

Life & Health

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58th YEAR OF
PUBLICATION

- ★ What's Your Health Score?
- ★ Indigestion—"Heartburn"
- ★ Are Diseases Inherited?

- ★ The Ductless Glands
- ★ How to Banish Fear
- ★ Breathing Exercises



Veigelona

VEGELONA-CREOLE

Cut Veigelona (14 oz. can) in strips, and brown in skillet with two small, diced onions. Meanwhile, put 1 large can tomatoes, 2 cups kidney beans (canned or home-cooked, drained), 1 tsp. salt and 1 tsp. paprika in saucepan and simmer 10 minutes. Add Veigelona and onion and 1/2 cup chopped green pepper, and simmer 2 or 3 minutes more. Serve with rice. To increase the recipe, browned Gluten Steak strips may be added as garnishing.



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Coming Next Month

TODAY we hear much about colitis. A doctor discusses cathartic colitis. . . . First-aid suggestions for cuts, scratches, and blisters. . . . As you travel the highway of life three hitchhikers will try to make you stop and give them a ride. Young people, especially are warned against these bold fellows who mean only harm. No riders should be our rule. . . . A dessert is a sweet served at the close of a meal. But how much should we eat, and how often should we have desserts? . . . Fifth in the series of articles on cancer is a discussion of the experimental production of cancer. . . . Shifting pains, fleeting pains, here now and somewhere else this afternoon. What do they signify? . . . The question of drinks, fruit juices, vegetable juices, cocoa, etc., is the subject of our dietitian's cooking lesson. . . . Another quiz on your health habits.

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THE LAMB: Forgive my butting in like this. But my mission in life is to remind people of a pleasanter and gentler way of dealing with that little difficulty so many of them have.

MR. A.: I think I know what you mean. Could it be constipation?

THE LAMB: It could, sir, and it is! If you are one of those people with normal intestines who are troubled with constipation due to lack of "bulk" in the diet, KELLOGG'S ALL-BRAN will not only get at the cause of the trouble, but it will do it in a way that is surprisingly pleasant and *gentle*, too.

MRS. A.: Did I hear you say "gentle"?

THE LAMB: Indeed you did, ma'am! And that is because ALL-BRAN does not act like many medicinal laxatives. They work by *prodding* the intestines into action or by drawing moisture into them from other parts of the body. But ALL-BRAN works principally on the *contents* of the colon, helping you to have easy and normal elimination.

MRS. A.: That sounds like common sense. And ALL-BRAN does look delicious. Let's try it, dear.

THE LAMB: Just remember to eat it often and drink plenty of water.

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THIS TYPE OF FOOD IS AMONG THOSE RECOMMENDED IN THE NUTRITION FOOD RULES

EAT NUTRITIONAL FOOD

MADE BY KELLOGG'S IN BATTLE CREEK



TEN questions that deal directly with your health. Read them over, and be honest with yourself as you check your score. Is it 100? Page 6.

THE ductless glands are extremely important in the control of body functions. They direct physical and mental growth, digestion, nutrition, metabolism, fetal development, sex differentiation. Page 8.

CALLUSES, what causes them, and how to treat them. Page 9.

DOES fear beset your path and make life unbearable? Normal fear serves us well, but there is a devastating fear of which we must rid ourselves if we are to lead normal lives. Page 10.

You may have tried reducing exercises any number of times, but how about deep-breathing exercises? Do you know what they will do for you? See page 11.

INDIGESTION is an indefinite term, and since indigestion may be a symptom of serious organic disease, it should not be regarded lightly. Such conditions spoken of as heartburn, sour stomach, etc., are discussed in the article on page 12.

HEREDITY has a very direct bearing on disease, and sensible indeed it is to consider this question when marriage is contemplated. "Are Diseases Inherited?" Page 14.

COOKING SCHOOL LESSON No. 5 contains recipes for chop suey, fine herb sauce, potatoes in the half shell, almond macaroons. Page 17.

BACK-SEAT drivers and the rest of us may be especially good in watching the curves and corners of a highway, but how about our own physical curves and corners? Something to think about, isn't it, and to do about! Page 18.

WE hear much about good nutrition, the yardstick that measures our well-being in terms of our daily food. How does vegetarianism measure up? Page 20.



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"Uncle Sam Needs Nurses"

"UNCLE SAM NEEDS NURSES," is the title of a pamphlet issued by the American Red Cross Nursing Service in connection with the national defense program. The title continues to be pertinent today. Yes, Uncle Sam needs nurses for the armed forces and for civilian health services.

The Army and Navy are now asking for 3,000 registered nurses a month! To meet adequately this need and to carry on the health services for the civilian population, it has been estimated that schools of nursing must enroll a total of 55,000 new students during the coming school year. It is also known that this number must be increased each succeeding year during the war.

How is this increase in enrollment to be secured? All can participate in the recruiting of students for schools of nursing by interesting qualified young women to make application in an accredited school of nursing.

Which schools of nursing are accredited? Write to the Board of Nurse Examiners in the capital city of the State in which you reside, and the names of the accredited schools of your State will be supplied to you.

Who is qualified to enroll in a school of nursing? An applicant with good physical and mental health, physically and emotionally mature (not younger than eighteen years of age), who has a desire to serve through the ministry of nursing, ability to work well with others, a good personality, a good moral character, ability to enjoy work, manual dexterity, ability to adjust well, and intellectual capacity to meet the academic requirements of the school of nursing—such a young woman would give promise of succeeding in nursing!

Graduation from high school is the minimum educational requirement for entrance into an accredited school of nursing. This constitutes the requirement for the largest per cent of schools. There are other schools whose curricula are set up on additional educational preparation, such as one year of college, two years of college, and college graduation.

It should be recognized that nursing is a worth-while vocation in peacetime, as well as during a national crisis, for nursing is concerned with teaching individuals how to promote optimum health, prevent disease, and give nursing care to those who are ill.

The breadth of these objectives serves to make nursing the attractive profession that it is. The satisfactions which are derived from being able more intelligently to improve one's own health status, are great, as is the satisfaction in teaching others and also in relieving the distress of the ill through the ministry of nursing.

As has been pointed out, present world conditions demand an acceleration of nursing school enrollments. However, those who enter the nursing profession today should be cognizant of the fact that they are acquiring a preparation which will enrich their service to their community in peacetime as well as during war. The avenues of service through nursing are broad. Varied areas are open in public-health nursing and institutional nursing. It should be noted that the ability to give good bedside nursing care is fundamental to the expert performance of all types of nursing. Bedside nursing always has engaged and always will engage the service of the largest per cent of this professional group.

The value of nursing as a profession extends beyond the period when one follows it as a professional pursuit. The homemaker who has a preparation in nursing is to be envied. The professional nurse who may be thrust back on her own resources after years of professional inactivity generally makes a rapid "come back," because she finds that she has continued to use many of the arts of nursing through the years of her so-called inactivity, and that only a comparatively short refresher experience is necessary for her to regain her professional status.

What will you do to seek out and encourage some capable young women to enter this attractive professional field?

To qualified young women let us say, "You need nursing, and nursing needs you—today!"

D. L. B.

NEWS

in Small Doses

► Is a book on the treatment of diabetes, written by Joslin, Root, White, and Marble, obesity is stated to be foremost as the inciting cause of this malady. These authors state that much is said about the forty per cent of our population who are undernourished, but they wonder if the danger is not even more serious for the forty per cent probably overnourished, or at least overfed.

► THE United States Department of Agriculture has trained a force of mosquito fighters to assist public-health officials in finding and eliminating mosquito breeding grounds near Army cantonments.

► EXPERIMENTS performed on groups of Black Minorca chickens revealed that the group given no pantothenic acid developed colorless feathers, while those which were given a very limited supply of this part of the vitamin B complex looked "washed out."

► A LIFE VEST that will hold the face of the wearer above water even if the wearer is unconscious, has been invented for the United States Army Air Corps. The vest is inflated by pulling a cord at the bottom of the vest. This punctures a cartridge of carbon dioxide and in three minutes the vest is inflated.

► DR. ROBERT E. LEE FARIS of BYRN MAWR College believes that the best way to build up morale is to do away with morale-building programs. Confidence in the ability of leaders, the conviction that those with whom you are fighting will keep up their end, and confidence in co-ordination of effort are the things that build morale.

► THROUGH research at the University of Texas a new quick-freezing machine has been developed which freezes foods four times faster than former methods, and preserves the flavor.

► DR. RUSSELL S. BOLES of Philadelphia believes that stomach ulcer is caused, not so much by the kind of food one eats as by eating when tired, worried, angry, or rushed.

► If a child eats dirt, there may be a deficiency of iron in his diet. A list of foods containing iron was given to a group of Negro school children in the South, and they were asked to check the foods they had eaten that day. The words dirt and clay were included in the list. Dirt eating was found most frequently among those who had eaten fewer iron-rich foods.

► Two physicians of the University of Pennsylvania at the Cleveland meeting of the American Surgical Association, revealed that a patient suffering the agonizing pains of angina pectoris, one day complained of abdominal distress in addition to the angina. It was found that her gall bladder was full of stones. Removal of the stones did away with the abdominal pains and also the angina!

► No language can stump the Red Cross linguistic aces. Messages come to their headquarters in all languages—Arabic, Maltese, Polish, Albanian, Armenian, Yiddish, Yugoslavian, Greek, Finnish, French, Dutch, Czech, Slovak, Syrian, German—but linguists from the State Department, some members of different legations, students, all help the Red Cross in deciphering these messages.

In This Tough Year Ahead . . .

The Fall and Winter that lie ahead are going to be the toughest, hardest, most trying times in America's long history.

A year when everyone will need every ounce of strength and high purpose and good morale.

And so there is no better time to reiterate that the Enriched White Bread that now comes from the bakers' ovens of America should be made an essential item of diet on every dining room table and dinner pail in the land.

The added minerals and vitamins (thiamin, niacin, and iron) in every loaf of Enriched White Bread fortify its nutritional values to such a degree that the full benefit of good whole wheat as it comes from the soil now finds its way to America's homes and restaurants.

Truly, Enriched White Bread is the staff of life—and can well be another source of Victory—another prop for Freedom.

Department  of Nutrition

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LH9



What's Your HEALTH SCORE?

HERE are ten questions that deal directly with your health. You can grade yourself on each one of the ten items discussed. Be honest about it; check each one as you go, and see how nearly you tally with "par" on general health. Par on this set of ten questions is 400.

1. How stable are you? Are you a creature of impulse or of intellect? Par 50.

Just now, hot off the radio comes this bit of truth. "Uninhibited emotionalism is something we can just as well dispense with. This is a time when we must use our intellect, and not act on impulse." The reference, of course, was to phases of the war situation. Well, it is worthy of careful consideration—a creature of impulse or of intellect. In the one case you act, and whatever thinking is done comes afterward; in the other case you weigh the problem first, then act.

Just now the element of fear is capable of upsetting calm judgment. Fear, like anger, causes the production of overwhelming amounts of a substance called adrenalin and this sensitizes the emotional centers, lowering the threshold below that of the intellect so that one may respond foolishly to whatever suggestion is brought to the brain from whatever source. We may think we have been insulted—perhaps we have been. The first reaction is anger, the result of that

adrenalin rush. If we follow this urge, it may mean a fight. If we ward off the impulse and arbitrate, deliberate, we may still remain friends.

Somewhere between thirty-five and fifty-five men and women go through a change. It is adolescence in reverse, and perhaps it is a lot more dangerous. Women expect it, but men have never been warned about it, and this has resulted in a trail of broken homes. The thing is a total glandular upset, bringing neurotic tendencies and profound nervous idiosyncrasies into a life previously well ordered and properly balanced. The distressing part of it all is that a man is ashamed to admit that he is ever on the verge of tears or is depressed, and he usually refuses to see a doctor or do anything about correcting this very adjustable deviation from the normal.

2. Are you a worrier? about yourself; about things around you? Par 50.

Worry is the stick that stirs up ulcer of the stomach, colitis, constipation, hemorrhoids, nervous breaks, and a great many other disturbances. It is essentially a useless expenditure of vitality, and upsets the glandular and nervous system. Make an effort to straighten out your private affairs, and for the rest put your trust in a God who is glad to bear your yoke for you. Nerves and physical deficiencies follow in a vicious cycle. If you have bouts with your stomach, look

out for worry. If your intestine ties up and they call it colitis, check on your state of mind.

3. Do you have headaches? Par 30.

Do you note a developing headache with close work—sewing or reading—beginning over the eyes, extending to the back of the head? Such a headache is due to eyestrain and calls for a check by your eye man.

If the muscles of your neck and shoulder girdle are tense and aching, extending into the back part of the head, eventually enveloping the head in a steady ache, it is due to "nerves." The nerve tension may be from any of a large number of sources.

Hardening of the arteries often causes an early morning headache—one awakens with it. A sinus headache is also a "wake-up" headache, but a sinus headache leaves much more quietly—that is, just as soon as the upright position will allow drainage.

Migraine usually starts on one side of the head, notably around an eye, and spreads from that point. It is a most severe type of pain, and may prostrate the patient for from twenty-four to thirty-six hours.

4. Are your teeth in good repair and presentable? Par 30.

How do you look to yourself in the mirror when you smile broadly—do your

teeth add to or detract from your appearance? Teeth should be expected to serve for a long time, and if they do, they must be looked after. Pyorrhea is probably more dangerous to health than abscessed roots, for the reason that an abscess is usually pretty well walled off and affords little opportunity for absorption, while pyorrhea is quite on the surface and allows for the constant swallowing of infected material. This we know can eventuate in such things as stomach ulcer, gastritis, pernicious anemia, and intestinal infection.

5. Do you tire more easily than you should? Do you get up tired? Par 50.

One of the very common causes of lack of endurance is a poorly balanced diet.

If there is not an adequate amount of protein in the daily menu, "pep" will be lacking. Do you get at least a pint of milk, one egg, a choice of *one* of the following: (a) cottage cheese, 3 tablespoons; (b) legumes, 4 tablespoons; or (c) nut meat, 1/2 inch slice? Do you get, in addition, at least six tablespoons of a cooked vegetable, a large salad, and at least one serving of fruit?

Now if you are a chronic worrier, you may expect to be tired all the time. Also, if you wholesomely dislike the work you are doing, you may be the victim of emotional fatigue.

One cause of morning sluggishness is the thyroid deficiency. It just takes a while

there is an elevator, use it. If you climb the stairs, take them slowly. Never indulge in the more strenuous sports even if you do feel fit—it's just not safe.

Elevated blood pressure does not always cause significant symptoms; in fact, up to a certain point, the blood pressure patient may feel full of "pepper." This suggests the wisdom of periodic examinations to check your condition.

Swollen ankles may mean varicose veins, flatfoot, or heart or kidney deficiency. Usually the swelling disappears with a night's rest.

7. Are you having frequent spells of indigestion? Par 50.

The most common cause of indigestion is simple, ordinary nerve strain—be it from war, work, or domestic infelicity. When past forty, look out for the beginnings of things more serious, like ulcer or cancer. It is well worth the time and money to make sure by an X-ray examination.

Occasionally serious kidney trouble that has developed stomach symptoms is overlooked completely. So all stomach symptoms may not mean organic stomach trouble.

8. Do you have frequent colds? Par 40.

Is your vitality up, or are you below normal in general? Can you lay your colds to faulty habits or to your general fatigue? If you cannot explain your colds on the two counts mentioned, how about the following: (a) Infected tonsils, (b) infected sinuses, (c) allergy—asthma or hay fever, (d) excessive sweets and fats in diet?

Have you checked your diet in harmony with normal balanced requirements? Have you supplied yourself with a vitamin alphabet? Vaccine therapy is often distinctly helpful and at least quite worth while as an adjunct in "frequent cold" patients. When a "cold" with a cough lasts six weeks or longer, one must think of the possibility of a serious lung involvement.

9. Have you protected yourself and your family against smallpox, diphtheria, typhoid? Par 30.

Protection against the ravages of smallpox and similar diseases that formerly swept the country, rests on continued use of vaccination on the rising generations. In communities in which for one reason or another smallpox vaccination has been neglected, serious epidemics have sporadically broken out. Protection depends upon every child's being vaccinated early in life—preferably during the first year. Repeat the precaution again at seven or eight years, and if it takes, there is reasonable assurance that it will protect for life.

It is also wise to provide protection in
(Continued on page 29)

**Check it with these
TEN QUESTIONS**

R ARTHUR N. DONALDSON, M. D.

for the machinery to warm up, and a test will probably indicate the desirability of some thyroid medication.

Do you get a reasonable amount of sleep? The average individual requires eight hours. Neither coffee, tea, Coca-Cola, nor cigarettes will provide against loss of "pep" resulting from insufficient sleep.

We cannot overlook the fact that such chronic diseases as those of the kidneys and lungs, and other serious organic problems, make for profound fatigue. Do you know just why you are tired?

