

Book One

It's Your World of Good Health



Your Fabulous Body



YOUR FABULOUS BODY

What is this mysterious power within us? The power which seems to pulsate through every cell in our body? It moves in the muscles. It beats in the heart. It flows through the blood stream. And it lives in the mind. Our mind can think of ten things to do all in a second of time, and select one of these things. Instantly, without any conscious command, the muscles cause arms, legs, tongue, eyes to carry out our wish.

Nothing about the human body is so important as LIFE. It is the secret power within us.

All the materials which compose the human body can be purchased for a few dollars. We have about enough calcium, or lime, in our bones to whitewash a small chicken house. We have enough phosphorus to make one box of

matches. We possess enough iron to make a small nail. There are a few traces of such things as copper, iodine, and cobalt. The rest of the body is composed of carbon, nitrogen, and water.

But when these minerals, gases, and liquids are combined to form a human body, there is nothing so valuable. The only difference is the spark of life.

The untold millions of living cells which make up the body are not packed solidly together. Rather, they are separated from one another by tiny spaces, so that fluids can pass freely on all sides of each cell. Thus every living cell in the body is constantly bathed in a stream of fluid. In fact, it is what keeps the cells alive.

A SYSTEM OF LIVING CELLS

This life-giving stream functions somewhat as a



LESSON NO. I

shuttle bus between the body cells and the veins and arteries. This shuttle-bus stream contains a number of chemical substances, all in liquid form. Many of these chemical fluids come from the digestive organs. Others are produced in the various glandular "factories" of the body. All these chemicals are transported through the blood vessels to feed the cells in all parts of the body.

As this living stream moves through the various tissues and organs, each cell accepts that which it needs and rejects the rest. Each living cell has the capacity to choose what is best for its own particular needs.

In addition to bringing food, oxygen, and chemicals to the cells, this remarkable stream has another important function. It must carry away the waste products that are given off by the cells. Both functions are absolutely essential to life. These waste products eventually find their way into the bloodstream and are finally eliminated through the lungs and kidneys and skin.

Let us focus in on the details from another angle. As we breathe in, our lungs open up and expand. This enlargement of the chest produces a suction within the body, so that the air rushes in to fill all parts of the lungs. Oxygen from the

air is thus brought into almost direct contact with the bloodstream—separated only by one cell thickness—the blood passes through the vessels into the lungs. This suction within the chest also helps to draw blood to the heart—a most important function in maintaining the circulation.

THE BODY'S AIR-CONDITIONING SYSTEM

Air passing into the lungs must first of all be purified. It must also be warmed and moistened; otherwise the windpipes soon become dried out and irritated. This is what happens when you breathe through your mouth for a long time during sleep. You can see for yourself the effect of mouth breathing by taking a few deep breaths through your mouth. Notice how cold the air feels in your chest! Now breathe through your nose, and note how comfortable you feel.

Mouth breathing is not natural. Most of the time the air is too dry or too cold, or both. It dries out the tissues in the throat and may result in chronic bronchitis, especially in older people. It can dry out the delicate structure of the lungs.

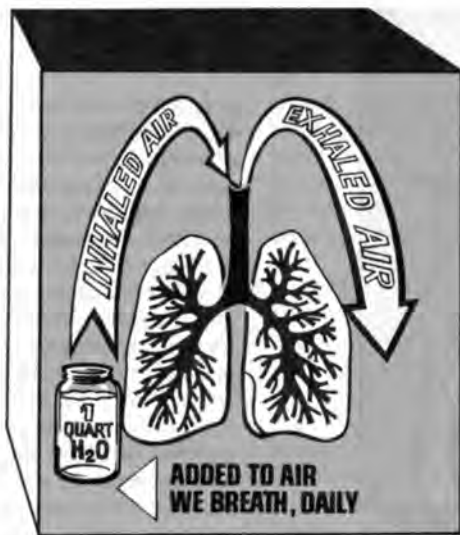
But there are other reasons why we should breathe through the nose. The air around us contains large quantities of smoke and dust, as well as millions of germs. These should all be

screened out before the air reaches the lungs. Otherwise, we risk serious infections of the lungs such as pneumonia. Some method of filtering is absolutely necessary to protect the smaller air passages from becoming hopelessly blocked with dust and soot.

To guard against such disasters, nature has provided a most efficient air-conditioning system. It begins in the nose. Hairs at the entrance of the nose help to screen out large particles of dust. The deeper passages of the nose moisten and warm the air to the exact degree of temperature and humidity required by the lungs. It has been estimated that over one quart of water is added to the air we breathe every twenty-four hours. On hot, dry days relatively large quantities of fluid will be released.

The eyes provide some of the fluids for this purpose. After bathing the eyeball, these fluids pass through the tear ducts and down into the nose, where they help to purify the air we breathe. So even our unshed tears are not wasted.

Regardless of how dry the atmosphere outside may be, by the time the air reaches the upper portion of the windpipe, it has a relative humidity of around 90 percent. This is about equal to the moisture in the outside air on a rainy day.



It can be readily seen that if any portion of the nose is obstructed, this very important function of moistening the air would not take place.

In spite of the large hairs near the front of the nose, much of the air we breathe still contains considerable amounts of dust. To remove this potential cause of trouble, the whole respiratory tract has been lined with a special type of mucous membrane. This smooth tissue contains thousands of tiny cilia, or hair-like projections. In addition, many small glands are busy secreting a sticky mucous blanket that covers every part of the nasal mucous membrane.

The mucous blanket does not remain stationary. Like an escalator, it is continually moved toward the back of the throat, usually about one inch every three minutes. This mucous

covering is replenished by the various glands in the mucous membrane as fast as it is moved toward the throat. In fact, every fifteen or twenty minutes there is a complete renewal of the whole mucous blanket within the nose!

As long as this mucous blanket keeps moving, there is practically no chance of the nose and throat becoming infected. Any germs landing on this moving blanket are carried along so rapidly they have no time to do any damage. This is one reason why some people can be surrounded with infections, yet never come down with any serious illness. Their defense mechanisms are good.

As the air reaches the deeper parts of the lungs, it quickly fills the tiny air sacs. The walls of these little air cells are literally covered with capillaries,

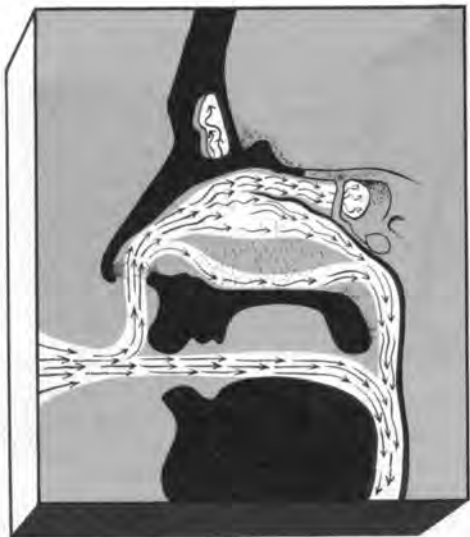
the smallest of all blood vessels. The oxygen from the inhaled air readily passes through the thin walls of these tiny capillaries and right into the red blood cells, changing their color from bluish-purple to a bright cherry-red. The opposite of this takes place when the red blood cells travel out to the toes and fingers, where they absorb carbon dioxide among other waste products.

THE CONVEYOR SYSTEM

The bloodstream is not all liquid. Nearly half of it is made up of red and white blood cells. The white cells are the valiant defenders of the body. The red cells pick up oxygen in the lungs and carry it on to the tissues, leaving it there and bringing back carbon dioxide to be expelled through the lungs.

Normally, the red cells always remain inside the blood vessels. White cells are different. They readily change their shape so as to pass through the capillary walls and out into the tissues, wherever they are needed to fight infection.

The plasma, or liquid part of the blood, has yet another function. Besides being the liquid in which the cells float, it also carries the many nutrients needed by the various organs of the body. On reaching the distant capillaries, part of this fluid, carrying many of these important chemicals,



passes through the vessel walls, providing food for all the nearby cells and carrying away their waste materials.

Thus every living cell in the body is dependent upon these constantly-moving tissue fluids. The blood is truly the stream of life. Tiny electric charges built up by the chemicals within the cell, help to bring about the absorption of food and also the removal of the waste products. These waste products pass through the walls of the living cells, out into the tissue fluids and eventually back into the bloodstream. The blood is returned to the heart and then pumped to the lungs and kidneys, where the waste materials are eliminated.

During heavy exercise the needs of the body are very much greater than when the body is at rest. To meet these needs, the circulation

of the blood must be tremendously increased. At the same time the waste products are produced more rapidly and have to be removed that much more quickly. If this elimination process fails, the waste products rapidly begin to pile up, and we become fatigued. Severe pain may also develop in the muscles or joints and other tissues.

A period of rest and sleep is necessary to bring the chemistry of the body back to normal. If we fail to rest properly we may become really ill, in which case nature takes a hand and forces us to rest for a longer period of time. Sensible habits of living are essential if we are to stay well.

THE ELECTRICAL ACTIVITY OF THE CELLS

Most of the cells in the body are so small that they cannot be seen without the aid of a powerful micro-

scope. Yet each one of them is in itself a marvel of electrical and chemical activity. It is estimated that within that delicate microscopic structure over a thousand different electrochemical processes are taking place all at the same time! Every living cell is a mass of restless activity within. This is life in action. Each cell is influenced by the cells which surround it, and all play some necessary part in the support of the body as a whole.

But this is still only part of the picture. Not only must we have good lungs and an adequate circulation of the blood, but we must also have some way of eliminating all the other poisons that arise from various parts of the body. This important work is carried on by the liver and kidneys. It's their job to keep the bloodstream pure and free from all harmful substances at all times. Every drop of fluid in your whole body is checked by the kidneys many times each day. Only by this means can the waste products be removed and all the rest of the system be kept in perfect balance.

Standing guard over all this complicated system of living cells, are those two remarkable organs, your kidneys, one lying on each side of the spine in the back part of the abdomen. Your kidneys are rather small, considering the amount of

work for which they are responsible. Each kidney weighs less than half a pound; yet ten times as much blood flows through your kidneys each minute as through any other organ of similar size and weight. They alone determine what materials are to be preserved and what must be eliminated.

THE FILTERING SYSTEM

Within the capsules of your kidneys there are nearly 140 miles of tiny tubing. Each kidney has over a million of these little tubes, each not more than an inch and a half long. At the top of each tube there is a tiny filter. Each consists of a tuft of vessels. Their job is to filter out most of the substances in the bloodstream. Your kidneys filter not less than 10 times the total weight of your body every day.

The kidney tubes are not simple channels; they are very complicated structures, which are responsible for picking up the vital chemicals that the body cannot afford to lose. Any chemicals not needed are rejected and eliminated; those that are needed are drawn back into the system again. The unwanted materials are finally eliminated through the urine.

Out of 120 quarts filtered, one quart is discarded, if the body is not dehydrated. The remaining 119 quarts return to the blood-

stream. Our kidneys have been specially designed to keep the bloodstream from becoming overloaded with poisons and to keep the body in chemical balance.

The life of the body depends upon the health and vitality of all the cells. Each cell in turn depends on the nutrition it receives from the fluids that flow all around it. If the cells are surrounded by a life-giving stream, they are strong and healthy. But if that stream is contaminated, all the cells may become sick and perhaps die.

There are many things that may contaminate that stream, such as bad habits in eating, drinking, working — yes, even bad tempers! Disease-bearing germs are a potent cause of trouble, but these will not get a chance to destroy the body if we keep ourselves strong and healthy. It all depends on how we choose to live. In many cases, we have no one but ourselves to blame when we are sick.

THE KEYS TO HEALTH

When the engineers first started to build the Panama Canal, they did not take time to clear out the mosquitoes and all the other pests of the jungle. They did not understand the dangers of disease that were threatening them on all sides. As a result, many of their most capable workers lost their lives, simply because insufficient

provision had been made for their health and safety.

The murky swamps of the jungle harbored the elements of disease and death, and the great building project had to be abandoned for years until the whole area was cleaned out and made safe and healthful for the workers. Not until then could that wonderful Panama Canal be completed. Even today, the engineers have to keep a careful watch so that the jungle will not again become infested with those same diseases.

The stream of life within our own bodies must be kept pure and free from the elements that would destroy us. That stream within us may either be a river of life and health and vitality, or it may become a murky swamp of disease and death. The choice is ours.

We can purify that stream and make it a real river of life by following a program of wise living mixed with good common sense.

Such a program includes plenty of fresh air, good food, pure water, rest, exercise and sunlight. All of these are absolutely essential to good living; and when temperance becomes the gatekeeper, they will help us to overcome the effects of disease.

ANSWER SHEET—LESSON NO. 1

1. Place a check (✓) after the correct statements below:

- The materials which compose the human body can be purchased for a few dollars._____
- Each cell of the body is bathed in a stream of fluid which keeps it alive._____
- This fluid functions somewhat as a shuttle bus between the body cells and the veins and arteries._____
- This fluid brings nutrients to the cells and carries away the waste products from the cells._____

2. Supply the missing words in the following statements:

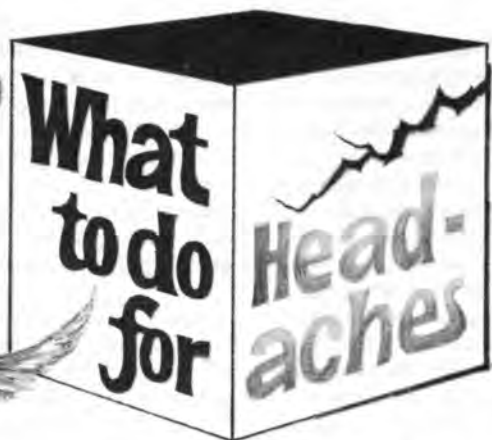
- Air passing into the lungs must be _____ as well as _____ and _____.
- Mouth breathing is not _____.
- Mouth breathing could cause serious _____ in the _____.
- _____ from inhaled air passes through the _____ of the capillaries and into the _____ blood cells.

3. Underline the correct answers.

- Most body cells are so small they cannot be seen with the naked eye.
- White blood cells are the soldiers which fight infection in the body.
- The kidneys are large organs which are important to the health of the body.
- The kidneys filter up to 10 times the body weight every day.

4. List what you can do to keep the stream of life healthy:

- | | |
|----------|----------|
| a. _____ | d. _____ |
| b. _____ | e. _____ |
| c. _____ | f. _____ |



"This awful headache — I feel bad all over."

If you say this because you experience it, you are only one of many. More people complain of headaches than of any other type of acute illness.

Headaches have been around for a long time. According to archaeologists, about 3,000 years ago a Sumerian poet wrote about his blinding head pain. Skulls taken from ancient burial grounds in Peru and Bolivia, in Central Asia, and many other areas show evidence of surgical procedures, presumably for relief of headache. Mary Tudor endured her coronation ceremony in Westminster Abbey with a severe headache. Thomas Jefferson remarked to a friend that he ignored his frequent headaches.

LESSON NO. 2

Holes were cut in the skull even in ancient times, apparently in an attempt to relieve the pressure within

the brain. We have no idea whether or not such operations were successful. Today we take a pill or two to ease the pain, or we try to live with our headache until it disappears. But, if we haven't found the cause, the headache will probably return.

A headache is not a disease. Dr. Arnold P. Friedman, Clinical Professor of Neurology at New York's Columbia University, believes that headaches are beneficial in that they warn us of a problem. Though the headache may be telling us something is wrong somewhere else in the body, usually it isn't a symptom of an organic disease. It may have been triggered by an environmental or emotional situation.

Few headaches actually involve the brain tissue or the central nervous system. The brain itself cannot feel pain, having no sensory

nerve endings for that purpose. However, the blood vessels and outer coverings of the brain are well supplied with these sensory nerve endings, and here is where the pain usually seems to arise. Headaches inside the head are most often related to blood vessels and other tissues surrounding the brain. Headaches arising outside are most often due to spasm of the muscles in the neck, face, or scalp.

SYSTEMIC HEADACHES

"Systemic headaches" may or may not be the only discomfort, but are associated with an abnormal problem in the body system; for instance, headaches are associated with diseases of the face and head — mumps, toothache, brain tumor, or sinus infections. Let us discuss some of the more frequent systemic headaches.

