE AND HEALTH. Those who have been subscribers for the last few years have noticed a steadily enlarging number of pages. From now on the journal will contain forty pages each issue.

Looking through this number you will note three new features that will appear regularly. It is a well-known fact that sickly animals may cause sickness in the home. A veterinary surgeon will write each month on "The Health of Your Pets." If you are going to keep a pet in your home, keep it healthy.

From time to time we have published groups of recipes from sanitarium chefs under the title, "Favorite Recipes." These have met with such a hearty reception that we are providing regularly, beginning with this issue, a column of such recipes.

The health of the mind, it is now realized by eminent medicos, has much to do with the health of the body, and certainly a great deal to do with one's zest for living. You will find in this and succeeding issues a column entitled, "Your Mental Attitude."

In this issue also is found an article on the deadly pork parasite. The facts it presents are rather disturbing. A grave malady that afflicts one in six of the population might properly be described as a national menace. Worst of all, there is no cure known for this malady, trichinosis, which is produced by the pork parasite.

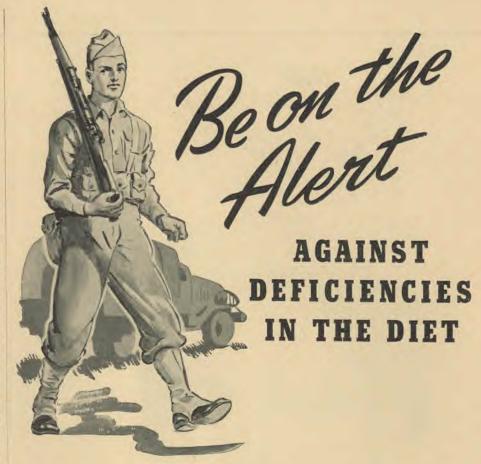
This article reflects the findings of a special Trichinosis Commission created by the New York State Legislature in 1940. The commission held extended hearings for a year, and gathered a large amount of very valuable data from medical authorities and other scientists regarding the prevalence and the menace of the trichina, as the pork parasite is called. The findings are published in a legislative document of 282 pages. The chairman of that commission, the Honorable Thomas C. Desmond, is the author of the article which appears on page 20. We are glad that we can bring to our readers an authoritative, factual article like this.

The commission's report gives definite instruction on how to escape trichinosis. The chief protection, we are told, is to make sure that the meat is cooked for a sufficient length of time at a certain temperature. This, to state the matter a little inelegantly, will ensure your eating dead trichinae instead of live ones. LIFE AND HEALTH presents no instruction regarding the temperature required for cooking, or any other similar precaution. We simply advocate complete abstinence from pork, in harmony with our view that a nonflesh diet is better. We are aware that some will smile and say, faddist, when they hear that we approach this matter from the vegetarian standpoint. But we will live through that -and so will the trichina! You can't laugh off trichinosis.

#### Our Advertising Policy

As a result of our opening our columns to advertising, you have been seeing various advertisements appearing in increasing numbers. But what you have not seen are the ones we rejected. They range all the way from matrimonial agency ads to tobacco ads. And in between is a motley array of items, some not very bad. But they just don't measure up to the standard of LIFE AND HEALTH. Of course we lose revenue. But our reputation is worth more than revenue. And the good will and confidence of our subscribers rate higher than cash.

You can depend on the ads you see in Life and Health. And we invite you to patronize these advertisers. They and their products are in every way reliable. The revenue received from these advertisers is used to produce a bigger and better journal—for you. As Life and Health has steadily enlarged to make room for more ads, it has also increased the number of pages devoted to articles. This January issue contains forty per cent more articles and editorial features than did the average issue of five years ago. But you pay no more now than then!



DIETARY deficiencies are the Fifth Column against health. Robust health and stamina are primary essentials for both individual and national defense.

Nutritional scientists tell us that American diets are more liable to be deficient in vitamin B<sub>1</sub> than any other essential food factor. Deficiencies in iron are also quite frequent.

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THE BATTLE CREEK FOOD CO., Battle Creek Michigan

# Skipped Beats, Skipped Beats, Palpitation, Porney Mean

# HEART



How many times have we seen this and similar headings in our current periodicals? Is it any wonder, then, that Mr. Average Citizen becomes worried when he believes there is something wrong with his heart? These hearts of ours are often blamed for many unpleasant sensations for which they are in no way responsible.

Your heart may put on many a queer and disturbing performance if the stage is set just right, for it is very intimately connected with the colon, the brain, and the stomach. The delicate nervous network which connects these organs is far more complex than is usually realized; and colic, cramps, or emotional disturbances anywhere along the network may set off a really alarming heart performance.

Many well-informed people know that shortness of breath, pain in the region of the heart, swollen ankles, and palpitation, associated perhaps with fainting spells, are signs of heart disease. What they may not know is that all these symptoms and signs may occur in the absence of heart disease or in unimportant disorders.

One of the most common conditions which is frequently mistaken for heart

disease is that known as soldier's heart, or effort syndrome. This is also sometimes called athlete's heart.

When a healthy person is taking strenuous exercise, he experiences certain symptoms or changes in function which are associated with that activity. The most constant of these is breathlessness, which comes during exercise and continues for a variable time afterward in gradually lessening degree. He may become aware of his heartbeat, may feel giddy, may actually faint. Rate and depth of breathing are increased. The heartbeat is more rapid and forceful and blood pressure is increased during exercise. If strenuous effort is continued, the tremulousness and weakness of exhaustion are noted, and later, perhaps, the lassitude and aches of fatigue. To this group of findings has been given the name "physiological syndrome of effort."

In the condition known as effort syndrome these same symptoms of breathlessness, palpitation, and possibly an ache in the chest, figure prominently. The main difference between physiological syndrome of effort and effort syndrome is the ease with which the symptoms are brought on in those who suffer with the latter condition.

The cause of effort syndrome is not well understood. An affliction of city dwellers, and found frequently in soldiers or athletes drawn from this group, it is probably due to an instability of the nerve control of the heart. Sometimes these symptoms are caused by disease in other parts of the body. Chronic infections are common offenders, and the condition is sometimes noted in those recovering from tonsillitis, pneumonia, or influenza. It may simulate true heart disease quite closely, and tax the skill of the physician to determine the true state of affairs.

Of all the disquieting symptoms noted in connection with the heart, that old bogy known as "missed beat" is probably the chief. Since it occurs not infrequently in the normal heart, most of us have at one time or another experienced it, and therefore it is one of the most commonly complained of symptoms. To most persons any interruption of the wonderfully regular rhythm of the heart is a fateful

# TROUBLE?

#### A

HAROLD E. JAMES, M. D.

thing which fills the soul with dread and conjures up all sorts of visions of serious heart disease. The explanation of missed beats is relatively simple. Something, probably a slight irritation, produces a premature contraction of the heart, one out of order. This may be so feeble as to pass notice, but it empties the heart chambers and uses up the immediate store of vital energy of the heart muscle. Then there is a long, frightening pause while the heart gathers energy for another contraction, and the owner decides that his heart has missed a beat. Irritations are, as we have suggested, the most frequent cause of this missed beat. Overeating, constipation, excessive use of tea or coffee, tobacco, focal infections, worry and fearyes, anything which provides a source of irritating impulse-may cause missed beats. Unimportant? Probably so; but it might be well to look into the reasons why the old heart is getting touchy and restless. Perhaps it's cigarettes; then stop smoking. Tapering off won't help much here. And, after all, the way to stop smoking is to stop. It is interesting to note, too, that many a jumpy heart has settled down after the owner has had an infected tooth or a pair of smelly tonsils removed.

Palpitation is another disturber. We have already mentioned it in our discussion of effort syndrome. Increase in the rate of heartbeat occurs normally when one exercises. We note an increase also when in high altitudes where the oxygen content of the atmosphere is low. This increase is due to the lowered oxygen content in the body cells, in the one case due to increased consumption with overproduction of carbon dioxide, and in the other to the low oxygen intake. In either case the tissues demand more blood, and the rate of heartbeat increases to supply it. There are times, however, when the heart seems to run away with itself; then the increased rate, which may be anything up to double the normal, or more, may become very disturbing.

Our causes are again usually irritative ones. Fatigue and exhaustion, with the resulting increase in fatigue poisons in the blood, may be responsible. Gas pres-

sure resulting from faulty action of the colon is a very common finding. Tea, coffee, tobacco, and alcohol all cause a noticeable increase in pulse rate, and if taken in quantity, especially on an empty stomach or when one is tired, they may induce an attack of palpitation which may last for several hours.

It is interesting in this connection to note that the heart rate is always increased after the first smoke of the morning. A susceptible individual who smokes is likely to suffer from a continued increase in heart rate. This is sometimes alluded to as "tobacco heart." Infected tonsils, sinuses, or teeth, and fright may also be causative factors. Certain it is that whatever the cause, a wildly palpitating heart can give the owner and the doctor a really bad time.

Pain is a bogy probably next to missed beats in order of frequency. To the average person, pain in the region of the heart is usually associated with thoughts of angina and sudden death. We may be reassured, however, by the knowledge that most pain in the region of the heart is of no importance except as it may cause discomfort. So-called "heartache" and sharp, needle-like pricking or stabbing pains are frequently experienced by nervous persons who are tired.

There are a number of other causes for pain in the region of the heart. The pain associated with arthritis of the left shoulder region with involvement of one or more of its several joints may be and often is mistaken for true heart pain. Sometimes it is not easy to differentiate them, though the pains of arthritis usually are relieved by appropriate local treatment, such as heat. Injuries to the left shoulder or left chest often produce an aching pain which the sufferer feels must originate in his heart. Sometimes the discomfort does not immediately follow the injury or the strain, but is felt some time later, after the injury is for-

REVSTONE

Find Out What Causes That Pain in the Region of the Heart—You Ought to Know

gotten, perhaps in the wee small hours, to torment the sufferer with morbid fore-bodings. Perhaps that stubborn pain may be traced to an old, long-forgotten pleurisy, awakened by a cold or some exposure. An inflammation of the nerves which run between the ribs in the chest wall may provide a real problem for both patient and physician.

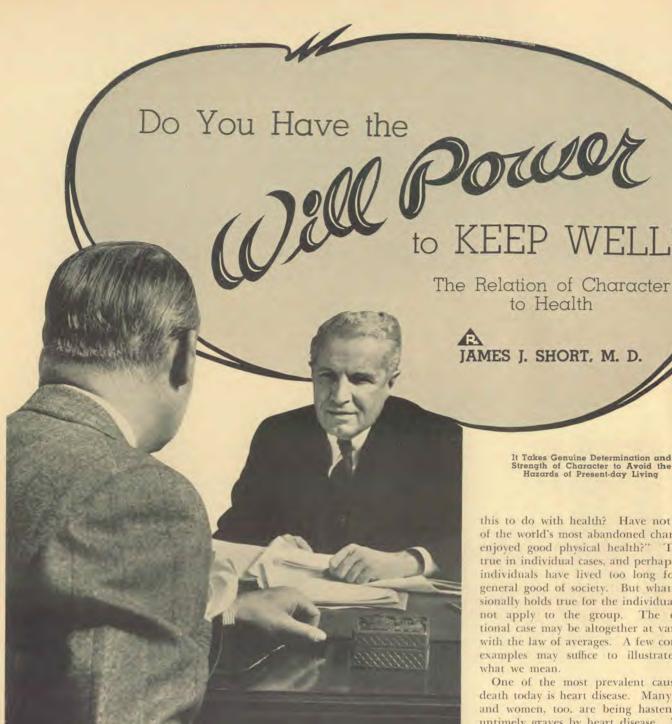
In this connection there is the case of a young man whose principal concern was trouble of a different nature, but there was a neuralgic pain in the left chest for three or four days. This did not respond to the ordinary treatment for intercostal neuralgia. It was a stubborn pain which caused him to wonder if perhaps the doctor was wrong and maybe his heart did have something wrong with it. It proved to be just an ordinary case of shingles, but provided him with a few days of troubled thought before the eruption spreading on the chest wall confirmed the diagnosis.

Indigestion is a very common source of "heart" pains. Especially is this true when gas forms and causes pressure on the heart. Besides producing pain, this pressure may stimulate palpitation or cause missed beats, which makes the sufferer almost certain that he is in the throes of a heart attack. Most people now know that the old-fashioned complaint of "heartburn" is just an attack of indigestion with an oversupply of acid in the stomach.

A few years ago while working among the hill folk of Western China and eastern Tibet, we found that one of the most frequent complaints heard in our clinic

(Continued on page 37)





H. A. ROHERTS

YEW realize the close relationship between character and health. First, just what is generally understood by the term "character"? As here used it might be defined as the power of selfdiscipline, for there is involved the thought of adherence to a code of principles imposed from within. The expression, "a strong character" usually implies the adoption of sound governing principles which the individual has established in his own consciousness to govern his course of conduct. The expression, "a weak character" implies the reverse of this. By the degree of consistency with

which one adheres to a self-disciplinary code we are inclined to measure his strength of character.

A certain wise man once said, "Train up a child in the way he should go: and when he is old, he will not depart from it." By this he meant that if correct principles were firmly established in childhood, the individual in old age would still adhere to those same principles. Perhaps to the failure on the part of parents to observe this admonition is due much of the heartbreak, misery, and disease so prevalent today.

"Yes," you say, "but just what has all

It Takes Genuine Determination and Strength of Character to Avoid the Hazards of Present-day Living

this to do with health? Have not some of the world's most abandoned characters enjoyed good physical health?" true in individual cases, and perhaps such individuals have lived too long for the general good of society. But what occasionally holds true for the individual may not apply to the group. The exceptional case may be altogether at variance with the law of averages. A few concrete examples may suffice to illustrate just

One of the most prevalent causes of death today is heart disease. Many men, and women, too, are being hastened to untimely graves by heart disease. When years of health and activity should still be expected of them, they are suddenly stricken, and lowered into early graves. Why? Let us trace the sequence of events to its ultimate source and see if such a catastrophe could have been avoided, or at least postponed.

Let us first of all eliminate from consideration the factor of heredity. This is an extremely potent factor, but since we have no choice regarding our ancestry, we cannot be held responsible if the heredity factor is not all that is to be desired. Let us consider merely the preventive aspects of heart disease.

Knowledge is always in advance of practice. If we would always do as well as we know, much suffering and disease could be prevented. The most common form of heart disease today, that which is crippling and killing millions of our fellow citizens often in the very prime of life, is that known as disease of the coronary arteries. These coronary arteries furnish to the heart muscle its oxygen and food supply. Closure of these important channels means, at best, a crippled heart muscle; at worst, sudden death. The arteries may close gradually from a long period of degenerative thickening, or suddenly from the formation of an obstructive clot within them. But long before the fatal clot has been formed, degenerative changes have been taking place and arterial channels have been gradually narrowed. Finally the blood stream has become so slowed and the artery wall so roughened that the clot forms, and we read the startling headlines: "John Q. Citizen, prominent businessman, stricken with heart disease." "Well-known manufacturer succumbs at fifty."

Not all cases, however, end so abruptly. Frequently the damage, though severe, undergoes partial healing, and the patient survives to live a so-called "cardiac" life of greatly curtailed activity. Nature then inexorably exacts her penalty, and rules must be obeyed, or else.

"Yes," you ask, "but where?—when? how?" Well, we are coming to that. Where did John Q, fail? When might he have taken steps to prevent the tragedy that resulted in his untimely end? How might it have been prevented? Let us go back.

In boyhood John Q, was a bit willful and headstrong. In child training his parents were far ahead of their time and believed in letting him develop "initiative." Restraint might possibly result in a disastrous inferiority complex which would handicap John in his later career. You have heard something like that before? So John was allowed to have his own way in eating, drinking, playing, and sleeping, almost from the time he graduated from triangular trousers.

He grew into a fine, high-spirited young animal, used to having what he wanted and usually getting it. School and college disciplined him in a certain measure and gave opportunity for sober and serious reflection, so that John became more and more a social being, able to co-operate, and to abide by the conventions. In athletics he did well and developed a strong physique. Later, in business life, his keen mind propelled him ahead with amazing speed, although physical activity diminished in proportion to business success.

But in the realm of appetite John Q. failed miserably. There are no conventions against the indulgence of appetites of natural or acquired origin, with possible minor exceptions regarding procedure. No stigma, for instance, is attached to overeating, or to overindulgence in tobacco, alcohol, coffee, tea, work, or play, provided one does not become antisocial through such practices. In these matters

of appetite poor John remained utterly undisciplined.

Nature, however, is not concerned with the rules and practices of modern civilized society, but vigorously resents and protests every insult to her own laws, and in the end severely punishes infractions of them. John ate too much, drank too much, smoked too much, worked too much, worried too much, played too hard—and died at fifty.

"Of all sad words of tongue or pen,
The saddest are these: 'It might have
been.'"

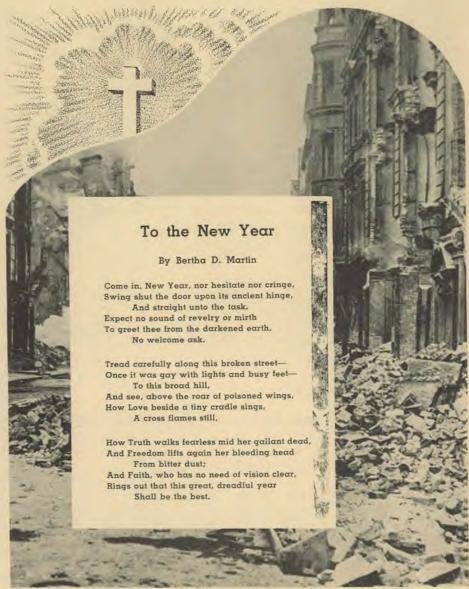
So "it might have been"—different. "Perhaps," you will say, "he knew no better." But he did. From time to time during his active, though brief, career John had had periodic health examinations. Not that he was particularly health-conscious, but he received regular notices from his insurance company urging him to do so. And from time to time he had been warned, persuaded, counseled—all but compelled—to change his practices; to reduce his weight, to eliminate tobacco, to be abstemious in his eat-

ing, to take light exercise, to get more sleep, to be more moderate in his work.