6. Are you short of breath on ordinary exertion? Do your ankles swell? Par. 50.

A good way to check your heart status is to compare your staying quality with persons of your own age in walking, hill climbing, stair climbing. Do you handle these as easily as they do, or do you puff inordinately? On general principles it is just as well to learn and to practice conservation as you progress past fifty. When

PHOTOS BY LAMBERT AND
MONKMEYER

Bright Eyed, Ready for a
Morning Run—That's One
Evidence of Good Health

What about Goiter,
Giants, Nervousness?

Those VERY IMPORTANT DUCTLESS Glands

R.

CLARA M. SCHUNK, M. D.

THE term "ductless glands" is applied to a limited number of glands in the human economy which are not provided with ducts. They are like other glands in that they produce secretions; but because of the absence of ducts, the secretions of the ductless glands are said to be *internal secretions*. Among the glands which are provided with ducts are the liver, the pancreas, and the salivary glands. The secretions of this group of glands are called *external secretions* because they perform their functions *outside* of the ducts which convey the secretion.

The principal glands included under the list of ductless glands are the thymus, thyroid, parathyroids, pituitary, suprarenal, and pineal glands, and the gonads. There exists a very intimate relation between the various glands of internal secretion. The ductless glands are extremely important in the control of body functions. Physical and mental growth, digestion, nutrition, metabolism, fetal development, and sex differentiation are all under the control of the ductless glands. Development of sensation, mental activity, emotional response, and heart (cardiac), liver, respiratory, and blood functions—these all react to their influence. The secretions of the ductless glands are of such vital importance to the maintenance of body

INTERNATIONAL

A Modern Giant, Over Eight Feet Tall. Where There Is an Increase in Pituitary Secretion There Is Marked Increase in Height

functions that life could not be sustained without them. Extensive studies have in recent years been conducted to determine the functions of the ductless glands, and definite advances have been made; yet our knowledge is still far from complete.

The thymus gland is a temporary organ

of unknown function, which reaches its full development at the end of the second year, after which it gradually atrophies, having nearly disappeared at the age of



puberty. It consists of two lateral lobes, in close contact along the middle line. Sometimes an intermediate lobe exists. The thymus lies in the neck, upon the front and sides of the windpipe (trachea). It is two inches long, one and one half inches wide, and one fourth inch thick. At birth it weighs about half an ounce.

A condition known in medicine as *status lymphaticus* is supposed to be due to the persistence of the thymus gland, in which case sudden death may occur for slight causes, and in some cases without any apparent cause. Death may be attributed to asphyxia from food, or to some other cause affecting respiration; infants may be found dead in their cribs. Treatment with the X ray may bring about decrease in the size of the thymus. Several decades ago thymus gland was marketed and advocated as an effective treatment for arthritis deformans. It proved disappointing in its results, and the treatment was abandoned.

One of the ductless glands most familiar to the average reader, is the thyroid gland. It is this gland which, when diseased, in many instances becomes a goiter. Located in the anterior, or front, part of the neck, the thyroid gland consists of two lateral lobes, connected by a transverse portion, called the isthmus. It is attached to the trachea, or windpipe, and when normal, gives no external evidence of its existence. It is only when the thyroid becomes abnormal in size or function, or both, that its presence is made prominent. The secretion of the thyroid is of a colloidal, or gelatinous nature, and this secretion is vitally essential to mental and physical growth and development. When the secretion of the thyroid is defective or diminished, we have a condition known as *hypothyroidism*. When the secretion is above or beyond normal, a case of *hyperthyroidism* presents itself. Formerly we considered hyperthyroidism the only condition which marred the health of the individual. We now know that defective secretion makes as many invalids as does an excessive secretion.

Hypothyroidism, if present early in life, manifests itself by stunted growth and defective mental development. The tongue is large, often protruding from the mouth. The hair is usually thin and the skin dry. The space between the eyes is widened. The legs are thick and short; the abdomen, swollen; the hands and feet, undeveloped and pudgy. If untreated, the child may become idiotic. Should these symptoms present themselves in any child, the parents should consult a competent physician. If the diagnosis is established, he will put the child on thyroid extract, in amount equal to what the daily secretion would be.

Hypothyroidism in the adult is more frequent in women than in men. Obesity is a common and quite constant feature of inadequate thyroid secretion. The majority of obese persons are constipated,

which is due to the same cause. There may be a sensation of heaviness in the region of the stomach. The patient complains of being bloated, even though no food is taken. Fatigue is common, especially in the morning. The skin is dry, rough, and often scaly. The nails are brittle and crack easily. Decay of the teeth is a common result of hypothyroidism, and is routinely found in children with thyroid deficiency. Headache is a usual symptom, and occurs early in the day. The menses become scanty, even though the woman is only in her second or third decade of life. There may be chilliness, neuralgia, difficult breathing, loss of memory, inability to concentrate, and numerous other disturbances which demonstrate the intimate relationship which exists between the thyroid gland and every organ and tissue of the body.


The treatment for thyroid insufficiency is, for the most part, very simple. The individual in question must first of all undergo what is known as a basal metabolism test to determine the degree of hypothyroidism which exists. This can be obtained at almost any well-equipped hospital. The metabolic reading having been determined, the physician outlines the amount of thyroid extract necessary to supply the daily demand.

Hyperthyroidism, also called toxic, or exophthalmic, goiter, is usually a grave condition, in which the heart and nervous system are seriously taxed. There are four cardinal symptoms, and numerous additional ones. (1) The heart is very rapid, the pulse ranging from 120 to 180, and even as high as 200 beats a minute. (2) There is prominence of the eyeballs, giving the patient an anxious expression and the appearance of staring. (3) The thyroid gland enlarges. This enlargement may or may not be perceptible, except to the examining physician. (4) Extreme nervous irritability. The patient is very nervous, the slightest noises or disturbances will excite him. There is usually a gradual loss of weight, as well as of strength. The treatment for hyper-

thyroidism is surgical, though the patient usually receives preliminary treatment with rest and iodine. In the hands of a skillful experienced surgeon, the prospect for recovery is decidedly favorable.

In certain localities this type of goiter is misnamed "inward goiter." All goiters are "inward" in that they are beneath the skin and connective tissue (fascia). In another sense all goiters are "outward," if we want to speak of them in terms of

Calluses

 HENRY H. HAZEN, M. D.

Calluses somewhat resemble corns but are flat and do not have a hard, deep central area; hence they are not so painful as are corns. They appear most frequently upon the soles of the feet, but also develop along the sides where there is pressure from shoes. It should always be remembered that calluses are an attempt on the part of the skin to effect a protective covering against pressure. It has been frequently stated that calluses upon the ball of the foot are due to a flat transverse arch, but there are some orthopedic surgeons who believe that they are the result of small metatarsal bones, so-called "lazy metatarsals." At all events the foot is usually painful, and the callus particularly so when it begins to thicken.

Many calluses can be satisfactorily treated by a suitable soft pad adjusted to distribute the weight over the ball of the foot; correct strapping of the foot will also aid some of these cases. The use of X ray is mentioned only to be condemned, and treatment with salicylic acid plasters and the like is most unsatisfactory. If persons suffering from these have much discomfort or disability, they should always consult a good orthopedic surgeon.

"in" or "out," for the thyroid gland enlarges in only one direction, and that is toward the skin. It may enlarge on the sides of the neck, as well as on the front part.

There is a mild form of hyperthyroidism which manifests itself during the adolescent age. This usually disappears with the passing of years, and no particular treatment is indicated for it, unless it be iodine.

There are several forms of thyroid enlargement of nontoxic origin, one or more of which may develop into unsightly proportions. The occasion for surgical treatment
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H. M. LAMBERT

Faith in God, Living for Worth-While Things, Is the Best Antidote for Fear

How to **BANISH FEAR** From Your Mind

By MARY BAYLEY NOEL, R. N.

A PSYCHIATRIST was lecturing on mental hygiene, causes for frustration, and nervousness. "The nervous system," he said, "is simply the telegraph system of the body; it conveys messages from the mind to the body, and if the mind continually sends out the wrong messages—messages of fear, worry, self-pity, hurt pride; if we become shut up entirely in our own interests, then we're headed for trouble." He dwelt particularly on fear, how it befuddles the mind, befores the spirit, and injures the body.

As he went on developing his facts, he said, among other things, that the results of mental mismanagement could not be cured except by facing the facts that caused them. The minds of people in the grip of frustration and fear must be redirected, turned away from self. Such persons must be re-educated to live their

lives hopefully, helpfully, and with equanimity; wholesome thoughts must be substituted for harmful ones. "Something must occupy the train of thought," he continued, "and if we deliberately instill into the mind wholesome thoughts, they'll crowd out the other tenants. Energies and activities must be redirected from avenues in which they have become short-circuited by fear. Fear must be banished."

As he went on talking of important angles of re-education, it came to me that the thoughts he was expressing were not new; he was simply restating religion; he was restating the words of Joshua, David, Isaiah, Jesus, Paul, Peter, Matthew.

Jesus said much about fear. He knew no fear—that is one of the great facts about Him—but He knew how easy it is for us to become victims of wrong thinking, wrong thinking which puts us in

mental states in which we are blocked by all kinds of fears and frustrations, in which we are robbed of all peace and joy; mental states which make the spiritual life remote and unreal. Jesus knew that real freedom from fear could come only by thinking constructively, living for worth-while things, and building a bright, happy, well-balanced Christian character. Paul knew this. "God hath not given us the spirit of fear," he said; "but of power, and of love, and of a sound mind."

Nature has of course given us a normal fear as a warning, but not a devastating fear. The latter creeps up on us like a thief at night; it is always standing by, ready to put in its blighting hand once the portals of the mind are opened to it.

For so many of us a feeling of fear, even
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BREATHING



EXERCISES

By

RUTH M. DEININGER, R. N.

BREATHING is necessary to life. No one can live more than a few minutes without breathing. Day and night the involuntary muscles of breathing work on. Even in our deepest sleep, respiration is regular and deep. The main purpose of this breathing is to supply the cells of the body with oxygen and to rid them of the excess carbon dioxide which results from oxidation.

Many times we are asked the question: "Is there any value in taking deep-breathing exercises?" If the exercise is taken with the idea of storing an extra supply of oxygen, medical authorities would say, "No." Oxygen cannot be stored by going to an open window and taking several deep breaths. The only time when extra oxygen is taken into the system is when the demand is made greater by strenuous exercise. A person cannot walk swiftly for more than a very few minutes before he finds himself breathing more deeply and more rapidly than he does while sitting at rest. This is because the exercise of the tissues, especially of the large muscles of the body, calls for a larger intake of oxygen, and deeper breathing becomes automatic. We are told that the oxygen requirement, which for rest averages 250 cubic centimeters a minute, with vigorous exercise may reach four thousand cubic centimeters a minute. This increased oxygen which is demanded necessitates an increased blood flow to carry the oxygen from the lungs to the muscles. One may readily see why a person always breathes more deeply and more rapidly during a brisk walk than during the ordinary activities which do not require any exertion. In fact, a brisk two-mile walk each day would give a person the very best type of breathing exercises.

There are several reasons why breathing exercises may be extremely beneficial. The value comes in the strengthening of the muscles of respiration, in improvements that may be made in the shape of the chest cavity, and in the effect on the organs of the abdominal cavity. Most of us go through life with the chest cavity cramped and crowded until the muscles which do cause chest expansion can no longer be used to their full extent. The deeper breathing that occurs when one exercises, results in enlargement of the thoracic cavity in all its diameters, and is therefore normal, healthy breathing.

In taking breathing exercises, one should

attempt to expand the lower ribs outward. The circumference at the lower part of the ribs should be greater than at the upper. The angle formed by the tip of the breastbone (sternum) and the ribs should be a right angle. This is never true when the posture is poor and the chest is allowed to slump. The position of the chest cavity is of greater importance than the air capacity. Some specialists have observed that persons with constitutional diseases show a poorly formed chest, which they consider is a contributing factor in the general run-down condition.

Then there are the muscles of respiration. The most important one is the diaphragm. The diaphragm is a large dome-shaped musculofibrous partition between the thoracic and abdominal cavities. It has three openings in the center through which pass a large artery, a large vein, and the esophagus. This muscle is very important because it controls the respiration and has a very definite and important effect upon the great abdominal and thoracic veins which are attached to and pass through it.

One of these veins, the inferior *vena cava*, is lengthened and shortened with every outward movement, or excursion, of the diaphragm. This lengthening and shortening increases and decreases the size of the vein, and consequently the amount of blood present. With the help of the valves in the vein every excursion of the diaphragm forces the blood outward and upward into the right side of the heart. "Therefore if the excursion of the diaphragm is very small (which might occur in a cramped chest) the venous circulation must lose one of its most important aids, and there is reason to expect congestion of the abdominal and pelvic organs and pressure on the legs, such as is seen in varicose veins."—"Principles and Practice of Physical Therapy," Vol. I, p. 22.

For this reason if one does not exercise strenuously enough to breathe deeply at least once a day, he should do breathing exercises to strengthen the muscle of the respiration. These exercises should be done with the purpose of strengthening the muscles that hold the chest in good

position and allow full excursion of the diaphragm. The drooped chest of faulty body mechanics brings the origin and insertion of the diaphragm muscle so close together that correct action of this muscle is difficult.

The abdominal and pelvic organs may also be greatly affected by a low position and faulty action of the diaphragm. The circulation in this area may be hampered, and there may be abnormal strain on these lower organs. Relief has often come by the use of posture exercises to strengthen the muscles of the upper abdomen and the diaphragm.

The two real essentials in breathing exercises are the forward, upward chest elevation, and the lateral spread of the mid or lower rib region. These may be accomplished by elevating the chest during inhalation, holding the elevated chest position, and exhaling by an inward, upward pull of the lower abdominal muscles. This will not come easy at first; it requires practice and patience.

It is recommended that one lie flat on the back on the floor with the hands at the back of the neck or on top of the head. The back should be held flat to the floor by contraction of the abdominal muscles. Exercise: Take a deep breath, expanding the chest; do not allow the lower back to lift. Hold the chest high and exhale while drawing the lower abdomen in. The important features are the lifted chest, the lateral spreading of the ribs, and the inward, upward contraction of the lower abdomen. When the exercise has been mastered in the recumbent position, it may be taken in both the sitting and the standing position until these muscles become strong, and chest elevation becomes habitual.

Such exercises as this will prove beneficial to one who cannot participate in an adequate program of natural, vigorous activities. Breathing exercises are recommended by some specialists for arthritis and other conditions in which the system is generally run down and every effort must be made to bring the entire body to a position in which all the parts will function to the best advantage. Rib stretching and forced deep-breathing exercises are given to prevent narrowing of the thorax, which is a tendency in arthritis. Faulty positions of the chest and bony framework of the body are considered a contributing cause of rheumatic

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R.
ARTHUR E.
HOLLENBECK, M. D.

Picnic Lunches Many Times
Include Rich and Indigesti-
ble Foods Which May Make
the Picnic Aftermath a
Rather Distressing One

PHOTO BY
MONKMEYER

INDIGESTION, "Heartburn," Sour Stomach

What Causes Them? What to Do and
What Not to Do for Them

INDIGESTION" is an indefinite term used by the laity to describe any indisposition of the digestive system. It may be an excessively acid condition manifested by a sour stomach and heartburn; it may be an inflamed condition in the stomach, small intestine, or colon; it may be an upset liver, some one of many organic diseases, or a bacterial invasion of the digestive system.

"Indigestion" literally means no digestion, and when the layman speaks of "indigestion," that is just what he means. The purpose of this article is to discuss some of the practical phases of simple indigestion which are of frequent occurrence and which are so troublesome to the average individual.

It should be said at the outset that every case of indigestion may be a symptom of serious organic disease, and should not be discussed lightly as of no consequence. It may be, and usually is, an ailment of short duration, requiring simple treat-

ment; yet, on the other hand, many who have thought that a case of indigestion was of no importance have later found it to be the outward manifestation of a serious organic disease.

Just recently a young man only thirty-three years of age consulted his physician because of a slight degree of chronic indigestion. After a thorough examination, X-ray pictures were taken which showed serious trouble in the stomach. A gastric resection was done. Half or more of the stomach had to be removed in order to eliminate, if possible, the malignant tumor. How much better his chance would have been had he consulted his physician earlier. Any person who has repeated or prolonged symptoms of indigestion, however slight, should see his physician without delay.

Acute attacks of indigestion are most prevalent after indiscretions in eating. Physicians expect to have a large number of such cases after holidays such as

Thanksgiving, Christmas, and New Year's, after birthday parties and other festive occasions. At these times it is easy not only to overeat, but to eat combinations to which one is not accustomed. It is remarkable what abuse the stomach will stand in the way of rich and indigestible food. When the load becomes too great, however, the digestive system rebels just as would any other overworked machine.

It has been said upon good authority that seventy-five per cent of all cases that come to the physician's office are maladies due to the abuse of the digestive system. This figure may be questioned; at best it is only an estimate. Yet it is a fact that a great share of the maladies the physician sees in his daily practice could have been prevented had the digestive system been given due consideration.