Hunger

You may recall childhood days when you came home from school at what you thought was near starvation point. "Mom," you called as you came through the kitchen door, "I've got a headache and I'm starved." And the magic wand of supper swept away your headache.

Low blood sugar — a condition sometimes caused by going without food for a longer time than you are accustomed — may cause

headache. The prevention is simple. Eat regularly, with an emphasis on protein. Protein converts slowly and steadily into carbohydrates, thus sustaining the blood-sugar level longer than do carbohydrates themselves.

A headache may also develop if you eat a diet with concentrated high sugar content — candy bars. This causes a sharp rise in blood sugar, followed by a rapid fall to abnormally low levels as the body tries to compensate for the excess sugar.

Strain

There are times when headaches may arise from eyestrain. The most common conditions which cause eyestrain are poor illumination, fine, tedious work, and a continual refocusing of the eyes. Generally, we can correct these conditions with better lighting and periods of rest.

Eyestrain can also be caused by focusing difficulties, such as farsightedness, astigmatism, and imbalance of the eye muscle. A child may be forced to hold his head in a certain position in order to see clearly. Perhaps his eyes do not focus properly, or he may be suffering from crossed eyes or some other optical condition. Whenever headaches are associated with eyestrain, it is well to have an immediate checkup by a

reputable eye specialist.

Hangovers

Alcohol is a powerful drug that produces widespread effects throughout the body.

The central nervous system is vitally affected. Certain vessels in the head may become dilated, causing flushing of the face, scalp, and neck. People who indulge in the use of alcohol in any form — beer, wine, whiskey, vodka — are likely to have more headaches as well as other problems than those who refrain.

The "hangover" next morning generally involves a severe headache. Often there is a certain amount of swelling in the brain. The headache is your body's warning to avoid the use of alcohol in any form.

A heavy coffee drinker who tapers off toward the end of the day may develop a headache; or he may awaken in the morning with a headache after eight hours of no coffee drinking. The reaction on the blood vessels in the brain is similar to that of a "hangover."

Coffee contains a mild drug called caffeine. Since withdrawal often results in a headache, it is wise to gradually decrease the intake of coffee from day to day. Abstaining from coffee drinking is the safest



course for good health.

Sinus Trouble

Viral or bacterial infections, such as the flu or the common cold, usually involve the sinuses. Not all who suffer from inflamed sinuses will experience severe headaches, but many do. When such an infection takes over it is best to see your family doctor.

The sinuses can also become inflamed due to some allergic conditions. This is an abnormal response to irritating things which are inhaled, such as dust, pollen, animal fur, strong cosmetics, tobacco smoke, industrial fumes, or car exhaust. Large quantities of mucus are poured out by the glands lining the nose and throat, in an attempt to get rid of the irritation. At the same time, however, the irritation

causes swelling which blocks the passageways and may produce pressure in the sinuses. A result of the pressure may be a dull headache, especially in the morning. The person may feel some relief after he is up and about for a while. It may be necessary to determine through professional help what substance is causing the irritation.

Another group of allergies which cause headaches are foods taken into the body through the digestive tract. The more prominent are chocolate, dairy products (especially aged cheese), eggs, nuts, pork, peas, or shellfish. The best way to discover which food may be causing the problem is to abstain from one food at a time until the offending item is discovered. Some drugs also can trigger an allergic reaction.

TENSION HEADACHES

The affected muscles of the head and neck become tense and rigid, and are extremely sensitive to touch. At the same time there may be changes in the blood vessels supplying this area. People with high blood pressure may be afflicted with tension headaches. In fact, this may be an early warning symptom of high blood pressure. This is the best time to do something about such a serious condition.

People who suffer with tension headaches may feel steady aching in the back of the neck at first. Later the pain may extend across the top of the scalp to the forehead. Some may feel a tightness all over the top of the head as if they were wearing a tight cap. Nausea and vomiting frequently occur in tension headaches.

Although tension is often blamed as the cause of a headache, most medical authorities believe that tension only triggers the headache. Let us illustrate with the cancer cell. It floats through almost everybody's bloodstream. A healthy body will continuously reject the cell because it is foreign to the body. However, if the kidney, which filters impurities out of the blood, loses its ability to control its own cell growth because of undue stress, the cancer cell may find lodging and begin to grow wildly. Thus

the person becomes ill. The cancer is the cause of the illness, but stress triggered the illness.

If you happen to be an ambitious executive, you may push yourself beyond your strength or ability. Or the achievement of your coveted goal may become a disappointment and may bring frustration and discouragement. Either may produce undue stress on your body. If you have a tendency to headaches, the tension or frustration which you experience may trigger a headache.

Of course, the best way to gain relief from this type of headache is to avoid whatever triggers the headache. However, you cannot always eliminate your tension, especially if it has to do with the serious illness or death of someone in your family, the loss of a job or promotion, or conflicts in your family life.

MIGRAINE HEADACHE

A commonly seen headache is the kind that arises from the condition known as migraine. The word "migraine" literally means a one-sided headache. No one really knows the true cause.

A migraine sufferer may experience a severe spasm in the muscles of the neck and upper back. The pain usually starts on one side, later spreading to other areas. Sometimes it begins

behind the eyeball or the temple.

Eighty percent of all migraine headaches are experienced by adult women. Among children and adolescents, boys more than girls are afflicted with migraines.

During the early phase of a migraine attack, the blood vessels supplying one particular portion of the brain may become narrowed or constricted. Flashing lights or dark spots may then be seen, usually on one side of the field of vision. These peculiar eye disturbances probably indicate some temporary involvement of the occipital lobe — the back part of the brain. Some patients even complain of certain amounts of one-sided blindness, lasting from a few seconds to an hour or more. Muscular weakness may occur on one side of the body, or there may be numbness on one side of the face, arm, or hand.

As these peculiar flashing lights and visual disturbances begin to subside, the headache becomes more severe. The blood vessels supplying the scalp and the base of the brain have suddenly become dilated and enlarged, and their walls are thick and swollen. This pinches the nerves and thus produces the headache. Some patients will then begin to feel sick at the stomach, probably

because the disturbance has passed down the vagus (a pair of cranial nerves) and other nerves leading down to the abdomen. Vomiting is common in such cases.

All migraine patients should try to understand the underlying causes of their discomfort. Who are these people, and why do they get migraines?

Most of them are rather neat and exacting in their appearance. They tend to be perfectionists, always busy carrying out their pet schemes and diligently pursuing their many-sided activities. Most of them are ambitious and have high ideals. Many of them were deprived of their rightful share of love and affection during their early childhood. In order to gain attention, they early developed the habit of doing everything "just so." They have driven themselves to success at the expense of their own vitality. This may not be true of all cases, but the early family history is often revealing if one takes the time to investigate it thoroughly.

Migraine headaches come on at odd times. The victim is not always under particular tension. Again, not all patients go through these various phases of migraine. Some suffer only from the one-sided headache, while



others are troubled with marked digestive disturbances. Dizziness, tremors, dryness of the mouth, and bloating of the abdomen are all experienced at various times. Some patients may even have swelling of the ankles due to retention of water in the tissues. As soon as the headache subsides, the surplus water drains off and the patient soon begins to feel better. One of the strange things about this type of painful headache is that the patient usually feels quiet and calm between attacks.

IF YOUR CHILD HAS A HEADACHE

It is important that every parent have some knowledge about children's headaches. Your child's headache will fall into one of the categories already discussed. But there are

some vital points to keep in mind.

A persistent headache may very likely be a symptom of disease. Other symptoms to watch for are: difficulty in breathing and swallowing, double vision, stiff neck, and signs of coma, delirium, or paralysis. With any of these symptoms you will want to consult a physician immediately.

How a parent reacts to his child's headache may determine future prevention. Especially is this true in adolescence. Unless some of the foregoing symptoms are present, it is best to treat a child's headache as a normal problem which strikes occasionally. Whatever pain killer you use must be mild and used only as directed by the manufac-

turer or a physician.

Headaches can be your child's excuse to escape responsibilities. Be alert to Monday morning headache which may indicate that he is having a conflict with a teacher, classmate, or classwork. He may discover that this is a good way to gain attention. Every parent needs to be aware that headaches can become a serious psychological problem for children and adolescents.

TREATING A SICK HEADACHE

1. Don't expect too much of yourself or others. A person who is overly ambitious can make life miserable for himself and for everyone around. Plan your work week, and do not fret and worry when things go wrong. Some things you cannot change.

2. Get plenty of sound sleep each night. A short nap in the daytime if possible will also relax those tense nerves. Increasing the amount of rest may help you to avoid a throbbing headache. Dr. Friedman believes that rest is the greatest factor in the prevention as well as relief of headaches.

3. Avoid all habit-forming drugs, unless prescribed by a physician. Combinations of chemicals may cause more harm than the temporary relief of pain is worth.

4. Avoid inhaling or swallowing substances to which you are allergic.

5. Daily exercise — walking, jogging, or bicycling — in the open air with some deep breathing is one of the best home remedies for tension and migraine headaches.

6. Keep yourself calm and quiet. Migraine headaches usually result from nervous tension. In most cases they can be avoided by the simple steps already outlined.

When you experience a headache, the following suggestions may reduce the pain.

1. Try a hot foot bath for 20 minutes just as the headache is coming on. This may lower the pressure in your head and make you feel better.

2. Some people find relief for migraine headaches by using ice packs. A plastic bag with ice cubes is easy to prepare. Sometimes heat to the aching area will bring comfort.

3. Headache from tension may be relieved by a properly administered light massage.

4. In case of migraine, doctors are now discovering that the use of extra oxygen brings relief.

If the headache persists, be sure to see your physician. You can relieve much anxiety for yourself and your family by visiting a headache clinic if there is one nearby. These clinics staff specialists in the fields of neurology, psychology, internal medicine, pharmacology, and allergy. They will give you a complete and thorough examination.

Remember, happiness does not depend on having everything go your way all of the time. Try to meet your problems bravely, without fear or weakness. Listen to the words of Jesus, "Come unto me, all ye that labor and are heavy laden, and I will give you rest." Matthew 11:28. Once you have attained this quiet, calm attitude, you will find strength and guidance in time of need, so that in the end, you will be at peace with yourself, with your family, with your friends, and with God.



ANSWER SHEET—LESSON NO. 2

1. Place a check (✓) after each true statement:

- a. A headache is a disease. _____
- b. The brain is insensitive to pain. _____
- c. Headaches are often caused by pinched nerve endings. _____

2. List the three types of headaches.

- a. _____
- b. _____
- c. _____

3. Underline the correct statements:

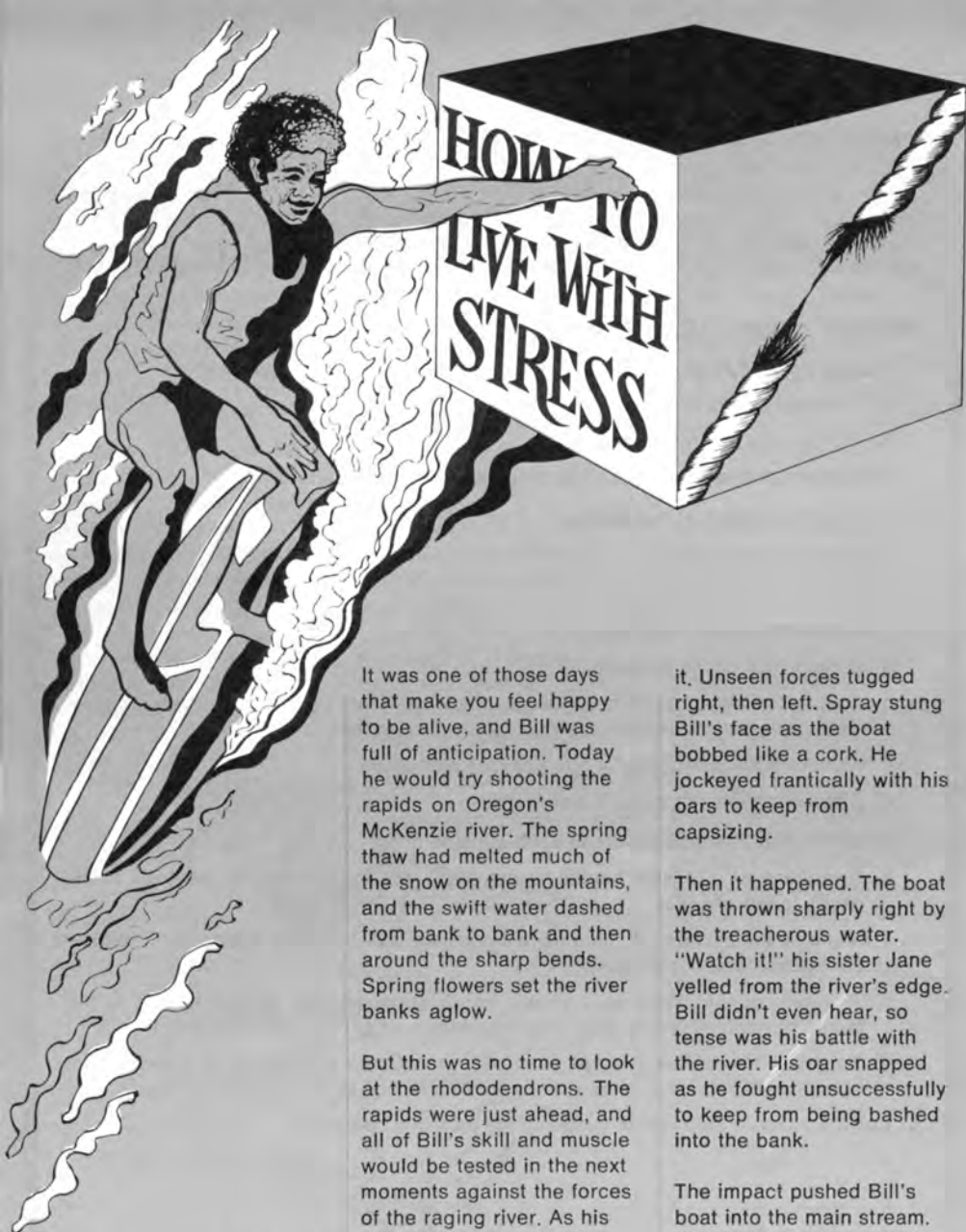
- a. Hunger may cause a headache.
- b. Common conditions which cause a headache from eyestrain are near-sightedness, astigmatism, and imbalance of the eye muscles.
- c. Alcohol is not a drug, but it often causes a hangover.
- d. Sinus infection can cause a headache.

4. Underline the correct answers to each statement:

- a. Symptoms of a tension headache are (rigid muscles) (aching in the back of the neck) (aged cheese).
- b. Migraine headaches are more common among (adult women) (adult men) (adolescent boys) (adolescent girls).
- c. A parent should react to a child's persistent headache by (taking him to the family physician) (giving him a mild pain killer) (ignoring the headache).
- d. To avoid headaches (accept your own limitations) (get plenty of sound sleep) (exercise daily in the open air) (avoid substances to which you are allergic.)

5. List the possible methods of reducing the pain of a headache.

- a. _____
- b. _____
- c. _____
- d. _____



LESSON NO. 3

It was one of those days that make you feel happy to be alive, and Bill was full of anticipation. Today he would try shooting the rapids on Oregon's McKenzie river. The spring thaw had melted much of the snow on the mountains, and the swift water dashed from bank to bank and then around the sharp bends. Spring flowers set the river banks aglow.

But this was no time to look at the rhododendrons. The rapids were just ahead, and all of Bill's skill and muscle would be tested in the next moments against the forces of the raging river. As his speed increased, he concentrated on guiding his boat through the swirling water. This was the test!

Suddenly, the boat lurched, white water swirling around

it. Unseen forces tugged right, then left. Spray stung Bill's face as the boat bobbed like a cork. He jockeyed frantically with his oars to keep from capsizing.

Then it happened. The boat was thrown sharply right by the treacherous water. "Watch it!" his sister Jane yelled from the river's edge. Bill didn't even hear, so tense was his battle with the river. His oar snapped as he fought unsuccessfully to keep from being bashed into the bank.