In fact, even before the first slight heart pains began to be felt, he had placed himself under the care of a competent physician with the request that his life be regulated to ensure against a premature breakdown. And he had co-operated—for a while. But not for long. Poor John did not take well to regulation. He was a rugged individualist in personal matters pertaining to his appetites and so-called pleasures, even though he did understand clearly the necessity. He just lacked in his character what it takes to deny one-self.

In the matter of weight, he lost the trim athletic physique which made him a popular figure in college events. Gradually but steadily his circumference at the equator increased until his cronies would occasionally make indelicate jests concerning it. Although this touched his vanity, he was even more impressed by the poor health and longevity records of overweights. The average death rate from

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BRITISH COMBINE

H. M. LAMBERT

Becoming Part of the Social World-Give Her Every Protection

INTER has settled down upon us. Frequently we hear the eerie whistle of the wind on stormy nights; and just as often we hear the eerie whispers of epidemics and contagious disease. As long as our house is well built and prepared for the storms, we shall not need to be alarmed. Similarly, if we are informed about contagious disease and prepared for its onslaught, we shall not need to carry fear in our hearts. Contagious diseases strike hardest at our children. Therefore we would say to parents: Let the common slogan, "Preparedness," be your slogan as

you guide your children through another winter and spring:

Johnnie comes home from school feeling out of sorts. He has a congested nose and a slight sore throat, but his temperature has not risen above the normal point (98.6° F. by mouth). Mother says thoughtfully, "Well, I guess Johnnie's in for a cold," and, in accordance with wise motherly instinct, bundles him off to bed. Her treatment may be summed up as: (1) Perspiration production by a combination of either a hot bath and a hot lemon drink, or a hot foot bath and a hot lemon drink—ending with an alcohol rub

# Common jous

### DISEASES of CHILDHOOD

A

JOSEPHINE WALWORTH-FURNESS, M. D.

or, quick cool sponge. (2) Steam inhalation, or breathing of steam from hot water surfaced with a little benzoin-eucalyptus compound inhalant. (3) Sparing use of a type of nose drops recommended by a physician. (4) Frequent and abundant intake of water and fresh fruit juices. (5) Sleep unlimited. (6) Light diet. (7) Warm air and good ventilation in the sickroom. (8) Isolation from the rest of the family.

The next day, Mary comes home from school looking dejected, and drops into the nearest chair with the announcement, "Mother, I feel sick. My back aches, my head aches, my arms and legs ache, and I feel so tired." The thermometer shows 100° F. Mother follows the same outline of beginning treatment as with Johnnie; but she is aware of a difference between the symptoms of her two children. Johnnie probably has the common cold; but Mary is a good prospect for influenza, commonly called "grippe." The flu gives more fever, is more weakening, tends more commonly to give relapses or chest complications, and requires a longer period in bed.

But—Stop! Look! Listen! Is this "just a cold" or "just the grippe"? Maybe. Maybe not. We are told that fifty per cent of all disabling diseases begin with "just a cold." Most of the more serious contagious diseases begin with "coldlike" or "grippelike" symptoms.

Let us launch immediately our preparedness scheme to cope with the juvenile contagious disease emergency. Our first line of defense must be in everyday living. The child must have adequate sleep, a truly regular and balanced diet, abundant outdoor exercise, an environment that will nurture a healthy mental outlook, a body free of all sources of infection, such as bad teeth and tonsils, and must know and practice cleanliness. These constitute the first line of defense, and must be studied in detail by every

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How to

### PAINT YOUR HOUSE

for Comfort and Permanency

By RONALD S. SENSEMAN, Architect

T is probable that no money spent will show up, dollar for dollar, better than money spent for a good paint job, both in appearance and in prolonging the life of your house.

The chief purpose of paint is to obtain an effective seal against moisture and deterioration due to oxidation or rot. When moisture is absorbed, besides the resulting dampness, the nails loosen, and rust and cracks appear, allowing still more moisture to seep in. The most vulnerable spots are where the wood comes in contact with masonry or the ground, where bacterial action causes rot before the ma-

sonry dries properly.

Every paint job should start with a clean, dry surface. This is an important item, because if there is moisture in the wood, it matters not how much paint or how good the paint is, it will more than likely peel off in a short time. Dirt or dust in quantities will have the same effect, and it is such an easy matter to clean the surface before the work is undertaken that there is no excuse for peeling from this cause. The surface should also be as smooth as possible, for the quality of the finished paint job is in direct relation to the smoothness of the surface. So it is easy to see that there are many variable factors that enter into the finished result and life of the paint-the time of year, the humidity, the amount of sunlight, etc. It is necessary not only to buy the best paint, but to follow the manufacturer's directions in applying it, because thorough understanding of the kind and conditions of surface to be painted is necessary. Brick and stucco present a particular problem; and wood may be high or low in absorption. A good workman will adapt his paint to the kind of wood, using more oil on some, more turpentine on others, so that the priming, or first coat, penetrates the fibers of the wood. Even the best paint may last only about half the time it should if it is applied by someone who doesn't know his business. "Alligatoring" indicates poorly mixed paint or improper drying time. Spotting is caused by insufficient number of coats; a wrinkled surface by a coat too thick or too much oil and insufficient brushing out; cracking and scaling by too hard or brittle a paint; blistering and peeling by moisture; running or sagging by too heavy a coat; too rapid chalking from an incorrect formulation or rapid

temperature changes; mildew stain from fungus accumulation.

There are two general classes of house paint, hard and soft. Either can be white or pigmented. Hard paints require more frequent renewal, but less coating, and they are more satisfactory in appearance. Soft types are inclined to chalk more evenly.

The most commonly used white lead and linseed oil paints and variations are in the soft class; of late, the substitution of a vehicle for the linseed oil tends to put the paint into the hard class.

No paint should be accepted unless it is delivered in sealed packages.

The selection of colors for the house is an item that should be given some study, because you have to live with those colors a long time. It is, therefore, evident that extremes should be avoided. It is not at all necessary to be in strict conformity to the adjoining houses, nor is it advisable to go to extremes to be different. In a cool climate, warm colors should be used, and the reverse in bright climates.

Small houses have a tendency to look larger when finished white. However, it is important to take into consideration the landscape in painting, because there is more interest derived from contrasting shades.

The only contrast that is necessary in the painting of a house is the house itself and those items which are attached superficially. For instance, the window frames should be painted with the house, and the shutters, doors, and roof should be in deep contrast.

The interior of the house is a major consideration, because the opinion our guests have of our house is just what they see; so it should be given a great deal of study or the help of an interior decorator or some other qualified person.

It has been proved scientifically that certain colors have definite reaction on our health and temperament. For instance, certain colors are more conducive to rest than others, and consequently should be used in bedrooms. Other colors are not conducive to restfulness, and could better be used in living areas. Some people have different reactions to various colors, and this should be taken into account when selecting the finish of your rooms.

There are now available what are known as water paints or casein paints which have proved very satisfactory. They cover a wide range of colors, and they have a remarkable coverage. Many times one coat will do a satisfactory job. Water paint goes on rapidly and is easy to handle, even for the amateur. The paint will go on over nearly dry surface and can take an unlimited number of coats, depending, of course, on the surface begun with. One of the most desirable features is its rapid drying. In an hour's time it is dry enough to move in on.

Another feature is its light reflectivity, which far surpasses that of ordinary paints.

However, there is a paint which has even more sensitivity than the casein paints. This is known as flat paint. It is more expensive, but is easier to keep clean and is washable. It can be repainted without danger a greater number of times.

The finish of the woodwork is also a matter of personal taste. For the average job a desirable finish can be obtained by applying an ordinary wood-paste filler with stain added, and then varnishing.

The painted woodwork should be primed and then should receive two coats of enamel, gloss or dull finish. The degree of fineness in the finish depends largely on the preparation of the wood. It should be sanded smooth and voids should be filled, because the paint cannot cover these marks.

The finish of the floor is a real problem, because it receives more wear than any other portion of the house, and consequently it should be so prepared that it will take a minimum of upkeep to keep it looking well.

Of course, there are many methods of finishing floors, but the newer methods have proved very satisfactory and eco-

nomical to keep up.

This method of preserving floors is by the use of a penetrating finish and seal, rather than a covering, as shellacs and varnishes are. These penetrating wood sealers penetrate the wood and fill the pores, and because they are in the wood, they cannot chip off. Worn spots and traffic scars can always be renewed to match the rest of the floors so that they will not need resanding. The manufacturers of these products say that wax is not necessary, but recommend its use. A floor thus treated will not get the grit

(Continued on page 25)

# NERVOUS and MENTAL DISORDERS ALFRED B. OLSEN, M. D. life-are the result of the normal func-

T is a common observation that in some homes one member of the family differs from the others, not so much in form or appearance as in conduct, manners, and personality. He seems to be lacking in ordinary mental endowment, and it is most noticeable in his emotional life. The difference may develop slowly, be very slight and scarcely perceptible at first, except by the trained physician or the mother of the child. Sometimes instead of a gradual mental deterioration, the change is sudden and obvious to all.

If the development is mild and slow, the odd one may not be considered sick at first-only queer. The victim of a seemingly slight mental trouble is often unaware of his affliction, and may consider himself normal or even superior to others. But if prompt treatment is neglected, his morbid behavior soon becomes so conspicuous that it sets him apart from his family, relatives, and friends. If he is a child or an adolescent, the mother rarely fails to observe his faulty development, and she watches and protects him, with many misgivings. This strange development may appear first in childhood. during adolescence, in the later teens or even twenties, at the menopause, or "change of life," or at any other time. Sometimes the peculiarity goes unnoticed for months or even years.

If it occurs in an infant, he is likely to be backward in talking and walking. This portent is more serious the longer the delay in these accomplishments. If the child is in school, he is probably a poor student, although there are exceptions. There is a lack of mental concentration and ability to study and get results. He is not only backward in his studies, but also awkward, slow, timid, indifferent, and

heedless. Although generally stupid and thoughtless, he may excel in some particular branch. Reasoning power is low, and judgment is defective. Further, he is likely to be untidy and unclean in dress and habits. Many are seclusive, and try to remain aloof from their family and playmates.

Most of these children receive too much attention and too many favors from mother, which usually aggravates their trouble. She recognizes their handicap and gives them too much protection. Other members of the family are expected to yield to their demands and let them do as they please, which is not to their advantage.

A few words about the marvelous equipment of man's nervous system, which includes the brain and spinal cord, may help to a better understanding of the condition described above. This controlling and harmonizing organization is composed of a highly complicated and very extensive network of neurons-that is, nerve cells with their branches (the nerve fibers)-which are widely distributed throughout the body. To realize this, try to find a place on the skin which can be stuck by the finest needle without pain. Every one of the countless trillions of living cells, whether in the liver, lungs, muscles, or other organs, except the blood, has its private wire (nerve fiber) connecting with the brain, the central station for the body.

Pain in a cut finger is localized there, and it is said that the finger hurts. Nevertheless the pain is in the head, and if the nerve leading to the brain is severed at any point, the pain ceases at once. The nervous system not only provides all the senses, but also directs and regulates the functions of all the organs of the body. Perspiration, digestion, beating of the heart, respiration, thinking, talking, and acting-indeed, all the activities of

tioning of the brain and nerves.

The Creator has wisely provided the autonomic nervous system, a subsidiary to the physical functions of the body, such as respiration, circulation of the blood, digestion, and elimination. All the internal organs are best managed without interference of the mind, which should be used to provide for the necessary care and enjoyment of life and health. To worry about the heart is to become "heart-minded," a wretched state which causes much worry and misery. Anxiety about the stomach invites one to become a gastric neurotic. Such concentration of the mind on any of the internal organs causes a serious strain, and may lead to a "spell of nerves" or even a nervous breakdown, temporary or prolonged.

Mental disorders should be treated early, when the symptoms are still mild and most amenable to preventive and curative measures. Change of scene, rest, relaxation, and suitable tonic treatment, including electric shock if indicated, in a reputable sanitarium, together with psychotherapy, usually give speedy relief and a return of health. Perhaps the earliest symptom in many cases is a sharp attack of discouragement and despondency following a severe disappointment, a prolonged illness, or a shock due to some sudden loss, such as that of a loved one, or loss of economic security. It is always disastrous to give way to trials or troubles to which most people are subject at times. It is necessary to steel oneself against feelings of hopelessness, inadequacy, deep sorrow, anguish, and remorse, for indulgence of this kind rapidly lowers resistance and opens the door to disease.

This is a world of uncertainty, and disappointments happen to the best of men. Then is the time to insist on preserving full courage, hope, and confidence. A detour out of one's course may be required at times, and sometimes much adjustment to the new way of life is required. One must follow the inevitable path and adapt oneself accordingly, and then maintain a happy anticipation of service and success. The detour may be full of pleasant surprises and achievements undreamed of. Some people seem to get set in their ways and live in a monotonous routine, which, if broken, may cause trouble. Variety in daily life is necessary for most people.

Failure to succeed at times may be a good teacher, for the "school of hard knocks" ranks high among the best training colleges. Why? Because these lessons are invaluable and are rarely forgotten. Just as, according to an old saying, dogs need fleas to remind them that they are dogs, so man requires disappointments and defeats to remind him that he is still human.

The time of the greatest need for courage and confidence is after some frustra-

tion or failure. One may be baffled or balked for a while, but that is no indication that one should give up and lie down. The right thing to do is to try again with renewed confidence, realizing that trial and error are the order of the day.

A higher plane of existence above the clouds of despondency and despair, up in the stratosphere of indomitable courage and good cheer, is demanded. Faith that will bridge floods of disappointment and failure must be developed. Persevering patience and endurance that ensure success are needed.

Remember, "Every tomorrow has two handles. We may take hold of it by the handle of anxiety or by the handle of faith." Then why not determine to cultivate an abiding trust in God, and confidence and fortitude, and thereby gain inspiration and a daily uplift? Giving way to discouragement has weakening effects upon the entire body as well as the mind, and may lead to nervous and mental depression which makes hospitalization necessary.

Morbid fear is the common source of most worries, vague or definite. Illusions and hallucinations with regard to simple and natural occurrences may produce or aggravate fears. A patient said; "I thought I was being kidnaped when I was taken to the sanitarium. When they gave me a bath, I thought they were trying to drown me." Explaining her refusal to eat, she said: "I thought the food was poisoned." This, too, explained why she would not even drink water from a glass, but stood by the running tap and lapped the water from her hand as Gideon's valiant three hundred did at the well of Harod.

With the anxiety born of fear come conflicts which are difficult or impossible to settle, and which therefore lead to unsatisfactory compromises. These breed misunderstanding and confusion. Worries paralyze reasoning power and darken the outlook on life. There is almost constant striving to get rid of this overwhelming, destructive thinking, all of which depletes nervous energy and weakens self-control. Thereby recovery is delayed or may even be prevented. These worrisome thoughts finally dominate the mind, and may cause certain annoying compulsive acts.

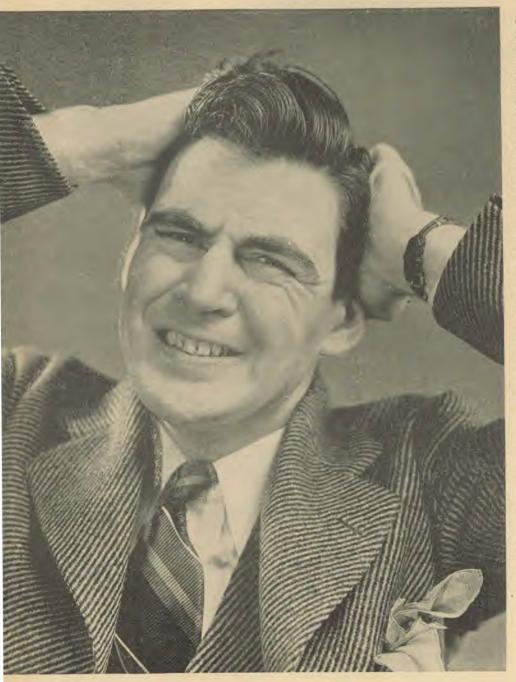
Discouragement and despondency thrive on fear and give rise to regrets and remorse. Relaxation and rest become increasingly difficult, and sleepless nights filled with apprehension and fearsome thinking soon sap vitality. Instead of waking refreshed and ready for the day's duties, one awakens burdened with weariness bordering on exhaustion. Loss of sleep and nervous and mental exhaustion soon make one unfit for the daily task, and eventually lead to a general breakdown. The patient becomes hopeless and helpless, and is often convinced there can be no cure for his misery.

Describing his affliction, a patient writes: "My mind wanders from one thing to another, and always ends up worrying over my condition. And then I ache and burn all over, my heart pounds hard, and I break out in a drenching sweat, while my feet and legs are cold. At times I walk around the house is if I were in a stupor, kind of half here, and I just can't think. My mind is so dumb feeling. Most times I have pain all over my head. Then I have a great deal of pain all up and down my spine, especially back of my neck and across the shoulders. Some-

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H. M. LAMBERT

Hair Pulling Doesn't Help Disappointment or Preserve Courage, Hope, and Confidence





S. M. HARDAN

Perhaps Arthritis, Sciatica, Varicose Veins, or Flatfoot May Explain

# Those LEG PAINS

A WELLS ALLEN RUBLE, M. D.

N considering the location of pain, it must be remembered that its cause may be at the point where it is felt, or at any place along the course of the nerve that is injured, or even at any point along a branch of that nerve. Sometimes the pain may be on the other side of the body from the location of the injury or the disease. This is because there is continuous nerve connection through the nerve center from one side of the body to the other. Pain from one local area of injury may even be felt bilaterally-that is, on both sides of the body-for the same reason.

In considering pain in the legs, we shall speak of the entire lower extremity as the leg. Strictly speaking, the leg is the part of the anatomy between the knee and the foot. For the reason just stated, it is more difficult to locate the cause of a pain in the lower extremities than in almost any other part of the body, for the nerves here are intimately connected with many vital parts of the body. One very definite illustration of this is that disease of some of the pelvic organs may register in the sole of the foot.