Acid indigestion, manifested by sour stomach and heartburn, is one of the most common types of indigestion. It is usually caused by eating a large amount of

sweets or rich foods on an empty stomach. The sweets stimulate the tiny glands of the walls of the stomach to secrete a large amount of hydrochloric acid. There is not sufficient food of the right kind in the stomach to use up the excess acid, and sour stomach and heartburn result. Incidentally, this increased acidity is said to be one of the causes of ulcer of the stomach.

The stomach is a mixing bowl in which the food is prepared for digestion. There are peristaltic waves, sometimes spoken of as the churning action of the stomach, which continually pass along the walls of the stomach. This wavelike movement mixes the various contents of the stomach with one another, and with the hydrochloric acid and gastric juice. This process is quite essential for good digestion. It is easy to visualize how impossible it is for the stomach to do its work properly when it is stretched out of all proportion with a great bulk of only partially masticated food. When the limits of its capacity are exceeded, the stomach rebels, the sphincter muscle at the lower end of the stomach, which controls the emptying of the stomach, contracts and closes. There is nothing else for the stomach to do but to set up a reverse action and disgorge.

Digestion is the breaking down of the food particles into a liquefied and simplified form which can be absorbed by the blood and carried to the various parts of the body, where it nourishes the tissues. This digestive action is carried on by the various digestive juices. If the food is poorly chewed and great chunks are bolted, the digestive juices are hindered in their work. The juices come in contact with only the outer surfaces of the chunks of food, and the digestive process is delayed. Undigested food is of no value, and besides possible indigestion from this poor mastication, there is a great loss of efficiency and economy.

In the small intestine the food is further prepared for assimilation by the action of other digestive juices, such as the bile and the pancreatic juice. This process is partially dependent upon the stomach's doing its work properly. If it fails, the efficiency of the small intestine is more or less impaired, as the intestine has not the facilities to do the work of the stomach properly. The food must be prepared for absorption by the stomach and small intestine, for the colon, or large intestine, has entirely different functions—those of absorbing water and any remaining nutritious material and eliminating the refuse.

If the digestive process is slowed up along its course for any cause, fermentation takes place and gas forms. These circumstances produce a distressing type of indigestion from which few are totally exempt, one which can be avoided, however, by proper dietary measures, chiefly through thorough chewing, slower eating,

and avoidance of indigestible combinations.

It has been said, "Man digs his grave with his teeth." It might be more correct to say, "Man's grave is dug because of his failure to use his teeth."

The symptoms of indigestion are well known to most individuals, but they may be summarized briefly as follows: loss of appetite, coated tongue, foul breath, sour stomach, nausea, vomiting, gas, abdominal distress, cramps, and possibly diarrhea. The symptoms vary in degree of severity; only one of them or all of them may be present, depending upon the extent and type of indigestion. The purpose of pain is to give a warning that something is wrong and needs attention. The same may be said of indigestion. It is a warning to halt, take inventory of one's indiscretions, and correct the difficulty.

To one of intelligence and good judgment the causes of indigestion are self-evident. A few may be listed: poor mastication; rapid eating; eating at irregular intervals and between meals; hot, spicy, and indigestible foods; and an excess of rich and fried foods. The speed with which we live lends itself to indigestion. There seems to be no time for lunch; the business man or woman rushes for a doughnut and a cup of coffee, and finishes with a piece of pie if there is time. Digestion functions properly only when one is relaxed, at ease, and in a cheerful mood. That is why we decorate our tables with flowers or some other beautiful centerpiece, and make them attractive by proper arrangement. The dining room is arranged in such a way as to put one in a relaxed and cheerful mood. Some of the better restaurants provide appropriate music for their

patrons. Because it helps the diner to relax from the nervous strain of business responsibilities, it aids digestion. When one is downcast and gloomy, digestion is at a standstill. To be digested a meal must be enjoyed; otherwise little benefit is derived from it. There is nothing which aids digestion so much as a well-prepared, attractive meal served in pleasant surroundings, and there is nothing which causes indigestion so much as a poorly prepared meal, served in an unattractive manner in disagreeable surroundings.

The treatment of indigestion is simple. Prevention is of prime importance, but if that phase has been neglected, other measures must be instituted. The first indication is to rid the digestive system of the offending contents. A mild saline laxative or an enema, or both, may be used. After the digestive system is well cleansed, it should have a complete rest. Nature usually sees to this in the loss of appetite. When the appetite begins to return, one should take some simple, easily digestible food in small amounts. Heat to the abdomen may give relief. As few medicines are necessary, self-medication should be avoided. Medicine should be used only as prescribed by the physician.

Innumerable patent medicines for the relief and cure of indigestion are advertised in newspapers and magazines, and over the radio. The only safe rule is to avoid all of them. If these concoctions were as good as they are said to be, and

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The Stomach Will Go on a Strike and Make Trouble When Abused Too Often. Be Good to Your Stomach

H. A. ROBERTS





ARE DISEASES INHERITED?

R THEODORE R. FLAIZ, M. D.

CAN my daughter safely marry that Mr. B, with the record his family has for tuberculosis?" A very sensible question for any parent to ask, considering the bearing of heredity on disease. Parents, wives, husbands, children, all are interested in the possible effect on their own health of the presence of tuberculosis, diabetes, cancer, alcoholism, heart trouble, mental disease, and other conditions in the family. It is simply good judgment to give a thought to such relationships. Just how and to what extent can such disease in ancestry affect the offspring? How are such diseases carried from parent to offspring?

Every individual had his origin in the union of two microscopic cells, cells so small they must be magnified a thousand diameters to make them adequately visible for study. Small as these cells are, they contain the outstanding characteristics of the individuals they represent. It is one of the marvels of nature that there can be compressed into so minute a particle the potentialities of the mature individual. These characteristics include physical features, such as height, build, color of hair, complexion, color of eyes, facial contour, and many others. They include also behavior tendencies, intellectual and social capacity, and tendencies and adaptability to various pursuits.

These tendencies occur according to the Mendelian law by which characteristics appear in certain definite proportions in the offspring. They are classified into two groups when appearing in offspring, according to whether they are dominant or recessive. Dominant characteristics are those which in one sex or the other are certain to appear in the offspring. Recessive tendencies are those which in

the presence of dominant traits give way to the dominant element. A recessive characteristic may fail to appear in one generation, but may appear under different circumstances in a later generation. It is thought that practically every characteristic occurring in any individual is the reappearance of some characteristic of an earlier generation.

In other words, we are a composite bundle or manifestation of all our ancestry, so that it may be truly stated that one is exactly what he is because of what his ancestry has given him. It is true that by discipline, training, and environment the individual may be changed to the extent that the original can scarcely be recognized. For this reason, although everyone has inherited his share of favorable or unfavorable characteristics from his ancestry, it cannot be stated that ancestry can be blamed for all the shortcomings which a man may manifest in his life, nor can the ancestry claim credit for the achievement of the individual.

Our study being more largely concerned with the question of heredity in disease, we will pass by this very interesting field of discussion to look at the bearing which heredity may have on the cause of various diseases. Many people have the idea that such diseases as tuberculosis, some of the venereal diseases, and other maladies may be inherited.

In the union of the two cells to form the new individual, it is not possible for the actual disease germ to be transmitted to this new entity. It is possible that in the diseased environment in which it develops in the mother it could acquire the infection and be born with the disease. It does not, however, receive these germs in the original union of the two cells. With this principle in mind we may see

immediately that the inheritance of disease would revolve about the question of whether the disease is due to an organism or to disturbed function of some system or organ of the body. Diseases caused by known organisms are not, therefore, passed on through the principle of heredity. They may, however, be developed, provided the growth of the child progresses in an infected environment. The infection of the child may take place before birth, as in the case of syphilis, or after birth, as in tuberculosis.

These hereditary factors, which may be favorable or unfavorable to the development of the tuberculosis infection, rest in the physical make-up of the body. Thus there are certain body types which are much more likely to be subject to the infection than others. The person who is of a short, heavier, and rounder contour is less likely to be subject to the disease than the tall, angular, and hollow-chested type of person. In so far as one person may inherit this type from an ancestral characteristic, it may be stated that one's chances of acquiring tuberculosis may be affected by heredity.

Therefore if you were asked to advise on the question proposed at the beginning of this study—whether the young woman would be safe in marrying into a family in which there has been tuberculosis—it could be answered by stating that if a young man were at such time proved by X ray and other laboratory procedure to be free from tuberculosis and if he had not been exposed to any tuberculosis for a period of several years, she could with reasonable safety proceed with her plans, other things being equal. One who has been exposed to tuberculosis in childhood may have carried the disease in a quiescent form through many years of comparatively good health. In such individuals there is the possibility that when they are in a run-down condition, or following a protracted chest cold or lung infection, the disease may break forth into an active form with serious results.

There are certain diseases traceable to functional disturbances within the body which may be regarded as having a hereditary background. In these conditions it is not the disease itself which is inherited, but certain weaknesses which under certain unfavorable conditions result in development of the disease.

An excellent example of this is seen in diabetes. Diabetes is not caused directly by a germ, but by a disturbance of function of certain cells in the body, which results in a failure properly to handle the digestion and assimilation of sugar. These functional diseases are based on some weakness with which the individual was born. It is interesting to note that when these potentialities for diabetes are inherited, the disease may come into the open with strong manifestations of the characteristic symptoms



H. M. LAMBERT

Walking the Golden Road Together, Sharing the Joys of Life

An Article of Special Interest to Those Planning Marriage

only when the patient has been subjected to some acute infection or other condition which so disturbs the normal body function as to develop the actual condition of diabetes. It is also of interest to note that there may be a tendency in diabetes to develop into its full-blown form at somewhere near the same age in members of the same family and that the disease probably developed as a result of certain effects on body functions at a certain stage of maturity.

Therefore people who know of diabetic tendencies in their hereditary background should be more careful than the average individual in avoiding possible serious infectious diseases and chronic infections such as would be found in bad teeth, tonsils, appendix, or gall bladder. Avoiding these infections will not necessarily assure escape from the disease, but such care may delay the onset or make the malady lighter in its effect.

Diseases concerning which people often inquire, and upon which heredity may have a bearing, are cancer, heart trouble, mental disease, high blood pressure,

nervous disease, and allergic conditions such as asthma and hay fever.

The relative increase in cancer as a cause of death has brought about a marked increase in the general interest in the subject. The question of heredity in this connection is frequently raised by those who know that it has taken its toll in their ancestry. It is right that these people are concerned over the question of heredity in this malady. Just what part heredity plays in the spread of cancer is not yet clear. It is, however, recognized that offspring of parents with certain types of cancer are more than ordinarily subject to invasion by the disease, frequently in the same organ as in the parent.

At our present stage of enlightenment it would not be possible to state any definite tendency to inherit cancer directly. It would, however, appear that as in some other diseases the offspring inherits a low resistance to the disease or an increased susceptibility to it. The lesson to be gained from this is that when parents have died of cancer of the stomach, children will be very unwise to treat lightly any protracted condition of indigestion. Long-standing ulcers of the stomach are a serious menace to anyone's future plans, and perhaps more so if his parents died of cancer of the stomach. Women whose

mothers have died of cancer of the pelvic organs will be well advised not to neglect a damaged or eroded cervix. Any area of constant irritation, as an eroded cervix, is of great danger to its owner. Prompt care of ulcers of the stomach, irritations of the lower bowels, or erosion of the cervix is very well advised whatever one's heritage.

Heredity has a definite bearing on certain forms of mental disease. Any discussion of this question must take into consideration the fact that mental diseases exist in varying degrees from mere emotional disturbances or imbalances to outright insanity. We see people with personality peculiarities of a minor nature which are tolerated with no thought of association with mental disturbance or irregularity. The individual is merely peculiar, eccentric, or otherwise not suited to his social environment, or he may even be a genius in some limited field. This mental type is probably an inherited characteristic and may not undergo any marked change.

Variations in mental peculiarities are very wide within the limits recognized as normal. When these variations go beyond these limits, they are classified as mental disease. The types of mental imbalance are so varied as to be impossible

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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.

Nonflesh Protein

Is it possible to obtain enough protein from other foods than meat?

Yes, many foods may be substituted for meat, as they are as rich as, or even richer than, meat in protein for body building. One of the most economical meat substitutes, more than equal to lean meat in protein pound for pound, is cottage cheese. Then the soybean deserves attention, as it contains one and one-half times as much protein as many cuts of meat and has been used for centuries by certain Orientals to replace meat in the diet. By eating two eggs, as a fluffy omelet, for instance, you have protein equal in amount to that in the average serving of steak or chops.

The person who takes a quart of milk a day does not need to give extra attention to supplying protein, for a quart of milk furnishes thirty grams of protein, and usually the rest of the diet supplies what is lacking to make up the full quota from foods which contribute small amounts such as the potato and whole grains. Nuts and the special meat-substitute foods sold at the health-food stores are most delicious and satisfying replacers of the questionable meat. Meat is often contaminated with disease germs or tainted from poor preparation or aging. It will pay us in many ways to build up our recipe files with meat-substitute dishes that our family will enjoy.

Vitamin Concentrates

Do you think a healthy person needs vitamin concentrates? I can't decide whether our family ought to have them or not.

In the present national nutrition program more and more emphasis is being given to the great importance of obtaining all necessary food factors from the foods rather than relying on vitamin and mineral tablets or concentrates, which should be used only as prescribed by the physician. Recently there have been three reports of research work on this controversy of foods versus concentrates.

One report was of an experiment on healthy, well-fed college athletes. It gives convincing evidence that for students on an adequate diet, no added benefits are obtained from the use of vitamin concentrates. Another report was of an experiment on factory men. It seems to prove the same thing—that the indiscriminate

use of vitamin concentrates is not really justified. The Army has also tried the effect of extra vitamins for reducing fatigue, and the results were that there is no proof of benefit above that of an adequate diet. Concentrates of vitamins and minerals are expensive and extravagant. A calcium tablet gives only calcium, while a pint of milk gives calcium, and vitamins A, B, and G in generous amounts.

Vitamin Name

I have heard that the antipellagra vitamin, nicotinic acid, is to be renamed, as the name gives one the impression that it comes from tobacco. Is this so?

It already has a new name and is now called "niacin." This is much better, because many did believe that it came from tobacco, which is untrue.

Gas-Forming Foods

I am troubled a great deal with gas, and believe that different foods affect me differently. Which are the gas-forming foods?

The foods generally recognized as most likely to produce gas discomfort are beans, onions, cabbage, cauliflower, rutabaga, lettuce, and apples. Individuals differ, and you should try to discover what is best for you. Gas may be due to emptiness, as the digestive tract tends to fill with gas if an insufficient amount of food is taken. Gas following operations is usually of this type. The use of a dry diet, that is, no liquids at meal-times, often helps. Many find simple meals of only two or three varieties of food the best. The combination of acid fruit and coarse vegetables often causes fermentation with gas production, owing to slow digestion, especially if the individual does sedentary work and there is lack of digestive power. By far the most common cause of gas is constipation, which can often be corrected by simple dietary control.

Vitamin A Sources

How can I furnish my family with plenty of vitamin A at low cost?

It is possible to provide vitamin A for the entire year for a large family from a small kitchen garden. This is accomplished by canning greens and by storing away carrots, pumpkin, and squash. Wild greens may also be utilized to advantage. Vitamin A may be supplied by

many foods, as follows: January, February, and March, from carrots, squash, and canned greens. April, dandelion greens. May, water cress and marsh-marigold greens. June, purslane, milkweed, lettuce, turnip greens. July, green peas, parsley, lettuce, spinach. August, yellow corn, kale, green cabbage, tomatoes. September, green pepper, broccoli, turnip greens. October, kale, Brussels sprouts, broccoli, squash, and pumpkin. November, pumpkin and squash. December, carrots, squash, pumpkin. Vegetables supply vitamin A in a form called carotene. The liver changes this into vitamin A. The liver also stores away this vitamin for an emergency; so if you eat more than you need at one time or during the height of the vegetable season, it is not wasted. Generous servings of the vegetables rich in carotene should be provided to make sure there is a sufficient supply, as the body does not use the economical vegetable form quite so efficiently as it uses the vitamin A from butter, cream, and egg yolk.

Oatmeal

Is oatmeal a whole-grain cereal?

Yes, the different oat preparations for cooking are classified as whole-grain foods. They are so prepared that they provide all of the valuable nutrients of the bran germ and the endosperm of whole oats. It is said that oatmeal is the richest economical food source of vitamin B₁. Because one cereal provides what another lacks, it is best for good nutrition to alternate corn, rice, wheat, rye, barley, and oats.

Sugar Substitutes

Will the sugar rationing mean that we shall lack energy? I know that sugar is an important energy food.

Many leading nutritionists feel that the rationing of sugar is a blessing in disguise. For some time warnings have been given that sugar is responsible for tooth decay and other physical ailments. The use of sugar calls for a high vitamin B₁ intake from other sources or else deficiencies occur. It is known that the natural sugars are just as energizing, and they supply minerals and vitamins along with the energy calories. You will only benefit by substituting molasses, honey, milk sugar, dark sirup, and maple sugar and sirup, for the refined cane sugar.