The impact pushed Bill's boat into the main stream. It bobbed crazily up and down, then emerged into smooth water. With the remaining oar, Bill made it to the bank. Dragging his boat up, he secured it to a tree out of reach of the rushing torrent. "Well, that

is enough for one day," Bill muttered.

Life's like that. We try to guide our lives through turbulent problems, to protect ourselves from the damage of a never-ending succession of sudden changes. Moderns identify with the musical "Stop the World — I Want to Get Off" because they are caught up in the rapids of stress.

MEETING DEADLINES

Our work creates tension as we compete in a world of goals and deadlines. We rush home to a husband or wife who has also met frustrations. Neither of us feels capable of putting a meal together. So we go to a nearby restaurant, where we encounter more people and more hustle and bustle. Feeling a need to relax after dinner, we go to see a baseball or basketball game. Again we are jostled by the crowd. Late that night we drop into bed without giving ourselves a chance to unwind. We cannot get to sleep.

If we had decided to stay home after our hectic day, we might have settled for a TV dinner, and then watched a movie on television. But an exciting TV drama builds up tension of its own. We still can't sleep restfully.

Even children are caught up in the tension of modern living. They compete in the classroom as well as on

the playground. After coming home from school they turn on the TV, only to witness scenes of violence and suspense which create even more tension.

When the family sits down at the dinner table, they are a bundle of edgy nerves ready to explode at the slightest provocation. The meal which should contribute to the health of the family becomes a mass of undigested food at the bottom of tense stomachs.

CHANGING JOBS AND LOCATION

Many families move because the wage-earner has been transferred to another branch of his company. Even though it may mean a promotion, it can cause family stress. The children will change schools and try to make new friends. The family will look for a new church or club which will bring new associations. Time will be spent in locating dependable services and making available housing suitable for the life-style of the family.

A more frustrating experience is for a man to lose his job. He may find it necessary to learn a new skill or take additional classwork. It is predicted that the modern man may change his type of occupation three times during his life.

AVOIDING TOO MUCH STRESS

A good example of the danger from too much stress is the brown pelican along the Gulf of Mexico.

The birds have been dying by the score. Since the pelican is Louisiana's state bird, thorough research has been conducted to discover the cause of death.

Early findings seemed to indicate that the pelicans had died from pesticide contamination. But these pesticides have been around for a long time. Why are the deaths showing up only in the last three or four years? Why not when the pesticides were first used? Why did not all the birds die at one time?

The fact is, according to Ted Joanen, zoologist for Louisiana's Rockefeller Wildlife Refuge and Game Preserve, that stress actually killed the pelicans.

Joanen explained that the pesticides were accumulated when the pelicans ate fish with pesticide deposits. The pesticides were stored in the fatty tissues of the pelicans and caused no harm until the birds were subjected to extra stress.

Stress to a pelican, says Joanen, is the loss of sources of food for its young, perhaps during a hurricane, or because of over-population. This



discover at what pace you can work comfortably and the period of time you can sustain this pace without damage. Each of us differs in our ability to perform given tasks. What may seem a frenzied pace to one may be very comfortable to another.

The pastor of a large church was on the go from early morning until late at night. His members were worried about his health.

Over the years, however, he had learned at what pace he could work comfortably, and he varied his work so that his periods of stress were broken by periods of little or no stress. While working many more than eight hours per day, he had worked out a satisfactory program which enabled him to accomplish a tremendous amount of work and keep his health.

MAKING STRESS SUSTAIN YOUR HEALTH

Since automation has become a substitute for much of man's manual labor, there is a tendency for him to be bored with his work program. If it does not absorb his interest or his energies or use his creative talents, dissatisfaction will develop which may cause emotional stress. Unless checked, it may deepen into anxiety or (even worse) depression.

Children may suffer from the problems of boredom in

a schoolroom where they are not challenged.

John, who operates a boiler in a hospital, is a victim of automation. The boiler functions automatically, requiring little of John's energy. He is really there only for an emergency.

John lost interest in life. He began to experience feelings of uselessness. He possessed little ambition, and he avoided people. Frankly, John was bored.

John's wife sensed something was wrong and encouraged him to see their family physician. Medical tests indicated that John was in good health.

As Dr. Steele talked with John, he recognized John's real need. John was not involved in enough stress to make life interesting. The doctor learned that John had always wanted to design and build furniture. He urged John to purchase a few woodworking tools, explaining that his continued inactivity would certainly mean more medical bills. With his new hobby, John was like a man who had discovered life anew.

"Mary," John dreamed to his wife one evening, "I believe this furniture business will become a full-time job when I retire. I really like it. I am surely glad that you and Dr.

causes the pelican to spend extra energy, at which time he burns off the fat which has been stored in his tissues. The poisons from pesticides, which caused little harm under normal living, now go to the brain or to the liver and kill the bird.

Every time you become ill, stress plays some part. But illness is a cause as well as a result of tension.

FINDING YOUR STRESS LEVEL

Is it possible for you to manage your life so that the stress factor does not damage you psychologically or physically? You can work toward that end. You can actually use stress to maintain good health. In fact, you need a certain amount.

Perhaps the primary secret of living with stress is to

Steele urged me to pursue it."

BREAKING LONG PERIODS OF STRESS

At the other end of the spectrum of stress is the man who pushes himself to achieve his goal. He is probably not aware of the accumulation of damaging stress which may lessen his years of service. Dr. Hans Selye claims that a person can maintain good health if his periods of continuous stress are generally not more than twelve hours long. Though the accumulation of damaging stress may be difficult to detect, because it is so insidious, certain symptoms are revealing.

For instance, one physician, when he finds himself being short and sharp with his nurses, goes to another room, puts on his boxing gloves and deals some vigorous blows to a punching bag. The simple exercise saves many misunderstandings as well as added stress.

Some of the most successful Americans, who are under severe tension for the entire working day, say that their relaxation comes from playing with their children. As the children grow older, listening to and talking about their problems relieves the tensions of the parents as well as the children. They have really accomplished two things with one activity.

DETECTING STRESS PERIODS

When a young college or career woman marries and becomes a mother, the years she spends in caring for the family within the home can be critical. Her social world changes abruptly. She has little contact with former career friends at work or at school. Her young husband is working long hours to advance his vocation. She is at home alone many hours of the day, with no one to talk to but babies and little children. Unless she has an understanding husband who spends time with her and who sees that she has some time to spend with adult friends, serious problems can arise.

Sometimes stress must be pointed out before one sees his problems.

Martha enjoyed to the full the art of being a successful mother and wife. She was indeed queen of her home, and knew how to make every member of her family, as well as her frequent guests, happy and at ease.

Recently, much to Martha's dismay, she developed an energy shortage. She couldn't remember when she had felt so hopelessly lazy. She wasn't concerned about anything.

As Martha and Frank were eating dinner one evening, the following conversation developed.

"I simply can't understand what is wrong with me lately. I have no ambition. Why, it took every bit of strength I could muster to get this meal ready this



evening." Martha worried.

"Why Martha," chuckled Frank, "that doesn't sound like my wife. I'll tell you what, we will go out to dinner tomorrow night. Why don't you call Chuck and Alice to go with us?"

The next day Martha felt her former self return as she anticipated the fun they would have. She thoroughly enjoyed the evening.

However, it wasn't long until the listlessness returned. Even Frank was beginning to see it now. He was a bit concerned. He would call Dr. Brown and make an appointment for Martha.

"There must be something physically wrong. I have never seen Martha like this," he told himself.

It took a bit of coaxing to get Martha to the doctor. That was unusual, too; she was not one to put things off.

"Martha, now that the children have all left home, you should have an opportunity to do all the things you've been wanting to do," commented Doctor Brown.

"Are you kidding, Doctor? I haven't been doing anything. The days seem to drag by. In fact, sometimes I feel my whole life is useless. The house is so empty," admitted Martha. Then Doctor Brown explained. "Your body has

been accustomed to periods of stress. In fact, we need a certain amount of stress to stay healthy. I believe that it would be good if you would find a hobby, or spend part of your time working for some service organization where you could meet new people and develop new friends. As you are helping others you will be helping yourself."

When she repeated to Frank what Doctor Brown had told her, Frank could already see the sparkle return to Martha's eyes. She announced that she had joined the volunteers at one of the local hospitals.

Frank was pleased. "Martha, you will be a great person for the sick people you meet. Why do you suppose that I have been healthy all these years? Just to experience your understanding and cheerful encouragement makes one well."

A similar experience may happen to a man who does not make plans for his retirement years.

Dr. Thomas H. Holmes of the University of Washington School of Medicine in Seattle claims that one of the reasons we are so conscious of stress today is that we face more frequently many of the life-changes which cause stress.

In computing the number of life-change units which an

adult can withstand in one year, Dr. Holmes rates divorce, marital separation, and marital reconciliation, as some of the most stressful factors in our modern age.

Young people today also encounter stress. Even in junior high school years there is the necessity to adapt to several teachers rather than one. A child must learn to work with a number of groups of children.

Today young people face the choice of many more vocations and professions than a few years ago. This may cause added stress.

If we become aware of those areas which cause added stress in our individual lives, we may learn to avoid them or work with them for short periods of time and, in some instances, use them to help us to maintain good health.

Maintaining good health in spite of the stress we experience every day can be challenging. The creativity involved, the alertness needed in learning to cope with tension, emotional problems, and undue stress may contribute very effectively to insure a long and healthful life. It can be fun trying. With such an attitude life will be interesting and thrilling!

YOUR PRESCRIPTION FOR LIVING WITH STRESS AND TENSIONS

1. Balance work, rest and play.
2. Get plenty of sleep. Most adults require between seven and nine hours.
3. Accept exercise and leisure activities as vital elements to good health.
4. Avoid stimulants that drive you to additional stress.
5. Avoid the last-minute rush to meet appointments by maintaining a schedule.
6. Watch for unnecessary worry. Meet your problem head on. Change what you can. Then move on to some other area of concentration.
7. Take care of your guilt. (It is easier to say "I'm sorry" than to carry the load.)
8. Don't keep your emotions bottled up inside. Talk them out, if others are involved, or work them off with some hobby or interest.
9. Ask God to give you a good attitude toward your daily cares.

ANSWER SHEET—LESSON NO. 3

1. Supply the missing word in the following statements:

- a. The whole family may be caught up in the _____ of modern living.
- b. _____ can cause family stress.
- c. The modern man may change his type of occupation _____ times during his life.

2. Place a check (✓) after the correct statements below:

- a. The brown pelicans were poisoned by pesticides and died as a result. _____
- b. Stress can be used to maintain good health. _____
- c. You should discover at what stress level you can maintain good health. _____
- d. An office worker should spend some time in reading after working hours. _____

3. Complete the following statements:

- a. You are to maintain a balanced program of _____, _____, _____.
- b. Adults require between _____ and _____ hours of sleep.
- c. The last-minute rush builds _____.
- d. Watch for unnecessary _____.



LESSON NO. 4

"You're late again!" bellowed Mr. Martin as Alice Jackson softly closed the door upon entering his history class one minute after the bell rang. Never having been late before, Alice was a bit amazed at Mr. Martin's use of the word "again." But she smiled gently at Mr. Martin as she quietly slipped into the seat behind her desk.

Mr. Martin distributed a surprise quiz for which he knew the class was totally unprepared. Five minutes later he shouted, "Ten minutes is up! Drop your pencils!" Randy Phillips dropped his on the floor — all five of them. "You can leave the room, young man," said Mr. Martin to Randy, "and don't come back until you learn how to follow instructions!"

"Crab, crab, crab," muttered Randy under his breath and shuffled out the door shrugging his

shoulders. Alice had answered half the questions and felt a little resentful. But she remembered once her mother telling her, "Victory over self is the greatest victory to win. Do not retaliate when wrong is done to you."

As class ended, Mr. Martin's lecture boomed to a close with the proclamation, "And be prepared for a big mid-term next week — Remember, school's no joy ride!"

Alice wrote in her notebook, "Test next week — study!" Then, as she picked up her books to leave, she stopped for a moment at Mr. Martin's desk. "Have a nice weekend, Mr. Martin, see you Monday."

Mr. Martin dropped his roll of antacid mints and looked at Alice with a puzzled frown; then

suddenly he grinned and replied, "Why, thank you, Alice, and you have a nice weekend, too."

He watched in amazement as she left the room — but he was still smiling. Once outside the door Alice confided to her girlfriend Jill, "Mr. Martin's a good man, really. I'm sure he's not feeling well."

"Huh!" said Jill, "you feeling sick or something?"

"No," said Alice, "I was just thinking that you can always bring out the best in people by treating them like human beings, regardless of how they act."

"Wow!" said Jill, "you're right on, Alice."

Turning the corner they were interrupted by Susie Simons sitting in the middle of a pile of books that had just fallen out of her locker. "My history book hit me on the head," whined poor Susie. "That old Martin!"

"Now, that wasn't Mr. Martin's fault," Jill said, "just because his history book hit you on the head."

"Of course not," added Alice. "Where are you going with all of those books, anyway?"

"Upstairs to the library, and I have to carry this whole stack!"

"We'll help," added Alice.

"Sure," said Jill a little uncertainly — glancing at her wristwatch — but still willing.

As Jill and Alice stooped to pick up the books and other things that had fallen from Susie's locker, two boys hurried by on their way to class. "Hey, let us help," said one of the boys.

"Hi, Grant!" said Alice. "Hi, Tony! We're taking Susie's books up to the library."

"We'll carry the books," offered Tony. "And we can all be late for Mrs. Matthew's class together," he laughed as the group headed upstairs.

"Oh, Mrs. Matthews!" sighed Susie with relief. "She'll let you get away with anything."

"Not anything," retorted Jill. "She made me write my term paper over because I did it all wrong."

"But she is understanding," qualified Alice by the time the five had arrived at the library door.

"Well," confessed Jill, "she did give me an extra week to finish when I asked her for more time."

"She's swell," agreed the boys.

Margaret Matthews sat at her desk, looking over her class writing an essay. Her eyes wandered from one face to another, as she thought about the ideas going through the minds of the various students.

She had been wondering for weeks how to get through to Randy Phillips. "He does his own thing, wants freedom for himself but won't give it to others," Mrs. Matthews was musing. She looked at Randy, at the shaggy hair, the dirty fingernails, the torn jeans — and she loved him. She loved him because she knew that somewhere behind that I-don't-care attitude there was a hurt — but how to find it, how to help?

Of course, Margaret Matthews loved all her students, her kids, in a way just as special as the three she had at home.

Then she looked at Alice. Alice looked up and smiled and then went back to her work. Mrs. Matthews read over Alice's shoulder some of the thoughts she was putting on paper: "There are no two whose experience is alike in every particular. The burdens carried by one are not the same as the burdens carried by another."

"How true," thought Margaret Matthews to herself. But it is difficult, she felt, for a teacher to

instill that kind of insight. For Margaret Matthews it was easy to be kind to her students — even to Randy Phillips. Margaret had learned from experience that people differ widely in temperament, habits, knowledge, culture. No two people look at things the same way. Understanding this made it easy for her to accept the differences and even the weaknesses of all with whom she came in contact — especially when it came to young people.



After class, Mrs. Matthews detained May Adams for a few moments' chat. The girl looked worried. Mrs. Matthews pulled her chair closer to May's and spoke with tenderness. "May, I don't want you to think that I'm an old busybody poking my nose into other people's business — but I've noticed something about you lately that an older woman cannot help seeing."

The girl blushed and lowered her head. "Now, don't be frightened," said Mrs. Matthews in a soothing tone, "remember, May, I am a mother, too, as well as a teacher. Is there something I can do to help?" The girl began to cry. Margaret Matthews put her arm around May and waited until the girl was able to speak.

"I thought he loved me," confessed May between sobs. "He said that we

were going to get married — and, you know, school's almost out, and I thought —" May broke down again. Mrs. Matthews said, "And you thought he would wait for you — but now he's gone?"

"The navy," said May.

"Oh, I see. Well, May, of course you feel awful, but sooner or later everyone is going to know — you're just beginning to show — and I think your parents—"

"Oh, no, Mrs. Matthews, don't tell my mother!"

"Surely your mother will want to help you—"

"Please, Mrs. Matthews, my mother will throw me out, I know."

"May, I'll need time to think this over, but promise me that you will

get in touch with me over the weekend — here's my telephone number I'll get in touch with my pastor — maybe you would like to talk with him."