One could scarcely start out on a study of pain in the legs without thinking of rheumatism, so called. It is said that the word "rheumatism" covers a multitude of sins, because the word is used so loosely. Even doctors in the past, if they could not immediately identify a pain and its location and cause, would name it rheumatism, and evidently the patient and his friends would take the diagnosis at full value, although the real cause might be diabetes or neurasthenia, and its location might be in some distant part of the body.

One may find this all-prevailing malady in the very young. Every mother has heard of what is called "growing pains," Long before I ever thought of being a doctor or even had heard of rheumatism, I can remember a little friend of mine sitting on a chair with his legs up on another, crying with growing pains. Yes, Johnny was growing and had pain. At that time the significance of "growing pains" was not understood as it is now.

Growing pains are serious affairs, and should be treated with all deference, dispatch, and skill early in life. They are the harbingers of injury and devastation to various parts of the body that may never be overcome or remedied. Very often this condition follows, and is more or less a result of, such a condition in parents or ancestors. Again I can recall that at the time that Johnny was sitting in one chair with his feet up on another, his father was hobbling about on crutches several weeks each springtime with what even then was known as arthritis. There seemed to be no recognition at that time of any relationship between Johnny's "growing pains" and his father's "rheumatism," or "arthritis."

Since then it has been observed and determined that there is a definite relationship between growing pains and later arthritis. Yes, even more than that, it is known that even endocarditis, inflammation of the lining of the heart, or pericarditis, inflammation of the covering of the heart, may be an aftermath of growing pains. In other words, growing pains are a forerunner of different forms of heart disease, arthritis, and other gouty tendencies.

Even St. Vitus's dance is one of the numerous progeny. For this reason it is important that growing pains be considered seriously. Children with any of these tendencies should be treated with care, and should be protected from exposure and fed wisely. Guard, however, against creating in the child a fear of aftereffects. Never even refer to any tendency to afterdisease, lest there be created in the child a neurotic dread of impending danger. Always keep children, as far as possible, from thinking of disease.

Possibly the next most common ailment that causes pain in the legs is sciatica. Sciatica is an inflammation of the sciatic nerve and its sheath. It is in many cases preceded and accompanied by lumbago. The origin of the disease is often at the root of the nerve as it leaves the spinal cord. Sciatica is a neuritis. Sometimes it is incited by exposure or strain or other injury. Often it is an outward expression of a general nervous exhaustion or depression. The body soil is made ready for the seeds of infection by long mental and bodily strain, the tissues are rendered susceptible to the infection, and sciatica is the result.

Medicines are of little value in the treatment of the disease, and are of use principally in allaying pain. Heat seems

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Had Your

# HEALTH CHECK-UP?

Driving Rules on the Highway of Life—Part I

A

JOSEPH MOSSBERGER, M. D.

mustached nuisance—this fellow who carries around a black bag and makes their pains his business. And, if you're a Kentuckian with your home five miles off the highway, this fellow to you is also a tradesman who will swap a pint of some flavored concoction for your particular pain, plus a dollar or two thrown in.

But, sad to say, this concept of a doctor is by no means limited to the wooded hills of Kentucky. America is populated throughout with people who are blissfully unconscious of the mechanism they walk around in-until something goes wrong with some part of it. Then with painful, nonfunctioning, worn-out appendages or organs, they drag themselves finally to the doctor's office, after making the round of family and drugstore remedies, to demand a potion that will immediately and permanently rid them of their trouble. There it is, the one thing that gets a physician's back up: somebody coming to him as a last resort, begging for an effervescent elixir that will bubble his complaints away.

Now I'm holding no brief for the doctor, nor am I screaming like a meemie about the way the crowd behaves. I'm just talking—presumably to an average American citizen with a little more than ordinary intelligence. Let us assume that you are average (as I say, with more than your share of intelligence) and that you have a little son, say nine years old, who comes home from school one afternoon and fails to ask for the usual slice of bread and jelly. In fact, he hasn't eaten his lunch. "Jus' didn't feel like it," says he. "Besides, my stomach hurts, an' I think I'm gonna throw up!"

Remember now, you're an intelligent mother. So right away, you think about the little boy five houses down the street who had similar complaints last week, and Reckless Driving Always Exacts Its Penalty

was well in no time. So you call up your neighbor, who tells you that her aunt said that the boy had "intestinal flu," and that a hot towel to the abdomen for fifteen minutes every two hours did the trick. Very specific and definite. Suits you fine.

So your son, you see, gets the heat for fifteen minutes every two hours. That is, until your husband comes home. Now your husband, successful in his business and therefore unusually superior from an intellectual standpoint, insists, after looking at your young son's tongue, that it isn't "flu," that it's just plain colic—"like I had once, when I was a kid. Mother fixed me up in short order with castor oil and a sugar enema!"

So—your little son gets the oil and the enema. But somehow he doesn't feel any better. You decide, after careful deliberation, that maybe you ought to send your husband to the drugstore to get some medicine.

In the meantime you've called your mother to come over. You advise her over the telephone that your boy's head feels awfully hot. By this time your husband is back from the drugstore with a large bottle of purple colic medicine; and soon your mother is there with a box of "fever" tablets that "worked wonders on a little neighbor girl just yesterday." Well, your son immediately "gets the works." The purple medicine goes down. The fever tablets go down. Your son keeps going down!

Finally, in desperation, you think of a hospital and a doctor. Yes, you'll take him. At the hospital a young man in a white coat thumps your boy's chest, mashes on his stomach, sticks his finger with a needle. "Brutes," you think, "these young doctors!"

They wheel your son, who says he feels better now, into the operating room. You wonder why they want to operate when he's feeling better.

Surgery over, your son is put to bed. Then the doctor gets blood from your arm and puts it in his arm. Other relatives donate blood. Your son lingers two weeks. The grim reaper takes him. The death certificate says ruptured appendix with diffuse peritonitis.

The question is: Who killed your boy? My thesis is the one propounded by Ovid centuries ago when he said, "Too late is the medicine prepared when the disease has gained strength by long delay." Your son—we hope he is a hypothetical one like that mentioned above—represents that vast throng of people who died last year from appendicitis, who could be living healthily, happily, this year had they made it a point to see their doctor regularly, at least to see him when a danger signal was given.

The greatest advance in medicine has been along preventive lines; yet people simply refuse to apply the available methods of preventing disease and prolonging life. Periodic examinations by a competent physician would have saved your boy. Calling the doctor when your son first came home would have saved him. "But," you sob convulsively, "we've never needed a doctor before; we've always been healthy." Your sobs and excuses and all just don't bring back your boy.

(Continued on page 25)

# THE DIETITIAN SAYS CONDUCTED BY LUCILLE J. GOTHAM, DIETITIAN

This department serves as an aid to our readers in their dietetic problems. For information regarding some particular food or diet, address: The Dietitian, Life and Health, Takoma Park, Washington, D.C. Enclose stamped addressed envelope for reply. This service is available only to subscribers.

#### Greens

Must one eat greens to get the necessary minerals in the diet?

Green leafy vegetables are so very rich in iron and calcium as well as the recently discovered vitamins and the chlorophyll now known to be especially healing, that we could almost call them indispensable. It is true, of course, that whole-grained cereals, nuts, and fruits have many of these same properties. The fact that seven ounces of mustard greens give a day's supply of calcium, and about seven times the daily requirement of vitamin C, shows their importance.

#### Orange and Lemon Peel

Please tell me whether orange and lemon peelings are harmful to eat. I enjoy eating them, but friends say they give me rheumatism.

The peelings of the citrus fruits contain some richly flavored essential oils, and these probably have value. It is possible that they are placed in the outer layer of the skin merely to attract us to the fruit. In general the skin is composed of tough, unappealing material without much food value as far as is known at this time. There are some who use the skins of these fruits, but almost everyone finds them unsatisfactory as an article of diet. Such citrus fruits as oranges, lemons, grapefruit, tangerines, pineapples, and tomatoes are rich in vitamin C, and certain types of rheumatism seem to be relieved by taking an abundance of these foods.

#### Soy Oil

Is soy oil wholesome and satisfactory as a cooking fat?

Now that olive oil is so difficult to obtain, because of the high price, we must find a satisfactory substitute, and that is easy to do. Soy oil is an excellent alternative. The soy oil that we have been using even has a slight greenish-yellow cast of olive oil, and we have utilized it for all cooking purposes with entire satisfaction.

Besides soy oil we have corn, cottonseed, coconut, and some more rare oils like sesame-seed oil. A recent article in the Journal of Nutrition shows soy oil to be superior to other fats in its effect on the digestion of carotene, or what we call vitamin A. There is much evidence that fats tend to interfere with the digestion of other food essentials, and we probably all overuse them. The most wholesome fats are those in the foods-such foods as olives, avocados, and nuts.

#### Fattening Diet

Please send me a fattening diet. I am fourteen years old, am 5 feet 5 inches tall, and weigh 107 pounds. Is there any method of fattening my legs?

A girl your age is usually as tall as she will ever be, and very often, owing to the rapid growth in height, as thin as she will ever be. In the next few years you will naturally put on curves, and your legs will fatten at the same time.

It is true, of course, that how and what you eat and the extent to which you follow the laws of health will determine your body weight, your vitality, your charm, your happiness, and your usefulness in life. You should form habits of right eating and living at once if you do not already have them established. By this we mean plenty of plain food, eaten slowly, at regular meal hours, with absolutely nothing between meals except six or eight glassfuls of water daily. Fresh air, sunshine, exercise, sufficient sleep, a happy, contented disposition, and cleanliness should be given their share of attention.

It would not be wise to try to take a very large amount of food at once—more than you are used to eating. You should aim to eat about the following amounts and variety to have what is now recognized as the daily requirement for a young adult of your height and age.

#### 2,400-Calorie Diet

This is arranged to include the food essentials as recommended at the National Nutrition Conference for Defense.

#### Breakfast Whole-wheat cereal such as oatmeal, fa-

rina, or shredded wheat

tato and for bread)

THE PERSON OF TH	4 171
A sliced banana	100
1/2 cup milk for cereal	85
1 cup milk to drink	170
I tablespoon honey for cereal or toast	85
1 tablespoon butter for toast and egg	108
2 slices whole-wheat toast	130
1 poached egg	73
Dinner	
A main dish (protein food), cottage	
cheese, soybeans, lentils, baked navy	
beans, Lima beans, nuts, nut food, or	
egg dish as omelet or soufflé	150
Potato baked or boiled in skin	85
Cooked vegetable (yellow or green)	50
Raw vegetable, as relish or salad	25
I tablespoon butter (for seasoning po-	

1/4 cup milk (for seasoning vegetables)	65
1 cup milk	170
I slice bread	42
Baked apple-whipped cream	200
Supper or Lunch	
Fruit salad	150
Sandwich (peanut butter or cream	
cheese, using whole-wheat bread)	150
Cream soup (tomato, mushroom, or vege-	
table)	150
4 crackers	107
1 cup milk	170
and with	
Grand Total 2	474
CAMPAGE A COMME	1000

#### Strawberries

I would be very glad if you could inform me with regard to the different minerals in strawberries, as I am going towork with them as a hobby and for cash.

It is very interesting that the food value of fruit varies a great deal, depending on the variety, the soil used, seasonal differences, and the degree of its maturity. The eminent Dr. Henry C. Sherman gives the information you desire in his book, "Chemistry of Food and Nutrition." Strawberries contain the following minerals:

	Per Cent
Magnesium	.019
Sodium	.050
Chlorine	.006
Iron	.00068
Calcium	.041
Potassium	.147
Phosphorus	.028
Sulphur	.014

Strawberries have 6 per cent fat, and 7.4 per cent carbohydrate, and 1 per cent protein. This gives them about 169 calories in a pint. Strawberries have 125 international units of vitamin A in 31/2 ounces. There are 625 international units of vitamin C in 31/2 ounces. There are 123 Sherman units in 31/2 ounces.

#### Iron

The doctor says I need blood-building foods, and that I should eat lots of foods very rich in iron. Which foods furnish the most?

The foods that are richest in iron for blood building are as follows:

Parsley	Black walnuts
Lima beans	Dried prunes
Navy beans	Dried dates
Bran	Dried currants
Molasses	Almonds
Egg yolk	Swiss chard
Apricots	Dried figs
Water cress	Oatmeal
Raisins	Whole-wheat flour
Kidney beans	Beet greens
Spinach	Peanuts
Dried peaches	Green peas



H. A. BOBERTS

# The facts on FOOD COMBINATIONS

By GEORGE E. CORNFORTH
Medical Dietitian

HE chief reasons for considering food combinations are:

1. To be sure to include protein, fat, carbohydrate, minerals, and vitamins in the diet in approximately the right amounts.

To understand their effect upon digestion.

3. To know how to maintain the acidbase balance.

4. To learn the art of planning attractive, palatable, digestible, nutritious meals.

Of these reasons the first is probably the most important.

A good rule to follow to fulfill the first requirement is one given by Dr. Lydia Roberts of Chicago University, as follows: There should be included in the diet every day;

Milk, at least one pint.

Vegetables, other than potato, at least two servings, one raw, as in salad.

Fruit, at least two servings, one citrus or tomato.

Whole-grain cereal, as cereal or bread, at least one serving.

High-protein food, at least one serving, as egg, cottage cheese, beans, soybeans, almonds, peanut butter, Protene, Nutene, soy cheese, or similar manufactured high-protein foods.

These essential foods are necessary to assure the required amount of good-quality protein, minerals, and vitamins, but they will not give enough calories; there-

fore more foods must be included to complete the meals and provide enough calories to maintain the weight.

These additional foods may be: potatoes, other vegetables, butter, more bread, more fruit, dessert.

Following this outline will give one a diet that is just barely adequate, even if the "additional foods" include white bread and some candy. But if these additional foods are whole-wheat bread, vegetables, fruits, including some figs, dates, raisins, and prunes, and honey, instead of desserts made with white sugar and white flour, the diet will be more than adequate, capable of increasing the blood hemoglobin and sustaining the best possible health.

With regard to the second specification, combination of foods in their effect upon digestion, Doctors Risley and Walton, in "Foods, Nutrition and Clinical Dietetics," say, on page 97: "Experience in feeding many cases has clearly demonstrated that certain mixtures of food are liable to cause digestive upsets, whereas the same foods, if taken alone or in favorable combinations, cause no distress."

That digestion is better when the number of different kinds of food is limited at a meal has long been accepted as true. Following certain rules with respect to combinations limits the variety at any one meal and aids in this way.

Unfavorable combinations of food are the following:

1. Large quantities of milk and sugar taken together.

Concentrated, refined sugar has a preserving effect, and hinders digestion in general. It also stimulates the stomach to secrete acid abnormally. When combined with milk, the sugar delays the digestion of the milk, tending to cause decomposition of the milk, rather than the normal digestion of it.

2. Fruits and vegetables at the same meal.

I am unable to give a satisfactory explanation of why these do not digest well together. The explanation has been given that the digestion time of fruits and vegetables is different, fruits requiring a short time and vegetables a longer time to digest, but that this is the explanation has not been demonstrated. However, the observation of nurses and doctors in regard to the effect of this combination on the digestion of patients, and the observation of other individuals of their own digestion, indicate that this is not a good combination, except for the person who is vigorous and is leading an active life, in which case nothing seems to disturb digestion.

Fat and other food cooked together, as in frying.

Nature never makes this combination. When nature makes a combination of fat with other foods, the fat is put inside the food. When the cook makes a combina-

(Continued on page 29)

So small that you cannot see it with the naked eye, so destructive that it produces excruciating pain, prolonged invalidism, and death, so deceptive that doctors have difficulty in recognizing its presence, a coiled pork parasite has been found in one out of every six persons examined by the scientists of Uncle Sam's Public Health Service.

Its name? Well, if you want to be formal—Trichinella spiralis. But most health workers just call it trichina. The disease it produces? Trichinosis, a severe muscle ailment for which no cure is known.

Health Commissioner John L. Rice of New York City calls it "a major publichealth problem." The American Public Health Association avers that it is a "public-health problem of greater importance than has been realized." And Dr. Willard H. Wright, chief of the zoology division of the National Institute of Health, emphasizes that the United States has "the greatest problem of trichinosis of any country in the world."

Aroused by the fact that the snaillike pork parasite menaces 21,000,000 Americans sometime during their lives, the New York State Legislature in 1940 created an official trichinosis commission to dig up all the facts available on the malady. Now, after a year of labor, during which the commission's staff wallowed through the muck of hundreds of hog farms both here and abroad, studying garbage-feeding practices, injected fluids into hundreds of hogs in a search for a foolproof diagnostic skin test, and peered over the shoulders of white-frocked scientists as they doggedly sought to find in their test tubes a clue to a cure, the facts have been collected and analyzed.

"Of their flesh shall ye not eat, and their carcass shall ye not touch; they are

<sup>\*</sup> Senator, New York State Legislature, and Chairman, New York State Trichinosis Commission. (See editorial comment on page 6.)





The Honorable T. C. Desmond

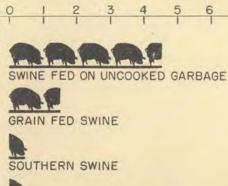
unclean to you." This Mosaic injunction against eating pork is viewed by some as the earliest clue to the existence of trichinosis. But it was not until 1835 that a young medical student, James Paget, destined to become an internationally famous surgeon, discovered the parasite. But Paget thought it merely a zo-

ological curiosity. Not until twenty-five years later was it recognized as a sinister culprit responsible for a painful, and sometimes fatal, muscle disease.

Today, more than a century after the discovery of the trichina, the medical world is still in the dark on many phases of trichinosis. We do not know how to

Right: Trichinosis, a Great Imitator, Is Not Easily Diagnosed

Below: The Chief Source of Human Trichinosis Are Hogs Which Are Fed Uncooked Garbage



far more prevalent than has been generally believed.