COOKING SCHOOL

Lesson No. 5

R. MYRTLE V. BARKER, MEDICAL DIETITIAN



H. A. ROBERTS

DEAR MARIAN:

Please forgive my neglect in answering your questions. The needs of many patients have filled my hours. How I wish that many of these patients had followed the program you are following—using all the knowledge that you have, and acquiring more all the time, as rapidly as your busy program will permit!

Human nature is strange; in choosing automobiles, homes, golf clubs, or tennis rackets, people choose the very best they can find for their money—those things that will give top-notch service, have the best appearance, and last the longest. But bodies are given those purified, pickled, and preserved foods that abnormal appetites have been trained to prefer. Would that we, supposedly intelligent beings, would choose the optimum health and select foods accordingly!

Yes, the choosing and cooking of vegetables does have much to do with having these essential vitamins and minerals in the diet. As I have said so many times before, the green and yellow vegetables are those that have high quantities of vitamin A. Tomatoes are a good source of vitamin C. Per 100 grams, which is a bit less than half a cup, tomatoes give 1,500 units of vitamin A, 27 of B, 300 of C, and 20 of G. You see, they are fine for several vitamins besides the C. It is true, as you have heard, that tomatoes do not lose their vitamin C content when they are cooked, as most fruits do.

In spite of the conclusions of many that spinach is not essential in the diet, it still contains large amounts of those precious things, for 100 grams furnishes 21,000 units of vitamin A, 30 of B, 1,000 of C, and 125 of G.

Vitamin A in the presence of oxygen is destroyed by cooking. The color of the vegetables when ready to be served is a good index to the amount of A in them. If they are a bright green or yellow, you have done a good job of cooking. Vegetables should be put on to cook in salted, boiling water, and should preferably be cooked with the lid on to keep out the oxygen and keep the vitamin content high. Large amounts of C are destroyed by cooking. Several of the vegetables, such as spinach, cabbage, peppers, cauliflower, and asparagus, have nearly half as much vitamin C in the raw state as do the citrus fruits and tomatoes, but it is destroyed by cooking. There is no vitamin D in vegetables. Vitamins D, E, and G are apparently not destroyed by cooking temperatures or conditions.

Be sure that you use iodized salt, particularly in the region in which you are located, for that is one of the low iodine belts, and you can never be sure of the vegetables that are shipped in. They may be a good source of iodine, but most likely they are not. Cooking vegetables in a minimum of water is the best way, for it conserves the greatest amounts of the mineral salts. If you cook in larger amounts of water, be sure that you utilize the water left over in making stock for soups, gravies, etc.

I know that you will follow the above suggestions in preparing for that dinner for some of Danny's friends and their wives. Here is a menu that I believe will please all of them and prove that a well-balanced meal can be appetizing, too.

Chop Suey
Potatoes in the half shell
Fresh buttered asparagus tips
Stuffed-tomato salad
Wheat-germ Parker House rolls
Butter
Cold milk, or soy malted milk

Chop Suey

Brown one pound of cubed soy cheese in butter. Add the following, after having boiled them together:

2 cups chopped celery
½ cup green peppers
½ cup chopped onion
2 cups mushrooms
2 cups bean sprouts
2 cups bamboo shoots

Pour over this a fine herb sauce, and let stew for half an hour.

Fine Herb Sauce

1 tablespoon Savita
1 tablespoon grated onion
1 bay leaf
2 cups strained tomato

1 tablespoon celery salt
1 tablespoon chopped parsley
1 tablespoon butter
1 tablespoon lemon juice
½ cup vegetable broth
½ teaspoon ground sage

Braise onion, bay leaf, butter, and parsley over the fire for a few minutes. Remove the bay leaf as soon as the sauce is sufficiently flavored. Add the liquids, and bring to a boil. Thicken with flour.

For the potatoes in the half shell, choose potatoes of uniform size and shape. Bake till done, cut each in half lengthwise, remove the center, mash and add one egg for each six potatoes, and sufficient cream to bring mixture to a rather soft, smooth consistency. Season with iodized salt. Refill the potato shells with this mashed-potato mixture. If you have purchased that pastry tube, use it for this job. Place in the oven just long enough to brown lightly before serving.

Boil your fresh asparagus tips until they are just tender, but still retain their bright-green color. Serve with salt and butter. Well-cooked vegetables do not need high seasonings to make them palatable. Their own flavor is better.

Stuffed-tomato salad can be made in several ways. One that I like best, especially when there is already sufficient protein in the meal, is made thus: Remove part of the center of good-sized, well-shaped ripe tomatoes. Mix that part with finely diced celery, lettuce, and a bit of chopped parsley, and put back into the tomato. Top with mayonnaise and a dash of paprika.

For the Parker House rolls, use your regular recipe, except for substituting wheat germ for one-fourth of the whole-wheat flour.

Should you feel that some dessert is necessary for that group, you might serve some fresh black raspberries with cream, and almond macaroons. The macaroons are made by working together one-half pound of almond paste and three-eighths pound of powdered sugar, first with the hand and then with a spatula. Add 3 egg whites gradually, and then mix till perfectly smooth. Drop into pans with a small ice-cream dipper if you have one, or else from the end of a teaspoon. Bake in a moderate oven about fifteen minutes.

I do not believe that you, with your great love of beauty and artistry, would be guilty of forgetting the necessity of an appetizing and attractive meal. Nutrition is essential, fine, and good, but

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Watch Your CURVES AND COR

On the

I TELL you, I'm getting so I can't walk a block without getting out of breath and feeling all tired out! My heart pounds terrifically, my feet are killing me, my back aches, my head aches, and—oh, dear!" Miss Polly gasped and waddled toward the office chair. After squeezing most of herself into it, she continued, "I'm starving myself—not eating enough to keep a mosquito alive. And still I gain weight! What can I do?"

"How is your appetite?" queried the physician.

"Ravenous—hungry all the time. I'm dieting *now* and it's making me so miserable I can't stand it any longer." Miss Polly emphasized her remark with a shuffle of her bulges.

"Exercise much?"

"How can I? With all this avoirdupois wrapped around me I can't even wiggle without feeling as if I had done a day's work. I've seen a dozen physicians, and—"

"How long did you remain under each physician's care?"

"Oh, not long; it varied—a month or so, maybe. Anyway, none of them did me any good. Doctor, they say that 'shots' will make people lose weight, and I came to—"

Thus runs the average introductory conversation between the physician and his obese patient. Contrast this with:

"Doctor, I'm *so* weak and tired all the time. Just seems that I can't get around; feel like sitting down and letting everything go. Can't even get up energy enough to walk a block!" Miss Anne sinks into the office chair. She looks like an assortment of knuckles and joints as she turns her angular form toward the physician.

"Appetite good?"

"Yes, it's all right. But no matter how much I eat I keep getting thinner." Miss Anne could emphasize her remark, it would seem, by rattling her bones at this point. But she doesn't have sufficient vitality to emphasize anything.

Surveying the emaciated creature in front of him, the doctor ponders the absurdity of any question about exercise.

"Have you ever consulted a medical practitioner before?"

"No, I kept thinking that I would pick up in time. The thought of doctors has always scared me, anyway. But I'm *not* getting better. In fact, I am really becoming alarmed over my condition. So I came to you for help."

These stories, told in every doctor's



HERS

HIGHWAY OF LIFE

JOSEPH MOSSBERGER, M.D.

office almost every day, present two very definite and challenging problems—problems which, if stated clearly and concisely by the physician, are already on their way to solution. By turning the problem into a specification, he adds direction and motivation to it and can then hand it back to the patient for carrying out. Only by this method can any medical problem be solved. And this resolution of a problem into a concrete, understandable specification sometimes requires all the skill and experience that a medical practitioner can muster. By the same

of normal regulation, all the factors concerned set up a vicious cycle: the body chemistry is disturbed; the appetite-regulating device of the brain is thrown out of kilter; overeating develops; the feelings of hunger become more intense; the sensations of satiety become more delayed.

Everyone has noticed, however, that the obesity which comes from mere overeating and sedentary habits is the mild form of obesity. Many persons abuse all these things and remain thin. This fact has led to the classification of obesity on the fat-origin basis. Thus, obesity due to overeating is classified as exogenous obesity—fat from external origin—whereas obesity not due to mere overeating is classified as endogenous—fat from internal origin. This classification, to be sure, is unsatisfactory and aids very little in our understanding of the problem.

Another classification is based on the

problem which should of necessity be approached in a new and different manner. The final solution will be different in each case. This principle naturally precludes any standardized form of treatment and emphasizes the necessity of the patient's placing himself unreservedly in the hands of a competent physician.

Although the doctor—after obtaining a thorough history and a complete physical examination of the patient, along with necessary laboratory procedures—does come to a fairly positive understanding of the patient's condition and the cause thereof, his problem is still fundamentally a dietetic one. It must be remembered that the *patient is seeking relief from the symptoms produced by overweight*. And experience has taught that rigid control of the diet has *never failed* to reduce the weight, regardless of the type of obesity.

But how is the diet controlled?

All-out starvation may appear logical. This heroic treatment, however, so depresses the metabolic activities that the patient becomes ill, and thus the very purpose of the treatment is defeated. Here again experience and experiments

token the working out of the specification requires every bit of the common sense and co-operation of the patient. Especially is this true of the two problems at hand.

But what are the problems? Stated simply, they are: *overnutrition*, in the case of Miss Polly, and *undernutrition*, in the case of Miss Anne.

Let's take case number one.

The accumulated facts derived from the experiences and experiments of thousands of clinical investigators and practicing physicians lead us to believe that, regardless of the underlying morbid anatomy or physiology, the fat person *eats too much*. Possibly the corpulent individuals are not that way *because* they eat too much, but because their faulty metabolism causes storage of fat in the tissues instead of utilization of the fat by the tissues. Probably a similar faulty mechanism causes storage of excess

salts and water. Often there is nothing unusual in the body economy so far as energy expenditure or oxidation interference is concerned.

A certain fat balance is maintained in the body storehouse. An excess of fats, oils, sugars, and starches ingested by persons who lead sedentary lines causes a readjustment of this fat balance and a consequent piling up of fat in all the body "depots." Having once been thrown out

physical appearance of the patient as related to various findings from clinical and pathological standpoints. We have, therefore:

1. The *gluttony* type—with a large neck; protruding, pendulous abdomen and breasts; relatively thin buttocks and legs. This one is the "mere overeater."

2. The *thyrogenic* type—with dry skin, puffy eyes, sluggish disposition, and a low rate of metabolism. This individual may have goiter or some other thyroid disturbance.

3. The *cerebral* type—with uniform fat distribution and infantile mental characteristics. An actual lesion such as a tumor or cyst of the brain may be present in this type, with resulting disturbance of the appetite-regulating mechanism in the hypothalamic region of the cerebrum. Surgery in this type has been tried, but has rarely proved successful.

4. The *Fröhlich* type—with large hips, knock-knees, and genital infantilism. This person may have a pituitary gland disturbance due either to less than normal gland function per se, or to a tumor affection of the gland.

But even this classification is far from satisfactory. The types overlap. We see numerous individuals who fit into one class from the standpoint of physical appearance, but who actually belong in another class. This leads us to a generalization which must guide us as physicians in our attempts to resolve the problem of obesity into a specification for the patient. It is this: Each patient *must* be considered as a new and entirely different

have taught that we must "fan" the fat fire with enough food draft to maintain a good glow of burning. Enough protein must be given to balance the wear and breakdown of the body cells. This required amount of protein is calculated on the height and ideal weight ratio for the individual's age and sex. Furthermore, carbohydrates (sugars) must be given in quantities sufficient to prevent the diversion of some of the essential protein for utilization in the same capacity as sugar. Having obtained the basal metabolic rate and having computed the protein requirements, the physician can now prescribe a diet adequate in vitamins and minerals, which, if followed religiously by the patient, will absolutely ensure him a weekly weight loss of two to four pounds! The doctor may augment his diet regime with graduated exercise and with thyroid and other gland medication. But these medications are only accessories. It is indeed a risky business for an obese person to obtain the services of a doctor who promises to reduce the weight simply with medicines or "shots."

Such is the problem, and such is its transition into a working specification.

With pleasure does the physician now report that Miss Polly is losing weight. Five pounds last week! Her life expectancy, which was alarmingly low, is going up in rough proportion to the

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VEGETARIANISM

Measured by the New Yardstick of Good Nutrition

R LUCILLE J. GOTHAM, Medical Dietitian



ALITTLE over two years ago President Roosevelt called together the leading nutritionists of this country to decide, among other things, on the very best diet not only for the Army, but for every man, woman, and child. He realized that "the nation which applies the science of nutrition to the greatest number of its people will be the most powerful in the world."

At this meeting there was adopted a chart which expressed in a technical way the daily requirements for each member of the family. This scientific chart, called the yardstick of good nutrition, makes use of all the knowledge available up to this time. Because the chart was written up in hard-to-understand terms such as milligrams, the dietitians and nutritionists were left the task of interpreting it in terms of common foods and household measures such as cupfuls of squash and potatoes.

The summer following, Doctor Lydia Roberts of the University of Chicago, who is famous for her interpretation of this yardstick, had what she called a workshop. Her students made diets conforming to the yardstick for twenty-four different localities. They even considered the use of peanuts and dry milk. As the investigations progress, it is shown that every locality has foods naturally available to meet the requirements for perfect nutrition. Racial food preferences and cultivated food habits in different sections of this country often need only a little modification to make the meals measure up very well. In general, there is room for improvement.

Doctor Roberts made master lists, showing what is needed daily to meet the yardstick requirement for perfect nutrition. She calls the following list adequate, cheap, generous, and even superior; and it is lactovegetarian, that is, it is composed of just milk products and garden foods. The list is for an average adult woman; a man would need larger servings, a child smaller. Here it is:

- One quart milk
- 100 calories beans (about 1/2 cup)
- 300 calories potatoes (about three large)
- 3/4 cup raw cabbage
- 1/2 cup carrots
- 600 calories whole grains (about six slices of bread and a serving of breakfast cereal)
- 300 calories of butter or reinforced butter substitute (about three pats)

350 calories of fat and sugar. (This could be a tablespoon or two of salad dressing and an equal amount of honey or molasses.)

In order to be perfectly nourished, one really needs every one of these foods. If one is left out, another food of the same value must be substituted. A master list like this does not mean that only these foods can be eaten, but rather as Doctor McCollum says, "Eat what you need; then eat what you want." To turn these master lists into appetizing meals containing "vitamin" Z, which stands for zest, requires artistic and creative ability on the part of the cook.

Here are menus using the adequate and economical vegetarian master list:

BREAKFAST

Oatmeal
Milk
Honey
Whole-wheat popovers
Cereal beverage

LUNCH

Cream potato soup
Whole-wheat toast
Cabbage salad
Milk

DINNER

Beans baked with molasses
Baked potatoes
Creamed carrots
Rye bread
Milk

BREAKFAST

Whole corn-meal mush
Molasses
Whole-wheat toast
Milk

LUNCH

Potato salad
Raw-carrot-and-raisin sandwich
Milk

DINNER

Soybeans (well seasoned)
Creamed potatoes
Coleslaw
Whole-wheat bread
Milk

Here is the more elaborate vegetarian master list:

- One pint milk
- One egg
- 200 calories high-quality meat substitute containing peanut meal (one slice 1/2 inch thick)
- 100 calories potato (one large)
- 1/2 cup greens
- 1/2 cup another vegetable
- 1/2 cup citrus fruit or 1 cup tomato
- 3 servings butter
- 250 calories whole grains

So far, peanuts have been evaluated as most closely approaching meat in the different nutrients such as the recently discovered pantothenic acid, and so may be considered a high-quality meat substitute for the diet. The cooking of peanuts makes the protein more valuable. Just how the preparation of meat substitutes affects the vitamins is still unknown. There is much need for further research on the effect of different cooking procedures on the nutritive value of food. These problems are being attacked, and no doubt reports will be available in the near future.

Here are menus for the more liberal vegetarian diet:

BREAKFAST

Sliced orange
Whole-wheat cereal
Milk
Cereal beverage

LUNCH

Cream tomato soup
Buttered toast
Egg-and-lettuce salad

DINNER

Nutmeat steak with yeast-extract gravy
Stuffed baked potatoes
Turnip greens
Baked pepper squash
Baked apple with whipped cream

BREAKFAST

1/2 grapefruit or juice
Whole-grain toast
Poached egg
Milk

LUNCH

Peanut-butter sandwiches
Milk
An apple

DINNER

Boiled dinner of
Potatoes
Cabbage
Carrots
Turnips
Nutmeat cooked in yeast extract
Pumpkin pie
Milk

Plenty of muscle-building protein may be supplied for the average adult in one of three ways. (1) By taking one pint of milk, one cup of beans, and twenty peanuts. (2) By having about three-fourths cup of cottage cheese, one cup of beans, and twenty peanuts. (3) By taking two quarts of milk daily in cooking or as a beverage.

Should there be a lack of milk and
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Worthington Foods

Vitamins for Victory

"Food Will Win the War"

"The Army Marches on Its Stomach"

These are some of the themes you have seen in recent advertisements by food manufacturers. And perhaps you have simply passed them off as smart advertising copy, keeping in tune with the trend of events.