"Oh, thank you, Mrs. Matthews. I promise — I, I will call you — this weekend — soon. If only Henry hadn't —"

"Left you," supplied Mrs. Matthews. "Don't grieve or be angry, May. Perhaps Henry will return. Write to him. Think well of him, even if he has used you. Returning good for evil will bring you peace of mind and will keep your body strong and well — and give you rest."

"Oh, Mrs. Matthews, you sound like an angel," cried May.

"I am not an angel, my dear," answered

Margaret, "but I believe there is an angel watching over you."

"Why do you try to help so many people?" asked May.

Margaret Matthews smiled at her student and took both the girl's hands in her own. Then the teacher spoke assuringly, "Life is frail, May. People are ignorant of many things. And human nature is so easily misunderstood, that we all must value one another with caution and respect. The work that one finds easy is to another a heavy chore, a task difficult to solve. Yet, in pulling together — as you and I are doing right now — we help solve not only each other's problems, but sometimes even the problems of the world."

May's voice choked with emotion. She looked out the window toward the sun which was slanting through the tall oak trees green with late spring leaves. "I guess I made a terrible mistake," she said.

"We all make mistakes, dear," said Margaret Matthews. "That's how we learn. If we always acted from principle instead of on the impulse of the moment, we would be on safe ground that people could respect."

"Well, nobody's going to respect me now," sighed May.

"I respect you. And you have friends here in this class who will stick by you. Who are your girlfriends here at school?"

"No one. No one hangs around with me. I guess they all know about my mother."

"Doesn't anyone talk to you?" asked Mrs. Matthews.

"Well," said May, thinking it over, "Alice talks to me. She stops me in the hall now and then and asks how I am. Alice seems like a pretty good kid, I guess."

"Yes," laughed Mrs. Matthews, "Alice is a pretty good kid. Would you like me to talk to Alice and sort of explain things so that she could be more helpful, like a better friend, when

you're going to need a friend?"

"Yes," answered May, her mood brightening. "Yes, I think I would like that, Mrs. Matthews."

"Don't worry, we'll find a way to work everything out."

Our attitudes and relationships with people both affect and reflect our health. The condition of the mind affects the health to a far greater degree than many realize. Grief, guilt, anxiety, discontent, remorse, distrust, all tend to break down the life forces. They may even be the basic cause of disease. Healthy attitudes, a positive outlook on life, full acceptance of oneself and an unselfish interest in others, all do much to produce a sense of well-being and, consequently, good health.



YOUR PRESCRIPTION FOR GETTING ALONG WITH PEOPLE

1. Develop self-control, tolerance, and sympathy. Recognize that people differ widely in disposition, habits, and social and cultural patterns.
2. Remember that all we do and say harms or helps others.
3. Do not allow your feelings to be easily hurt.
4. Do not retaliate.
5. Bury the hatchet and don't leave the handle sticking out. In other words, don't keep an enemy list.
6. If you're not feeling happy or lighthearted, don't talk of your feelings to others. Instead, go for a brisk walk or work in your garden. Get a change of scenery. You'll be amazed how quickly your mood can change.
7. Develop values, interests, and goals that will take you outside of yourself and give you a sense of participation in life and of helpfulness to others.

ANSWER SHEET—LESSON NO. 4

1. If the following statements are true, write yes; if false, write no:
 - a. Rather than accuse, it is better to learn to understand a person's actions or words. _____
 - b. If you feel angry it is best to explode and be relieved of the tension. _____
 - c. Holding grudges can be damaging to your health. _____
 - d. Developing an interest outside of your regular work, especially where it helps others, can bring real happiness. _____
2. Fill in the following blanks correctly:
 - a. Do not allow your _____ to be easily _____.
 - b. If you are not feeling happy, go for a brisk _____ or _____ in your garden.
 - c. Your mood can be changed by getting a change of _____.
 - d. Never _____ when you have been hurt by another.



How to be Healthy & Married

On one of those television shows in which the audience participates, several couples were asked to tell what circumstances led to their marriage. The couple with the most unusual story was to win the prize.

One couple had met in a crowded elevator where they were stranded for some hours, and became acquainted during the "power failure." Another couple were best man and maid of honor at a friend's wedding. When the bride and groom called the wedding off, the best man and maid of honor decided to go ahead with the ceremony on their own. They inherited the reception facilities as well as the occasion. Another couple, both members of a scuba club, had been married under water, because they had met while he was defending her against a shark.

ATTITUDE

Another couple you may have heard of never had the opportunity to tell their love story on TV — for they had been dead for many centuries. His name was Isaac, and hers was Rebekah. There is a fascinating lesson for people today in this ancient love story.

Here's the story. It's quite simple. Isaac, Rebekah's husband, was the son of Abraham. Abraham was a good man. And he raised his sons to be a proper sort. Isaac didn't come from Marlboro Country. Nor did he lift weights or play football with the local Philistines to show the coeds how masculine he was. But he did what Dad advised, and he hoped for a wife just like Mom.

Well, one day Abraham sent his trusted servant into another country to find a wife for Isaac. She had to

LESSON NO. 5



be the right one, of course, and the servant knew just what to look for. When a girl happened by who, out of kindness and good manners, offered to draw water from a nearby well for his camels, this maiden—who turned out to be very fair to look upon—seemed a good catch.

The servant wasted no time making his business known. The girl wasted no time in getting her father and the servant together in dialogue. No, she hadn't seen Isaac—yet. But she trusted his good intentions and reasoned that his method of seeking a wife was honest.

The rest of the story is history. Rebekah went back to Isaac's country and they were married.

What was it that gave Isaac and Rebekah happiness in their early married life?

ATTITUDE. The attitude with which these two young people approached the marriage relationship determined how well their marriage would work.

What is your attitude toward marriage? Are you concerned only with what you are going to get out of your marriage? Or do you concentrate on ways to fill your partner's life with happiness and satisfaction?

COMMUNICATION
LOVE is the hinge upon which marriage fails or succeeds, some people think. It could be, but often couples admit that they love one another even while their marriage is going on the rocks. A vital ingredient which may be missing can be revealed again in one word—**COMMUNICATION.**

Where there is no communication, even love cannot

bridge the gulf that grows in separating a man and a woman. If a couple cannot or will not communicate with one another, they have no common ground for coping with their material problems, whether these be financial, social, psychological, or sexual.

In spite of what Hollywood may show you, people do not always *fall* in love. They *grow* in love. And it is the combination of a good attitude and an open channel of communication that nurtures that growth! Safeguard a healthy attitude and a good channel of communication, and you possess two requisites for true happiness in your married life.

HEALTH

If one is to sustain a proper attitude toward marriage and develop an open line of communication, good health is essential.

After many years of happy married life together, an older couple were suddenly exposed to tragedy. The physician discovered in the wife a malignancy that had spread through her entire body. Her days were numbered. As she lay upon her hospital bed, her life drawing to a close, her husband leaned over her fondly and reminded her that her birthday was but a few days away. Knowing this birthday would surely be her last, he urged her to request some extravagant present he could bring her. His dying wife answered lovingly, "Darling, all my birthdays you have always brought me only the very finest gifts — but this birthday just bring my health back to me."

Tender regard for each other's comforts and health may prevent illnesses. If you are a busy executive, or farmer, don't be so pre-occupied with your work that you fail to notice that the color has been fading from your wife's cheeks. Or, if you are a housewife, active in neighborhood circles and involved in what the kids are doing at school, don't wait until your husband has a heart attack before you awaken to the fact that he has been breathing with difficulty for over a year.

Establishing a regular health routine will prevent illness from making a sneak attack on your marriage.

One couple who have little time together because of their active professional careers, have a date with each other every morning. They begin the day with a good breakfast — a breakfast substantial enough so they have time to converse as they enjoy good food together. They start their day organizing their individual ideas by consulting with each other. Then they go for a hike together right after breakfast, climbing the hill on the street where they live. At the top, invigorated from the climb, they enjoy a few moments of meditation together. Running back down to their house, they set the blood flowing and their companionship growing. They are now ready to start off for work, having established memories to keep them close while they are apart.

RECREATION

A busy salesman who was asked out to lunch by his boss, replied that he already had a date. The following day the boss asked him again. Once more the salesman replied that he was "all booked up" for lunches. After several days of this bantering back and forth, the boss finally inquired, "Who are all these clients with whom you have lunch?" "Oh," said the startled salesman, "they are not clients at all. They are my wife!"

In the summer he and his wife met each day in the park for a picnic. They enjoyed a wholesome meal — simple but nutritious — that she had prepared, and shared their day's problems and joys. After lunch, they strolled through the park together, sloughing off the



tensions of modern living. Then he went back to work and she went back to housekeeping — each refreshed.

Of course, not every couple is fortunate enough to be able to meet every day for lunch. But planning recreational weekends can become a once-a-week mini-vacation.

TOGETHERNESS

A couple who thought they had nothing in common found themselves drifting apart. He liked football and usually slouched the weekend away in front of the TV with a six-pack. She loved ballet and never missed a performance.

Then both came to their senses and realized that he was getting a "beer belly" and she was getting nothing out of their marriage unless it was constant colds from running in and out of air-conditioned theatres.

They decided to make a list to discover a common interest. The one prerequisite was that it be healthful. When they got as far as number twelve on their list, they learned that both had enjoyed swimming as teen-agers. They joined a nearby health spa and took some "brush-up" swimming lessons together two evenings a week.

By summer the husband's "beer belly" had vanished, and the wife was a picture of health. They found a lake within two hours' driving distance of their house. Now they spent each week in anticipation of swimming and relaxing at the lake on the weekend. The time spent out-of-doors soon put a rosy glow back in both their faces.

The entire experience did so much good for their marriage that the husband began to look for another job, in an area where they could commute to a home on a lake with water sports the year around.

The job materialized, too. They planned and built a home. After he came home





from work they added finishing touches to the house and the landscaping. It was part of the whole program of healthful living. Now they could enjoy their water recreation as often as they liked.

What about his football games on TV and her ballet? Well, they may find time for an occasional indulgence — together, that is. What is really important is that they have learned that they want each other's company more than anything else. They are as happy and free as two innocent children.

LOYALTY

Speaking of innocence, the best way to keep your marriage fresh and sparkling with a living vitality is to keep it innocent. In this anti-authoritarian age, innocence is easily lost, and thousands

consider it out of date. But those who feel that "swinging" gives them a sense of freedom, do not realize that they are actually destroying themselves with this new morality — this so-called freedom.

Marriage is a union in which two people are joined into one, merged so closely that anything which injures one injures the other. Because of this close identity of two lives in marriage, a husband or wife who commits adultery — heaping heartache and other emotional injury upon the partner — in the same process does great damage to himself. Adultery is actually self-destructive.

The point of love and sex in marriage is that it is exclusive. This exclusiveness spells success in marital love. Love is

showered exclusively upon one person. The person returns this special and exclusive love. Each time it is returned, your heart is warmed, your mind senses more deeply that you are the one person most desired and accepted by the one you love. Love grows and grows — ever deepening the meaning of intimacy, ever exalting the relationship. The ever-turning cycle of true love continues because you have this kind of affection for only one person.

Adultery, on the other hand destroys happiness, for in adultery there can be no expression of true love. How can one possibly have exclusive affection for two persons?

There are some who may complain, "I'm not getting enough sexual satisfaction out of my marriage." And



often such a couple will end up in the office of some "expert" on marital problems, seeking some technique in sex that will save their marriage.

Many manuals have been written on sexual fulfillment. Few advisers will tell you the simple truth — when a zest for healthful, wholesome living provides open communication, and a loving, unselfish attitude toward one another, the problem of sexual compatibility vanishes.

Maybe you hadn't thought about it this way before, but healthy bodies and healthy attitudes result in healthy marriages.

PRESCRIPTION FOR A HAPPY, FULFILLING MARRIAGE RELATIONSHIP

1. Kindness, good manners, and a willingness to be helpful aid in making you attractive.
2. Correct attitudes toward marriage are all-important.
3. Keep open your line of communication.
4. Keep physically fit.
5. Take time for each other. Working together in a physical fitness program can increase the feeling of companionship.
6. An organized home and a well-kept budget contribute much to a happier marriage.
7. Reserve intimacy of sexual fulfillment just for each other. If there are problems in this relationship discuss these frankly and fairly. Don't discuss them with friends or acquaintances.
8. Express your love often and in little, unexpected ways. Plan an evening together occasionally or a weekend "away from it all."
9. Marriage is a triangle: You, your marriage partner, and Jesus Christ.



ANSWER SHEET—LESSON NO. 5

1. Place a check (✓) after the true statements below:

- a. Communication is one of the most important characteristics of a good marriage. _____
- b. Good health has a direct relationship to a good marriage. _____
- c. The best marriages are between those who discover love at first sight. _____
- d. Tender regard for each other's comforts may prevent illness. _____

2. Complete the following statements:

- a. Attitude in marriage has to do with how one can _____ his partner's life with _____ and _____.
- b. If work keeps couples apart during the day, there can be periods of _____ in the evening or on the _____.
- c. Another element of a successful marriage is _____ interests.
- d. Couples should try to play, study and work on projects _____.



At beauty I'm frankly
no star.
There are others much
prettier by far.
But my face I don't mind it
You see, I'm behind it.
It's the folks out in front
that I jar!

—Author Unknown

Maybe you don't feel that way about it, but most of us would like to be better looking. Particularly if we have problems with acne or pimples, or we're at the age when wrinkles, gray hair or bald spots become noticeable.

Of course, if you have the money, plastic surgery and other expensive procedures may make you more attractive. But there are a whole host of beauty aids that really work, and — believe it or not — they don't cost a thing; that is, nothing but a little time and effort!

YOU NEED RESTFUL SLEEP

For instance, there's sleep. Yes, of course you sleep. But for how long? And what kind of sleep is it? Have you ever had anyone tell you that your sleep is showing? Where does it show? Right in your eyes.

Your eyes reveal a lot about you. Sometimes people decide whether or not they really like you by your eyes. So your eyes are important. Lack of sleep causes your eyes to appear heavy and dull and often produces heavy dark circles underneath. Adequate sleep clears your eyes, brings back the sparkle, and gets rid of the dark circles. And that's only one way proper sleep can improve your looks.

Insufficient sleep can leave your brain and the rest of your body as sluggish as a rundown

LESSON NO. 6

battery. There's some truth to Harried Harry's statement that he's "just too tired to sleep." Scientific studies indicate that sleep doesn't do much good when we carry our tensions right through our sleeping hours. These same studies have shown that sleeping pills aren't the answer.

Then, how does Harry go about calming down enough to get the most benefit from eight hours in bed? Ideally, through a proper balance of rest and exercise during the active part of the day. If such a program is not possible, here are some alternatives: an evening walk after a light supper, a warm bath, restful music, and pleasant reading.

William Shakespeare described long ago what truly restful sleep can do for people like Harry:

Sleep that knits up the
ravell'd sleeve of care,
The death of each day's
life, sore labour's bath,
Balm of hurt minds, great
nature's second course,
Chief nourisher in life's
feast.

YOU NEED FRESH AIR

Another beauty aid that's absolutely free is fresh air. When you find it, cherish it, for it can do a lot for your appearance and sense of well-being. Even ten deep breaths of good fresh air twice daily will fill the blood with life-giving oxygen. Adequate oxygen in the bloodstream has a refreshing effect on the body and thus contributes to health and to a better physical appearance.

YOU NEED GOOD POSTURE

While we're talking about deep breathing and the flow of blood, we need to think about another aid to

beauty — posture. When Suzy Slump sags in her chair, only part of her lungs are used. Suzy could hold three to five quarts of air in her lungs. This is called her "vital capacity." It's called "vital" because there is certainly nothing more essential to life and health than breathing. When Suzy sags, her intake of air is probably less than one pint, which leaves a lot of stale air in her lungs and cuts down the exchange of carbon for oxygen in the bloodstream.

If you lead with your nose instead of your chest, or have saggy shoulders, a drooping stomach, and a sway back, you probably look beat, worn, and haggard. And your feet are killing you. But if you'll stand and sit straight, not only will your own outlook change, but the way you appear to others will be greatly improved.