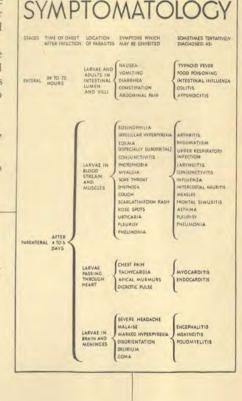
The small number of trichinosis cases—reported to the United States Public Health Service by State health depart-

ments—only 4,543 from 1842 to 1936—is no adequate index to the prevalence of the disease in the United States. The rea-

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# DEADLY PC PARASITE

By THE HONORABLE THOMAS C. DESM

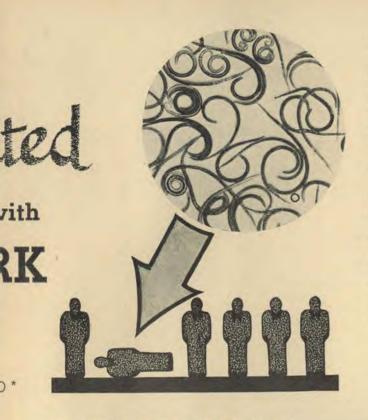


cure the disease. We are ignorant of how widespread an infection must be in a human being before it causes serious harm. We are not certain whether one attack of trichinosis will prevent another. We still lack an accurate, quick, simple diagnostic test.

SWINE FED ON COOKED GARBAGE

One thing we do know: Trichinosis is

LIFE AND HEALTH



acquire the disease from swine, since the meat of other trichinae-infested animals is not generally eaten. The hogs which consume uncooked garbage become infested by devouring pork scraps so prevalent in swill. Thus, in effect, the vicious cycle is one of pig eat pig.

When you eat undercooked trichinous pork, the digestive juices of the stomach dissolve the delicate covering which encases the young worm. These immature worms, which at their attacking stage are about 1/25 of an inch in length, then migrate down the diges-

Above: The Pork Parasite Strikes One Out of Every Six Americans

Below: Trichinge Lodged in a Muscle

son for the low number of cases reported is that trichinosis is not easily recognized, and not all recognized cases are reported to the health authorities.

As Surgeon General Thomas Parran points out, "The best available evidence of the prevalence of the infection in man is found in the results of studies conducted by the Public Health Service during the last four years." Of 4,741 examinations made, 779, or 16.4 per cent, were positive. Other studies confirm these findings. Recent investigations made in Michigan, Ohio, and New York revealed that 20 per cent of persons examined were infested with the pork worm.

Striking at white and black, rich and poor, young and old, the parasite plays no favorites. And as doctors become familiar with the disease the number of reported cases will soar. Already, as a result of an educational campaign among doctors in New York State, the number of trichinosis cases reported in 1940 more than doubled the number reported the previous year. Similar results are expected throughout the country when doctors in all parts of the nation become more familiar with the disease.

The chief source of human trichinosis is the eating of undercooked trichinae-infested pork chops, fresh hams, pork loins, sausage, and other pork products from hogs fed uncooked garbage. One out of every twenty-five pork products purchased over the retail counter was found by our commission to contain the parasites. It has been estimated that our present hog crop may provide us with 60,000,000 trichinae-infested meals.

The pork worm infests not only man and hogs, but also dogs, rats, cats, and bears. However, human beings usually

tive tract, where they mate within a few days. The mother worm gives birth to several hundred offspring. Those find their way to the blood stream and are floated to the muscles. There they lodge and become encysted in a calcium-chambered cell.

The onslaught of these parasites, advancing wave after wave, makes the patient sick. The seriousness of the illness depends on the degree of infection and the ability of the individual to resist attack. In many cases the infestation is so light and the general health of the person so good that he is wholly unaware that anything has happened.

The pork worms not only penetrate

Butchering Hogs on the Farm

the muscles, but during the migrating stage, may also be found in the lungs, heart, brain, spinal fluid, and other parts of the body. The patient, therefore, is likely to show a perplexing variety of symptoms. Compared with trichinosis, syphilis, known as the "great imitator," is a mere second-rate deceiver. Lacking a quick, simple, foolproof diagnostic test, doctors have frequently mistaken trichinosis for other diseases.

In severe infections, the disease may be ushered in by nausea, vomiting, diarrhea, and abdominal pain within twenty-four to forty-eight hours after infection. However, these symptoms are absent in a considerable proportion of cases. After the newly hatched worms enter the blood stream and begin to reach the muscles, the patient may have swelling of the face-particularly around the eyes-sore throat, cough, intermittent fever, general or local muscular pains, small hemorrhages under the skin, difficulty in chewing or swallowing, and labored breathing. There may be headache and a feeling of great weakness and depression. Some cases develop pneumonia, which may be fatal about the fifth or sixth week after infection.

Young pork parasites passing through the heart muscle may produce symptoms of heart disease. In heavy infections, the young worms may penetrate the brain and spinal cord, causing delirium, high fever, and other conditions resembling meningitis, inflammation of the brain, or poliomyelitis. No wonder doctors have confused trichinosis with more than fifty diseases, ranging from typhoid fever to acute alcoholism.

There are many ways of detecting trichinae in a human being, but none of them is wholly foolproof. Examination of the blood, spinal fluid, and feces for the pork parasite is frequently made in



IANUARY, 1942

J. C. ALLEN

cases of trichinosis. While positive findings are significant, negative findings do not necessarily mean that the patient does not have trichinosis. And it is usually impossible to detect the trichinae from these sources except in a small percentage of cases.

Examination of a thin slice of muscle under a microscope may result in detection of the elusive pork worm. But again, a negative finding is not definite evidence that the patient is not suffering from trichinosis. The muscle examined may not be the one infested. Best results so far have been obtained by new tests developed by the National Institute of Health at Washington, D. C. These involve injecting an antigen between the layers of skin and examining of blood serum by a precipitin test. But these tests have their limitations, too. So the search for a diagnostic test goes on.

Once the disease is correctly diagnosed, there is little that a doctor can do. No cure is known. There is no known method for destroying the pork worms once they enter the body. At best, medical treatment is useless except to alleviate pain. Doctors, confronted with a case of trichinosis, will prescribe rest in bed, good nursing, and use of a liquid or semisoft diet rich in carbohydrates to preserve the strength of the patient.

In their search for a cure, scientists have experimented with ultraviolet rays, X rays, and various drugs and serums. So far their work has been fruitless. But success must some day reward the medical men for the unrelenting determination with which they are probing for a cure.

Popularized in nursery rhyme, the little piggy that went to market is giving our medical men considerable concern.

#### + + +

### Do You Have the Will Power to Keep Well?

(Continued from page 11)

organic heart disease was known to advance by 100 per cent for those as overweight as John now was. He became aware that by the law of averages the cards were stacked against him if this condition were allowed to continue. Very well! This was correctable. He would do something about it. And he did-for a while. Alas! "The road to hell is paved with good intentions." Spartan fortitude or Puritan asceticism had not been woven into John's character. He was a bon vivant, and the going seemed hard. The diet carefully planned by his physician went down in ignominious defeat before the handiwork of the French chef at John's favorite club. Time enough later for simple fare. Appetite is good, and life is good with its multitude of gustatory adventures. We can live only in the present. Why worry? Did not a famous ex-President live to a ripe old age despite extreme obesity? "Let us eat, drink, and be merry today"—and forget the rest of it.

So, with ever-diminishing pangs of conscience, John turned back once more to the fleshpots and forgot his former good resolutions.

In the matter of work, the story of John's experience is very similar. What? Give up work? "No," the doctor had said, "but delegate some of the responsibilities to others." Didn't the doctor understand that he was a chief executive and that this simply could not be done? Who could take his place, anyway? The business simply must go on. Well, it did—and still does, despite the fact that John is no longer connected with it. Strange how the world always seems able to dispense with the indispensables, isn't it?

"Now about tobacco," his doctor had said. From the violence of his reaction, you would have thought that John had been kicked in the shins. "I can't do without it! Please don't take that away," he pleaded. So a compromise had to be effected. The doctor patiently explained that in his case smoking caused constriction of arteries and was thus doubly hazardous to a person with heart pains. Perhaps John could cut it down. Well, he would try-do the best he could, anyway. But the closing scene of John's earthly sojourn eloquently testifies to his failure in this respect. His wife told the story. Seated by her side at the radio one evening, he seemed somewhat restless. From habit he lighted and smoked one cigarette after another, apparently without realization of his actions. Then with the suddenness of lightning came the final blow, A gasp, a cry of pain, extreme pallor, collapse, a frantic telephone call for the doctor-and another only a few hours later for the undertaker. Profound grief and shock gripped his relatives, friends, and business associates. So young! There was a large attendance at the funeral. Eulogies. "Didn't John look natural!"

"Well," you ask, "could it really have been different?" The answer is, emphatically, "Yes!" American practices, into which so many of us fall, are taking a dreadful and unnecessary toll of life and health. Nearly all occupations today are geared to a high degree of intensity. It takes genuine determination and strength of character to avoid the hazards of present-day living. The transition from a life of physical activity to a sedentary occupation, which occurs when a man leaves college and enters business, is a step toward physical deterioration. The exercise problem for businessmen has not vet been successfully solved. Gymnasium work is only a partial and often an unsatisfactory solution. It frequently palls because of a lack of emotional or intellectual satisfaction in its routine. So it follows that exercise is taken less and less frequently until it is neglected almost altogether. Many men do themselves real harm by trying to crowd a week's exercise into a week-end session on the golf course. Such sudden, immoderate activity for an individual grown soft from sedentary work makes demands upon the heart and circulation for which they are not conditioned.

In the absence of regular systematic exercise the food consumption should be greatly curtailed—probably to about two thirds or even to one half the former amount. But instead of this, the opposite is usually the case. Good food and plenty of it becomes more and more a part of the regular program. Business luncheons and banquets occur with everincreasing frequency. Thus the waistline increases at the expense of the life line.

Anxiety and worry over business and economic conditions are driving many of our most talented citizens into early graves. Faced with this prospect they sometimes remark that there, at least, they will find surcease from anxiety. But is it all worth the tremendous sacrifice? Or do we need to adjust our thinking and standards of conduct?

Undoubtedly a richer and happier life could be attained if certain simple adjustments could be made. Never was there so much sound information available on healthful living as there is at the present time. Paradoxically many men who study methods of business success with feverish intensity, treat with supreme indifference, amounting even to disdain, this important health information upon which every other type of success depends. "Consistency, thou art a jewel!" A rare jewel, indeed.

One of the soundest programs for health conservation that has ever been devised is the periodic health examination. "Have a health examination on your birthday" is its slogan. Thousands have followed the health-conservation program, and enthusiastically testify to the benefits derived from it. Their number, however, is small compared with the multitudes who follow a program of utter neglect. Think of this: One large insurance company reports that only about five per cent of those for whom it is provided without charge take advantage of it. But even for those who take the periodic health examination, all the sound advice that modern medical science has to offer is futile without that necessary quality sometimes politely called "intestinal fortitude" with which to implement it. All of which proves the truth of our original proposition that character and health are very closely related. The diagnosis itself suggests the remedystronger character for better health. In other words, learn what to do-and do it!

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WE invite your special attention to the editorial on page 6.

I EAT A BALANCED DIET AND MORE CALORIES THAN I NEED; STILL I FEEL UNDERNOURISHED!

IT'S NOT JUST CALORIES, JANE; YOUR BODY MUST BE ABLE TO USE THE FOOD YOU EAT.





100 grams of protein, 100 grams of fats, and 300 grams of carbohydrates, yielding 2,500 calories, and yet you may be benefited by only a portion of what you eat. Foods should be studied with respect to their utilization as well as their caloric value.

may be planned to contain the usual

 Fats and carbohydrates, if properly cooked, are almost equally available regardless of their source. Proteins, the basic food substance of human nutrition, differ greatly in their value. Proteins we must have for growth,

repair, and body maintenance. They build up the body defenses, and are the chief ingredient of the blood and lymph. Unless selected with great care, they may satisfy only a portion of our nitrogen needs.

#### If your diet is safe in its protein, it is a long step toward being a healthful diet, yielding productive and enjoyable living.

 Some proteins contain all the indispensable amino acids; others lack one or more. The International Nutrition Laboratory came into existence to help solve this lack in the human diet, to prepare protein foods that are suitable for all ages and that satisfy our nitrogen needs. Miller's Protein Foods are made from select, edible Soya Beans, the protein of which contains all the indispensable amino acids. They possess the same biologic values as cow's milk, eggs, fish, and meat. So quickly are the soluble proteins in Miller's Protein Foods picked up by the blood in the stomach and the intestinal tract, that no time is afforded for putrefactive changes or the formation of gas. A quick response in fatigue relief follows:

#### SPECIAL TRIAL ORDER—Items listed below will be HALF PRICE

Miller's savory protein cutlets, sold by trade name Mien Jing, are 50 per cent protein.
Miller's Soya Loaf and Sandwich Spread are 38 per cent protein. Miller's Spray-dried Soya Milk Powders, sold

by trade name Soy-A-Malt, and Soya Lac, are from 35 to 55 per cent protein.

Miller's select canned Soya Beans are 15 per cent protein. Other beans, like Lima and navy, contain 5 per cent protein.

Miller's Soya Curd (a cheese made of Soya Beans) is 65 per cent protein.

on all orders of not less than \$1 and not more than \$3 until January 31.

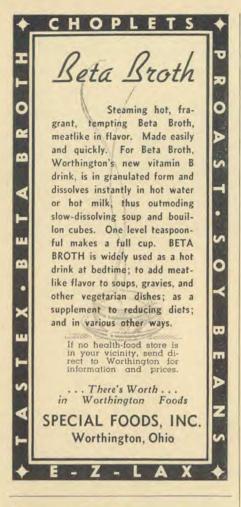
*Soy-A-Malt, Spray Dried	1	15.	\$ .75
Soy-A-Malt, Spray Dried	4	lb.	2.50
*Soya Lac Spray Dried All-Purpose Milk	1	lb.	.75
Soya Lac Spray Dried All-Purpose Milk	4	ib.	2.50
Soyalac Infant Milk Powder	1	lb.	1.10
Mien Jing (Gluten Cutlets)	14	oz.	.25
Mien Jing (Gluten Cutlets)	28	oz.	.50
Soya Loaf	13	oz.	.20
Soya Spread	13	oz.	.20
Soya Curd	5	02.	.15
Soya Beans with Tomato Sauce	13	oz.	.15
Giant Edible Beans	20	oz.	.20
Giant Tender Green Beans	20	oz.	.25
Soya Sauce	6	oz.	.30

<sup>\*</sup> One pound of powdered milk makes four to five quarts of liquid milk.



MILLER'S PROTEIN FOODS are delicious in flavor, and the cheapest source of the complete protein for balanced nutrition.

INTERNATIONAL Mt. VERNON. OHIO





And B vitamins for healthy nerves, growth, good appetite, digestion, elimination—a vitamin so important must be taken in adequate amounts for good health. Nu-B-Ca provides this vitamin and minorals such as iron, calcium, and phosphorus. Keep Nu-B-Ca in phosphorus of the provides the such as iron, calcium, and phosphorus, we will be such as iron, calcium, and phosphorus, such as iron, calcium, and phosphorus, such as it daily to your home and use it daily to make sure your diet is not lacking in these essentials. Sprinkle it on your cereal, add to milk or ice

A 1-lb. package for \$1.50—
3 packages for \$4, postpaid
If not obtainable from your health-food
store or specialty grocer's, order from-

NATIONAL HEALTH SERVICE 326 W. Kalamazoo Avenue KALAMAZOO, MICHIGAN

A Product of Pisgah
INSTITUTE and SANITARIUM

#### Leg Pains

(Continued from page 16)

to be the best treatment in most cases. If accessible, short-wave diathermy is the treatment par excellence. Apply any heat to the lumbar region as well as to the course of the nerve. Be sure to get plenty of vitamins, especially B<sub>1</sub>. Consult your doctor from the first. Drink freely of water and citrus fruit juice. Eat plenty of foods that are high in vitamins. Rest the nerve, but encourage the limb to be straightened out several times a day in order to prevent shortening of the tendons at the back of the knee from nonuse.

A disease that is the dread of every woman after childbirth and of everybody else following an abdominal operation is what is commonly called milk leg, or phlebitis. It is an infection that gets into the veins of the leg because of injury of the vein. The leg is extremely painful, tender, and swollen. It should be elevated on pillows or in a swing, should be kept wrapped in soft cotton or wool or moist gauze. Dry heat may be applied by means of thermolite or other ray treatment. Keep the leg quiet. Do not rub it or give it massage for two or three weeks after the swelling has subsided. What has happened is that a clot has formed in the vein and completely obstructed it. This must be left to absorb by natural processes. Gentle treatment by light and heat therapy is the only safe treatment.

A week or two after the swelling has begun to subside is the most dangerous time to manipulate the part. The reason for this is that the clot begins to loosen from the wall of the vein and may be dislodged and become an embolus and float along the blood stream and lodge in the heart, producing fatal results. If the patient is kept quiet, the entire clot will absorb and return to the circulation as blood. In this condition, as well as in all other serious ailments, there is no use to become panicky over the matter. It is well to understand the processes that nature is carrying on and at the same time remain calm and patient through it all. This applies to the friends as well as to the patient. Abide strictly by the advice of your physician.

Varicose veins are frequently the cause of severe pain in the legs. Veins become varicosed from long standing on legs in which the veins are poorly supported by firm flesh. Constipation is another cause, for the reason that there is interference with the return of the blood from the lower extremities to the general circulation. Pregnancy is a cause of varicose veins for the same reason.

Varicose veins should be treated early. When they are comparatively small they may be entirely eradicated by the simple procedure of injections. This process causes the shrinking down of the veins

and sometimes the complete closure of them. The later results of varicose veins are very serious and very painful, and may be extremely dangerous. Some of the most excruciating pain known to medical science is from varicose ulcers. Such ulcers are often almost impossible to cure or even relieve. The circulation is so interfered with by the poor condition of the veins that healing is impossible, and the ulcers become what is known as indolent ulcers. They cannot be made to heal. They cannot be grafted, for the reason that the tissues about them are so impoverished that a graft will not take. Then, too, the ulcer is always badly infected, so that a graft cannot take.