Not so, friend! There's more to it than that. Our Government and health authorities everywhere recognize that the food we eat is largely responsible for the tone of our muscles—the condition of our nerves—the measure of our ability to get things done quickly and well!

That's a fact! And it's a fact that is "right up our alley." Special Foods Incorporated, makers of Worthington Foods, was founded on the principle and operates on the policy that eating vitally affects what you are. "Eat in due season, for strength, and not for drunkenness," is the way the proverb puts it.

That is why you will find in Worthington Foods the full measure of wholesome, body-building food values, designed to keep you healthy—extremely important in normal times, but doubly important now when we are called on for our utmost efforts.

Worthington Foods are so economical that they are within the reach of nearly everyone. Get a supply today from your local Health Food Dealer, or if this is inconvenient, send direct to Worthington and we will ship promptly, prepaying postage on orders for \$2.00 or more.

"There's Worth in Worthington Foods"

SPECIAL FOODS, INC.

WORTHINGTON
OHIO



CHOPLETS



NUMETE



SPREAD



PROAST

the FAMILY PHYSICIAN Answers Questions

We do not diagnose or treat disease by mail. Enclose stamped, addressed reply envelope. Services of Query Editor are restricted to bona fide subscribers. Because of the heavy volume of correspondence, we cannot assure an immediate reply. Address Query Editor, LIFE AND HEALTH, Takoma Park, Washington, D. C.

Cirrhosis of the Liver

What is cirrhosis of the liver, its cause and its symptoms? Is there any cure?

Cirrhosis of the liver is a condition in which the fibrous tissue interspersed between the lobules of the liver or about its blood vessels has overgrown, resulting in a destruction of the functioning liver cells. The liver frequently contracts to perhaps one half or two thirds of its usual weight. It becomes hard and commonly nodular. In this state it is not able to do the work usually performed by it as an organ, and the general physiology of the body is upset. Whether any cure, or any degree of cure, can be expected depends in part upon the extent of the damage. There is no known method of changing the actual tissues. The cause is not understood. It is believed usually to follow some form of poisoning or intoxication. The continued use of alcohol over periods of years has been thought to cause it in some instances. However, this has not been fully established as a primary cause. Disturbances of digestion and often a degree of jaundice accompany cirrhosis.

Stiff Knee

Can a leg that has become bent at the knee from being in one position too long be straightened by surgery?

A knee which has become fixed for about a year probably will not respond to hydrotherapy treatments or mild manipulation. Whether it could be straightened by surgery would depend upon the condition of the bone in and about the knee joint. Granting it could be straightened by surgical treatment, whether it could be straightened and at the same time retained as a functioning knee joint, I would not venture to predict from the information you give.

Climate and Hay Fever

Would the climate of Arizona or New Mexico help my hay fever?

What effect climate may have upon hay fever is an open question. We have known of persons who suffered with hay fever in the Middle West, who moved to the States you mention, and were there free from hay fever entirely for a period of four or five years. Then gradually the condition returned. They were sensitive to ragweed at home, and after going West became sensitive to sagebrush. If there are no complicating conditions, it

would be our judgment that one should treat for hay fever where he is, or go to a place where no hay-fever symptoms are felt (such as the seacoast or Northern States) for a few months each fall when the symptoms are most distressing.

Superfluous Hair

I am twenty-seven years old, and the last year hair has begun growing over my entire body. What causes this, and what can I do to stop it?

Sometimes the abnormal growth of hair is due to a disturbance of the endocrine glands. A careful physical examination and medical study should be made to determine whether anything can be done to prevent the continued growth which you mention. After hair has grown in excessive amounts, the following methods of removal may be used. One is perhaps a little tedious, but is quite effective in the hands of a careful worker. That is the use of the electric needle, which destroys the roots of one hair after another. Another method more rapid, but one not entirely free from risks, is exposure to X ray, which will cause the hair to cease growing and drop from its follicle.

Some drug preparations are available for applying to the skin to destroy hair. These may be used with fair results at times, but in general we would advise against them, because if any injury results and a secondary infection occurs, unsightly scars may be formed.

Itching Scalp

I am bothered with an itching scalp, but there is no falling hair or dandruff. The condition is worse when I wear a hat. Fresh, cold air gives me some relief. I think this itching started when I bought a hat at a secondhand store.

It is not clear what causes the itching you describe. It is possible that it is an allergic response to sweating or heat. In such a case we would suggest not using a hat, or if one is used, that it be chosen from those with open, ventilated spaces in the crown. A lotion made up of alcohol and witch hazel, equal parts, to make four ounces, to which are added one-half ounce of glycerin and fifteen grains of euresol, may be found to be a soothing application. A lotion of this kind should be gently rubbed in with the tips of the fingers. Avoid roughly massaging or pounding the scalp.

Bronchitis

I am bothered with bronchitis, and would like to know a remedy for it.

Bronchitis is frequently relieved materially by the use of hot packs or fomentations to the chest, front and back. These should be applied for about fifteen minutes once or twice a day. After the application of the heat, the skin should be rubbed with alcohol or a suitable oil. Infrared light, to produce heat in the chest, or short-wave diathermy will be found beneficial.

Medicines of various types may be used. Inhalations of medicated steam give a great deal of relief. Eucalyptus oil, with compound tincture of benzoin, mixed in equal parts, forms a suitable basis for an inhalation. Bring a quart of water to a boil, and into it pour one teaspoonful of this mixture. Then inhale the steam, in moderate concentration, through a paper funnel, or in a small room, if it is obtainable. Sprays for bronchitis are of questionable value.

Colitis

Please inform me regarding the treatment and diet for colitis.

The word "colitis" implies an irritation or inflammation of the colon. Very frequently it is used to indicate a sensitive or touchy bowel which is affected by the type of food that is eaten. Coarse, rough foods, or large quantities of fruit and vegetables, frequently are irritating or aggravating to this condition. An inherently nervous temperament seems to be fundamentally in the background as a cause in many cases.

In treating colitis, a bland diet, free from rough, coarse particles of fiber which are indigestible, should be chosen. For the pain sometimes felt, intestinal powders may be used. These soothe the wall of the intestines. The application of heat packs externally, either by the fomentation or by the electric pad, is useful. Heat applied this way for fifteen to twenty minutes after a meal is a valuable aid in promoting digestion. We are enclosing an outline diet for colitis which may assist you in the selection of food. It is not to be followed slavishly, but it will show you the types of food to choose. Some forms of colitis are aggravated by the presence of parasites. Whether such are present may be determined by a careful examination of the stool.

Indigestion

(Continued from page 13)

if their promoters were as eager to cure human ills as they are to relieve the sufferers of their money, there would be no necessity for high-priced advertising.

There are many so-called digestive cures on the market which are extensively advertised to an unsuspecting public. For example, one such "cure" prominently advertised over the radio is for that "acid indigestion." There is never a word about how to prevent acid indigestion—just take more tablets in a glass of sparkling water, and "just see it sparkle!" The so-called remedy is an expensive product; yet it contains only the cheapest of ingredients, chief of which are soda, aspirin, and a little effervescent salts to make it sparkle. Of course it gives relief, for each tablet contains seven and one-half grains of aspirin, which alone would give relief, as it deadens or paralyzes the sensation of pain. But aspirin taken indiscriminately is a dangerous, habit-forming drug. In overdoses it is definitely a heart depressant, and it frequently causes reactions in certain individuals. The soda neutralizes the excess acid and gives relief, but too much soda is injurious. Much is made of the effervescent sparkling effect; this is principally psychological. The business of this concern amounts to millions of dollars yearly, we are told. In its advertising there is never a word about precautions in the use of its product, only a constant exhortation to use it more frequently for "acid indigestion."

The principles back of such concerns are no better than those of an enemy nation which seeks your indulgence for the sake of peace, and looses the elements of destruction at the same time. Shall we not eliminate from our medicine cabinets the products of unprincipled medical firms which have but one interest at heart—our money?

If there is any place where honesty is paramount, it is in the practice of the healing art. There should be no tolerance for deception wherever it may be found. Frequently advantage is taken of the ignorance of the general public in regard to things medical. This is especially true in the case of the so-called remedies for the relief and cure of indigestion. One illustration will suffice: Vitamins are popular, and rightly so at the present time. They hold an important place in the practice of medicine as an accessory food and aid to digestion. Because of this popularity, various concerns are making vitamin products. Some companies are highly reliable and make most conservative claims. Others are questionable. Prices vary greatly, and the individual reasons that it is useless to pay a high price when he can get another make so much cheaper. Vitamins are measured or evaluated in units, and vary greatly in

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Are You a Wartime Worrier?

THE WAR NEWS these days succeeds in keeping many of us constantly upset.

And . . . nervous at noon, nervous at night, those who are coffee drinkers often seek temporary easement in cup after cup of coffee.

Apparently, many people can drink coffee without ill effect—but many *cannot*. So, though coffee may *seem* to afford relief, it can actually add to your "wartime nervousness."

If you're one of these people, why don't you do what doctors so often advise? Stop drinking coffee and . . .

Drink Postum, Instead!

Postum contains no caffeine, no stimulant of any kind. It is made from home-grown whole wheat and bran,

roasted and slightly sweetened—*nothing* else.

Don't expect Postum to taste like coffee—any more than you'd expect tea to taste like coffee. Postum is a delicious mealtime drink in its own right—heart-warming and cheering. Drink Postum regularly instead of coffee for two weeks at least . . . see if you don't feel better—if you don't find that this delicious drink causes you to lose all hankering you may have had for coffee.

Today, Postum is one of the most economical mealtime beverages you can buy—it costs less than $\frac{1}{2}$ c a cup.

Ask Your Doctor About Postum

Postum comes in two forms: Postum Cereal, which you boil or percolate; Instant Postum, made instantly in the cup. A product of General Foods.



THE HOUSEWIFE'S CORNER

CONDUCTED BY
CAROLINE EELLS KEELER

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

October Again!

How the months do skip by, and half the things we planned to do this summer are probably not done. The days just seem too full, for we have canned and done our best to fill our pantries with food for winter. Isn't it fun now to go down to the basement and see all those cans full of vegetables and fruit, all neatly labeled? You can be justly proud. I've had a battle this summer with weeds and Japanese beetles and bean beetles. But anyhow, we didn't entirely lose out, for we had string beans to eat and can, and even some to sell; and delicious green Lima beans; and golden sweet corn (the Japanese beetles even attacked the corn); and cucumbers and okra (I'm an okra fan); and tomatoes, and ruby-red beets, and Swiss chard. And the fun we had berrying in the woods near by! I even had dreams in the night of finding blueberries as big as quarters.

Here are golden, fruity days to enjoy. We forget the extremely hot days of summer—Maryland summers do have some very hot days—and drink in the sweet air of autumn. It is perfumed by the stores of ripe apples and grapes. The first frost has come to many parts of the country, and the children are gathering nuts. That makes me wish for a nut tree on our place. I'd gladly welcome even the sweet little beechnuts that we used to gather in the woods of northern New York when I was a youngster. Last fall my own youngster found a tree of these little nuts along the road on the way home from school and often brought some to me to enjoy.

Salvaging

KEEP up the good work of collecting rubber, scrap paper, metals, and whatever our country finds of use. It is surprising how much we can help. The children are good at collecting, and they can buy defense stamps with the money they earn by gathering these materials.

Conversation

WE hear much of Dame Rumor and of what gossip can do to harm our country. Rumor does all that, and gossip does much more, for when we indulge in gossip we harm not only the subject of gossip, but ourselves as well. We descend to the same level as the little termites which undermine the foundations of our houses. There are many important things to read

and talk about that don't involve people. Let us forget imaginary slights and lack of appreciation. Let us talk courage and smile courage, and walk along the golden upward way.

Oleomargarine

MANY of our readers ask about oleomargarines. Do they contain animal fat? Doesn't "oleo oil" designate animal fat? Then why do those words appear on packages of vegetable margarines? Originally all margarines were made from animal fats, and the Government decreed that the word "oleomargarine" must appear on the package. Later margarines made of vegetable fats were introduced, but the Federal law regarding labeling has not been changed, and therefore the word "oleomargarine" appears on the packages of purely vegetable margarines. When buying vegetable margarines, look for those fortified with vitamin A. These fortified vegetable margarines are comparable to dairy butter, and are always uniform in their vitamin content and their sweet taste. You will find that you can use them for many purposes—spreads for bread, for seasoning, in baking and cooking. The item of expense is one of interest, too. These vegetable margarines help your household budget.

Cream of Vegetable Soup

TIME for good old soup again, a hearty warming soup. Here is a recipe which calls for creamy evaporated milk. Boil one-fourth cup of rice in one quart of water until almost tender. Add two cups of chopped vegetables and two teaspoons of salt. The vegetables may be onions, tomatoes, turnips, greens, carrots. Continue boiling until vegetables are just tender. Add evaporated milk, and heat slowly to proper temperature to serve. This yields six servings.

Tomato-Juice Cocktail

HERE is a recipe that ought to furnish good nourishment. All the ingredients should be cold. Mix three-fourths cup evaporated milk and three-fourths cup of water. Stir in two and one-fourth cups tomato juice. Add one-half teaspoon of salt (celery salt, too, if desired).

Apple Sherbet

EVEN in cooler weather we like an occasional refrigerator dessert. Whip one can chilled irradiated evaporated milk

until very stiff. Fold in two tablespoons of lemon juice, two cups sweetened, chilled applesauce. Pour at once into cold freezing trays, and freeze. Yield, two pints.

Cranberry Mousse

CRANBERRIES are a popular fall fruit. You might like to try this: Mash one can (one and one-half cups) cranberry sauce. Add one-fourth cup orange juice. Whip chilled irradiated evaporated milk very stiff. Fold in two tablespoons of lemon juice and the cranberry mixture. Pour into cold freezing trays at once, and freeze. This makes two pints of mousse.

Hot Cereals

PERHAPS your family is already clamoring for hot morning cereals. There's the old favorite—oats, or oatmeal. I like to cook oatmeal with raisins or dried prunes or dates and figs. Gives you something extra. Then there are the whole-grain wheat cereals. Give your family whole-grain or enriched cereals, whether hot or cold. There're bran muffins too!

Lunches

YOU are packing lunches again for children or husband. See that these lunches are nourishing, attractive, and sufficiently varied. I hope every lunch box has a thermos bottle, for a hot drink or hot soup makes a lunch more like a regular meal. Prepare everything you can the night before. You can get the sandwich fillings ready; the lunch boxes can be washed and aired thoroughly; and you'll find that it saves time if you keep your lunch fixings in one place. You can have a certain section of the refrigerator for lunch things, and a certain section of your cupboard for the things that don't require refrigeration. Don't forget some bran cookies. Even a cold bran muffin is a treat. Have a special little jar for salads. Include fruit in each lunch. And don't get into a rut with sandwich fillings. There are the old favorites you know your family likes, but try something new on them every so often and get their reaction.

Co-operation

Yes, it's October again, the friendly falltime. Stand tall, live serenely and purposefully, do those things you've always been going to do. Add life to your days. It's a grand time of year. Now

you'll have time to do those things in the house that you've planned to do. And try a bit of music to add charm to living. Insist that Johnnie practice his piano lesson. Make yourself practice it, too. (Did I tell you that we have a new Starr spinet? It's a lovely little piece of furniture, and makes me just want to learn to play the piano.)

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Watch Your Curves and Corners

(Continued from page 19)

weight that is coming down. Her predisposition to diabetes, gout, gallstones, high blood pressure, and hardening of the arteries, is going down, and her resistance to infectious disease is going up.

"Funny, isn't it?" giggles Miss Polly during one of her regular visits to the doctor's office; "I feel better now than I have ever felt—full of pep—don't get tired. In fact—" Miss Polly glances at some of her diminishing curves—"I am going to invest in a—a—a—trousseau about seventy-five pounds from now!"

What about case number two?

Even as too many curves can be the shortest distance between two points (the cradle and the grave) so can too many straight lines be the shortest distance between the same two points. That doesn't make geometrical sense. But it makes medical sense. And we're not discussing geometry. At any rate, many corners and straight lines can make the going so wearisome that the traveler could well lie down at any time and call the journey ended. Fortunately for most of us, the appetite-regulating and fat-storage apparatus functions well enough to keep our body curves more or less graceful and lovely. When the dial on this apparatus is low the food intake becomes low; then the curves straighten out. The sharp curves become corners; the long curves become straight lines. And what is less pleasant to the eye than a human figure composed of straight lines and corners?

These malnourished men and women can be classified into two types:

First, those just "naturally" thin, with a subnormal appetite.

Second, those who lost weight during a period of sickness or severe physical or mental strain and who failed to regain it. This type has lost food desire.

In seeking to solve this problem of undernutrition we must first rule out or eradicate a wasting organic or infectious disease, such as cancer or tuberculosis. This is of primary importance. After this has been done, there is nothing to prevent a gain in weight in either type, provided the physician can induce the patient to eat enough to overcome his initial repugnance to food. The co-

(Continued on page 32)

AN IMPROVED FORM OF BRAN

What NABISCO 100% BRAN

offers those suffering from constipation due to insufficient bulk

GENTLE RELIEF—a modern process of Double-Milling further breaks down the bran fiber in Nabisco 100% Bran making it less likely to be irritating to the delicate intestinal membranes.