There's nothing earth-shaking in these suggestions. But put them into practice and you will feel and look a lot better.

YOU NEED OUTDOOR EXERCISE

Now here's another secret that won't cost you a thing but time and effort. This is one of the most helpful of all — exercise. You'll see in the accompanying diagram that one of the things exercise does for you is that it "beautifies the complexion and body"; but notice all the other benefits listed that accompany this one. Another obvious benefit is that exercise will help accomplish our first two suggestions. When you're exercising properly, you can't help but breathe deeply, and you'll find it easier to get your beauty rest.

One simple exercise that will improve your appearance is bouncing up and down on tiptoe. The muscles in your calf serve as auxiliary pumps to circulate the blood back up into your body from the feet. One way to avoid and even help cure unsightly and painful varicose veins is to bounce up and down, shifting your weight from your heels to your tiptoes several times each day.

YOU NEED PURE WATER
Ponce de Leon sailed for America with Columbus on his second voyage in 1493. From Indian legends he heard of a fountain in the land of "Bimini" with waters of marvelous curative power, called the "fountain of youth." He went in search of the legendary fountain, but

ended by discovering Florida instead. If you'd like to discover the real "fountain of youth," a fountain with marvelous curative powers, it's as close as the nearest water faucet. There is probably nothing so underrated as water. Nearly every function in life is dependent on it.

From six to eight glasses of water a day are essential to provide health needs. Besides contributing to your health, and thus your general appearance, water drinking helps digestion and the collection and removal of body wastes. Television advertising has convinced us that bad breath and body odor are among the greater social evils of our day. Drinking an adequate amount of water can help remove both problems.



The external use of water is also a beauty aid. Here are some of the things it can do:

1. A cold or cool bath is an excellent tonic, stimulating both mind and body.
2. A warm bath opens

pores and aids in removing body impurities.

3. Warm baths soothe the nerves and equalize the circulation.
4. Bathing regularly is the only way to keep the body clean.

YOU NEED SUNLIGHT

Since sunlight and germs don't get along well together, sunshine helps keep us healthy. All of us have experienced both the tonic and soothing effect of sunlight. When we fly from a dreary northern





climate to the sunny south, we feel elated and stimulated. We experience a feeling of well-being. Scientists are learning that too much exposure to artificial light, which lacks certain wavelengths found in natural sunlight, is detrimental to health. Ideally, we should have at least brief exposure to the full spectrum of natural sunlight every day.

The sunlight package, however, needs to have a warning label attached which reads "CAUTION — OVEREXPOSURE TO SUNLIGHT CAN BE HAZARDOUS TO HEALTH AND BEAUTY." Besides the obvious and painful results that come from sunburn, too much exposure to sun is responsible for skin cancers and unnecessary wrinkling of the skin. You won't be beautiful if your face looks like a prune. So take your sunshine in small, but daily, doses.

YOU NEED A BALANCED DIET

Your diet also plays an important part in the beauty of your skin. To help avoid skin blemishes, it is best to cut down on chocolate and products containing chocolate. Spicy foods, as well as those containing large amounts of fat, should be avoided. Reducing your starch intake and eating lots of fresh fruits and vegetables will help your looks.



Most of these suggestions don't cost a cent, and the last one on our list is free:

SMILE

Have you noticed that all brides seem to be beautiful? There's a special radiance and happiness that shines from the bride on her wedding day. Radiance can become a part of your everyday

expression if you let your happiness show in a pleasant smile.

Adequate sleep, breathing deeply of good fresh air, correct posture, exercise, plenty of water, proper use of sunlight, the right kind of diet, and a healthy, pleasant attitude exhibited in a smiling countenance, will make you better looking.

ANSWER SHEET—LESSON NO.6

1. List the natural elements which make for good looks.

a. _____

d. _____

b. _____

e. _____

c. _____

f. _____

2. Fill in the blanks below:

a. If you discover that you are too tired to sleep you may discover that _____

and _____ may prove helpful.

b. A cold or cool bath is an excellent _____.

c. Warm baths _____ the nerves.

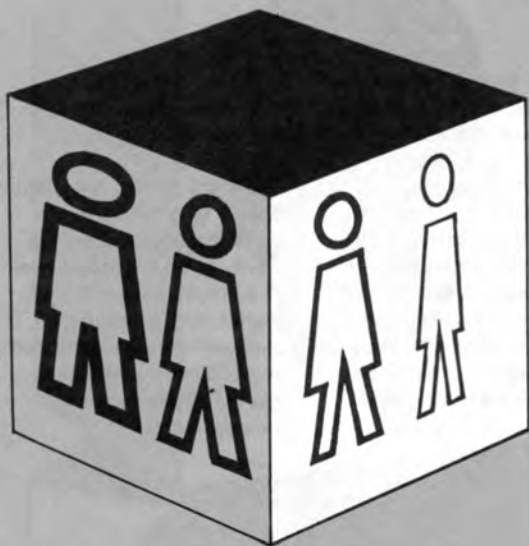
d. It is important to have a brief exposure to some _____ every day if possible.

3. Underline the correct word or words:

a. To help avoid skin blemishes, (cut down on chocolate) (avoid fresh fruits).

b. Let your happiness show in a (pleasant smile) (a forced smile).

c. (Adequate sleep) (relaxing while you watch TV) will make you better looking.



Eat and Grow Thin

It was Sally on the phone again.

"Oh, Marge, this diet — it's making a monster out of me! I've had it!" she cried. "I was so irritable with the children this morning, and now, Sam just left for the office and we had practically a knock-down dragout. I just can't take this crash diet. I'd rather be human and fat than to be so miserable." Sally began to sob uncontrollably.

Marge waited for a few moments, then spoke quietly.

"The other day I read an article in a health journal which said that leading medical authorities agree that any kind of a do-it-quick diet may be not only ineffective but dangerous."

"Oh, really. What do they suggest now?" Sally asked rather cynically.

"Well, the article suggested that a person plan to take off a pound a week until he reaches his desired weight," Marge said.

"But, Marge," shouted Sally, "that would take more than a year in my case. How could I go through this kind of torture for a year?"

"It doesn't need to be torture, Sally," Marge replied calmly. "The medical men explain it this way. It takes 3,500 excess calories to add one pound to your weight. By simply eliminating 500 calories a day from an adequate diet, you can lose one pound per week. If this plan is carried out for a year it

LESSON NO. 7

would result in the loss of 52 pounds. You could probably do that by simply cutting out between-meal snacks, sweets, and avoiding the trimmings — jelly on your bread, cream in your hot drink, big gobs of dressing on your salads."

This time Sally was considerably calmer.

"Hm, that's interesting," she said thoughtfully.

"My suggestion is that you see your family physician and let him help you work out a satisfactory diet. I really think you will feel a lot better in the coming weeks," Marge encouraged.

"I'll think about it. You're a good friend, Marge. Thanks for listening. I know you have a lot to do, so I'll let you go. Bye."

Marge knew that Sally would be calling again. The diet program she had chosen had upset her. But Marge knew also that Sally had finally come to the place where she was willing to receive some help, and this could mean an emotionally stable friend at last.

A DIET JUST FOR YOU

Did you read the article by Dr. Frederick Stare in the February, 1973, *Readers Digest*? He's one of the leading nutritionists in the United States.



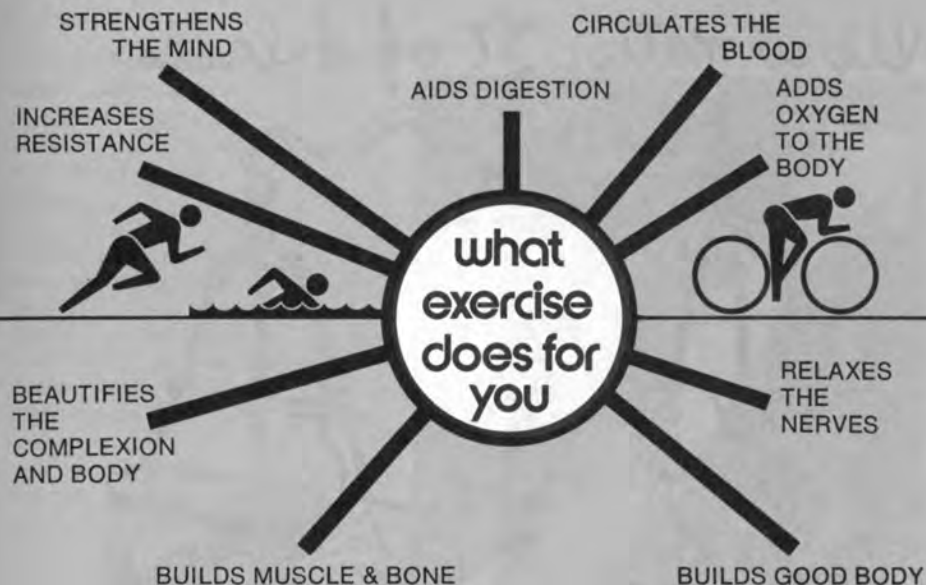


In his article entitled "The Right Diet For You," he makes a point that whatever the diet we go on, we must be able to live our normal lives with it. He also suggests that an adult who wants to lose weight steadily should limit himself to 1200 to 1400 calories each day.

One helpful hint he gives is that we, of course, can't weigh every portion of food we eat. After having once weighed a portion of food, he suggests we put it on a plate and take a good look at it. If we accurately remember how much it is, our eyes will be able to measure the right portion of the kinds of cooked food that are to be included regularly in our self-selected diet, and we'll know how large a serving to select.

IMPORTANCE OF EXERCISE

The battle of the bulge can't be won with one hand tied behind you. You need both hands — diet AND exercise. Some dieters are discouraged about exercise when they hear that it takes a very large amount to burn up enough calories to achieve much weight loss. For instance, you would have to ride a bicycle for more than an hour to burn up the calories gained in one malted-milk shake. And in order to lose one pound of body fat you would have to walk rather briskly for fourteen hours.



But the point is that we don't have to lose so much all at once. By combining a reduction of 300 calories per day through following a diet, and adding enough activity or exercise to burn up another 200 calories per day, we can lose one pound per week, since, as pointed out earlier, it takes about 3500 calories to make one pound of weight. You will discover where the calories are when you look at the menu of a dinner with and without the trimmings near the end of this lesson.

There's another advantage to exercise that is quite intriguing. Considerable research has been done concerning what it is that regulates our appetite and

signals us when we've had enough to eat. It really isn't the feeling of fullness in our stomachs. Instead, researchers believe that there's an "appetstat" in our brain, located in the hypothalamus, which is the appetite-control center and signals us when we've eaten enough. But studies done by Dr. Stanley Schacter, a social psychologist at Columbia University, and other researchers indicate that for many obese people this appetstat doesn't work as effectively as it does for the normal-weight person.

One way to help your appetstat function the way it should is to avoid gulping down food. Eat more slowly. Savor your food

It's a matter of balance...



more. Purposely lay down your fork every once in a while and join in the conversation at the table.

It also has been found, although not yet adequately explained, that the appetat works well only in active people. In recent studies, rats that were allowed to exercise ate normally and remained at normal weight. Rats that were prevented from getting much exercise ate more and gained weight. The less the rats exercised, the more they ate. The conclusion is that if we increase our activity level a little we will actually end up eating less. Of course, an unusual spurt of activity might result in a desire to eat more.

In these days when we use so many labor-saving devices and mechanical means of transportation, most of us need to devise ways of getting adequate amounts of exercise. It doesn't have to be strenuous, but in order to control our weight it should be consistent. One thought that encourages us to continue a consistent exercise program is to remember that by shortening our WAISTLINES we lengthen our LIVES!

THE BASIC WEIGHT PROBLEM

If you think that the basic cause for overweight is some psychological problem, such as overeating as

a way of compensating for feelings of inferiority or a form of repressed hostility, you may be only half right. In a recent book by Frank J. Bruno entitled *Think Yourself Thin*, the author lays at least equal stress upon the power of habit in perpetuating an overweight state. Again it is emphasized that the basic cause of being overweight is really just eating too much.

Even in those rare cases where the fault lies with the "glands" or with metabolism, the treatment of the overweight condition is still to eat less. Ordinarily the glands that don't function properly when a person is overweight are the salivary glands.

If one inherited anything which contributes to his problem of obesity, it is probably a way of eating, plus calorie-loaded recipes.

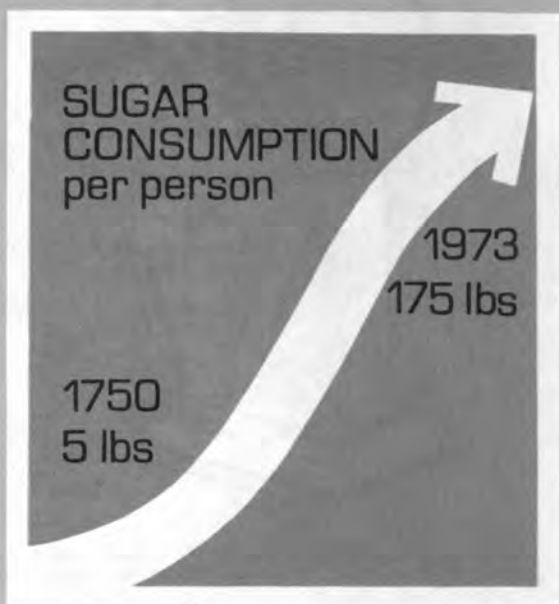
Dr. Bruno frowns on fad diets, crash programs, total fasts, diet pills, and the concept that "calories don't count." He indicates that the results of such programs are rarely permanent.

The "thinking" he describes that will make us thin is probably the hardest kind of all, for it involves will power. He tells us that man is more than just an animal and can therefore think intelligently and choose to control his instincts and form more healthful habits. If you do this kind of thinking, then you can really "think yourself thin."

Beware of anyone who promises too much. "Eat all you want and lose weight" sells a lot of diet books, but these programs are usually not successful and can be hazardous to health.

There have been a lot of diets in recent years which have promised that by cutting carbohydrates, not calories, people can eat as much fattening food as they please and still lose weight.

The "Medicine" section of the January 22, 1973, issue of *Newsweek*, however,





The following weight chart is given as a guide. It is difficult to provide a chart which may cover all exceptions. (For instance, a weight lifter may be overweight but not obese.)

Weight in Pounds According to Frame (In Indoor Clothing)

	HEIGHT (with shoes on) 1-inch heels		SMALL FRAME	MEDIUM FRAME	LARGE FRAME
	Feet	Inches			
<i>Men of Ages 25 and Over</i>	5	2	112-120	118-129	126-141
	5	3	115-123	121-133	129-144
	5	4	118-126	124-136	132-148
	5	5	121-129	127-139	135-152
	5	6	124-133	130-143	138-156
	5	7	128-137	134-147	142-161
	5	8	132-141	138-152	147-166
	5	9	136-145	142-156	151-170
	5	10	140-150	146-160	155-174
	5	11	144-154	150-165	159-179
	6	0	148-158	154-170	164-184
	6	1	152-162	158-175	168-189
	6	2	156-167	162-180	173-194
	6	3	160-171	167-185	178-199
	6	4	164-175	172-190	182-204
	HEIGHT (with shoes on) 2-inch heels		SMALL FRAME	MEDIUM FRAME	LARGE FRAME
	Feet	Inches			
<i>Women of Ages 25 and Over</i>	4	10	92-98	96-107	104-119
	4	11	94-101	98-110	106-122
	5	0	96-104	101-113	109-125
	5	1	99-107	104-116	112-128
	5	2	102-110	107-119	115-131
	5	3	105-113	110-122	118-134
	5	4	108-116	113-126	121-138
	5	5	111-119	116-130	125-142
	5	6	114-123	120-135	129-146
	5	7	118-127	124-139	133-150
	5	8	122-131	128-143	137-154
	5	9	126-135	132-147	141-158
	5	10	130-140	136-151	145-163
	5	11	134-144	140-155	149-168
	6	0	138-148	144-159	153-173

For girls between 18 and 25, subtract 1 pound for each year under 25.

treats this claim with some skepticism. "Somewhere there simply has to be a special paradise for fat people — a sort of Big Rock Candy Mountain, where the overweight can eat all they want of everything and still stay as slim as fashion models. But until the theologians of obesity locate this heavenly pizza parlor, most fat people are going to have to subsist on a fantasy of it."