Later procedures in dealing with varicose veins consist in tying off the veins above and below the varicosity and removing a strip of the vein. Sometimes this treatment is successful. A last resort in very bad varicose veins is to tie off the large vein in the groin. This procedure more or less interferes with the circulation of the entire leg. Often distressing conditions follow. The leg is poorly nourished, sores and excoriated skin follow, and there is unbearable itching much of the time.

These conditions are not rehearsed in order to frighten one out of having anything done that will better matters, but to encourage those who have varicose veins to have them attended to by a good surgeon early after their appearance. It should be done as early in life as necessary, for the reason that the tissues are resilient then and will respond to treatment by perfect healing, while later in life this may not be so true. Do not risk the discomfort, interference with usefulness, and agony that may come later in life by foolishly putting off a simple procedure that will mean so much to you later on.

Although hernia is not so often a cause of pain in the leg, still it may be. What has just been said about early operation on varicose veins applies as well to hernia. A hernia may be, and always is in later life, a most distressing thing. Taken in time, it can be repaired and the abdominal wall will be as firm as any. Do not neglect a hernia. Do not let it remain and enlarge. It is a dangerous thing at any time. It may become strangulated and become a hazard to life. Then it is a risk to operate. It is with very little danger that a small, young hernia is operated on. Don't let that foolish idea prevail that some surgeon wants your money when he urges you to have a hernia surgically treated.

Flatfoot is a frequent cause of crippling pain in the legs. What can be done about it? That is the question. The orthopedist is the best man to decide that. Don't pay fabulous prices for orthopedic shoes until you have consulted a good orthopedic doctor. Sometimes a very simple device will correct the deformity. Do not attempt to adjust it yourself without professional help. Seek good advice.

Trichinosis is a growing cause of pain in the legs. The trichina is parasitic in the flesh of the swine. It encysts itself there and becomes dormant. It is taken into the stomach of a human being, and the covering that the pig has formed about it is digested off and the worm finds its way into the tissues. There it encysts itself again and becomes an irritant to its host. These cysts may become calcified and remain there indefinitely. The pain caused by the trichina spiralis is akin to that caused by rheumatism of the muscles. It is astonishing the proportion of people who are infected by trichina.

Pains in the legs are always symptoms of conditions that need to be attended to. Do not neglect any persistent pain that continues for a number of days. Seek competent advice.



#### Had Your Health Check-Up?

(Continued from page 17)

The best form of health insurance is periodic physical examination. pother over compulsory health insurance will amount to exactly nothing if the individual is not interested enough to have his health ensured. The practice of medicine is no longer a pill-peddling, let'ssee-your-tongue business. It is a business that is freed of much of its guesswork by modern, accurate methods of diagnosis and treatment; a business that deals in a tangible commercial commodity-your health. And whether you know it or not, your health is your most valuable asset. Just lose it, and see!

One third of the deaths from appendicitis could be prevented if the patient would not disregard attacks of stomachache, not take cathartics, not seek medical aid at the drugstore.

But why do we talk only of appendi-The same principle applies to other diseases. In the last five years in New York more than six hundred people died of cancer of the mouth and tongue simply because they went to the doctor too late. Annual examinations would have revealed the malady early, and over six hundred people would be alive today. Sixty per cent of cancer of the large bowel can be detected easily in its early stages. Yet people insist on dying with cancer of the rectum! X-ray examination of the stomach and intestinal tract can, in a large number of cases, pick up cancer in its early stages during which, if the tumor is removed, the patient is cured. Yet we see for the first time hundreds and thousands of cases of cancer of the intestinal tract in its final stages! What can we do to hammer into people's heads the advisability of yearly physical checkups? Let it be said in brief that periodic examination is of inestimable value in diag-



By William G. Wirth, Ph. D.

N their noble fight against disease, physicians have made notable progress toward the defeat of those ills of man which come to him from without his body. Infections, contagions, those sicknesses caused by germs, have been largely vanquished. For example, diphtheria, which not so many decades ago was a decimating scourge, is now well under control through medical skill; and yellow fever, which once slew its thousands, has been practically snuffed out. Such victories have markedly increased the span of life.

But the story is different when we come to those diseases that spring from man's own organs, such as the heart, the kidneys, the lungs, those vitals of human life. Here the doctors have found the going hard and slow and stubborn. The reason for this baffling struggle against these organic disorders is largely due, we are told, to our inability to stand up adequately against the physical stresses and strains of our speeded-up age. Our hearts are suffering under the accelerated pace; our kidneys and lungs and other vital organs are laboring under the pressure of our present-day mode of living. And we are paying a fearful physical price, a price that is making the heroic work and efficient advance of medicine in other directions altogether too

In a somewhat similar fashion we find this condition to be true of ourselves in the men-Through progressive education tal sphere. and wider knowledge we have scored marked victories over the infections of ignorance. Our modern minds have broken the chains of ancient and medieval superstition, and are out in the sunshine and much more wholesome air of scientific thought. But tragically enough, when it comes to those real, purposive operations of the mind in achieving those adjustments to life and its problems that make for wholesome, contented living, we often face disappointed defeat. The environment of our modern mind may be better, but organically it is making us pay a fearful mental price, a price that is making our broadening horizons of knowledge and skills a mockery and a travesty.

Statistics ominously show that one out of every twenty persons has been, is, or will be in some institution for mental illness. If Cicero's words were true in his day, how much more true are they today: "The diseases of the mind are more numerous and more destructive than those of the body"

There is a Chinese proverb that says that "the mind is the lord of man." The proverb is obviously true. It is the mind that gives meaning to life and gives the world about us significance. We shall do well if we think seriously and long over this fundamental in human existence, and follow that course of thought and intelligent action that will make life worth while. What Milton wrote is still true, only more so, that the human mind can "make a heaven of hell, a hell of heaven."

We cannot think hard, evil, or envious spired command of long ago applies as forcefully today: "Keep thy heart with all diligence; for out of it are the issues of life." Prov. 4:23. nosing serious disease before the symp-

No more valuable information about yourself can be given than that which the physician can give you year after year at the time of your health examination. By comparing the results of one examination with another he can detect any change in your physical or chemical make-up which, if handled at once, can add years to your life. Even the most blasé layman will recognize the partial and complete victories of medical science over infectious diseases such as diphtheria, smallpox, and typhoid. The victory over organic degenerative diseases should elicit the interest of everyone who is a likely prey to them. And you are one of them! If you really want to help prevent this human erosion in our fair land, then see to it that your own bill of health is clear every year.

Far be it from me, a very ordinary young medico, to tell you what to do. But I have seen enough to know that when your chassis begins to rattle, when your bearings begin to squeak, your louvers begin to sink in, your motor begins to lurch; yes, when your radiator cuts up, the spark plugs miss-I say, when you begin to spit and sput and bump along to the yard where wrecks are sent, you'll wish frantically that you had been checked and polished and kept in good repair like that lucky mortal who's had sense enough to see his service man-his physicianregularly.

#### How to Paint Your House

(Continued from page 13)

in the pores and get that dark, dirty look, because the pores are already filled and sealed, and consequently the dirt can be brushed off or rubbed off with steel wool without damage to the floors.

If wax is used, one that is especially manufactured with nonslip tendencies, is of course, of decided advantage, because a slippery floor is a dangerous thing. The serious accidents attributed to slippery floors are innumerable, and can, to a large degree, be avoided.

Waxes are numerous, but a large number are not very lasting. The best waxes are the ones that most nearly approach the solid. A solid wax applied hot is by far the most durable, because it penetrates the pores and builds up the surface with a wax that cannot easily be dissolved by liquids. Of course the waxes that can be applied with the least work do not stand up so well, but can be applied more often and so, consequently, are coming into more common use.

Wallpapers have been improved, both in design and in durability. Many of the papers are washable. These papers

(Continued on page 27)

# THE HOUSEWIFE'S CONDUCTED BY CONDUCTED BY CAROLINE EELLS KEELER

Homemaking-A Career Packed Full of Adventure, Love, and Work

#### "Pleasant Your Dreams"

THAT is what my young son used to say to me at night when he was smaller than he is now. We all want pleasant dreams, if dream we must, but just how can we "pleasant our dreams"? And isn't this a queer way to start off a New Year message, talking about sleep? Maybe it's logical, though, for I'm sure our new year will be much happier and healthier if we sleep well and get enough sleep. Probably half of our crabbiness and tenseness would be eliminated if we would see to it that we go to bed at a proper time whether everything we wish to do is done or not.

We all know things that contribute to restful slumber—a neutral bath, clean sheets, lightweight covers, a good comfortable mattress and springs—but have you thought about some of the things in your bedroom that may not "pleasant your dreams"? Too much fussiness, unsightly wallpaper, colors that clash. Restful colors, pleasing pictures, pictures that add to your tranquillity of thought, a dresser not all cluttered with knickknacks, and bottles of lotion and powder boxes, etc.

It really takes careful study and thought to plan the color scheme of a bedroom. I wanted our new bedroom in rose and green. We papered the walls in a silvery pink, the spread is a lovely green chenille with a few rose flowers here and there, the scatter rugs on the floor are pink; but do you know, I tire of that pink paper, and ere many moons it's going to be changed. A friend of mine recently had her bedroom done over in a beautiful blue paper, with tiny bouquets of yellow and white flowers; the curtains are frilly white, the spread is white, the furniture is maple. I haven't seen it yet, but don't you think it sounds pretty and restful? You know it isn't a bad idea at all to cut out these color photos of kitchens, dining rooms, bedrooms, living rooms, etc., that you find in the current magazines. No, not a bad idea, for they are full of good ideas.

Bedroom lighting should not be of the glaring type, but softened and subdued. Have finished floors with a few scatter rugs, not an all-over rug. Rugs that you can wash are what I like; somehow they seem cleaner. And I like bedding that can be washed. An all-over rug in the

bedroom is "hard to get at" when you clean, and it is almost bound to hold some dust. One's bedroom should be as light and airy as possible. Air the beds every morning before you make them up. If the binding on your blankets is getting frayed, you don't have to put up with it. At the five-and-ten you can get rayon satin binding in almost any color, and this will give you a new-looking blanket in almost no time at all, and at very little expense.

Now this isn't necessary to say, for we all know it. Dreams aren't so pleasant if one goes to bed with her hair all done up in curlers. The most restful way, of course, is to take your hair down at night—if it's long—brush it thoroughly and leave the hairpins out. Hairpins have a way of working loose and stabbing you. It's good for the hair, too, to be let out of that coil at the back of your neck. But whether your hair is long or short, brush it at night. Sounds funny to say it, but it rests your head.

If you are troubled at bedtime, you'll especially want to open the Book of books and read some comforting passage, like the twenty-third psalm, the ninety-first psalm, and Revelation 21 and 22. When our hearts are at rest, then we can truly rest.

#### Naps

IF you have to rise very early to get your husband off to work, the children off to school, and to do all those many things that fill a morning, do try to get an afternoon nap. Even if you're overweight and feel that you should go for that walk immediately after eating dinner, if you need rest, get some if possible. Just a few minutes helps tremendously. One who loves and cares for us recognized this need for rest, and said, "Come ye yourselves apart and rest awhile." You can take your walk after your nap sometimes. So with all our doing, let us do this one thing, get sufficient rest.

#### How to Buy Sheets

If you are watching for the January white sales to buy your new sheets, you'll appreciate this information, furnished by the Bureau of Home Economics of the Department of Agriculture. Miss Ruth O'Brien, their textile specialist, says:

"To judge the type of sheet to buy, first decide what kind of service it's going to get. That is, do you want sheets for everyday wear, sheets that will stand the rough and tumble of the children's beds? Or do you want finer, softer sheets, more of a luxury article? When you've decided the type of sheet that suits your purpose, then study labels. Read and compare facts to find the sheet that measures up best for the money you have to spend.

"Sheets generally fall into one of five groups—the light, medium, and heavy-weight muslins, the fine counts, and the percales. Each serves a definite purpose. A heavy muslin sheet, for example, will be strong, sturdy, and durable. It is best for hard wear. On the other hand, the fineness and softness of percale sheets make them a better choice when appearance counts and cost is not so important.

"But it pays to look carefully at any sheet sold as percale nowadays. If used correctly, this word when applied to a sheet means one of combed rather than carded cotton yarns and one very soft, fine, and smooth in texture. It weighs around 3.7 ounces to the square yard and its finished thread count is close to 100 in each set of yarns—that is, in both the warp and the filling. Such sheets very early gained so good a reputation for beauty that some manufacturers are now misusing the word in order to sell sheets made merely of carded yarns and with a much lower thread count. This often deceives customers.

"Sheets should always be compared by type of yarn (combed for percales; carded for others), thread count, weight, amount of sizing, breaking strength, length, and width. Good labels will give these facts and will also tell whether the sheet is a 'first,' 'second,' or a 'run of the mill.'"

The Bureau also tells us that the amount of sizing in sheets varies from less than 1 per cent to 20 or 25 per cent in some of the low grades. Some sizing on the warp yarns is necessary to keep it from breaking in the loom, and a little sizing makes the fabric more attractive, and does no harm. Large amounts, however, are frequently used to fill up the space in poorly woven material. Such sizing washes out and leaves the fabric sleazy and thin. "Pure finish" on a label means that there is less than 2 per cent sizing.

Width of hems on sheets varies from less than two inches to four inches or even more. The higher quality often have the wider hems, but the two do not necessarily go together. The length of sheet as given on the label is the length before hemming, and sometimes a wide hem takes unduly from the length of the finished sheet.

Good sheets must be wide enough to allow a generous tuck-in all around. Also they must be long enough for a good fold-over at the head of the bed. This makes the bed more comfortable for sleeping, and also protects the blankets.

Generally, sheets 99 to 109 inches long are the most satisfactory. Some are now 112 inches. Bargain sheets are often too small and sometimes too narrow. Sheets often shrink as much as five to eight inches in length, and are rarely preshrunk. The 108-inch length, however, allows plenty even with shrinkage. To preshrink sheets would be a foolish waste under present commercial conditions.

Look for the term "torn length" on labels. This means that the sheeting has been torn from the bolt before hemming and will be straight with the weave. "Cut length" may be straight, but may just as well be bias. If it is not straight, the sheet will be lopsided after laundering.



#### How to Paint Your House

(Continued from page 25)

should be used in the kitchen, bathrooms, and playrooms, so that they can be cleaned when necessary. There are also many semiwashable or cleanable papers which are quite practical on stairways and in halls and places where dirty marks are most likely to occur.

The design or color of the papers is a matter of personal taste, but conservatism is usually the best thing to consider in selecting paper from samples, because there is a vast difference between a sheet of paper twelve inches square and an entire papered room.

The ceilings are and can be an interesting feature if properly handled. A very rich texture can be obtained in the ceilings by reversing the paper and then painting it with a flat or casein paint.

For rooms with extremely heavy treatment, washable linen paper can be used. It will stand nearly any kind of abuse.



In these days, half our diseases come from the neglect of the body in the overwork of the brain. In this railway age the wear and tear of labor and intellect go on without pause or self-pity. We live longer than our forefathers; but we suffer more from a thousand artificial anxieties and cares. They fatigued only the muscles—we exhaust the finer strength of the nerves.—Bulwer.



# THE RICHEST BOY IN THE WORLI

H is name is Jimmy or Teddy or Junior or Bub.

He lives down the street, around the corner, up in that big house on the hill or over on the other side of the tracks in that trim little cottage.

He's an American boy all the way through, and he has more to live for than any other boy on the face of this earth. A better home. Better toys. A better car. Better food.

Better food because of great developments in the quality of the American diet.

Among the most significant of these developments has been the recent enrichment of baker's bread with essential food-minerals and vitamins. Important among these are vitamin  $B_1$  or thiamine, nicotinic acid, and iron.

And this new Enriched Bread contains thiamine in such quantities that two one-ounce slices of bread at each meal supply from onethird to one-half a normal child's requirements.

So you see, it's really important always to have a plate of this new, better Enriched Bread on the table, in lunch boxes, on picnics. It's one of the thriftiest ways to help build a sound, physically fit family. And it usually costs no more than regular white bread.



#### American Institute of Baking

DEPARTMENT OF NUTRITION

10 ROCKEFELLER PLAZA

NEW YORK, N. Y.

# the FAMILY PHYSICIAN Answers Questions

We do not diagnose or treat disease by mail. Enclose stamped, addressed reply envelope. The services of the Query Editor are restricted to bona fide subscribers. Please be explicit and brief. Address The Query Editor, Life and Health, Takoma Park, Washington, D. C.

#### Whooping Cough

"My eight children have the whooping cough. If you have any suggestions, please send them to me."

We sympathize with you very keenly in having so many children sick at one time with whooping cough. After the disease has once started, the treatment consists in protecting the children against unusual exposure to cold, feeding them as well as possible, even though they may lose some meals through vomiting. See that their chests are kept warm, perhaps rubbing them once or twice a day with camphorated oil. If it is possible to have access to ultraviolet light, have them treated once a day. It will probably shorten the course of the disease materially. Cough sirups may be helpful. Medicated vapor or plain steam vapor will be found soothing to the bronchial passages.

#### Nervousness and the Menopause

"I am very nervous. Please tell me something that would help relieve my condition. I am forty-seven years old,"

The nervousness that appears during the menopause period is due to changes in the activities of the internal glands. Supplying the secretions of these glands is perhaps one of the greatest helps that can be had at this time. Great relief is frequently experienced in using one of the estrogenic substances in which the actual hormones are present. These are available under various names, and may be taken by mouth or injection. We would recommend that you consult your family physician regarding these. Outdoor activities with only limited social responsibilities will be found helpful.

#### Sties

"What causes sties?"

Sties are the result of infection in the glands along the edges of the eyelid. The infecting organism very commonly is a staphylococcus. The infection spreads from one canal or pocket to another, thus tending to continue for a period of time. A local disinfectant can be used. We would suggest a 1 per cent ophthalmic yellow oxide of mercury ointment. A short thread of the ointment could be squeezed into the space between the eyelids, and then spread by blinking the eye-

lids till the ointment melts and distributes itself. Compresses moistened with a hot, saturated boric-acid solution will be found useful.