A DELICIOUS CEREAL—the delightfully tempting flavor of Nabisco 100% Bran makes it a welcome addition to the daily diet. Folks who never liked bran before enjoy Nabisco 100% Bran.

HIGH NUTRITIONAL VALUE—Nabisco 100% Bran furnishes significant amounts of Phosphorus and Iron, and is a good source of Vitamin B₁.

AN INEXPENSIVE BULK FOOD—the moderate price of Nabisco 100% Bran makes it well within the reach of most everyone. Available at food stores everywhere—packed in one-pound and half-pound packages. Eat Nabisco 100% Bran regularly. If your constipation is not helped in this simple manner, consult a competent physician.



BAKED BY NABISCO • NATIONAL BISCUIT COMPANY

449 WEST 141st STREET, NEW YORK CITY

Indigestion

(Continued from page 23)

their potency. One tablet or capsule may contain ten units; another, ten thousand. Of this the public is generally ignorant. People have paid as much for a tablet of two hundred fifty units as for one of a thousand units.

People are using vitamins as an aid to digestion and upbuilding as never before, but sometimes the product is inferior. A safe rule is to telephone your physician and ask him if he recommends the special make of vitamins or the digestive tonic you are taking. He will be glad to give you an honest, unbiased answer, and that without charge.

In summarizing: to prevent indigestion, do not overeat; avoid an excess of rich and indigestible food; eat slowly and masticate thoroughly; make mealtime a pleasant, happy occasion. In case of a severe attack of indigestion, call your physician and follow his direction. Do not take so-called cures for indigestion as advertised or sold promiscuously over the counter. Whenever in doubt in regard to medical questions, ask your physician. He will be happy to give you an honest opinion.

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Cooking School Lesson

(Continued from page 17)

catering to the eye and the appetite is also an essential.

I don't believe I told you of an experiment that we carried on in one of our classes while I was studying dietetics. Half of the class ate in the cafeteria, and the other half ate identical meals in the laboratory in which we had been cutting up frogs during the morning. Later we made tests to determine the length of time of digestion for the two groups. I am conservative in stating that the food of the group who ate in the laboratory took at least an hour longer to digest. So you see, it matters in digestibility as well as pleasure whether the meal is carefully and artistically planned, or just thrown together in a careless manner, with no thought for color, form, or combinations.

Speaking of green things, I am glad that you have the new lawn growing so nicely. Warm and busy as it is in my office today, I would like nothing better than to stretch out on the bit of yard you have at the side of the house, and dream of peaceful picnic lunches, or even of just a watermelon feast.

Thank you so much for those jars of delicious grape juice you sent by Jack. I like it, as you do, without the added sugar. It will come in very handy when I want something especially nice.

Love,

MYRTLE.



By William G. Wirth, Ph. D.

LET me tell you that I got a real uplift today," said one of my good neighbors a little time back. He continued: "Not that the preacher gave a great sermon, but what he did say did my soul good. I have to work hard during the week, with the result that I get pretty well clouded with the things of sense and sight. That preacher let the light in, through what he brought out from the Bible. And, believe me, it made me feel that life is worth living, after all, and that there are some realities and principles that we can't afford to lose sight of. That church service was O. K.; I am strong for more like it."

I could not help smiling at the enthusiasm of my friend, for he is not a particularly religious sort of man, just the run-of-the-mill average American citizen, who believes in working hard and honestly, and who feels that he ought to be decent himself and to help others likewise to live wholesomely. His moral and spiritual exhilaration from attending church, the tonic it gave him for satisfying living and service, made me think of the like experience the psalmist received centuries ago when he, too, went to church.

Out of the refreshment it gave him, David exclaimed, "I was glad when they said unto me, Let us go unto the house of the Lord." Ps. 122:1. Life was hard and trying for him, as it is for us today, but he knew where to go to get joy and comfort and inspiration, where to drink in that lofty idealism of soul and spirit which would serve as an antidote to the flattening realism of flesh and things.

Many are running to the movies these days to get away from the severe stress and strain of these troublous times. They do it to relieve the pressure and to refresh their spirits, to get a laugh and some fun, so they tell us. But they admit that this kind of refreshment is pretty thin; it does not last long, and much of it does a good deal of harm, for one has to see so much of the worthless and the trashy to get the little good that may be flashed on the screen.

When my neighbor went to church, he got something that was worth while, and, more than that, something to make him a better man; and more than that, something that gave him true joy and satisfaction, uncontaminated by nonsense, evil suggestiveness, and triviality. He was fortified morally and spiritually. Yes, the church is a blessed factor in our civilization. We would be better men and women if we attended it and took a real interest in its purposes.

That Nobel prize winner, Dr. Robert Andrews Millikan, chairman of the executive council of the California Institute of Technology, a penetrating student of our world life, writes this:

"A very large fraction of the altruistic, humanitarian, and forward-looking work of the world, in all its forms, today has its mainsprings in the Christian churches. My own judgment is that about ninety-five per cent of it has come and is coming, directly or indirectly, from the influence of organized religion in the United States. It is my belief that if the influence of American churches in the furtherance of socially wholesome and forward-looking movements, in the spread of conscientious and unselfish living of all sorts, were to be eliminated, our democracy would in a few years become so corrupt that it could not endure."

How much is democracy worth to us Americans these days? Well, we are giving our sons and daughters for its preservation, giving freely and sacrificially of our money to save it. But, listen, if it is really to be kept as a heritage for our children, we must not fail the church, that institution which stands for those great fundamental values of the free human spirit, that honors us with our privileges and rights as men and women made in the image of God.

How to Banish Fear From Your Mind

(Continued from page 10)

if not present, seems to stand waiting within the shadows. Some stifle their fears in pleasure, in a great rush of activity, or in drink; others flee to more favorable locations. But wrong messages to the mind cannot be stifled in this way; they must be rooted out. Sometimes we run into trouble simply because we have chosen as our goal something false, something illusory. We pursue it and find only frustration—not peace.

Some years ago on a lovely day in June, a woman who was nervous and full of fears came from a distance to visit a girlhood friend—a friend who had triumphed over ill-health and had overcome many obstacles. They sat on the lawn overlooking a pool. "I can't make up my mind," said the guest, talking of her problems, "whether to take a trip abroad, take a course at college, go and live with my sister, or go on as I am at present. If only I could be sure of the right thing! What would you do? I've had such a hard time." Then without waiting for an answer, she went on feeding that devastating emotion, self-pity: "I'm afraid I might lose my money; I'm afraid I'll lose my health. I'm afraid—" Suddenly she stopped and looked at her friend. "Where did you get your courage?" she asked. "I've admired it so. You've never had any fear."

"It may seem that way," said the friend, "but there was a time when I was full of harassing fear thoughts: What would I do if my health failed entirely? What would I do about this and that? My attention was turned inward upon myself. There was foreboding lurking around every corner. I was miserable. One day I came upon these fine lines from Browning: 'Truth is within ourselves.' We must open the way whereby the imprisoned splendor may escape.' The thought came that I was not sent into the world handicapped with fears; I had developed them myself. They blocked me. I wanted to be free. I saw then that the courage and freedom I wanted were within me in embryo form, but I must be the master of my own destiny. Then I read Edward Carpenter's fascinating description of the miraculous transformation of the May fly. In the twinkling of an

(Continued on page 30)

THE MOTHER'S COUNSELOR

CONDUCTED BY
BELLE WOOD-COMSTOCK, M.D.

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.

Cheese as a Food

Will you please tell me whether cheese is good for food, and what kind is best?

Cottage cheese is of course the most healthful form of cheese, but any lactic acid cheese is good—that is, cheese in which no putrefaction process has taken place. These, however, are often very rich in fat, and some of them may need to be used sparingly because of that. Cottage cheese may be used freely.

One objection to the use of ordinary cheese is its content of putrefactive bacteria, which McCollum tells us should ideally not be introduced into the digestive tract. However, if cheese is used in a form that is heated, so that it is well sterilized, as, for example, in the seasoning of macaroni with cheese, that disadvantage is overcome. Personally, I think such cheese should be used sparingly and principally to give flavor to dishes that have been well heated.

Program for Adopted Baby

I am in my late thirties, and for several reasons I couldn't adopt a baby any earlier in life. We received our baby girl last February from a home near by. She was one month old when we got her. They said she was a bit spoiled then. The third day we had her, she was very sick, and was threatened with pneumonia, so the child specialist said. He further said that we must spoil her and keep her from crying, or we might lose her.

Here are my questions: We know very little about her people, and we do not wish to know more. The baby will be nine months old soon. She is pretty, and is the brightest baby I have ever been around. She has been crawling all over the house for two months, can stand alone, says "bye-bye" and "daddy." Many think she is at least two months older than she is, but we have her birth certificate.

My trouble is that I don't know how to train her. So many give me different advice. Some say not to spank her. She has a temper, and is self-willed. The reason I hesitate to spank her much is that she is so nervous. She jumps and cries at so many noises, and is restless at night. She isn't a big eater, but is quite fat. She weighs twenty-one pounds, and is thirty inches tall. I need advice on how to correct her. When I spank her hands, she cries a great deal and for a

long time. She is easily upset, and is very nervous. She gets fretful late in the afternoon.

Should I force her to eat her vegetables? Sometimes she will take them without any trouble, and then again she will spit them out. She takes from four to six ounces of milk, and she still cries for her 2 A. M. feeding. I can't seem to break her of this. She has a sweet, sunny disposition almost all the time, and is friendly with everyone.

I am glad to hear about your little adopted baby girl. I am sure she will mean as much to you as though she were born into your home, and you must always feel toward her just as you would toward one who was yours by birth. The fact that she seemed spoiled when you got her at one month needn't have any lasting effect upon her. However, the fact that she was ill and needed constant attention might, of course, have got her into the habit of crying for things. With the return to health and a normal program, she should overcome that.

You are fortunate that the baby is turning out to be a pretty child and one that is very bright. That is always a great source of satisfaction. One cannot know even with the babies born into the family, just what they are going to be like as the months go by, and there are problems with every child, whatever its background. However, with normal care all babies should turn out to be normal, unless they are born with some physical, organic, or mental defect.

She is now in the prememory age, and it is at this time that she should receive physical discipline, if necessary. She must learn to obey the command, "No, no." It is her inhibitory impulses that need first to be trained. For example, she may be told to let a plant alone or a vase or a book, and she may quite rightly and with good results have her hands smartly slapped when she disobeys. If this form of discipline is started, it must



be constant, not merely spasmodic. If this is persisted in for two or three days, her subconscious control will be developed, and she will leave the article alone, whatever it is. Of course, she may forget in a few days. If so, the treatment will need to be repeated. However, the next time it should take much less to accomplish the desired result. She is probably a very sensitive child, with a delicately poised nervous system, and should be on a program that will stabilize her nervous system.

I would suggest that you give her with each meal or three times a day a Parke, Davis panteric capsule. The contents of each capsule can be emptied into her food, and she can take it without realizing it. She should never be forced to eat. On an overruling regime, she may become conditioned against food, and this is one of the worst things that could happen. Most babies are fed too much concentrated food, and so lose their appetite for plain, simple things. I would suggest that you feed her about as follows, until she develops a better appetite, and then you may increase her calories.

Breakfast: Any fruit, raw or stewed, without sweetening. It may be scraped apple, mashed bananas, applesauce, etc. A small amount of cereal without any added sweetening. Boiled milk on her cereal and to drink.

Midday: Small amount of baked potato. Small amount of one vegetable puréed, salted moderately and with no extra fat added. One egg yolk hard boiled and mealy. Boiled milk to drink.

Supper: The same as breakfast or perhaps crisp toast over which whole milk is poured, or she may eat the toast dry and drink the milk. Be sure that she has fruit of some kind again at this meal.

Serve her small amounts of any food that you give her. Do not urge her to eat. Between meals, once or twice daily, give her orange juice or equivalent fruit juice. Also, add to her program vitamin B complex capsules. She may have the contents of one capsule two or three times a day in her food. Give her no extra sweet or fat, and even take some of the fat out of her milk if at first she isn't hungry enough to eat the simple foods.

Never let her see you anxious or upset or worried, and don't urge her to eat.



By Veda S. Marsh, R. N.

The Victory-Garden Supper

THE Little Jays were all abustle this bright October morning, for vacation was past and school was beginning. Mother and two-year-old Tommy stood on the porch and waved as the twins hurried down the street. Though talking busily, the Little Jays paused to wave before they disappeared around the corner.

There was a note of sadness in Tommy's voice as he said, "Tins go kool, tins go kool."

"Yes," said mother, "the twins have gone to school. How would you like to help mother wash the dishes?"

Tommy liked to stand on a chair and help with the dishes; so he hustled into the house as he said, "Wash dishes, wash dishes."

How quiet the house seemed without the Little Jays! The hours seemed to drag by, in spite of all mother could think of to entertain Tommy. He had had such a good time with the twins all vacation that he missed them greatly, and he kept saying, "Me go kool, me go kool. Tins go kool."

Now it was time for school to be out for the day. Tommy squealed with delight as the Little Jays came bursting into the house and breathlessly began to relate the happenings of the day.

They told how happy they were to have Miss Russell for a teacher another year.

"In language class today," said Joan, "we told about our Victory gardens. I am so glad we could tell about *our* garden. Miss Russell is coming over some afternoon to see it."

"Would you like to invite Miss Russell to supper some night this week, and let her eat some of the vegetables from your garden?"

"Mother, you think of the nicest things to do. May we take the invitation tomorrow?"

John suggested they make the invitation in the shape of some vegetable. Soon the Little Jays, with Tommy's help, were busily at work. Mother also offered a few suggestions from time to time.

When Daddy Monroe arrived for supper, the invitation was proudly shown to him. It was the shape of a large potato. They had cut it out of brown paper, and drawn the eyes with crayons. On the potato was written:

You are invited to our
VICTORY GARDEN SUPPER
Thursday Evening, October Eighth
Six O'clock

The Victory Jays, John and Joan

That evening as the family sat around the fireplace, mother helped the Little Jays plan the menu. Joan was the secretary. She sat on the floor with a pad on her knees, ready to write.

"Mother, could we have stuffed potatoes, like those you made when Aunt Sue was here?" asked John.

"Yes, indeed, put down 'stuffed potatoes,' Joan."

"Mother, I pulled up one of the last radishes we planted, and I am sure they will be large enough by Thursday," said Joan. "Will you cut them so that they look like little flowers?"

"All right," said mother, "and I'll make some celery curls. Shall we use the large salad plate and put four piles of radish roses on it, with celery curls in between and sliced raw carrots in the center?"

"That will be beautiful!" exclaimed Joan. "I'll write it down. Salad: radish roses, celery curls, and carrot sticks."

"The Lima beans are still bearing, and if you will shell them, we will have creamed Limas."

"All right, creamed Lima beans," said Joan as she added this to the list.

"Mother, could we have eggs? I want Miss Russell to see our Rhode Island Reds, and I would like to give her one of Biddie's eggs to eat."

"We might shirr the eggs."

"How do you shirr eggs?" laughed John. "Do you shirr them on the sewing machine?"

"Hardly," answered Mother Monroe. "To shirr them, I put them in individual crock dishes, add butter, and bake them for a few minutes."

"Oh, I like that kind," said John. "Put down 'shirred eggs,' Joan."

"Check," said Joan.

"We could have fresh toast with some of the honey from John's beehive," suggested mother.

"I have some especially good clover honey put away. Could we use some?"

"Yes, indeed."

"Mother, may we have strawberries from the locker? The ones I picked and helped fix?" asked Joan.

"I think they will be fine for dessert," agreed mother. "It makes me hungry to think of all those good things to eat. Read the menu to us, Joan."

Joan read:

"Baked stuffed potato, salad (radish roses, celery curls, and raw carrot sticks), creamed Lima beans, shirred eggs, toast and honey, frozen strawberries."

"We could get some little cookies to serve with the strawberries, and I'll whip some cream for them," suggested mother.

"I wish it were Thursday right now," said Joan. "What kind of centerpiece shall we have?"

"How would you like to make a vegetable-and-fruit centerpiece, a real Victory garden one, with a small pumpkin in the center, carrots, cabbage, apples, grapes, etc., arranged around the pumpkin?"

"That would be lovely," the Little Jays agreed.

"Mother, we forgot to tell you all about our new club," said Joan.

"It is bedtime now," said mother. "You had better wait and tell me about that tomorrow."

"Then will you help us select a name for it?" asked John. "It is a nutrition club, and we have to be weighed and measured tomorrow, and make rules for it."