Tests conducted in Sweden a few years ago demonstrate that people on a high-protein and low-carbohydrate diet have lower endurance. Dr. John Scharffenberg, weight-control expert at the Loma Linda University School of Health, points out that a high-protein diet fed to rats and mice in laboratory experiments reduced their life expectancy.

But, most important of all, the main thing that needs to be done in a weight-control program is to get on a regular, balanced, daily program that we can live with for the rest of our lives. This does away with the need for going on any crash diet program or fad diet.

DANGERS OF SUGAR

One point with which we can fully agree in the low-carbohydrate diet is the need for cutting down on our consumption of sugar. The Crusaders first intro-

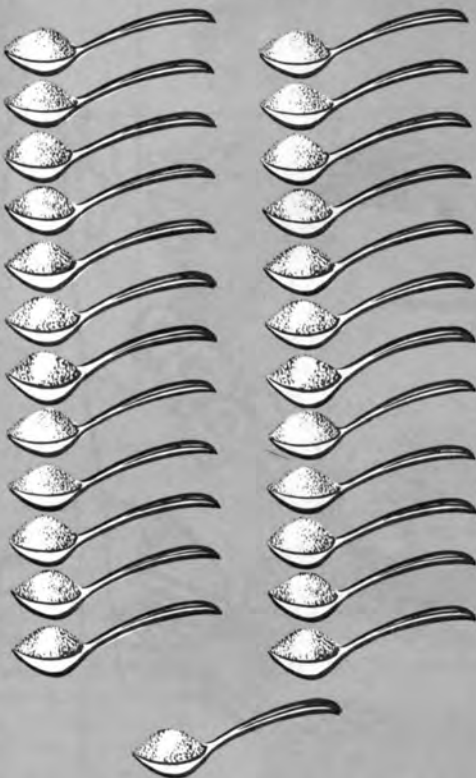
those deadly desserts

duced sugar to Europe, and for centuries it was sold only by the ounce in apothecary shops. By 1750 the average Englishman ate four pounds of sugar per year. In eleven generations our consumption of sugar has exploded to 175 pounds per person per year.

This "deluge of sugar" is more than some of the organs of our body can adequately handle. Excess of sugar in foods of various kinds raises their caloric content with "empty calories" (calories with no nutritional value). This is believed to be one of the causes for the high frequency of degenerative diseases, which have reached almost epidemic proportions in our country.



1 sundae =



25 teaspoons of sugar

real
restraint
needed
here:

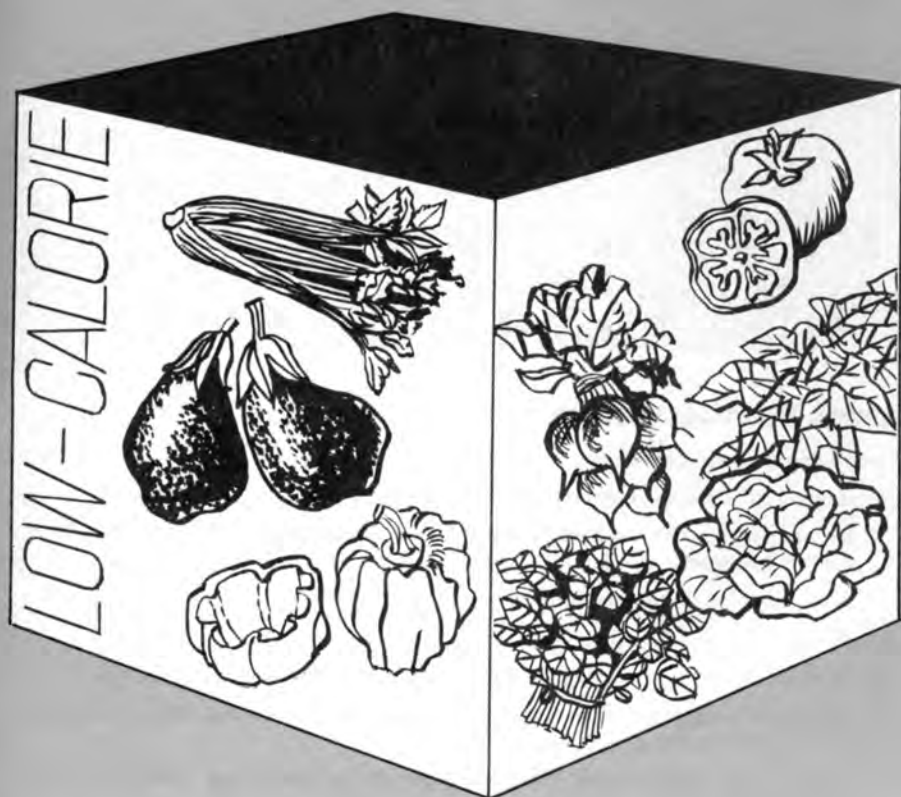


So we should cut refined carbohydrates to a minimum. Candy, cake, cookies, noodles, spaghetti, sugar, syrup, and rich desserts add surplus pounds. High-fat foods, such as butter, cheese, cream, ice cream, rich pastries, most meats, nuts, oil, rich salad dressings, and many snack foods such as potato chips, add pounds, too.

We are not to confuse refined carbohydrates with natural carbohydrates which we do need in our diet. Bread, potatoes, and corn are good for us. It's what we put on them that makes us fat.

EFFECT OF VISIBLE FATS AND
SUGARS ON THE CALORIC VALUE
OF A DINNER

Calories			
Lettuce and			
Tomato Salad	20	+ Mayonnaise (80)	100
Bread	60	+ Butter (60)	120
Peas	100	+ Butter (60)	160
Entree	150	+ Gravy (100)	250
Baked Potato	100	+ Butter (60)	160
Skimmed Milk	80	+ Whole Milk	160
Baked Apple	90	+ Apple Pie (1/6)	350
	600		1300



LOW-CALORIE FOODS

Since calories do count, we should eat more low-calorie foods such as:

Asparagus	Radishes
Brussels sprouts	Mushrooms
Cauliflower	Cabbage
Swiss chard	Celery
Lettuce	Cucumbers
Spinach	Snap beans
Beets and	Green peppers
best greens	Eggplant
Carrots	Tomatoes
Okra	Summer squash
Rutabagas	Cantaloupe
Turnips and	Peaches
turnip greens	Grapefruit
Watercress	Lemon juice

Think of your calories as a bank balance. You should limit yourself to between 1200 and 1500 calories per day for long-range weight loss. Plan to include more low-calorie foods to stay within your daily calorie

budget. Avoid sweets as much as possible and cut down on fats, fried foods, and refined cereals and breads.

To increase your ability to get along on less, chew all foods slowly, don't snack between meals, drink no alcoholic beverages, use no salt from the shaker at meals, and take a ten-minute walk if the craving for food becomes intense.

What will probably be necessary, if you wish to maintain your weight at a reduced level, is to adopt a new way of life as far as your eating habits are concerned. This is one

reason why we recommend a longer, more gradual diet. Aim at losing just one or two pounds per week over a long period of time — even six months to a year. In the long run it will prove easier and more permanently effective.

To lose is to win when you're on a reducing diet. You win a greater sense of personal well-being, and the satisfaction of having achieved the goal.

But even better than a reducing diet is this recipe for a long life: NEVER EXCEED THE FEED LIMIT. Then you won't have to struggle to get rid of unwanted pounds.

ANSWER SHEET—LESSON NO. 7

1. Underline each true statement below:
 - a. It takes 3,500 excess calories to add one pound to your weight.
 - b. By eliminating 200 calories a day from an adequate diet you can lose three pounds per week.
 - c. Exercise helps to control weight by burning up calories.
2. Underline the correct word or words:
 - a. (A fad diet) (a regular balanced diet) is the kind of diet you can live with.
 - b. Taking off weight can be accomplished successfully by cutting (refined carbohydrates) (proteins) to a minimum.
 - c. Aim at losing (one or two) (five to ten) pounds per week over (one month) (six months to a year).
3. List some of the low-calorie foods which will give us nutrients without adding weight.

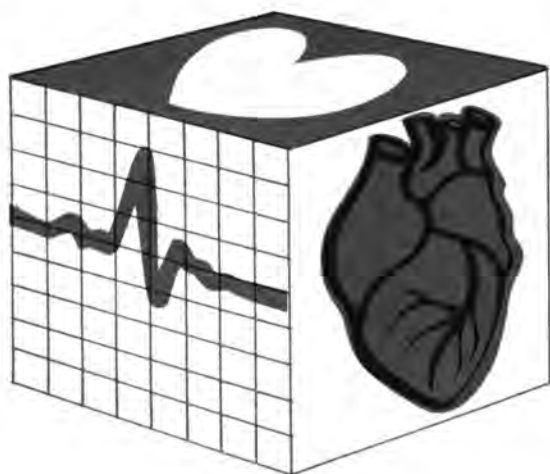
a. _____	d. _____	g. _____
b. _____	e. _____	h. _____
c. _____	f. _____	i. _____
4. By eliminating 500 calories a day from an adequate diet we can lose 52 pounds per year. List three calorie-filled items we should avoid:
 - a. _____
 - b. _____
 - c. _____

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Be Good to Your Heart

LESSON^{no.}8

He had suffered through three heart attacks in five years. After four weeks in intensive care, with a pace-maker to regulate his heart, and near kidney failure, Dad saw no way out. We tried to encourage him, but it was uphill work.

Do you know of someone suffering from heart disease? What can be done? What hope is there?

Each year approximately 1,000,000 Americans are victims of heart attacks; more than 600,000 of those stricken will die as a result—20 percent of them within three hours after the attack occurs. A large percentage of these men are in their prime, struck down at the time their families, their communities, and their nation need them most.

Heart attacks and diseases of the circulatory system are the number one cause of death in this country—even greater than cancer.

Everyone must die sometime, but too many are dying too soon. Even those who survive their first heart attack are all too often disabled.

Statistics are frightening, yet medical specialists are optimistic. They believe it's possible to conquer heart disease, just as they've conquered smallpox and polio. For example, even now medical science possesses enough knowledge to prevent or postpone heart attacks in most cases, if people would put into practice what is already known.

Only after Dad's first heart attack did our family become

interested in heart attack prevention. Since then we've read all available material from the American Heart Association and looked up information in the library. And we've asked questions such as: What actually is a heart attack? What are the causes? What can help prevent me from having one? What are my chances of being struck down at 49 like Dad? How can I change my lifestyle to prevent heart disease?

We've learned that most heart attacks are what doctors call "myocardial infarctions." This kind of heart attack occurs when the heart's own arteries are gradually narrowed by fatty deposits. These substances stick to artery walls, causing the openings to become smaller and smaller. After a while, not enough blood can

reach the heart muscles to provide them with sufficient oxygen to keep the heart working effectively. Finally, a blood clot or an arteriosclerotic plaque (loose piece of fatty deposit) comes along and plugs up the blood vessel completely. Then the part of the heart supplied by that vessel is starved for oxygen, and an area of muscle death, or myocardial infarction, occurs. If the blood vessel is a big one, the area of muscle death may be so large as to cause immediate death.

Many factors contribute to high risks in heart attacks. There are, no doubt, many things medical science hasn't found out yet. However, enough is known at the present time to drastically curtail the terrible statistics, if people could be educated and persuaded to correct their habits and lifestyles.

SMOKING

Smoking has a rather spectacular relationship to cardiovascular (heart and blood vessel) disease. Individuals smoking a pack of cigarettes a day have two to three times as many heart attacks as nonsmokers; those smoking two packs or more, nearly six times as many.

Smoking causes arteries to constrict, or go into spasm. This constriction is general,

and reduces the available blood supply to the extremities and to the internal vital organs of the body. Smoking also causes the blood to clot faster, sometimes as much as 3½ minutes faster than in the nonsmoker. These effects can both cause and also aggravate existing problems of poor circulation to other parts of the body, as well as to the heart.

LACK OF EXERCISE

Lack of exercise also contributes to heart disease. Seventy years ago a typical American man walked several hours during the course of a day's work, usually on a farm. His wife made frequent trips from the house to the wash house and to the well or pump. They did not possess modern labor-saving gadgets powered by gasoline or electricity. Whatever was accomplished happened because of much muscle use. Today it often becomes a chore to carry the bags of groceries from the car to the kitchen.

Would you like to know whether you are getting enough exercise? There are two relatively simple ways you can check up on yourself: by determining body weight, and by checking your resting pulse rate.

First, get on the scales and weigh yourself. If you are as much as 20 percent or more

overweight, your heart-attack risks may double. Even a few pounds of overweight can influence statistics adversely.

You can take your own pulse by counting how many times your heart beats per minute when you are sitting quietly. If it beats 85 times per minute or more, rather than 70 or lower, your risk triples.

Doctors can do a third test, which is checking your vital lung capacity. If you are free from any other lung disease, a decrease in the amount of air your lungs can use may result from inactivity and inadequate exercise.

If you flunk two of the above tests, you may be startled to know that your risk of heart disease seriously increases. You should also know that a proper and regular exercise program can reverse these statistics.

EATING HABITS

For thousands of years our ancestors scratched out their living from the soil, toiling wearily for their food—dreaming about living off the fat of the land, but seldom succeeding. But now we're not only dreaming about it—we're doing it. Today approximately 1,600 heart attack victims are buried each day in the U.S.—

about one each minute—principally because they eat too much.

Overeating—it might be called "Fat of the Land Syndrome"—contains a whole gamut of risk factors—among them, excessive weight, high blood cholesterol and high blood-fat levels.

Simple overweight, the first factor, can increase the chance of death from a coronary heart attack. The more serious the condition, the higher the heart attack risk.

The second "fat" factor, cholesterol, a fatty substance, also helps identify high-risk persons, if too much is found in one's bloodstream. In fact, men between 30 and 62 years of age with cholesterol levels of 250 or more* average four times as many heart attacks as men of the same age who have levels of 200 or below, and three times as many as men with levels below 225.

Though cholesterol is needed by the body in small quantities of various physical processes, the average American's blood level is too high because of his diet and inactivity. Some of the foods in his diet causing these high levels include foods of animal origin, eggs, and hard (saturated) fats (butter and shortening).

Serum triglycerides are the third "fat" factor. These are a different type of fat, which floats freely in the blood. This condition is commonly found in diabetics and those predisposed to this disease. Both men and women with high blood levels of triglycerides can have three times as many heart attacks as individuals with low levels.

Proteins and carbohydrates—as well as fats—can contribute to high blood fats when eaten in excess. Scientists tell us that sucrose, or common table sugar, helps elevate blood fats. Table sugar provides empty calories which easily turn to body fat; this in turn can elevate fat levels in the blood if not rapidly used up as energy.

Many desserts we enjoy are largely sugar. For example, a banana split contains 35 teaspoons of sugar. A piece of apple pie may contain 15 teaspoons of sugar. But foods containing saturated fats and high cholesterol can be as harmful as sugar-filled foods. Ordinary Cheddar cheese contains 40 percent fat and substantial amounts of cholesterol. The American Heart Association says we should eat no more than 300 milligrams of cholesterol per day, or the amount found in one large egg! (The average American eats 600 milligrams of cholesterol or more per day.)

HEREDITY

Heredity is a very important factor in heart disease. You can't pick your ancestors, but a knowledge of hereditary factors can help guide you to wise advance planning. Since heredity can greatly increase your risk factors, beginning strict health practices early in life will do much to avoid or at least minimize damage from these diseases.

Probably the most important factor in heredity is diabetes. This disease hastens the development of arteriosclerosis (hardening of the arteries) and should be looked for whenever the blood triglycerides are abnormal, in cases of obesity and in any case where there is a family history of it. Unless carefully controlled, diabetics will develop heart attacks and serious diseases of the circulation much more quickly than people without this disease. Nowadays doctors can do special tests (glucose tolerance tests) which can find people who are latent diabetics (no symptoms yet). If these people can be found and treated early, many of the miseries of heart and blood vessel disease can be prevented before they get a good start.

*250 mg/100 ml of blood



The illustration shows the accumulation of fatty deposits which causes overwork for the heart as it tries to pump the blood through the narrow passage of the artery.