#### Dropsy

"My father's heart is bad, and the doctors say that he has hardening of the arteries. Now his legs are swollen and hard. When we touch his legs, an impression is made, and we know that he has dropsy. He is seventy-seven. Is there any special diet or treatment that would be good for him?"

Dropsy, which your father appears to have, is a condition which may be the result of changes in the functions of several of the body organs. Very commonly the heart, the blood vessels, and the kidneys are involved in this condition. If the heart alone is involved, often medication can be given which will relieve the condition promptly. This can be determined, however, only by a physician who can observe the patient.

If the kidneys are chiefly involved, diet becomes a consideration. From the description of your father's present state, we feel that more than one organ is involved in producing his symptoms. Complete rest is important. Usually the amount of fluid in the diet should be restricted. Hydrotherapy may give a degree of relief, but it cannot be looked upon as curative treatment. In fact, in some cases it should be used rather cautiously. The amount of salt or protein used may need to be limited. Because of the seriousness of this condition in elderly people, we. would recommend that a physician attend him.

#### Dropped Kidney

"What can be done for a dropped kidney? I suffer a great deal of pain."

A dropped kidney, if truly diagnosed, may cause discomfort, for it is likely that the ureter which leads from the kidney to the bladder will be kinked or bent upon itself and will prevent a normal flow of urine from the kidney to the bladder. Ultimately, this may injure the kidney. If one tends to be rather thin, he should attempt to bring the body weight up to normal. The wearing of a fairly tight girdle may help to hold the organ in a better position. Taking the knee-chest position several times a day may give

temporary relief. If there is continued distress, however, surgical treatment by which the kidney is lifted or suspended will ultimately give the greatest relief.

#### Grinding Teeth

"What causes a child to grind his teeth at night? I have heard that the grinding is due to worm infestation."

Grinding teeth at night is sometimes the result of a child's having worm infestation. However, nervousness, which many children experience, may be the cause. Inadequate rest, a program of activity that is not well adapted to the child's temperament, or disturbed digestion may contribute to the symptoms. A careful study should be made to determine whether worms are present. A sample of the stool should be examined with the microscope to determine whether the eggs of worms are present. These eggs are specific in shape and form, so that a diagnosis can be made. If they are found, then a determined effort should be made to eliminate them.

#### Athlete's Foot

"What is a good prescription for treating athlete's foot?"

There are a number of valuable prescriptions available in treating athlete's foot, which is a form of fungus infection of the skin. One of the most widely used, and a very useful prescription, is Whitfield's ointment, obtainable in any drugstore. As some skins are more sensitive than others, this ointment should be used with a proper consideration of the condition of the skin after several applications. In general, its intermittent use is best. Soaking the feet for a few minutes daily for three or four days successively in a solution of potassium permanganate 1:5000 keeps the condition under control

#### Root Beer

My son has been making root beer at home, following the directions very closely. Will you please tell me whether this is all right?

The homemade root beer will contain a noticeable amount of alcohol if allowed to stand too long. It should be watched carefully to see that this does not happen, as it might easily create a taste for strong alcoholic beverages,

#### Food Combinations

(Continued from page 19)

tion of fat with other food, she puts the fat on the outside of the food (except in mayonnaise, which is a good combination). Fat is not digested in the stomach, and there is no digestive fluid in the stomach to digest away the fat from the protein and starch so that the latter can be digested in the stomach. Thus the digestion of these must wait until the food leaves the stomach. Of course, if people would chew their food with extreme thoroughness, this combination would do little, if any, harm. In fact, I think that if people would thoroughly chew food, the matter of combinations of food would be of less consequence. But who is there who chews food till it is liquid before swallowing it? Just the other day a patient, a busy man, said to me that he had been eating in restaurants, and washing his food down with milk or other liquid. This saves time from meals, but later one must spend time getting over the evil results.

4. Milk with strong acids has been mentioned as a bad combination, but here again it depends upon how the milk is taken. If the strong acid is eaten first and the milk is drunk in large swallows, the milk will form large, hard curds which are difficult of digestion, while if the milk is taken through a straw or in very small sips and mixed with the saliva, and the acid is eaten last, there will be no indigestion. Of course I am referring to acid fruits when I speak of strong acids. Vinegar is not to be considered, because it is an unwholesome acid. Milk should always be taken in small sips, because the gastric juice is acid, and if milk is drunk like water, it will form hard curds in the stomach even if no acid fruit is eaten at the same time.

5. Starch and acids are said to be a bad combination. But in this case also the manner of eating them makes a difference. The experiment is sometimes tried of thoroughly chewing bread, placing it in a test tube and keeping it warm for a short time, then testing it for starch and sugar, and finding the starch turned to sugar. Then the experiment is tried again, but a lemon is chewed before the bread is chewed, and it is found that this time the starch is not changed to sugar. The saliva acts on starch in an alkaline medium. From this experiment we conclude that if the starch food is eaten first and well chewed and mixed with the saliva, and the fruit eaten afterward, there will be no delay in the digestion of the

There is another way of obviating this difficulty. That is by toasting the cereal or making zwieback of the bread that is to be eaten at the same meal with the acid. The browning of the cereal or bread partially digests it, turning it to dextrose. When rice and tomatoes are

used in the same dish, it is well to brown, or toast, the dry rice before it is cooked and combined with the tomatoes.

Of course, all will agree that complicated mixtures, and food made rich with fat, sugar, and spice, are liable to cause digestive disturbance.

6. Another food combination sometimes condemned is protein and starch at the same meal. In other words, this advice suggests that protein and acids should be eaten at one meal and vegetables and starches at another meal. But there is no good reason for condemning this kind of combination.

Nature itself combines starch and protein-for example, in beans and peas.

Now I will endeavor to show how foods may be chosen in accordance with the instruction I have given, so as to constitute a diet which will be superior to what has been considered an adequate diet.

The figures found in a table like the accompanying one depend upon whose computations are used as a basis for the figures. There are different units for measuring vitamins and different ideas about the amount of the different ones needed to maintain good health. But the conclusions arrived at would be about the same, regardless of the figures used as a basis for the table.

Looking at the totals in the accompanying table, we see that the total calories agree with the generally accepted standard for the average diet—that is, 2,400 to 2,500 calories. Sixty grams of protein are considered sufficient for such a diet, and we have 65 grams, which shows that this

vides an abundance of all the vitamins except vitamin D, which is supplied in very small quantity by food. It appears that the Creator intended for us to get this vitamin from sunlight. If we do not get it from exposure to sunlight, we need exposure to the light from an ultraviolet-ray lamp. Or we need to take irradiated oil or eat food that has been fortified with vitamin D.

I ought to say, in explanation of the vitamin D standard given in the table, that the requirement varies from 800 units for a child to 300 for an adult.

The foods I have listed in the table may be arranged in meals as follows. I am arranging the foods in a good breakfast and dinner and a light supper, which is conceded to be a good arrangement for health.

#### Breakfast

I shredded wheat biscuit, or other whole-grain cereal

1 glass milk

I slice whole-wheat bread

1 tablespoon peanut butter

1 tablespoon butter

I glass orange juice

12 small prunes

#### Dinner

1 glass milk

1 cup cooked navy beans

1 medium potato

d cup spinach

½ cup grated raw carrot 1 tablespoon salad oil

Juice of 4 lemon

2 tablespoons peanut butter

2 tablespoons honey

#### FOOD CHART

				3	MINERALS			VITAMINS			
FOOD W	Grams	Calories	Protein Grams	Calcium Grams	Phosphorus Grams	Iron Grams	A Units	B Units	C Units	D Units	
ESSENTIAL FOODS  Milk 1 pt. Spinach 1/2 c. Carrot 1/2 c. Figs 8 med. Orange juice 1 gl. W. W. bread 2 sl. Peanut butter 4 T.	244 100 74 128 200 76 66	336 25 35 400 112 100 400	16 2.1 0.8 5.2 0 3.3 19.2	.586 .070 .043 .208 .058 .019	,454 ,171 ,031 ,148 ,032 ,083 ,264	.0010 .0069 .0008 .0052 .0004 .0010	805 25,000 4,070 45 134 8 0	98 60 37 41 120 75 390	0 80 5 0 130 0	9 0 0 0 0 0	
American Foods   Wheat, shredded   1 bis.	27 117 156 60 95 13 13 120 7	100 300 100 100 150 100 100 100 13	3.3 2.1 0.8 0 9.7 0 .1 2.6 0.3	.009 .054 .009 .001 .070 .000 .002 .017	.066 .105 .031 .006 .205 .000 .002 .070 .006	.0010 .0051 .0018 .0002 .0041 .0000 .0000 .0011	2,925 429 0 0 0 0 0 48 0	40 0 46 0 224 0 0 48 0	0 0 28 0 0 0 0 18 8	0 0 0 0 0 0 10 0	
Total		2,471	65.5	1.204	1.674	.0294	33,468	1,279	269	19	
Standard			60	.68	1.32	.015	3,000	900	30	300 to 800	

diet does not lack protein, though it contains no meat. The generally accepted standards for calcium, phosphorus, and iron are .68 gm., 1.32 gm., and .015 gm., respectively. The diet provides almost twice as much calcium and iron, and plenty of phosphorus. Also, this diet pro-

#### Supper

- 1 slice whole-wheat bread
- 8 medium figs
- 1 tablespoon peanut butter
- 1 large banana
- 1 tablespoon butter

(Continued on page 31)

# THE MOTHER'S COUNSELOR CONDUCTED BY CONDUCTED BY CONDUCTED BY CONDUCTED BY CONDUCTED BY

Questions for this department should be addressed to The Mother's Counselor, Life and Health, Takoma Park, Washington, D. C. Always enclose stamped, addressed reply envelope.

#### Diet for Fifteen-Month-Old Baby

I have a baby fifteen months old, and while I have been taking him to the doctor occasionally for a general checkup and change of diet, I would like the opinion of someone else on what is bothering me at present.

He seemed to be getting along satisfactorily until he was eleven months old. He ate his food well, but for the last few months he hasn't gained much and does not eat as he did. He is constipated, and vomits his suppers frequently, and therefore goes to bed without supper. Otherwise, he appears to be in good health. That is, he plays and laughs and is very active, running and creeping about.

A few weeks ago I took him to the doctor, and he gave me a change of diet, saying that the baby had not gained sufficiently and was too flabby, that there must be something lacking in his diet. I started giving him Oleum Percomorphum with his orange juice and an egg every day instead of three times a week. Aside from that there was little change, as I did not include meat. Should I substitute some other protein instead of meat? I have been giving him boiled raw milk with the doctor's approval. Can this be the cause of his cons'ipation? Does boiling the milk destroy the food value? I shall appreciate any advice you can give me.

There must be something definitely wrong with your baby's diet, or with the baby himself. I would suggest that you follow the program I give you rather carefully, and then if he doesn't improve, have further medical advice.

#### BREAKFAST

Fresh raw or stewed fruit. If it is stewed, use very little, if any, sugar.

Eight to ten ounces boiled milk.

Cooked cereal with some of this boiled milk, or milk toast, or toast or bread eaten dry.

He may have a little honey, say a teaspoonful or less, preferably eaten direct from the spoon. In addition to fresh fruit he may have mashed banana or dates. Give him no butter. Add a little extra cream to the milk that you put on his cereal, or instead of cream you may use a little extra canned milk. I feel that a comparatively high protein diet will be good for him. The quart of milk daily, with perhaps a little canned milk, assures sufficient protein with that obtained from the other foods.

#### DINNER

Baked or boiled potato (boiled with the jacket).

Purée of some vegetable seasoned only with salt.

A hard-boiled egg yolk.

Boiled milk to drink, eight to ten ounces. If you think he should have a little sweet, give him one half to one teaspoonful of honey or two or three dates. Do not urge these upon him unless he wants them or seems hungry after he has finished the other foods.

#### SUPPER

This should be given him between five and five-thirty in the evening and should consist of:

Fresh fruit, Dry toast, Boiled milk,

This meal should be simple, because of his tendency to vomit it. Between meals, once or twice a day, he should have a glass of orange juice or other juice.

No doubt he was pretty well fed during the early months of his life, and his digestive tract and metabolism may have become clogged. Perhaps he weighed more than he needed to weigh at the end of his first year, and his present reaction is nature's way of unloading. Overfed babies may sometimes be constipated. The advantage of this diet is its simplicity and easy digestibility. He should be able to eat well of the things that are easily digested. No, the boiling of the milk is no cause for constipation. I would continue the Oleum Percomorphum, as you have been advised.

I think it would be well to give him some vitamin B. You can get the vitamin B concentrate capsules, and empty the contents of a capsule into his food or milk once or twice a day.

#### Further Discussion on Bed Wetting

Several articles on bed wetting have appeared in your magazine. I have often thought that I should write you. I am not sure that this bit of information amounts to very much, but here it is.

My brother wet the bed until he was four years old. Though we took him up several times at night and didn't give him any liquid after four o'clock, and tried every other way, yet nothing helped. When he was about four years old, instead of his getting better, he seemed to get worse, and mother became alarmed.

Grandmother heard of this trouble and told mother to let him have all the raisins he would eat—not any special kind as I remember, just plain raisins. Mother decided that that couldn't hurt very much; so she tried it. We never worried him about his bed wetting, but kept the bed dry and padded. Gradually he kept dry more often, and then we began to catch him drinking just at bedtime. When he was scolded for this drinking, he would say, "But, mother, I have eaten extra raisins today; so I can have a drink when I go to bed." Strangely enough, it seemed that in no time he didn't wet the bed any more. He is a healthy man today.

My youngest girl seemed to continue to wet the bed so long after she was trained that I decided to try raisins with her, with the same result. Soon I found that I could take away the padding.

A very valuable thought is contained in this information that has been passed on to us by one of our readers, in connection with the problem of bed wetting.

We know that bed wetting occurs more often in nervous children, and we consider that it is a lack of balance in the controlling nerve impulses. People who are nervous often get a condition called hypoglycemia, that is, too little sugar in the blood. No doubt many of these youngsters have that very condition unrecognized. The eating of raisins supplies natural concentrated sugar and might tend to overcome or prevent this condition of hypoglycemia. The low sugar level that comes on during the night, as it might easily do, could be a definite factor in causing the unfortunate acci-The use of raisins might help to maintain a more regular and normal sugar content in the blood.

It is interesting to note in this connection that many bed-wetting children are not allowed to drink milk or juices late in the day. This plan, while it lessens liquid intake, might easily increase a tendency toward low blood sugar. The raisin plan might be a good one, even a handful of raisins eaten before going to bed. Their bulk is so small that if they are well masticated, there would be practically no tax upon the digestion.

#### Food Combinations

(Continued from page 29)

Following are menus for several other days that would be equally adequate.

#### Breakfast

I serving, whole-grain cereal

1 glass milk

I slice whole-wheat bread

1 tablespoon peanut butter

tablespoon butter

1 glass orange juice

10 dates

#### Dinner

1 glass milk

1 cup cooked Lima beans

1 medium sweet potato

1 cup Swiss chard

cup cabbage salad

2 tablespoons peanut butter Honey and fig marmalade

#### Supper

I slice whole-wheat bread

10 dates

I tablespoon peanut butter

2 fresh peaches

1 tablespoon butter

#### Breakfast

4 tablespoons grapenuts

1 glass milk

15 almonds

I slice whole-wheat bread

1 tablespoon butter

I glass orange juice

8 figs

#### Dinner

1 glass milk

& cup cooked soybeans

cup scalloped potatoes

cup broccoli

1 cup carrot-and-beet salad

1 lb. comb honey

#### Supper

1 slice whole-wheat bread

2 cup blueberries

tablespoon butter

4 tablespoons raisin-and-nut marmalade

#### Breakfast

4 cup cornflakes

1 glass milk

1 egg

1 slice rye bread

1 tablespoon butter

1 grapefruit

d cup raisins

#### Dinner

4 tablespoons cottage cheese

d cup baked peas

3 cup mashed squash

1 cup kale

cup celery-and-tomato salad

2 tablespoons maple sugar

#### Supper

1 slice whole-wheat bread

tablespoon butter

10 dates stuffed with walnuts

1 cup raspberries

#### Breakfast

3 muffets

1 glass milk

1 slice Nutene (2 oz.)\*

1 graham roll

1 tablespoon butter

grapefruit

12 small prunes

#### Dinner

I glass milk

Lettuce-and-egg salad

3 cup mashed potato

cup string beans

cup cabbage-and-celery salad

1 slice honey-and-graham cake

#### Supper

1 slice rye bread

I tablespoon peanut butter

1 piece blueberry pie

1 apple

#### Breaktast

# cup brown-rice flakes

1 glass milk

d cup pine nuts

I slice corn bread

tablespoon butter

1 glass tomato juice

4 canned figs

#### Dinner

I glass milk

3 cup stewed gluten and mushrooms

1 medium potato

cup boiled onions

cup string bean-and-celery salad

1 piece squash pie

#### Supper

1 slice whole-wheat bread

1 tablespoon butter

tablespoon peanut butter

& cantaloupe 1 cup tomato salad

#### Breakfast

1 serving Wheaties

I glass milk

1 slice soy cheese (2 oz.)

whole-wheat luncheon roll

tablespoon butter

glass orange juice

10 fresh dates

#### Dinner

I glass milk

de cup baked beans

cup browned potatoes

cup carrots

cup cucumber-and-tomato salad

I slice date-and-walnut cake

#### Supper

1 slice whole-wheat bread

ablespoon butter

1 fresh pear

cup apple sauce cup cottage cheese

If whole-wheat bread is not desired, enriched bread provides very valuable vitamins and minerals. I have used peanut butter rather freely in these meals because it is an important economical high-protein food which is rich in minerals. I do not share the prejudice against it that some people have. Substitutes for it might be soybeans, soy cheese. Nutene, Protene, and cottage cheese. But cottage cheese is not nearly so valuable as a source of iron.