Suggestions to Teachers

1. Plan to organize a Nutrition Club.
2. Get height and weight of all pupils in stocking feet.
3. Make chart for each student, indicating "normal zone."
4. To obtain "normal zone," take average weight from height-weight chart, and allow from ten per cent below to ten per cent or twenty per cent above. For a very stout child allow twenty per cent above, or more; it is not wise to suggest that a child *reduce* except under a doctor's care. Example: If amount on height-weight chart for a certain age and height of girl is 56 pounds, the "normal zone" would be from 50½ lbs. to 66½ lbs.
5. Weigh the children each week, if possible. A child will soon realize what causes loss of weight as: too-late bedtime, missing meals, playing too hard, etc.
6. Check health habits and observe any necessary corrections in individual habits that might influence weight.
7. Stress the idea, "I am growing," and acknowledge "gain in weight" even more than "normal zone" (except for overweight child—often this needs a doctor's care and cannot be controlled by diet).

Rules for Nutrition Club

1. Keep a weight chart.
2. Be weighed at least twice a month (weekly weighings preferred).
3. One quart of milk a day (if possible).
4. Three meals a day.
5. Hot cereal or substantial cereal with warm milk three times a week.
6. Sweets at mealtimes only.
7. Raw vegetables (preferably green) three times a week.
8. Oranges or tomatoes in some form daily. Other citrus fruits may be used.
9. Whole-wheat bread.
10. Potatoes daily, and two other vegetables when possible.



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

- In the following list check the three conditions that worry is most responsible for:
 - cancer
 - kidney trouble
 - colitis
 - high blood pressure
 - ulcer of stomach
 - nervous exhaustion
 - hives
 - eczema
 - acne (P. 6.)
- Fill in the blanks with terms found on pages 8, 9:
 - is the term which denotes the minimum expenditure of energy necessary to maintain life.
 - regulates the distribution of calcium in the blood.
 - is the master gland because it produces many hormones which regulate the other _____.
 - Chronic fatigue may be relieved by the hormone of the _____ gland.
- Check the correct answers.
 - Most important in overcoming fear is:
 - accepting the Spirit of power from God.
 - thinking wholesome thoughts.
 - facing facts.
 - changing to a more pleasurable environment.
 - side-stepping all difficult decisions. (P. 10.)
- The greatest value to be obtained from breathing exercises is that:
 - each body cell uses more oxygen.
 - the chest cavity is increased in size;
 - there is a decreasing liability to varicose veins.
 - the diaphragm is strengthened.
 - good breathing habits are formed.
 - body endurance is increased. (P. 11.)
- A disease is inherited if:
 - the disease is present in the offspring at birth.
 - it was present in the ancestry.
 - the disease germs affect the offspring before birth.
 - the determiner is present in one of the germ cells at the time of their union.
 - it is a functional disease. (P. 14.)
- The following characteristics may be inherited:
 - wooden leg
 - emotional instability
 - literary tendencies
 - mental insufficiency
 - musical talent
 - blue eyes
 - bunions
 - allergic tendencies
 - body type
 - genius
 - moral degeneracy
 - gout (P. 14.)
- A creature of impulse has the following characteristics:
 - His emotions are allowed free play.
 - He thinks before he acts.
 - He gives consideration to problems before acting.
 - He deliberates over difficulties and usually resorts to arbitration.
 - He is frequently depressed and on the verge of tears. (P. 14.)
- An obese individual who desires to be normal in weight should:
 - starve at frequent intervals.
 - take "shots" for reducing.
 - co-operate fully in a plan worked out by his doctor.
 - eat less fat, oil, sugars, and starches.
 - eat less and exercise more. (P. 18.)
- In order to be well nourished one should eat:
 - what he wants.
 - what he needs, first.
 - Doctor Robert's master list daily.
 - twenty peanuts daily.
 - daily the master list arranged into regular appetizing meals. (P. 20)

Projects and Problems

- Using the ten questions on pages 6 and 7, determine your health score. Arrange these questions to develop a form on which you can readily check the health items for yourself and others.
- Collect as many health score cards as you can. Compare them. Decide which you consider best and tell why. (P. 6.)
- Make a diagram of the human body. Indicate on this the location of the endocrine system. (P. 8.)
- List as many points as you can that would help in maintaining a normal thyroid gland. (P. 8.)

- Describe a wrong way of getting rid of fear. Outline a plan for overcoming persistent fears in a mature individual. (P. 10.)
- What is the relation of posture to breathing? List an exercise which will improve this relationship. Demonstrate it. (P. 12.)
- Make a list of habits to be developed in order to avoid indigestion. (P. 12.) How is indigestion recognized?
- Who was Mendel? Tell how he discovered the laws of heredity. Of what value are these laws to mankind? In a ten-minute report, fully explain and illustrate the Mendelian theory. (P. 15.)
- Investigate the lactovegetarian diet. Scientifically evaluate it. List as many points as you can. (P. 20.)
- Analyze your diet for a week's time. Compare it with the yardstick developed by Doctor Roberts. (P. 20.)

True and False

- Place a *T* beside the statement if true; *F*, if false.
- The cough of a common cold frequently lasts six weeks or more. (P. 6.)
 - Fear and anger are evidences of emotional instability. (P. 6.)
 - Somewhere between the ages of thirty-five and fifty-five adolescence goes into reverse. (P. 6.)
 - An abscessed tooth is more dangerous to the general health than is pyorrhea. (P. 6.)
 - Indigestion is rarely caused by domestic friction. (P. 6.)
 - Children under one year of age should be inoculated against smallpox and diphtheria. (P. 6.)
 - Recent extensive study has resulted in a complete understanding of the functions of the ductless glands. (P. 8.)
 - Deep-breathing exercises are essential to an adequate oxygen supply. (P. 11.)
 - During vigorous exercise an individual uses sixteen times as much oxygen as when at rest. (P. 11.)
 - The best breathing exercise is taken during a brisk two-mile walk. (P. 11.)
 - Lack of chest development may cause varicose veins. (P. 11.)
 - Relieving acid indigestion by patent medicines is dangerous. (P. 12.)
 - Purified, pickled, and preserved foods are best. (P. 12.)
 - Tuberculosis, cancer, and syphilis are inherited diseases. (P. 14.)
 - Offspring of cancer victims appear to inherit an increased susceptibility to cancer. (P. 14.)
 - Moral degeneracy is characteristic of some families through many generations. (P. 14.)
 - Tendencies to allergy are seldom inherited. (P. 14.)
 - Inherited weaknesses are easily overcome or cured. (P. 14.)
 - Lessening the amount of food eaten will reduce the weight. (P. 18.)
 - Milk and garden products can be arranged to furnish superior nutrition. (P. 20.)

Discussion Questions

- Discuss how an individual can determine whether he is in good health. (P. 6.)
- What is the meaning of health? (P. 6.)
- Describe the headache due to nerves. (P. 6.)
- What are the common causes of a lack of energy? (P. 6.)
- Name the ductless glands and discuss the functions of the body which they control. (P. 8.)
- Describe the result of fear on the functioning of the human body. (P. 10.)
- How is the body benefited by breathing deeply? (P. 11.)
- How many young men and women provide the best possible inheritance for their offspring? (P. 14.)
- What information is of most value in maintaining normal weight? (P. 18.)
- Enumerate the daily essentials for an adequate diet. (P. 20.)

Vocabulary

- | | | |
|-------------------|------------------|---------------------|
| 1. recessive | 8. quiescent | 15. eventuate |
| 2. dominant | 9. turpitude | 16. pituitary |
| 3. delinquent | 10. desensitize | 17. precocity |
| 4. allergy | 11. latent | 18. frustration |
| 5. potentialities | 12. emotionalism | 19. indigestion |
| 6. maturity | 13. idiosyncrasy | 20. lactovegetarian |
| 7. composite | 14. migraine | |

What's Your Health Score?

(Continued from page 7)

early infancy against diphtheria. It is a simple, painless, harmless procedure, which may prove a blessing against sporadic outbreaks.

In regions where insanitary conditions foster typhoid fever, it is well to inoculate against it. If the vaccination does not afford complete protection, it at least modifies the disease.

10. Do you have recurring aches and pains? Par 20.

Low backache usually means a sore colon, some trouble in the pelvic organs, or rheumatism. Any one of them needs a physician's advice; neglect often means more serious trouble in the offing. In these days of stress and strain, a sore, squeezed-up colon is a chief source of backache—usually at bottom a problem of nerves.

Rheumatism often starts with generalized aching, transient soreness here and there, perhaps with swelling—a warning that you had better do something about it.

Neck and shoulder aching is commonly nerves—fatigue, worry. Perhaps it also is rheumatism with some infection around the head—tonsils, teeth, sinuses. Do you know why you are having these nuisance aches?

Now check your score and do a little thinking on your chances for threescore and ten years of health.

+ + +

Breathing Exercises

(Continued from page 11)

conditions. Faulty body mechanics produces undue strain, with resulting tendency to deformity of the joints as well as disturbances in the respiratory, circulatory, and digestive systems.

For persons with rheumatic tendencies a program of resting in the position explained above, for half an hour two or three times a day, is recommended. The elevated chest position may be exaggerated by placing a small roll of towel under the shoulder blades.

It would be well for all of us to keep in mind that the secret of proper breathing is found in a program which includes enough exercise to require deep breathing at least once a day along with maintenance of good body mechanics at all times.

We are sure to form good breathing habits if we take some time for moderately strenuous exercise each day. Perhaps our heavy defense program will prove a blessing to many of us who will have to walk more. We can help to serve our country by strengthening our bodies for greater endurance.

How to Banish Fear From Your Mind

(Continued from page 26)

eye, 'the brown, scaly creature, clumsy and sluggish, that crawls about the bottom of running streams, or hides itself in small semicircular burrows in the banks,' bursts its bonds, leaves its scaly husks on the water, and flies into the air 'a little fairy with four pearly, lacelike wings and whitish-green body about an inch long and tail of three long hairs.'

"This sudden change of the May fly was of course only the outward evidence of changes that had been at work invisibly for an indefinite period. I realized that something like this transformation could take place within me."

"And what did you do?" asked her fearful friend.

"Why, I began to work diligently and consciously toward a change. Whenever a worrying, fearful thought came into my mind, I'd put another thought in its place. I tried to store my mind with beautiful poetry to be called up whenever I needed it; and I found the Bible a bulwark of defense against fear and a keystone in mental hygiene. Aside from all its reassuring thoughts against fear, the Bible has many promises of faith and love, hope and courage."

"I don't know just where to begin," said the visitor.

"Begin by never side-stepping a difficult decision. Think it through, settle it with determination to the best of your knowledge, drop it, and go on from there. Learn to live one day at a time. Here's a little poem by Mary F. Butts that helped me:

"Build a little fence of trust
Around today;
Fill the space with loving work
And therein stay.

"Look not through the shelt'ring bars
Upon tomorrow;
God will help thee bear what comes
Of joy or sorrow."

"And," the friend went on, "we always help ourselves by helping others; that is healing medicine. But it's old. Isaiah told us about it long ago: 'Then shall thy light break forth as the morning, and thine health shall spring forth speedily.'"

To overcome fears one must use positive methods. Put other thoughts to work in their place; lay hold of mighty truths; use these as levers, and win the battle indirectly.

Fear and panic are often the result of seeing only the physical side of life. It is by the aid of our spiritual resources that we banish stupefying fear. Always we should pray for courage, and when we pray for it, take it, for it is there.

"He has not learned the lesson of life" said Emerson, "who does not every day surmount a fear." The fight is not easy;

it takes persistence, but if one doesn't run away from it, doesn't give up, the battle can be won. And one will find peace of mind and soul that can never be obtained in any other way.



By Merwin R. Thurber

FROM my third-floor office window, I can look out over a sizable expanse of our little metropolitan suburb, but I see very little of the town actually, for the large trees which have been preserved on nearly every building lot give us the aspect of a forest instead of a thickly populated community. By leaning back in my chair so that I don't see too close to the ground, I can imagine myself gazing over an arboreal wilderness. In the spring I watch the misty haze which seems to hang over treetops when buds first start to burst. Then comes the light gray-green of the tiny new leaves, followed by the dark colors of midsummer, and the gorgeous dress of fall.

I am especially fond of particular trees. One has a habit of turning red in patches. While the rest of the trees are still green, this red oak breaks out with brilliant spots of scarlet. Another tree that continually excites my admiration is across the park by the church. Perhaps twenty years ago, it was so damaged by a storm that the whole top of it had to be cut off. There it stood for several years, a forlorn stump about fifteen feet high, serving as a support for a vine. But life was not extinct, and soon new sprouts appeared from the wounds at the top. Now a fine crown of branches spreads shade upon the lawn, and the average passer-by would hardly notice that the tree is not perfectly normal.

Perhaps I am not the average passer-by, for I never look upon this example of persistence without getting a lesson from it. Quite appropriately, since the tree stands in a churchyard, the lessons I draw turn me to the things of the spirit. How like a life blasted by sin and restored by the grace of God is my tree friend! And then I think of the value of persistence in the face of difficulty. If anyone ever had reason to be discouraged, that tree certainly had. But today it stands, a blessing to its surroundings, because it did not give up when things really looked black.

The summer tree that I look at most of all, however, is that kind of acacia commonly called mimosa. Over by the bank are three specimens. For an almost unbelievable period during the summer they are covered with attractive blooms. Many of my neighbors like mimosa, too;

I see these feather-leaved trees in many yards. The true mimosa, by the way, is the sensitive plant of the tropics, and is not very closely related to the acacia, though they both belong to the pea family. One of the real relatives of our so-called mimosa is the wattle of Australia. If you are a stamp collector, you will remember that this blossom is used to decorate some of the stamps of our neighbor country "down under."

The acacia is fine for quick shade, but is short-lived. It is popular, nevertheless, and it well deserves a place in our landscaping picture.

+ + +

Those Ductless Glands

(Continued from page 9)

ment in these cases is largely cosmetic, and not because the enlarged gland has any bad effect upon the health in general.

The parathyroid glands are small glandular bodies, located on each side of the thyroid gland. They are essential to life and health, and bear an important relation to the calcium distribution in the body.

The pituitary gland, known also as the *master* gland of the human body, is situated in a cell of the skull. It consists of three lobes. In recent years considerable study has been given to this gland. It is known to produce five distinct hormones from the front lobe. The first influences growth; the second stimulates the small cavities (follicles) of the ovary to produce a substance called estrin, and in the male sex gland, the spermatozoa. The third bears an intimate relation to the thyroid; the fourth is related to the suprarenal glands; the fifth influences milk production.

The posterior lobe of the pituitary gland produces pituitrin, a substance which, when prepared and standardized, is much used in obstetrical practice to control hemorrhage. It has also a selective action in contracting the uterus at term and after delivery.

Removal of the posterior lobe of the pituitary gland produces no recognizable symptoms, but when the entire gland is removed, infantilism results. There is also genital atrophy and loss of weight. When there is increase of pituitary secretion, there is marked increase in height, characteristic of giantism. Children with hyperpituitarism are large for their age, tall, and bony-framed. The cheeks are prominent, the jaws square and large, the teeth are large, broad, and irregularly spaced. They have large hands and feet. The hair is profuse, the skin thick, harsh, and puffy. Giantism may begin at the age of adolescence and show rapid increase in the course of a few years.

The suprarenal glands are two triangular, semilunar-shaped, flattened bodies, situated immediately above and in

front of the upper part of each kidney. They consist of a thin fibrous capsule which sends numerous partitions inward, forming what is known as the cortex and medullary portion of these glands. The suprarenals are well supplied with blood vessels and nerves.

The cortex, or outer portion, produces a hormone, the absence of which causes Addison's disease—a disease in which the skin gradually turns bronze in color, with rapid emaciation and loss of strength. There are also marked stomach and intestinal disturbances. There is no cure known for this rare disease.

Another portion produces the hormone adrenalin, which is one of the controlling factors in maintaining the blood pressure. Hypodermic injections of adrenalin are invariably given in cases known in medicine as "shock," and this treatment has undoubtedly saved many lives. It increases the heart rate, raises the blood pressure, and relaxes spasms of the bronchioles, or minute bronchial tubes.

Where there is a lack of suprarenal function, we have chronic fatigue, low blood pressure, and often a decrease in the sodium concentration of the blood. These symptoms are relieved by the administration of adrenal cortex. Not long ago a young woman presented herself at a doctor's office with this one complaint, "I am always tired." Her physical findings were all negative, with one exception—her blood pressure was low. Assuming that hers was a case of suprarenal deficiency, the doctor put her on adrenal-cortex medication, and the next time he saw her she felt as "peppy" as ever.

The pineal gland is a small one lying within the brain substance, just above the midbrain. Pineal tumors in children are often associated with sexual precocity, whereas symptoms in adults may be due to pressure effects of a tumor. Treatment depends upon the ability to apply surgery or X ray. Little is known concerning the function of the pineal gland or its secretion.

The gonads are the ovaries in woman and the testes in men, the primary function of which is reproduction. These organs have also an internal secretion which controls the development of secondary sex characteristics. When there is a total loss of gonadal function in the male prior to puberty, the figure will be slender, the skin soft, the hair generally scanty, the voice childish, the mentality timid and nonaggressive. No satisfactory treatment has been devised.

Hypofunction of the ovaries causes scanty growth of hair, lack of development of the female type of body, and other abnormal conditions. Hyperfunction of the ovaries or testes brings about puberty at an early age, with coarse skin, profuse growth of hair, particularly on the face, and a deep, harsh voice.