STRESS AND HIGH BLOOD PRESSURE (HYPERTENSION)

What about stress? It plays a definite part in heart disease. Some researchers believe that there is a "hypertensive personality." He is the individual who possesses a compulsive drive, ambition to get ahead, rigidity in self-discipline. In his drive for success, the tension he creates produces a rise in his pulse rate and in his blood pressure. The heart pumps more blood through the arteries, but the small arteries tend to close, due to the excess tension in the body. Increased blood pressure levels are in almost direct proportion to heart disease. An increase in blood pressure puts a strain on the heart, and if not controlled will eventually cause serious damage. Today medicines and treatment techniques are available which can control almost every type of blood pressure problem. Preventive care in

this area is already having a favorable effect on heart disease statistics.

Excessive stress can not only elevate blood pressure, but also affect the clotting mechanism within the blood and raise the level of cholesterol.

Stress can work two ways. Destructive stress can open the door for disease, but other kinds of stress can be used to maintain health in the body. The "coronary prone" man experiences keen disappointment in not achieving his goals, and suffers severely from feelings of failure and inadequacy. Outlets for these feelings are limited.

But then we may see a person working long hours under much tension. We worry about him and warn

him that he is a candidate for heart disease. Yet many successful men work long hours every day with lives full of tension. But they enjoy what they are doing, and they find healthful outlets for these frustrations. They learn to cope with stress. The secret is to learn the level of stress you can live with, and to find suitable outlets for emotional build-ups.

A HEALTHY HEART

Life can be so much more rewarding if you are living with a healthy heart. And it is not an impossible dream. If you begin early in life, correcting wrong habits and lifestyles, you may be able to eliminate these dangers completely.

But even if disease has already started, there is still hope. Our late President Lyndon Johnson suffered a massive heart attack which nearly took his life, 15 years before he became president. But by rigid adherence to the principles outlined above, he continued to live a full and active life for many more years.

Change is not easy, especially in habits of eating and living. In fact it will require genuine and rigid self-discipline to succeed. But the rewards are great, and you can enjoy them if you choose.

PRESCRIPTION FOR A HEALTHIER HEART

1. Have an annual check-up, including an exercise electrocardiogram, and periodic examinations, of blood cholesterol, triglycerides and blood sugar (glucose tolerance).
2. Abstain from the use of saturated (hard) fats, and foods high in cholesterol. Eat sparingly of foods high in sugar.
3. Eat your evening meal as early as possible.
4. Maintain a regular exercise program. (Avoid sporadic, strenuous exercise unless you are in condition for it.)
5. Avoid prolonged periods of stress, emotional strain, and anxiety when possible. Look for active, healthful outlets for emotional and stress build-ups.
6. Maintain normal weight.

ANSWER SHEET—LESSON NO. 8

1. Complete the following sentences:

- a. A myocardial infarction is actually a _____ of the heart.
- b. The arteries become _____ by fatty _____.

2. If the statement is true circle the T; if false circle the F.

- T F a. There is a spectacular relationship between smoking and heart disease.
- T F b. Smoking can cause and also aggravate existing problems of poor circulation.
- T F c. Exercise causes heart disease.
- T F d. Heart disease is found to be prevalent where people live on a meager diet.

3. List below two simple ways you can check on yourself for adequate exercise.

- a. _____
- b. _____

4. Underline the correct word or words:

- a. (Lack of exercise) (overeating) (relaxation) (too much sleep) contribute to heart disease.
- b. When eaten in excess (proteins) (carbohydrates) (vitamins) can contribute to high blood fats.
- c. Stress can work (two) (five) ways.
- d. Stress can (destroy) (maintain) health.

If you are serious about your weight and find an ordinary diet too restrictive, do something exciting. Develop your own menus. The Calorie Exchange Plan will help you.

BASIS OF PLAN

The exchange system set up by professional organizations, including the American Dietetic Association, is based on a simple grouping of common foods according to generally equivalent nutritional values.

The foods are divided into six basic groups, called "Food Exchange Groups." Within the groups, each food in the amount listed contains approximately the same food value as any other item in that group, allowing for free exchange within any given group. The total number of exchanges allowed per day depends upon individual nutritional needs.

HOW IT WORKS

1. Use the Exchange Diet Plan (below) to determine the number of exchanges you may have for the day from each group.
2. Make your choices of specific foods from the Food Exchange Groups, pp. 2, 3.
3. Several of the food exchanges call for certain modifications, such as "add 1 fat exchange" or "deduct 1 bread exchange." This is necessary because that particular food is low in fat or high in carbohydrate when compared with the other exchanges in the same group. The added exchange can be used in the preparation of that food item or in some other part of the menu.

EXCHANGE DIET PATTERN

FOOD EXCHANGE GROUP	1000 Cal. Exchange/Day	1500 Cal. Exchange/Day
Milk Exchange (non-fat)	2 1/2	3
Vegetable 2A Exchange	1*	1*
Vegetable 2B Exchange	1	1
Fruit Exchange	3	4
Bread Exchange	2	5
Meat Exchange	5	6
Fat Exchange	3	6

*As desired raw, 1 cup cooked

NUTRIENTS:

Carbohydrate	97 gm	158 gm
Protein	60 gm	78 gm
Fat	40 gm	60 gm

The success of the program also depends on following these reminders.

1. Skip no meals, unless it is supper. Breakfast is a must.
2. Eat slowly—take time to enjoy your food.
3. Every day: Eat a salad or raw vegetable; select dark green leafy and deep yellow vegetables for vitamin A values; citrus fruits, cantaloupe, strawberries, tomatoes, cabbage, etc. for vitamin C.

FOOD EXCHANGE GROUPS

LIST 1. MILK EXCHANGES. Calories: 1 cup whole milk-170; nonfat-80.

Milk, whole	1 c deduct 2 fat exch.	Buttermilk	1 c deduct 1 fat exch.
Milk, powdered whole	1/3 c deduct 2 fat exch.	Milk, low-fat	1 c deduct 1 fat exch.
Milk, evaporated	1/2 c deduct 2 fat exch.	Yogurt, plain	1 c deduct 2 fat exch.
Milk, nonfat	1 c	Soybean, liquid	1 c deduct 2 fat exch.
Milk, powdered nonfat (instant)	1/3 c	Soyamel, powdered	4 T deduct 2 fat exch.

LIST 2. VEGETABLE EXCHANGES. May be fresh, frozen or canned—no fat added.

Group A: Use as desired. Calories: Few in amounts commonly eaten.

Asparagus	Spinach
Bamboo shoots	Turnip greens
Broccoli	Salad Greens
Brussels sprouts	Chicory
Cabbage	Escarole, endive
Cauliflower	Lettuce
Celery	Watercress
Chinese cabbage	Mushrooms
Cucumbers	Okra
Eggplant	Parley
Greens	Peppers
Beet greens	Radishes
Chard	Sauerkraut
Collards	String beans, young
Kale	Summer squash
Mustard	Tomatoes

Group B: 1/2 cup equals one serving. Calories: 35.

Artichoke (1 medium)	Pumpkin
Beets	Rutabaga
Carrots	Squash, winter
Onions	Turnip
Peas, green	



LIST 3. FRUIT EXCHANGES: unsweetened—fresh, frozen, canned. Calories: 40.

Berries		Others	
Blackberries	1 cup	Apple	1/2 med.
Blueberries	2/3 cup	Apple juice	1/3 cup
Raspberries	3/4 cup	Applesauce	1/2 cup
Strawberries	1 cup	Apricots	2 med.
Citrus fruits		Banana	1/2 small
Grapefruit	1/2 small	Cherries	10 large
Grapefruit juice	1/2 cup	Fig	1
Orange	1 small	Grapes	12 med.
Orange juice	1/2 cup	Grape juice	1/4 cup
Tangerine	1 large	Mango	1/2 small
Melons		Nectarine	1 med.
Cantaloupe	1/4 med. (6" diam.)	Papaya	1/3 med.
Honeydew	1/8 med. (7" diam.)	Peach	1 med.
Watermelon	1/2 center slice	Pear	1/2 med.
Dried fruits		Pineapple	1/2 cup
Apricots	4 halves	Pineapple juice	1/3 cup
Dates	2	Plums	2 med.
Figs	1 small	Prunes	2
Prunes	2 med.	Prune juice	1/4 cup
Raisins	2 tablespoons		

LIST 4. BREAD EXCHANGES (equivalent portions indicated by each item).

Bread & Crackers		Cereal	
Bread		Cereal, cooked	1/2 cup
Biscuit, roll 2" diam.	1 slice	Cereal, dry	3/4 cup
Combread (1 1/2" cube)	1	(flakes, puffed)	
Muffin (2" diam.)	1	Flour	2 1/2 tablespoons
Sandwich bun	1/2 large	Rice or grits (cooked)	1/2 cup
Graham crackers	2	Spaghetti, macaroni, noodles (cooked)	1/2 cup
Saltines (2" square)	5	Vegetables	
Tortilla (6" diam.)	1	Corn	1/3 cup or 1 small ear
Desserts		Popcorn (popped)	1 cup
Sponge cake, plain	1 1/2" cube	Parsnips	2/3 cup
Ice cream, (deduct 2 fat exch.)	1/2 cup	Potatoes, white	1 small
Ice milk, (deduct 1/2 fat exch.)	1/2 cup	Potatoes, mashed	1/2 cup
		Potatoes, sweet or yams	1/4 cup

LIST 5. MEAT EXCHANGES (Protein Group).^a Calories: 75.

Cheese, cottage	1/4 cup	Frozen Soyameat	1 sl. (1/8")
Cheese, cheddar	1 oz. or 1" cube	Chicken-style or beef-style (roll)	1
Egg	1	Luncheon slices	2-3 sl.
Peanut butter	2 tablespoons	Corned beef-like	4-5 sl.
(Deduct 2 fat exch. limit to 1 exch. daily.)		Smoked beef-like	2 sl.
Soy cheese (Tofu)	1/4 cup	Turkey-like	5 1/2 strips
Legumes, cooked		Striples	1 sl. (1/8")
Soybeans	1/3 cup	Wham	1 1/2 sl. (1/4")
Other legumes	1/2 cup	Prossage	1 med.
(Deduct 1 bread exch. and add 1 fat exch.)		Steak type	1 med.
Meat analogs		Pieces like Tender Bits or Skallops	2-3
Canned Soyameat, drained	1 piece	Burger type (also re-constituted Vitaburger)	1/4 cup
Fried chicken-style	1/4 cup	Blended vegetable proteins	1/4" sl.
Diced chix or beef	1 1/4 sl. (1/8")	Loma Linda Redburger	1/2" sl.
Sliced chix or beef		Nuteena (deduct 1 fat ex.)	1/4" sl.
		Proteena	1 med. or 2 small
		Vegetable Weiner	

^aNuts listed in Fat Group

LIST 6. FAT EXCHANGES. Calories: 45.

Butter or margarine	1 teaspoon	French dressing	1 tablespoon
Dietetic margarine	2 teaspoons	Mayonnaise	1 teaspoon
Cream cheese	1 tablespoon	Oil or cooking fat	1/8
Cheese spreads	1 tablespoon	Aveado (4" diam.)	5 small
Cream, whipping	1 tablespoon	Olives	6 small
Half and half	3 tablespoons	Nuts	10
Mocha mix	3 tablespoons	Peanuts	2 tablespoons
Sour cream	2 tablespoons	Gravy	



1000 to 1100-CALORIE FOUR-DAY SUGGESTED REPEATING MENUS

FOOD EXCHANGE LISTS	DAY I	DAY II	DAY III	DAY IV
No. of exchanges	No. of exchanges	No. of exchanges	No. of exchanges	No. of exchanges
FRUIT	2**	Sectioned grapefruit	1	1
MEAT (PROTEIN)	2	Crispy tofu sticks	1	1
BREAD	1/2	Cooked oatmeal	1	1/2
FAT	1	Margarine for sticks	1	1/2
MILK	1/2	Mocha mix for oatmeal	1/2	1/2
Dinner		Nonfat	Nonfat	Nonfat
MEAT (PROTEIN)	2	Browned Skallops* or Tender Bits*	2	3
VEGETABLE A		Celery curls	1	1
VEGETABLE B		Steamed zucchini	1	1
BREAD	1	Baked potato	1	1
FAT	1	Margarine or sour cream	1	1/2
FRUIT	1	Fresh peach	1	1
MILK	1	Nonfat	1	1
FREE FOOD		Tomato bouillon		
Supper or lunch				
MEAT (PROTEIN)	1	Chicken-style (for Soyameat, diced salad)	1	1
BREAD	1/2	Toast or saltines	1	1/2
FAT	1/2	Margarine	1	1
VEGETABLE A	1/2	Fr. or Italian dressing	1/2	1
VEGETABLE B	1	Tossed fresh veg. salad	Vegetable soup	For legumes: tomatoes, peppers, green onions
FRUIT		Green peas		
MILK	1	Nonfat	1	1
FREE FOOD		Dietetic gelatin dessert	Dietetic gelatin dessert	

*Add 1 fat exchange for each of these exchanges
 **Note that these quantities are NUMBER OF EXCHANGES - not servings.
 Example: Day 1 Breakfast - 2 exchanges of orange juice (1 exchange - 1/2 cup) - 1 cup



Learn about cancer... and live



LESSON^{no.} 9

What is cancer?

The ancient Greeks thought the disease was caused by crabs clawing at man's innards.

Today we know better. Medical science says cancer is caused by body cells gone crazy, growing and dividing for no useful purpose; these wildly proliferating cells crowd out and destroy needed cells and tissues until, often, death occurs.

But we don't know enough about cancer. Scientists have not yet discovered what actually causes the cells to grow wildly. Viruses—ultra-microscopic structures even smaller than bacteria—and various chemicals appear to be culprits. But it's a mystery to scientists how these cancer-causing irritants actually trigger this haywire growth in the body's own cells.

Some scientists think it may be impossible to solve this mystery because the cancer problem is part of the "mystery of life" itself. Others are more optimistic.

The American Cancer Society emphasizes the need to effectively use the knowledge we already possess. Of 600,000 cancer patients treated each year, 200,000 are cured. (Patients with no recurrence of cancer within five years are considered cured.) But the society believes over 100,000 more can be saved if already existing knowledge is applied in two directions.

WATCH FOR CANCER SYMPTOMS

First, we must discover and diagnose cancer before it metastasizes, or spreads, throughout the body. Second, we must eliminate environmental factors already known to cause cancer.

In the discovery and diagnosis of cancer, the American Cancer Society stresses that all Americans should watch for these warning signals:

1. A change in bowel or bladder habits.
2. A sore that does not heal.
3. Unusual bleeding or discharge.
4. A thickening lump in the breast or elsewhere.
5. Indigestion or difficulty in swallowing.
6. An obvious change in a wart or mole.
7. A nagging cough or hoarseness.

Of course, only a physician should verify whether cancer actually exists if one of these symptoms is found. Our main concern is to reach a physician before it's too late. One-fourth of all cancer deaths are needless deaths, according to the American Cancer Society—we needn't be among them.

ELIMINATE CANCER-CAUSING CHEMICALS

Cancer-causing irritants must be handled carefully and eliminated from the environment whenever possible. Such agents are tar, pitch, benzopyrene, arsenic, benzol, asbestos, aniline dye, and various types of radiation.

The environmental role of such carcinogens, or cancer-causing chemicals, was first observed over 200 years

ago. Sir Percival Potts, a London physician and scientist, found that chimney sweeps experienced more scrotum cancer than other young men. He blamed the soot. Only in 1930 did another British scientist find benzopyrene, a chemical in the soot, to be the precise irritant.

The controversy over environmental pollution brings up city smog as containing possible cancer-causing agents. Some scientists believe that smog contains these agents, but proof that smog really contributes to cancer is lacking.