Now as to the acid-base balance of foods: This is believed to be of some importance because our body tissues are normally slightly alkaline, and this alkalinity is most easily maintained when the alkaline-ash foods predominate in the diet. The acid-ash foods are meats, eggs, cereals, peanuts, and walnuts; the alkaline-ash foods are fruits, vegetables, legumes (except lentils), milk, almonds, and some other nuts. The alkaline-ash foods should predominate in the diet.

Combining foods as an art has to do with making the meal as a whole attractive, combining flavors so that they will appeal to the taste, effecting a pleasing combination of colors, making individual dishes like rolls, salad, cake, or dessert look as pretty as one can make them. However, this can be carried to extreme. consuming an unreasonable amount of time and resulting in decidedly unwholesome dishes.

\* Trade names of similar products: Numete, Not-Meat, Nuteena, Nuttolene.



#### Common Contagious Diseases of Childhood

(Continued from page 12)

parent. Public health departments, baby clinics, and other health-promoting organizations put a firm plank in this preparedness scheme when, in addition to teaching mothers these vital plans for the child's program, they urge that every baby be inoculated against diphtheria and vaccinated against smallpox during the first year of life.

Since we deem it wise to begin the fight against diphtheria and smallpox so early in life, let us in this discussion give our undivided attention to these two contagious diseases. First, we shall consider the inoculation against diphtheria. We advise that it be given to every baby, because the younger the child, the more fatal the disease. For the school child we advise the Schick tests at intervals. The Schick test shows whether or not the child would have an immunity to diphtheria if he were definitely exposed to the disease. If the test shows that he would be susceptible, then he must be inoculated again. The need for Schick testing and reinoculation exists because not all inoculations are successful, and because the immunity created cannot be depended upon for more than a period of a few years.

The material now commonly used for inoculation is the diphtheria poison (or toxin) treated so that its poisonous (or toxic) effect upon the body is minimum. We still find some people who feel that it is better to run the risk of getting the dread diphtheria and let the body then fight the full force of diphtheria's deadly

(Continued on page 34)



By Veda S. Marsh, R. N.

#### Starchy and Fatty Go Traveling

NE cold Saturday evening in January, while the Monroe family were enjoying the fire in the fireplace, mother surprised the twins by

'How would you like to hear a story?" "Oh, lovely," chorused the Little Jays as they brought their cushions and made themselves comfortable at mother's feet. "What is the name of the story?" asked

"'Starchy and Fatty Go Traveling.'"

"That sounds like another physiology story," said John.

"We shall see," said mother, with a

twinkle in her eye.

"Starchy was a piece of baked potato, and Fatty was a tiny piece of butter. They had started out together and now met each other frequently as they traveled the long digestive tract.

"They had both been squeezed out of the stomach about the same time and tumbled over the falls down into the upper part of the intestinal tract called the

duodenum.

"'My, but that was a hard trip,' said Fatty. 'I've been in that stomach nearly four hours, being churned and tumbled around. That hydrochloric acid got in my eyes, and I've tumbled until I have lost all my brothers. I am glad I found you, Starchy.'

"'I am glad to see you again, also, Fatty. My Starch brothers were torn away, also, and did you see how rapidly cousin Protein was digested? We, at least, did not get digested in the stomach."

"'But we shall soon begin to be di-

"'Yes, I suppose so,' answered Starchy. "Splash! 'Oh, did you feel that bile?' said Fatty. 'That makes mayonnaise out of me. I have to be emulsified like mayonnaise so that the juices can digest me. Oh, I can feel myself getting fluffy and airy already.'

"'You certainly look different, too," said Starchy. 'See, here comes my juice Amylase. That soon will change me into

"On they tumbled, shouting with glee as they traveled back and forth and in and out. For a short distance the intestinal wall went up and down like the waves of the ocean. And little hairs like hairs on velvet tossed them along as they rode onward. Then the movement was

reversed, and they were held in a pocket and tossed and churned back and forth. Then onward they went again. Sometimes a little bulge would appear like a tiny balloon, and they were drawn into that and pushed about.

"The Amylase clung to Starchy and kept dividing him and dividing him until he was made into many pieces of maltose.

"The Lipase clung to Fatty when he was covered with bile, and changed him and changed him until he was nothing but fatty acid and glycerin, and was so tiny he could go right through the intestinal wall.

"By that time Starchy met Maltase, and he clung to his tiny particles of maltose and began changing them to glucose, a very fine sugar. The glucose was so tiny it also could go through the wall of the intestine

"Now Fatty and Starchy had to say good-by, but they said they would look for each other in the liver. It might be

they would meet someday.

"Fatty pushed through the intestinal wall, waving good-by to Starchy. How different everything looked there! was sucked and drawn into a very tiny tube called a lymphatic, and dumped into a big cistern of other fatty acids. Up and on they traveled very slowly and finally reached a very large blood vessel above the top of the heart. There they were dumped into the blood stream, and the fast part of their travels began. Fatty requested to be sent to the liver, and away he was rushed through the valves of the heart, then up to the lungs where the red cells received a large load of oxygen. Back to the heart he was rushed, then through the aorta, and away he went. Fatty watched for the sign on the crossroad to the liver. At last he saw it, and just barely got on that side of the aorta in time to be whisked away to the liver.

"He searched and called for Starchy. Where could Starchy be? Finally he saw some storehouses with packages on the shelves labeled 'glycogen.' Suddenly from the corner of one of these packages he heard a faint sound. Yes, it really was his good friend Starchy. Starchy told this

"'I was so lonesome for you, Fatty, that I decided to see the world also. I was too large at first to push through the intestinal wall, but in a few hours I crowded

through. I was drawn into a tube called the portal tube. We traveled westward and received many other streams of blood; so we soon were in a large stream. Finally we reached the liver, and there I had to be acted on by other juices and found myself in the glycogen factory. Now I am on this warehouse shelf, where I must stay until some muscle sends for me. How long can you stay, Fatty?'

"'Not very long,' said Fatty. 'I have orders to go and make some fat padding. Of course sometimes our orders are changed and we have to be burned up to make heat for the body. But I may see you later in the large intestine.'

"'I hope so,' said Starchy as she composed herself for what might be a long wait in the glycogen package."

"Thanks, mother," said the Little Jays as they kissed her good night.

#### Suggestions for Teachers

- 1. Show a picture of the digestive tract and point out the parts. (The duodenum is the first ten inches of the small intestine.)
- 2. Put a chart on the board showing the juices acting on each of the foodsstarch, protein, and fats. Indicate the juices acting on starch in red, those acting on protein in blue, and those acting on fats in yellow.
- 3. Take a piece of bread and chew it thoroughly. Note when it begins to taste sweet. That is when the starch is changed to sugar by the saliva. (Thus starches should be well chewed.)
- 4. Note the difference in time it takes for a piece of bread to taste sweet and for a thoroughly baked piece of crust of bread to taste sweet. Heat in baking starts to change starch to sugar.
- 5. Show a picture of the gall bladder and note that it is a reservoir for bile until it is needed for changing the fats. Trace the bile from the gall bladder to the small intestine (duodenum).

#### Junior Life and Health League Rules for School Year 1941-42

take two baths each week. brush my teeth twice daily

3. I drink milk every day. (Preferably 1 qt. daily.)
4. I wash my hands before eating.
5. I eat daily: Vegetables, fruits (fresh or dried), whole-wheat or dark bread, and nothing between meals.
6. I play or work out of doors six days a week

7. I try to be courteous and cheerful at all times, and do one good deed for someone each day.

I have read the rules of the Junior Life and Health League, and have been observing them for two weeks. I shall continue to observe them, and will read the Boys and Girls' page each month. Please enroll me as a member of the Junior Life and Health League for the school year 1941-42. I understand I am to receive a membership card, and a button to wear.

#### Directions

Copy the above pledge in your own handwriting, and sign your name (very plainly). Then write your address and the name of your father or mother. Mail this to: Aunt Sue, Life and Health, Takoma Park, Washington, D. C.



#### By Edyth Terrill James, R. N., M. S.

This material is prepared as an adjunct in high-school, college, and nurses' training classes in Health Education, Anatomy, Physiology, Hygiene, General Science, etc. The page reference at the end of each question, or group of questions, indicates the page on which the article that contains the answer, begins.

#### Short-Answer Questions

- Place a check mark after each of the following statements which is wholly or partly incorrect.
   Pains in or about the heart usually indicate that something is seriously wrong with it.
   Alarming heart disturbances are frequently caused by digestive upsets.
   Breathlessness, rapid heartbeat, and exhaustion following exercise, indicate a diseased heart.
  - d. Instability of the nerve control of the heart may cause disturbances similar to those caused by serious heart disease.

    e. Irritating the heart by the use of tea, coffee, or tobacco, or by overeating or by worry, often causes it to miss a beat.

    f. A pain in the heart when one is tired and nervous is unimportant.
    g. Heart disease is the most frequent cause of death. (Page 8.)
- 2. An individual with a strong character is likely to live longer and have better health than one with a weak character. Check the statements below which verify this fact.

  a. Much of disease in later life is due to poor training in childhood.

  b. Some perverse individuals live long, healthful lives.

  - lives.

    Rarely does an individual live up to his health knowledge.

    The waistline frequently increases at the expense of the life line.

    Periodic health examinations are the practice of very few. (Page 10.) d.
- 3. Johnnie has come home from school with what his mother believes is the beginning of a cold. His mother treats him as follows: (Check only what she should do, and in spaces provided at the right, number in the order in which the procedure should be carried out.)

  a. She has him go to sleep.
  b. She separates him from the rest of the family,
- c. She provides plenty of cold outdoor air.
- d. She allows him to have his favorite dish of hot
- cakes.

  e. She gives him a hot foot bath and a drink of hot lemonade.

  f. She gives him an inhalation of moist air containing benzoin-eucalyptus compound.

  g. She has him sniff up plenty of nose drops.
- h. She slightly lubricates his nostrils with nose
- drops. She encourages him to drink freely and eat
- j. She takes his temperature.
- 4. The phrases in the second column explain the cause of the conditions in the first column. Match the statements by placing the appropriate letters in blanks provided.

  ... mildew stain

  a. rapid temperature changes
  b. too much oil or insufficient
- mildew stain alligatoring b. too much oil or insufficient brushing out.

  spotting c. too hard and too brittle a brush.

  wrinkled surface cracking and scaling and scale cracking and scale company and company and
- running and sag-ging f, poor mixing and improper drying g, too hard a coat
- peeling too rapid chalking h. fungus accumulation
- 5. To maintain a wholesome, healthy personality one
- a wholesome, nearthy personanty one should be protected from—

  a. ......disappointments and defeat.

  b. .....decided variation in the daily routine of life.

  c. .....overindulgence by parents and relatives.

  d. .....tal-and-error experiences.

  e. .....the "school of hard knocks." (Page 14.)

- The following are said to be unfavorable food combinations. Check if you agree.

  a. fruits and vegetables at the same meal.

  b. concentrated milk-and-sugar preparations.

  c. milk in large swallows with acid fruit.

  d. food cooked in fat.

  e. complicated mixtures.

  f. protein and starch.

  Because (Place letter of above in appropriate space below.)—

- this combination caused the production of ex-cess acid and slows up digestion. it favors decomposition rather than normal
- digestion.
- digestion.

  it takes a vigorous digestion to care for them.

  a combination never found in nature.

  an unwholesome amount of time is needed in
- their preparation.
  this prevents the normal digestion in the stomach.
  everyone fails to chew his food sufficiently.
  large clots are formed which are difficult of digestion. (Page 19.)

#### Discussion Questions

- Name the signs of heart disease. (Page 8.) Discuss the proper procedure to follow to determine whether the heart is functioning properly.

- mine whether the heart is functioning properly. (Page 8.)
  3. How is the power of self-discipline related to coronary heart disease? (Page 10.)
  4. What should be done from infancy on up to avoid diphtheria? (Page 12.)
  5. How do signs of a cold differ from signs of influenza? (Page 12.)
  6. What points should be considered in finishing floors? (Page 13.)
  7. For what are water and casein paints used? Consider their advantages and disadvantages. (Page (13.))
  8. If one member of the family appears to be very
- (13.)
  8. If one member of the family appears to be very different in conduct, manners, and personality, what should be done about it? (Page 14.)
  9. How can an individual learn to control his fears? (Page 14.)
  10. What effect does fear have on mental health? (Page 14.)
  11. Why should persistent leg pains be discussed with the family physician? (Page 16.)
  12. Explain why it is sometimes difficult to locate the cause of a pain. (Page 16.)
  13. What is the significance of growing pains? (Page 16.)

- 16. Discuss the dangers of home medication and treatment. (Page 17.)
  15. Why is it necessary to consider food combinations? (Page 19.)
  16. What should be included in the daily diet to ensure adequacy of the fundamental food factors? (Page 19.)
  17. Why is pork as a food under question? (Page 20.)

#### Health Projects and Problems

- Health Projects and Problems

  1. Outline a program of living that will protect the heart from overstrain, irritation, and disease, and also develop a strong character. (Pages 8, 10.)

  2. Investigate the history of smallpox control in the United States. Report the results of your investigation. (Page 12.)

  3. Make a graph showing the mortality rate from diphtheria for the last fifty years. Account for variations. (Page 12.)

  4. Discuss how the public-health department helps in the control of communicable disease. (Page 12.)

  5. List the signs of a cold. Outline a program of care for forty-eight hours following the first symptoms. Why should signs of cold be given serious attention? (Page 12.)

  6. You are planning the exterior and interior decorating of your home. List as many principles as you think should be considered in order to ensure a good job. (Page 13.)

  7. Make a list of the various fears that plague individuals, discussing their cause and prevention. (Page 14.)

  8. Make a list of the causes of leg pains. Tell what to do about each, and why. (Page 16.)

  9. Prepare a five-minute report on the value of an annual health checkup. (Page 17.)

  10. What is a balanced diet? Plan one for a twenty-four-hour period, including all the essential foods. Plan it so that it utilizes the foods available in your home. (Page 19.)

  11. Prepare several statements which serve to impress the public with respect to the importance of avoiding the use of contaminated pigs for food. (Page 20.)

#### Vocabulary

- syndrome
   physiological
   instability 8. neurotic 9. character 10. antisocial 11. conditioned bogy murmurs
- 12. psychother-6. cardiac 7. sedentary
- 14. progeny 15. degenera-tive 16. gustatory 17. sciatica 18. lumbago 19. trichinosis

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#### By Merwin R. Thurber

A clear, cold moon looks o'er my garden wall tonight;

White snow covers the ground beneath its frosty light.

But all my garden friends asleep in comfort lie,

And brave old trees spread open arms on high.

Not bitter cold I see, nor cruel winds or

But nature's time of rest in peace and quietude.

F face another year. The twelve months since 1941 was ushered in, have passed with their joys and problems. Whatever of regrets they may have held, let us look to the future with its new opportunities—opportunities for self-improvement, for kindlier living, for neighborliness, for unselfish service.

We hope the holiday season brought you much of good cheer, with no physical repercussions to spoil your happiness.

This little column is purposely labeled, "Gardening for Health." It does not claim to be a fount of great scientific knowledge. We purpose only to call your attention to the many health-building possibilities which may be discovered in gardening, and to interest you in some of the intriguing aspects of working with soil.

Thousands will testify to receiving some mysterious element—some spiritual vitamin, if you please—from their gardening endeavors, which gives a new courage to face the problems of life and a new vigor for the tasks of a modern world. The strain of the fast pace at which most of us live, needs to be relieved at times, that nature may restore us to our usual efficiency. Nor would we overlook the value of the spiritual communion between man and his Maker which is possible in a pe-

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The service of the servi

culiar way when man works with his hands in the soil.

The limits of our space prevent us from taking more than a dip here and there into the vast field of amateur gardening. There are so many things to be said about gardening, even in January. that we have to choose. January is planning time. May we suggest that you write to your own State agricultural college for a bulletin on home gardens. In our office we have one from almost every State in the Union. There is also a good general bulletin published by the United States Department of Agriculture. But your State bulletin will give garden plans and planting data for your own locality that you cannot afford to be without.

Because of the wide variety of seasons and practice in the United States, we shall make no attempt to follow a garden calendar in this column.

In recent months we have had much to say about ornamental gardening, largely because the people who most need the health benefits of gardening are likely to find in landscaping and flower growing the recreational outlets suitable to their time and situation. But with a national emergency demanding a larger output of food in the United States, many gardeners, even in the cities, would do well to turn their thoughts to the growing of fruits and vegetables. Fruit trees may often be as ornamental as some of their less practical relatives. And many vegetables will grow where flowers do.

There are many interesting tricks which will enable a person with limited space to grow something for the table. We heard of one some years ago that deserves wider trial. A barrel was placed on a suitable turntable-the originator used an old wagon wheel-and filled with good garden soil. Holes were bored in the sides of the barrel, and strawberry plants were inserted. Watering was done from the top of the barrel, and the movable garden was turned frequently in order that every plant could have an equal share of sunlight. The plants are up away from the ground, and should produce a large percentage of perfect fruit.

Another method is much used in Europe. Fruit trees are grown on trellises—called espaliers—or against walls. Says one authority:

"In employing the espalier system, dwarf trees (mainly pear or apple, but any of the stone fruits if desired) are used, and the branches, restricted to a definite, symmetrical number, are trained in a single plane parallel to the support, either horizontally, vertically, or in diagonal directions. The branching is started low, and by constant heading back, pinching of unwanted shoots, and tying of the stems to the trellis, the desired form and design of branches is developed, the fruits being allowed to form on selected spurs at uniform intervals."

The growing of shrubs and trees in

close quarters has called forth many ingenious devices, and if you are looking for something new in the way of gardening, you might like to try your hand at some of them.



#### Common Contagious Diseases of Childhood

(Continued from page 31)

poison than to subject the body to the mild reaction produced by inoculation. It must be expected that every advance of knowledge will be met with opposition; but this type of opposition is rapidly dying out.