The internal secretions of the gonads have an important bearing upon the well-



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

AMONG the major troubles that the pet owners must combat will be found the condition commonly called worms. It is a fact that in some period in the life of every dog, and in a great many cats, the presence of intestinal parasites (worms) may be demonstrated. These parasites may best be discussed under five classifications; namely, roundworms, hookworms, tapeworms, whipworms, and pinworms.

Roundworms, named for their appearance, are long and slender, and look very much like the common earthworm, except for the color, which is white as compared to the dark, brownish color of the earthworm. They are pointed at both ends, and the head is used to bore into the intestinal wall. Their presence in great numbers is indicated by dry, dead-looking hair, lack of appetite, upset bowels, and often, in puppies, by the appearance of small pus-filled pimples on the chest and abdomen. Small dogs and puppies are more often seriously affected by the presence of parasites than are larger, older animals.

Hookworms, so called because of a hooklike formation on the head, bury their heads in the intestinal wall by means of this hook, and literally puncture the intestine when their numbers are great enough to cause crowding and a resultant shortage of food for all parasites present. Their presence in numbers is indicated by the same symptoms as those suggested in the preceding paragraph, and, in addition, by conditions such as weakness of muscles, diarrhea (sometimes with blood showing), weak and watery eyes, and a listless, droopy appearance. The southern part of the United States is more troubled with it than is the northern.

The tapeworm is a long, flat, segmented worm, the head of which is made up mostly of suction devices for fastening itself to the animal's intestinal wall. This parasite simply absorbs the food that its host swallows before it is taken up by the host's body. Consequently, the animal infested with this parasite will have an abnormally large appetite, but will steadily lose weight until it dies of starvation, unless given relief.

Whipworms are prevalent in both warm and cold sections of the country, and do a great deal more damage in canine pets, I think, than is generally believed. Their presence can be proved only by microscopic examination of a fecal (bowel) sample by your veterinarian.

Pinworms are important more for their nuisance value than for any serious effect on the dog, although they may cause a great deal of irritation and consequent loss of weight when present. They attach themselves just inside the anus, and by irritating the dog into scratching and rubbing his hind parts, may cause a condition very similar to piles in human beings.

Please let me impress upon you the danger of indiscriminate use of patent "worm medicines." There have been numerous worms destroyed because the animal in whose body they lived was killed by the injudicious use of these products. Your veterinarian is the person qualified to determine the presence of parasites in your dog, the particular kind of parasite present, and the safe, efficient method of removal.

being of the individual. This is true of the other glands, as we have already mentioned. The thyroid gland exerts a marked co-operating influence upon the function of the gonads, more so in the case of the ovaries than of the testes. Obesity, for example, is now recognized as a disease due to faulty functioning of the ovaries, especially when it occurs at or near the change of life, when the natural function of the ovaries ceases. This ovarian obesity practically never occurs without the involvement of two glands which are intimately wrapped up with ovarian function, namely the thyroid and pituitary glands.

When contemplating surgery involving the removal of the ovaries, women are often possessed with a fear that they will become nervous invalids when their ovaries are gone. Suffice it to say that it is the policy of all surgeons to remove no more ovarian tissue than is absolutely indicated. A small piece of ovary will continue to produce its internal secretion, and this is sufficient to keep the nervous system in balance.

The question may arise in the minds of some, "Is there anything I can do to keep my glandular system in balance and functioning normally?" Yes and No. Yes, in regard to those glands of which we have the greater knowledge, and No, in regard to those which are still unfamiliar. You have learned by reading thus far that the thyroid, suprarenal, and pituitary glands, and the gonads are the best known of the ductless glands. A few suggestions may be given.

Improper use of the voice—screaming, shouting, and the like—as well as obstruction from tight collars, bands, etc., may produce congestion of the thyroid gland.

The use of iodized salt is recommended.

It is believed that the tuberculosis germ may infect the suprarenal glands through an indirect route. Therefore a mode of living which will increase the resistance of the tissues and cells of the body against bacterial invasion will protect those important glands against tuberculous infection. Fresh air by day and by night, sufficient hours of rest and sleep, sunshine, a nonflesh diet, with an abundance of fruits and vegetables, are essential in an effort to ward off bacterial infection.

As for the gonads, here is where an ounce of prevention is worth a ton of cure. The venereal diseases, gonorrhea in particular, destroy more ovaries and testes than all other diseases combined. When these organs are involved in abscess formation, resulting from infection by the gonorrhea germ, surgical removal of them is almost sure to follow. And when an abscess forms in both ovaries (the tubes are always infected first), there is not much likelihood that any normal ovarian tissue can be left in the pelvis. Thus a single careless act may result in the destruction of one or more of the most important organs of internal secretion.

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In addition to the Sanitariums whose announcements appear here, the following belong to this distinctive chain of health institutions:

- Boulder-Colorado Sanitarium, Boulder, Colorado
- Florida Sanitarium, Orlando, Florida
- Glendale Sanitarium, Glendale, California
- Iowa Sanitarium, Nevada, Iowa
- Loma Linda Sanitarium, Loma Linda, California
- Madison Rural Sanitarium, Madison College, Tennessee
- Mount Vernon Sanitarium, Mount Vernon, Ohio
- Paradise Valley Sanitarium, National City, California
- Pisgah Sanitarium, Box 1331, Asheville, North Carolina
- Porter Sanitarium, 2525 S. Downing Street, Denver, Colorado.
- Portland Sanitarium, 932 S. E. 60th Avenue, Portland, 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

Watch Your Curves and Corners

(Continued from page 25)

operation of everybody concerned in this "stuffing campaign" is superlative in its importance.

In Miss Anne's case there was found no organic or infectious disease. It was much more difficult to get her to eat enough than it was to keep Miss Polly from eating too much. However, she stuck by the job.

"It gags me!" she would complain at first. "I feel like throwing up all the time; I just can't stand the thought of food."

The physician taught her how to administer insulin to herself. (No, she doesn't have diabetes.) She now takes ten units three times daily, and is becoming more of a strain on the doctor's office scales at each visit. Food is becoming more attractive; and Miss Anne is becoming more attractive. Not that she cares too much about that particular part, because Miss Anne may possibly be a little too old for a trousseau. Nevertheless, she says, "I really do feel a hundred per cent better. I look forward to my garden this spring, and, would you be-

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No tubercular patients
admitted.



MOUNTAIN SANITARIUM and HOSPITAL
FLETCHER, NORTH CAROLINA
(Near Asheville)

lieve it? I gained seven pounds last month!"

All honor to these two stickers who gave the doctor time and a real chance to do something for them. Would that all fat ones and skinny ones might become kind enough to themselves and to those of us who have to look at them, to trouble to keep their abdomens in a respectable state of dimension and their body lines in a tolerable state of curvature.

Please! On this highway of life watch your curves and corners.

+ + + Vegetarianism

(Continued from page 20)

nutmeat, then the Oriental plan could be followed; that is, take four or five servings of greens, two or three servings of beans, and four or five eggs.

Doctor Roberts found that a person living in southern Michigan may have plenty of vitamin C from the foods at hand each month of the year without resorting to imported fruits. Some ways in which the vitamin C requirement may be met are by having one of the following: one-half cup citrus fruit juice, one and one-fourth cupfuls tomato, one cup strawberries, one cantaloupe, four or five new potatoes, five or six old potatoes, or one cup of young cabbage. It is encouraging to know that potatoes cooked in the skin may be depended upon in an emergency. It is interesting to see that leaf lettuce has three times the vitamin C of head lettuce.

Although there is much more to be discovered, yet there are some facts that we should keep in mind in preparing and handling food. The cooking water from fruits and vegetables should be carefully saved and used in soups or sauces. Leafy vegetables soon lose a large amount of vitamin C, and so a kitchen garden is an excellent economy measure, because the vegetables can be used soon after gathering. They should be prepared as quickly as possible, with as little heat as is necessary. No baking powder or soda should be used in foods, as these chemicals destroy vitamins B and C, at least to some extent.

+ + + Are Diseases Inherited?

(Continued from page 15)

of discussion in this limited study. For our purpose, however, it is sufficient to state that there are some families which, because of extensive hereditary mental and moral degeneracy running through several generations and involving hundreds of individuals, have become famous in the records of mental diseases.

Of more practical importance than the question of actual insanity is that of the less spectacular manifestations of mental insufficiency as we see them in repeated

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generations of low mentality with marked insufficiency. It is from this class of individuals that we draw our largest numbers of delinquents, those who populate our penitentiaries and houses of delinquency and who disgrace their communities with drunkenness and other evidences of moral turpitude. Families characterized by such qualities are more liable to have offspring of a similar type than are those with a long record of good citizenship.

Perhaps one of the more common manifestations of the hereditary origin of disease is that which we see in the various forms of allergy. By allergy we refer to any condition arising out of the individual's sensitiveness to any substance. Asthma, hay fever, hives, and other skin irritations are some of the more common forms of allergy. Tendencies to this sensitivity are recognized to be largely hereditary. They result from weakness with which the person is born. The fact that this is a hereditary disease does not mean that there is no relief for the individual who suffers from one of these conditions. Although there are some cases of asthma and related diseases which are never successfully dealt with, there are some from which relief may be obtained by learning the substance to which the individual is sensitive and either removing this substance from the person's environment or removing him from the environment where this material persists, or desensitizing him.

There is a marked increase in the role of diseases of the heart as a cause of death. Whether this can be more largely attributed to the greater age to which the average individual lives is not certain. With the marked reduction of deaths from diphtheria, smallpox, tuberculosis, pneumonia, and many other diseases, the average person lives to an age characterized by the degenerative diseases, among which disease of the blood vessels is one of the outstanding. The majority of the cases of heart failure are actually diseases of the blood vessels. Disease of the blood vessels carrying blood to the muscle wall of the heart ultimately shuts down this channel for the passage of blood to the muscle, and the resulting weakness of the heart's contracting power results in one very common form of heart failure.

Whatever part heredity plays in this condition is related, ordinarily, to an inherited lowered resistance to the disease rather than to inheritance of the disease as such.

An outstanding instance of disease influenced by hereditary background is gout. Generally known to be brought out by alcoholic excesses, gout is found in an active form in the parents of approximately fifty per cent of gout patients. It is thought that a much higher percentage of these parents of the gouty would have shown evidence of the disease had they subjected themselves to alcoholic excesses which would have

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The weaknesses and frailties of this form of clay in which we dwell are truly a reflection of the course of the human race from the beginnings of history. A weakened generation which spends its working days in an atmosphere of tobacco smoke, bolts an unwholesome meal between appointments, spends needed rest time in doubtful social excesses, and closes the day attempting to cover indigestion, sleeplessness, and other discomforts with widely advertised panaceas need be little surprised at the untimely frustration of life's plans by the cruel hand of degenerative diseases.

Energy Breakfasts



Getting started right is half the battle. To start the day right the breakfast menu is of primary importance, because the body depends upon this meal for the initial supply of energy for the day's work. Whole wheat and fruits are excellent foods for energy.

★ **WHEATASOY** Breakfast Food is a combination of whole wheat and whole soybean flour, malt, salt, and sugar. It contains a rich assortment of choice nutritional elements: complete protein and Vitamin B for growth and development, lime and phosphorus for the bones, iron to enrich the blood, and carbohydrates for energy.

WHEATASOY IS READY TO EAT. ALKALINE, MALTED, AND DEXTRINIZED. 2 Pkgs. **25c**

The Champion of Breakfast Foods

★ **ZOY-KOFF** meets the need of those who require a beverage free from caffeine and light stimulants. It is an alkaline beverage that may be served hot or cold. Its rich, delicious flavor is palatable for breakfast, lunch, dinner, and supper. It is especially desirable at the evening meal for those who cannot take stimulating beverages. Containing no coffee, Zoy-Koff will not produce indigestion and insomnia caused from caffeine.

Prepare as you would coffee. Two grinds, regular for coffeepot and percolator; fine grind for dripolator and glass coffee maker. A package makes thirty-five cups. Pkg. **25c**

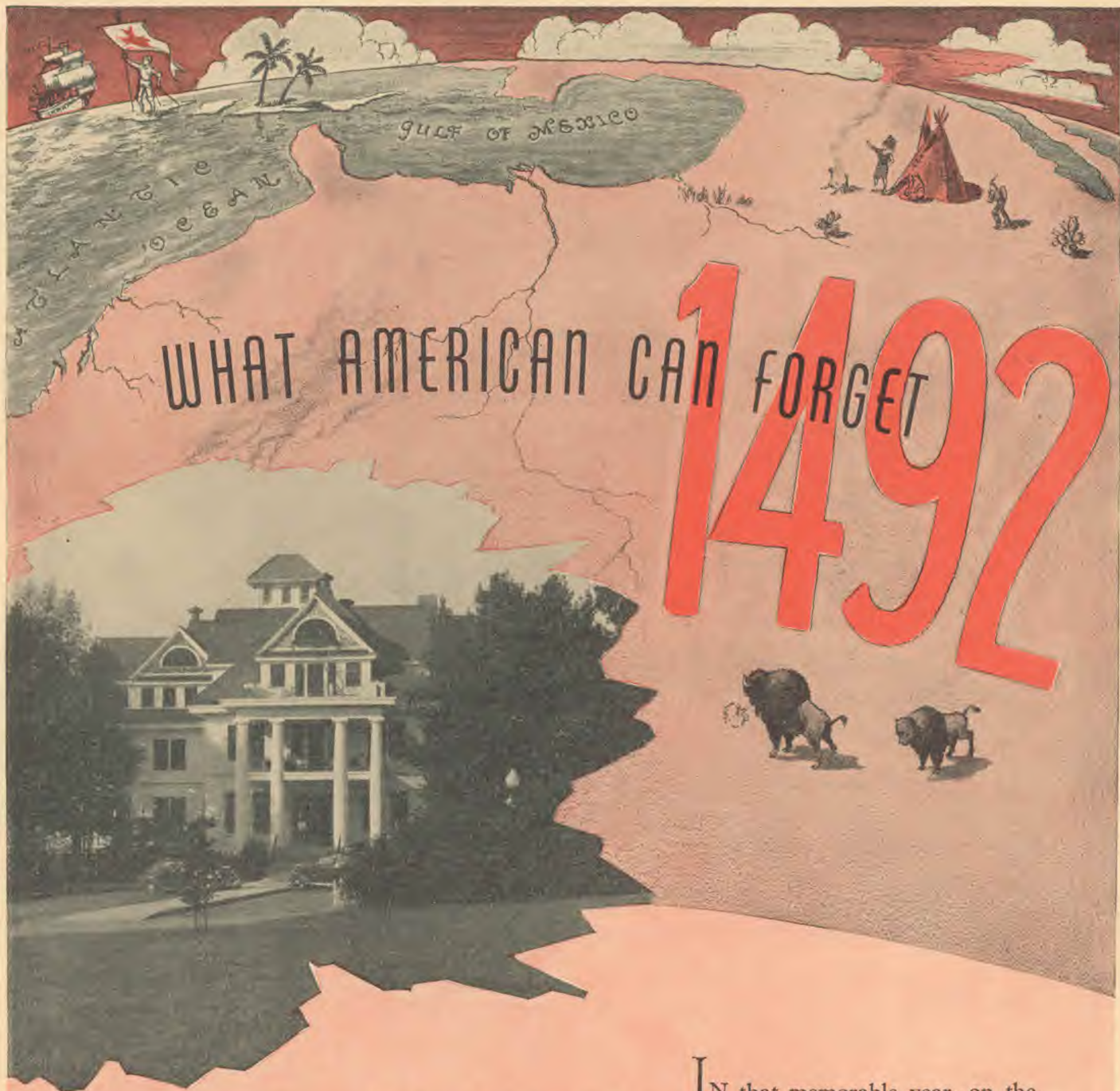
Zoy-Koff is so good that it may be served to children.

Available at health-food stores and specialty groceries. If not obtainable locally, order direct from Madison Foods. Transportation charges prepaid on initial orders of \$1.00 to any place in the United States.

FREE: Current issue of the Madison Health Messenger, full of recipes, health news, etc. Get a copy at your health-food store or specialty grocer.

MADISON FOODS, Madison College, Tenn.

In replying to advertisements, please mention LIFE AND HEALTH.



WHAT AMERICAN CAN FORGET

1492

IN that memorable year, on the twelfth day of October, Columbus set foot on the shores of San Salvador. Then came the Pilgrim Fathers and the downtrodden of all lands to discover freedom in America. Through the centuries this country has meant freedom for the oppressed, opportunity to all who have sought her shores.

Down through the many years medical discoverers have provided freedom for those harassed by illness, opportunity for fruitful living to those frustrated by accident, wrong living, or inherited ills. That's what the modern sanitarium and hospital means to those who enter its doors—freedom, opportunity, a new chance.

ILLUSTRATED BOOKLET "A"
FREE FOR THE ASKING

Mental and Contagious
Cases Not Accepted

WASHINGTON SANITARIUM and Hospital - Takoma Park, WASHINGTON, D.C.