A Schick test should be made six months after every inoculation to check its effectiveness. We should add that no guaranty can be made with inoculations; but very rarely does a person who has been successfully inoculated against diphtheria and is negative to the Schick test contract the disease. As we have stated before, it is most important that these precautionary measures be carried out at least for our children. In the cities two thirds of the cases of diphtheria occur in children under ten years of age, and two thirds of the deaths occur in children under five years of age.

Diphtheria is described as a disease caused by a specific organism or germ. The disease attacks mainly during the autumn and winter months. It is passed from one individual to another mainly in the discharges from the eyes, nose, and throat. It may be transmitted by direct contact with the infected person, indirectly by articles freshly soiled with the discharges, or through infected milk. After the individual acquires the germs, it usually takes from two to five days for the first symptoms to develop. There are active germs in the secretions usually for two to four weeks after the onset of the illness. The early symptoms of diphtheria are headache, weakness, sore throat, fever, and a very rapid pulse. The throat condition becomes rapidly worse, and a membrane forms. Mild cases do occur. some so mild that they may never be rec-

ognized as diphtheria; but the regular

case is serious, and needs immediate med-

ical attention. Along with the disease there may be complications, some mild,

some serious.

The doctor takes a smear from any suspicious-looking throat. This is examined by the laboratory as quickly as possible. If the diphtheria organism is found, the doctor gives injections of diphtheria antitoxin immediately. If this injection can be given early in the course of the disease, the patient's chance of life is several times greater than if it is postponed. The patient must have absolute bed rest for at least three weeks, must have good nursing care, and must be isolated. This, of course, is carried out best in a hospital.

The American Public Health Associa-

tion gives a list of requirements for the handling of diphtheria cases which may be simplified as follows: (1) Report of case to health department; (2) laboratory examination of patient's discharges; (3) isolation of the patient until there are no further active organisms in the discharges; (4) constant disinfection of all articles used by the patient; (5) disinfection of the room at the end of illness; (6) quarantine of people who had close contact with the patient, until laboratory examinations prove them not to be carriers of the disease; (7) inoculation of all children at the age of six months, Schick testing of all children over six years of age and of adults especially exposed, and inoculation of all positive individuals in this group; (8) pasteurization of milk.

Let us now turn our attention to the disease which has been classed as the most dread of all diseases, smallpox. Let us not say that smallpox is a disease of the past. It is estimated that there are still approximately 18,000 cases every year in the United States alone. This in spite of all our modern knowledge and sanitation. In the eighteenth century it was estimated that smallpox killed at least sixty million people. It was early in the nineteenth century that the art of vaccination was introduced by Edward Jenner.

The dread smallpox could in 1941 be a thing only of history. Why is that not yet true in this country? In several countries in which vaccination regulations are quite strictly enforced, the disease is actually almost a thing of history. For the cases that still occur in the United States we must individually bear the blame. It is our duty to see that every child is vaccinated before he passes his first year, and again on entering school; and it is the duty of young people and young adults to be revaccinated approximately every seven years.

Smallpox is a disease of winter and spring. It is highly infectious, and spreads quickly to all exposed and unvaccinated persons. The disease is passed from one individual to another by excretions from the broken and sore points on the skin surface, or by other body excretions. Contact either with the infected person or with a person contaminated with the excretions may produce the disease. It may be passed through the air, but this is not probable for a distance of more than a few feet. After exposure to the disease, it usually takes from eight to sixteen days for the development of the first symptoms. It may be transmitted to others from the time the first symptoms appear until the disappearance of all scabs and crusts

Common symptoms of smallpox are severe pains in the extremities and the back, agonizing headache, chills, vomiting, fever, and delirium. After two to five days the skin eruption develops. The disease may be light or very serious, and may be marked by complications. Owing



By Thomas B. Bruce, II, D. V. M.

#### Feeding Your Dog

THE dog is a carnivorous animal, and centuries of domestication have never really brought the canine species to the point where meat is not essential to his diet. From puppyhood, he will be found defending his bone, no matter how timid he may be under other circumstances. Thus a certain amount of meat should be regularly included in his food.

The only meat foods that may really be detrimental are raw hamburger, and pork, ham, or bacon. The hamburger forms a gummy mass in the dog's stomach just as it does in your hands, and is hard for the dog's digestive juices to break down. Meat of swine rarely, if ever, agrees with your pet. Feeding bones of chickens is also dangerous, since they splinter, and so may puncture stomach or intestine before the digestive juices can absorb them. Otherwise there are no restrictions. Beef liver, salmon, sardines, and mackerel have the greatest nutritive value.

To round out a balanced ration for your pet, you may use any number of excellent foodstuffs, and you will find most of them in your daily menu. For example: Eggs; soft cooked or raw, and stirred into sweet milk. Milk: sweet milk and buttermilk. Vary use of milk by including warm gruels of corn meal or oatmeal in the diet. Cereals: corn and oat cereals are both excellent, while wheat cereals and wheat breads are detrimental to an overwhelming percentage of the canine species.

Green vegetables and their broths are good, as well as green peas or beans. However, not all dogs consider these appetizing, and some may refuse to eat them.

White, or Irish, potatoes are classed with wheat products, and are not easily digested. They may be considered harmful.

In the case of commercial dog foods, we find many advertised as a balanced ration. Since variety is as important in the dog's diet as in our own, I think we can all understand that continued feeding of one combination would be harmful unless all dogs were exactly alike. Trouble is usually caused by a vitamin or mineral shortage rather than by the presence of any particular ingredient. Some animals may show no serious effect, while others may develop any of a number of varied symptoms, recognized by your veterinarian as dietary deficiencies.

erinarian as dietary deficiencies.

The schedule of feeding will depend on the size and age of your dog. Puppies of smaller breeds should be fed four times daily up to the age of six months, and those of the larger breeds three times daily for the same period. Adults of larger breeds are fed only once a day, and those of the toy and terrier breeds are fed twice daily.

In conclusion, I would like to make it plain that you and your veterinarian are the only persons in close enough association with your pet's habits, environment, etc., to adjust his diet to his needs.

For your pet's sake, keep his diet varied enough to make food interesting. He will enjoy variety as much as you do. to the fact that the disease takes from eight to sixteen days to develop, it is possible, by immediate vaccination after exposure, to prevent or minimize the illness.

Treatment requires absolute bed rest and careful nursing under hospital isolation, and the time of isolation usually extends over a period of several weeks. The points stressed by the American Public Health Association for the care of smallpox cases may be given simply as follows: (1) Reporting of the case to the health department; (2) hospital isolation; (3) constant disinfection of all discharges and of all articles used by the patient; (4) thorough disinfection of the premises at the end of the illness; (5) quarantine of all exposed individuals for sixteen days: or, if vaccination was done within twentyfour hours of exposure, until the height of the vaccination is passed; (6) investigation of the source of infection: (7) vaccination of every child in early infancy, revaccination of children on entering school, and of the entire population when the disease appears in severe form.

Diphtheria and smallpox take a heavy toll of life. Don't let your child be a victim. In view of the fact that so many contagious diseases begin with "coldlike" or "grippelike" symptoms, we would encourage every mother to have a thermometer in the home and to learn to read it. Your thermometer will make you alert. Mother, if you have any question about your child's symptoms, consult your doctor immediately.

Preparedness requires both knowledge and action,

+ + +

#### New Hope for Nervous and Mental Disorders

(Continued from page 15)

times I have a gripping feeling in the chest and a tightening of the throat, and my tongue and mouth feel stiff and queer."

Many nervous or mental patients are more or less restless, irritable, touchy, noisy, suspicious, moody, self-conscious, self-assertive, easily offended, unable to stand criticism or opposition, demanding, destructive, apprehensive, subject to spells of hysterical crying or laughter, evil forebodings, passionate outbursts of anger, and loss of memory and self-control. They suffer from a varying degree of mental confusion, and most are overwhelmed with vague or fixed fears, all of which play havoc with health and conduce to an attack of nervous or mental derangement. Indecision and uncertainty rule in their minds, so that they are "like a wave of the sea driven with the wind and tossed."

Whether the symptoms are mild or severe, almost every depressed patient be-

lieves that his sufferings are the worst ever, and that no one has ever been so terribly afflicted before.

During the past decade or more much study and research have been given to these nervous and psychotic, or mild mental, disorders, and a new type of treatment, first introduced by Sakel of Vienna, has been developed with considerable success. This he called "shock treatment," which he induced by the hypodermic administration of insulin. Many patients previously regarded as incurable have been relieved, very materially improved in health and, in some cases, completely

Meduna discovered metrazol shock treatment, which gave even better results than the insulin. More recently Cerletti and Bini of Italy experimented with a mild electric current and obtained the best results yet achieved by any of these methods. Electric-shock therapy, when properly administered by a competent psychiatrist or nerve specialist to a carefully selected patient, is now regarded as not only a safe treatment, but also the most successful type for many of these nervous and mental patients, who appear to be increasing in number.

Among the disorders that have been successfully treated are melancholia, hypochondriasis, mental depression with or without agitation, maniacal conditions, neuroses with depression, some varieties of hysteria, certain borderline cases, and other functional disturbances of the

Even some forms of dementia praecox, if not too chronic, have responded well to the new treatment with marked improvement or apparent cure.

It is important to note that the best success is usually obtained when it is possible to begin the treatment of any of these diseases in the early stage.

#### Nicotinic Acid Not Nicotine

DECAUSE of the present program of enriching bread and other products with certain vitamins, the public is becoming acquainted with many new and strange names. One of these is nicotinic acid. The name has a close resemblance to that of nicotine, a potent poison found in tobacco. Furthermore, recent news releases state that great fields of tobacco plants are being grown for the purpose of securing nicotinic acid. The natural conclusion of many is that nicotinic acid and nicotine are really one and the same, or at least are so closely related at the source as to be equally dangerous for human consumption.

This conclusion is understandable, but is wholly mistaken. Nicotinic acid is a beneficial substance, vital to good nutrition, and a most important factor in preventing a certain dietary-deficiency disease, pellagra. Nicotine is a poison, with nothing to be said in its favor except that it has value as a spray for killing small creatures that infest plants.

The only reason nicotinic acid bears the name that it does is because it was first studied in Nicotiana, the tobacco plant. It is now known to exist in a great number of plants, including most green vegetables. It is found in milk, eggs, brewers' yeast, and wheat germ. Whole-wheat bread contains nicotinic acid. If nicotinic acid had first been discovered in one of these other sources, it would have borne another name. For example, if it had first been studied in yeast, it would have been named "zymic acid." The only reason it is being extracted from the tobacco plant is because it is there found in greater concentration than in most other plants. But, as Dr. Walter H. Eddy states authoritatively and unequivocally in his popular work, "We Need Vitamins," nicotinic acid "bears no relation, chemical or otherwise, to nicotine."-Page 46.

For certain emotional reasons it is unfortunate that this similarity of names exists, or that nicotinic acid is known to be secured at times from the tobacco plant, instead of from some other plant, or synthetically. But emotions are likely to play havoc when mixed with chemical formulas. "Nicotinic acid is a so-called 'carboxylic' acid, having six carbon, five hydrogen, one nitrogen, and two oxygen atoms."-Ibid. In the mysterious chemistry of nature, the arrangement and number of atoms in a molecule have much to do with giving to a substance its distinctive character. All substances, whether safe or dangerous, consist of a certain arrangement of a very limited number of atoms.

Just why one combination of atoms is harmless and another poisonous is one of the amazing facts of nature. The difference between them we know by actual tests or painful experience, though we may not be able to give a satisfactory reason why. And before we have gone far into a study of such mysteries, we have forgotten minor points like similarities of names or sources, for we find ourselves repeatedly confronted with the same names and entities, such as carbon, hydrogen, nitrogen, oxygen, etc., in dealing with a vast array of substances.

We indict nicotine as a life-destroying poison. We endorse nicotinic acid as a life-giving substance.

THE saliva possesses many of the desirable qualities of a mouthwash. The ideal mouthwash should be of similar nature, such that will not irritate the soft tissues nor destroy the salivary ferments, nor be poisonous if swallowed. The wash should not be expensive, so it may be used freely.-Roxette L. Runk, M.D.

#### **Favorite Recipes**

Chef Myrta Cornor

#### Scalloped Eggplant

1½ cups eggplant cut in ½-inch cubes cup stale bread cut in 1-inch cubes

cup rich milk Pinch of sage if desired, salt and celery

salt to taste 1 tablespoon onion chopped and braised in 1 teaspoon butter and 1 table-spoon oil or vegetable shortening

1 cup strained tomatoes or fresh tomatoes cut in cubes

Cook eggplant in salted water until tender, and then drain. Beat egg, add milk, tomato, onion, and seasonings. Pour over bread. Let stand five minutes. Add eggplant and stir through. Bake in casserole in moderate oven

#### Apple, Wheat, and Raisin Salad

11 cups diced apple cup soaked raisins cup soaked wheat 2 tablespoons chopped nuts

cup mayonnaise Salt to taste

Cut apples into mayonnaise to prevent turning. Add all other ingredients except nuts. Serve on lettuce on individual plates, and sprinkle with the nuts.

#### Cashew Nut Loaf

3 cups coarsely ground raw cashews 2 cups chopped onions

cup milk

11 tablespoons paprika can gluten

cup cracker crumbs

eggs tablespoon Savita \* tablespoon butter

tablespoon oil or vegetable shortening

tablespoons chopped parsley tablespoons Bakon Yeast

tablespoon celery salt teaspoon Ve-Tsin (Chinese seasoning)

teaspoon sage

Salt to taste

Grind gluten. Braise onions in the fat until tender. Add all seasonings, then the gluten. Stir through well. Add half the milk to mixture, and cook. Add the crumbs to the nuts. Pour cold milk over, then add other ingredients, except eggs. Add slightly beaten eggs last, then salt. Stir well. Pour in oiled and crumbed brick-shaped tins. Set in pan with small amount water. Cover and bake fortyfive minutes in moderate oven. Serve hot or cold. Fills two medium-sized tins.

#### Molded Raw Vegetable Salad

1 cup chopped cabbage

tablespoons chopped green pepper teaspoon chopped pimiento teaspoon grated onion teaspoon lemon juice

3 tablespoons lemon juice 2 tablespoons sugar

teaspoon salt cup well-soaked agar

cup water

Combine all ingredients except agar and water. Dissolve the agar in the water over fire. Add to vegetables. Pour in molds that have been dipped in cold water. When set, chill and serve.

<sup>\*</sup> Trade names of similar products are Savorex, Tastex, Vegex.



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Portland Sanitarium, 932 S. E. 60th Avenue, Portland, Oregon

Oregon Resthaven Sanitarium, Sidney, British Columbia, Canada St. Helena Sanitarium, Sanitarium, California Walla Walla Sanitarium, Walla Walla, Washington White Memorial Hospital, 312 N. Boyle Avenue, Los Angeles, California

#### Skipped Beats, Palpitation, Swelling, Do They Mean Heart Trouble?

(Continued from page 9)

was that called "shinkou tong"—pain in the mouth of the heart. We soon learned that this was almost always caused by indigestion. It shows that others besides the people in America are heart-conscious.

Real heart pain is usually due to overtiring of a weakened heart muscle by too much activity and exercise. The pain due to heart fatigue generally comes on during periods of activity or strenuous physical exercise, and usually responds to rest. On the other hand, the pains caused by neuralgia or neuritis are usually more noticeable during resting perriods. They do not respond to rest and are not brought on or made worse by physical exertion. Whatever may be the cause of these pains, all of them require careful and thorough investigation.

Swelling of the feet and ankles, though usually indicative of heart disease, is not surely so. If there is any condition present that interferes with the return circulation of the blood from the feet and





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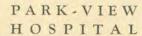


legs, swelling will naturally follow. Varicose veins or local pressure may cause such swelling. There are conditions which cause a blocking of the lymphatic channels which also produce swelling of the feet and legs. Sometimes, especially in hot weather, stout people may notice a puffiness of the feet and ankles which alarms them. This condition disappears with rest, and does not mean that the heart is involved. Any continued swelling, especially if it involves both feet and can be dented by pressure to leave marks, should be carefully investigated by your physician.

Sometimes in an examination a heart murmur is heard. Murmurs are usually associated with heart disease and are caused by the improper working of the heart valves. These valves are very delicate folds of tissue. When they become thickened by disease or when growths form upon them they may not close properly or they may not open wide enough, and the resulting interference with the blood flow produces a murmur. However, there are others, the so-called "functional" murmurs, which are caused by eddies in the blood flowing through the heart, by movements of the heart during its contractions, or by other equally harmless causes. There are degrees of actual valvular murmurs also. A valve may be slightly incompetent, and this incompetence may produce a noisy murmur, but one that is not at all serious. Indeed, the heart efficiency may be quite adequate for years to come. After all, the condition of the heart muscle is likely to be much more important than that of the valve. Do not allow your "leaking valve," or supposedly leaking valve, to spoil your

So, if you have pains or other symptoms which make you feel that you may have heart trouble, don't get excited and worried about the prospect of having to do yourself up in cotton and retire to the shelf. You are probably not a museum piece yet. Do the sensible thing-go to your family doctor. He can tell you whether or not you have trouble with your heart, and can advise and arrange special tests or consultations if such are needed. Take his advice. If there is nothing wrong, forget your heart and let it do its work without interference. If something requires attention, have it cared for. If you find that you have limitations, learn to live within them without adding to your troubles by constant worry and anxiety. It is surprising how much there is in life that can be extracted without too much physical exertion.

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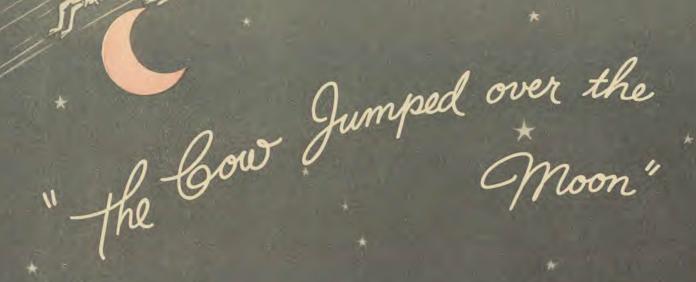
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