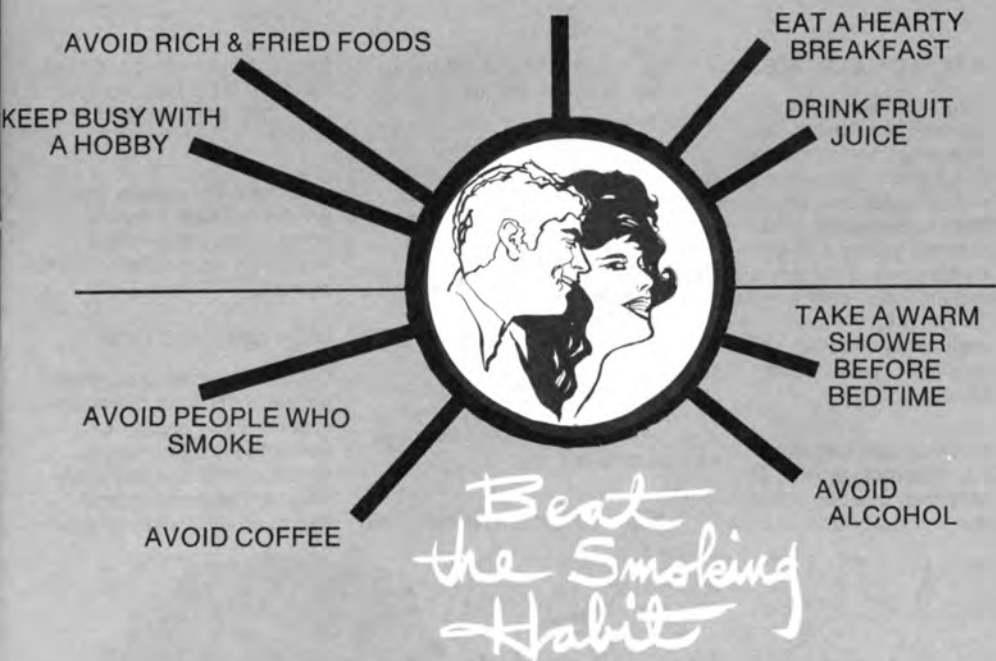
Proof against another environmental pollutant is not lacking. The greatest environmental cause of cancer, scientists tell us, is tobacco smoke, not smog.

Heavy cigarette smokers who use two or more packs per day have 20 times more lung cancer than non-smokers; regular smokers puffing away one pack per day have "only" 10 times as much.

One in twenty victims of lung cancer is cured. Each year 60,000 Americans die of lung cancer—more than from any other type of cancer.

It's obvious that more than lung cancer could be prevented if smoking habits

TAKE A BRISK 5 MIN. WALK



were eliminated. For example, if a man, aged 45-54, smokes more than 10 cigarettes per day, he is three times as likely to have a heart attack as is a non-smoker in the same bracket; if between 45 and 59, he is twice as likely to have a stroke. If a man between the ages of 45 and 64 smokes more than 10 cigarettes per day, he misses 40 percent more work than the nonsmoker.

According to the United States Surgeon General, smoking is a "health hazard."

Yet 4,000 teen-agers take up the habit each day. There is a desperate need for an aggressive educational program to warn people of the dangers of this risky habit.

For those who want to get rid of the cigarette habit, the American Cancer Society suggests a plan of attack. Motivation is the key. That is, we should choose to quit and then act on that choice.

Jack was a successful businessman. He worked hard under a lot of stress.

Often he reached for a cigarette to give him the push he needed.

A routine medical check-up revealed Jack's health to be normal. He did have a slight shortness of breath, which the doctor explained could be caused by smoking.

"You know, I've been thinking about quitting," Jack said. "What's the best way?" The doctor suggested that Jack enroll in a Stop Smoking Clinic which would help him to understand why he smoked.

WHY PEOPLE SMOKE

People smoke for many reasons, the doctor said. Cigarettes sometimes become a stimulant for one who is under tension. Deadlines make people tense. A reporter facing a deadline on his news story may smoke one cigarette after another "to get a lift." Family arguments can also cause people to smoke more heavily.

Smoking can become a psychological crutch. The salesman meeting a potential customer may offer a ciga-

rette and take one for himself to break the ice.

Often, a smoker develops a habit pattern which is difficult to break. For example, a mother after getting the children off to school and cleaning the house, may relax with a cigarette as she watches her favorite TV program. Smokers generally top off their meal with a cigarette. Sitting in a favorite chair or reading the evening paper often triggers the urge to smoke.

Some people smoke because

they need something in their hands. Others light up whenever they are talking on the phone.

And there are people who smoke because they are actually addicted—either physically or psychologically, or both.

STOP SMOKING TIPS

One Stop Smoking program successfully uses the buddy system. Each person who wants to stop smoking is introduced to another such person. They understand that they can call each other



any time of the day or night for encouragement. You will probably find it easier to stop smoking if you will find someone else who wants to quit so that you can encourage each other.

It may be helpful to think about some of the disadvantages of smoking if you really want to quit. Think of the money you will save and the things you can buy with it. Smoking is actually a useless habit. It stains your fingers and your teeth. One of the surprising discoveries you will make when you have quit smoking is that others who use tobacco have an offensive odor.

And, of course, science will forever remind us that smoking is a health-destroying habit. Speaking of habit, some people are shocked when they realize that they have allowed a little white stick of tobacco to become their master.

Here are some suggestions that Stop Smoking programs give for the first five to seven days after you quit. To begin with: Do not try to taper off. Simply choose not to smoke for the next five to seven days.

AT RISING TIME

1. Get up about 30 minutes early to avoid pressure.
2. Repeat aloud several times, "I choose not to smoke."
3. Drink two glasses of warm

water. It helps to remove nicotine from the taste buds.

4. Take a warm shower, ending with water as cold as you can endure. If you have the courage, you may take a washcloth dipped in cold water and give yourself a brisk rubdown. This cleanses nicotine from the pores.

BREAKFAST TIME

1. Eat a hearty breakfast.
2. Drink two glasses of fruit juice and eat an abundance of fruit. Fruit helps to cleanse nicotine from your system.
3. Do not drink coffee while you are involved in this program, as it is a stimulant. Use cereal-type hot drinks.
4. Avoid rich and fried foods.

AFTER BREAKFAST

1. Take a brisk five-minute walk immediately after breakfast. Practice deep breathing while walking.
2. Contact your stop-smoking partner by phone.
3. Drink plenty of water and other liquids during the day.
4. Avoid alcoholic beverages; they increase the urge to smoke. It is best to avoid soft drinks, too.
5. Go to work, but avoid working near smoking companions, if possible. If someone offers you a smoke, say immediately, "No, thanks. I choose not to smoke."

6. If the urge becomes overpowering, open a window for fresh air or go out-of-doors and breathe deeply several times. Usually the urge will leave within 60 seconds.
7. The urge may be broken by chewing sugarless gum. A grapefruit between meals is good.

LUNCH

1. Stay away from fried and rich foods.
2. Eat plenty of vegetables and fruits.

AFTER LUNCH

1. Take a ten-minute walk, practicing deep breathing.
2. Call your buddy if he can be reached.
3. Repeat several times, "I choose not to smoke."
4. If possible, drink one glass of water or fruit juice every hour.

AFTER WORKING HOURS

1. Avoid family pressures and arguments.
2. Keep busy with a hobby or work around the house.
3. Stay away from people who smoke.
4. Avoid the easy chair and TV programs which you associate with smoking.

EVENING MEAL

1. Eat a good wholesome meal, but avoid food and drinks which bring the urge to smoke.
2. Get up from the table and take a brisk walk.

BEFORE BEDTIME

1. Call your buddy and review the day.
 2. Keep busy until bedtime.
 3. Take a warm shower.
- Ask for divine help whenever you feel the urge to smoke.

We have discussed at length how to avoid lung cancer by not smoking. Studies now in progress may soon discover the causes of other types of cancer.

But in the meantime, there are some things which may help us to avoid any form of the disease.

1. Avoid or reduce chronic irritation.
 2. Have a medical check-up once a year if you are over 30. (Women should get an annual Paps Test and breast examination.)
 3. Ask the doctor about any suspicious-looking moles, warts, lumps, or scars.
 4. Take good care of your mouth and teeth.
 5. Avoid irritating fumes.
 6. Keep your skin clean.
- The American Cancer Society gives good counsel when it suggests that the best insurance policy to prevent any type of cancer is an ANNUAL PHYSICAL CHECK-UP AND DAILY PERSONAL SURVEILLANCE for the SEVEN DANGER SIGNALS (listed near the beginning of this lesson).

Surely every American can carry out these suggestions without too much trouble or expense. Worry is not the answer, but action and common sense are.

ANSWER SHEET—LESSON NO. 9

1. Fill in the following blanks with the correct answers:

In the discovery and diagnosis of cancer, everyone should watch for the following warning signals:

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____
- f. _____
- g. _____

2. Fill in the blanks below:

- a. The American Cancer Society claims that _____ of all cancer deaths are needless.
- b. Some of the cancer-causing irritants are _____, _____, _____.
- c. Scientists tell us that the greatest environmental cause of cancer is _____.
- d. Each year _____ Americans die of _____ cancer.

3. Underline the correct word or words:

- a. If a man between the ages of 45 and 64 smokes more than (10) (5) (15) cigarettes per day, he misses (30) (40) (42) percent more work than the nonsmoker.
- b. People smoke for (no) (many) reasons.
- c. Smoking may become a (physiological) (psychological) crutch.
- d. A smoker may develop a habit pattern which is (difficult) (fun) to break.

4. Place a check (✓) before all true statements below:

- a. _____ Exercise is an important element in giving up the smoking habit.
- b. _____ In stopping the smoking habit one should taper off.
- c. _____ When giving up smoking drink fruit juices and water frequently.
- d. _____ Repeat aloud several times during the day, "I choose not to smoke."

Let's talk about drugs



"Drugs" is a scare word, spelled with a capital D, to most parents. They tend to limit their definition of drugs to illegal marijuana, hashish, LSD, heroin, cocaine, and illegally used legal substances like amphetamines and barbiturates. Just saying "drugs" conjures up a frightening picture of sleazy pushers, strung-out kids, bad trips, flashbacks, shattered lives and hopes and dreams.

And certainly there is cause for parental worry, because the use of these substances is widespread and growing, perhaps beyond parents' worst fears. The National Commission on Marijuana and Drug Abuse reported in 1971 that 24 million had tried pot at least once; a Stanford

study indicated that 15 to 20 percent of college students had experimented with LSD. Heroin figures are more elusive, but deaths by overdose in the New York City area tripled in a decade—harsh evidence of increased addiction.

From the National Institute of Mental Health on down, those who have worked closely with drugs and drug-abusers have become convinced that there is no single answer to the drug problem. Apparently there are as many causes for drug abuse as there are drugs to abuse. Yet a common agreement seems to be beginning among all the experts that perhaps the best possible place to prevent drug abuse is in the home.

(Written by Gerald M. Knox in cooperation with Edwin Keister, Jr., a noted medical and educational writer.) Reprinted from BETTER HOMES AND GARDENS © Meredith Corporation, 1973, under the title "Will Your Child Be Hooked on Drugs?" All rights reserved.

LESSON^{no.} 10

Before they can cope with the illegal drugs that parents fear, young people must be helped to formulate a rational, sensible approach to all drugs. And before *that* can happen, youngsters must be helped to develop a different set of values, one that places inner strengths first and reliance on chemicals second.

TOWARD A NEW VIEW

Drug education of this sort must begin early in life. By the time a child gets his first social invitation to try pot, it is far too late. And education of this type is a job primarily for parents. Schools now offer classroom discussions of drugs as early as first grade, and young people hear plenty of anti-drug warnings from television and other sources. Still, the values and standards that will help youngsters the first time they are offered a marijuana cigarette can only come from home.

According to Joel Fort, M.D., whose San Francisco agency, Fort Help, tries to help abusers of all drugs from tobacco to heroin, only a solid family relationship can offset the outside influence and peer pressure pushing a young person towards drugs. Muriel Nellis of the National Institute of Mental Health, in a study of young glue-sniffers, found that the common denominator among them was an inadequate family life. When

that could be stabilized, their problems lessened.

Distressingly, however, many parents of young people who turn to illegal drugs believe that they are already doing their best by their children. A sociological profile of the families of young drug-abusers, race and economic considerations aside, shows that many of the families are right in the American mainstream in terms of attitudes and goals. In the idiom, the "kids come from good homes"; father and mother are bright, busy, and active, with many outside interests, and the children have been given the best that money can buy in everything from toys to education. And, in the best American tradition, the youngsters have been given full freedom to express themselves, allowed to make key decisions about their own lives, and have been encouraged to develop in every way as individuals.

Such families of 101 university students were studied in detail by Dr. Richard H. Blum of Stanford University, a psychologist who is consultant to the White House Special Action Office on Drug Abuse Prevention. The students' families were not selected on the basis of whether students had experimented with drugs, although Dr. Blum soon found that all but three or four had done so, some more lastingly than others. He then

divided the families into low-risk, moderate-risk, and high-risk, based on which drugs, if any, had been used, how often, and for how long. All family members, including younger children as well as parents were interviewed, and the family group was observed for 15 to 30 hours.

A 30-page questionnaire was administered to each of the parents. The questions attempted to explore the parents' values and their attitudes toward raising children.

With few exceptions, Dr. Blum reported, the low-risk parents espoused the traditional values of God, family, country; they held firmly to parental prerogatives, deciding for their children whom they would play with, when they would study, and how they would spend their spare time. These parents cited the family as their greatest source of pleasure.

High-risk parents felt children should make their own decisions in matters involving them as early as possible; what was important was that each child be allowed to develop fully and freely without excessive parental interference or harsh discipline. Although many of those high-risk parents were idealistic, they held no formal code of beliefs and had difficulty expressing their values.



"Both groups of children were obviously getting the parents' message," says Emily Garfield, who assisted Dr. Blum in the interviews. "Low-risk parents set definite boundaries beyond which the children could not go, and saw that they did not. High-risk parents allowed much more license, and their children took the ball and ran much farther and faster than their mothers and fathers ever anticipated they would."

FAMILY PORTRAITS

One area in which high-risk young people took strong cues from their parents was in the use of drugs. Mothers and fathers in high-risk families were heavy drug users—although they might not have described themselves that way. They were more likely to smoke cigarettes, more prone to observe the cocktail hour, and they used tranquilizers, sleeping pills, and other medication heavily. Miss Garfield described both generations as "self-centered and self-indulgent" about health and emotional problems.

Nor did the adults mind openly breaking the law for their personal benefit. Not only did they frequently obtain tranquilizers and sleeping pills illegally, but they collected more traffic tickets (and ignored them) and confessed to breaking more minor rules and regu-

lations than did the low-risk group.

A similar picture of like-parent-like-child was sketched for the National Commission on Marijuana and Drug Abuse by Dr. William McGlothlin, a psychologist specializing in the study of the drug-abuse prone at the University of California at Los Angeles. Reviewing a number of studies, Dr. McGlothlin reported that *adolescents whose mothers used tranquilizers regularly were three times more likely to try pot, LSD, or heroin as the children of nonusers. Those whose mothers and fathers both smoked tobacco were four to five times as likely to try heroin or speed as those from nonsmoking households.* In one New Jersey study, according to Dr. McGlothlin 44 percent of pot and LSD users reported they had seen their mother drunk at least once.

Others have attempted to draw a profile of young people who do not use drugs. Many emerge as pleasant, respectful, warm young people with close ties to their families, not at all resentful of their parents' dominant role. As part of the Blum study, the researchers ate dinner and spent the evening with the family groups. The family researchers were clearly impressed with the all-for-one-and-one-for-all spirit that typically

prevailed at the low-risk family dinner table.

"Parents and children really seemed to enjoy each other," reported Miss Garfield, with some awe.

Dr. Allan Y. Cohen, a psychologist and director of the Institute of Drug Abuse Education and Research at John F. Kennedy University, Martinez, California, once inquired of a group of high school students why they had never tried drugs. Only a handful said they had been frightened off by the law, by fear of addiction, by religious scruples, or concern about their health. The greatest number replied that they "had something better going for them" or "turned on in other ways." "And when you pressed many of them," Dr. Cohen reports, "what they meant was that they had a warm relationship and pleasant life at home."

THREE GIANT STEPS FORWARD

The first step in preventing drug abuse in your family is to understand that drug use and drug abuse are not the same. Every chemical, beginning with table salt, has the potential to do harm if not used properly. As Dr. Fort says, drug use is a "continuum," ranging from a single isolated episode of use to abuse at the far end of the spectrum. Use does not become abuse until the user becomes so physically

or psychologically dependent on drugs that his health or his ability to function is impaired.

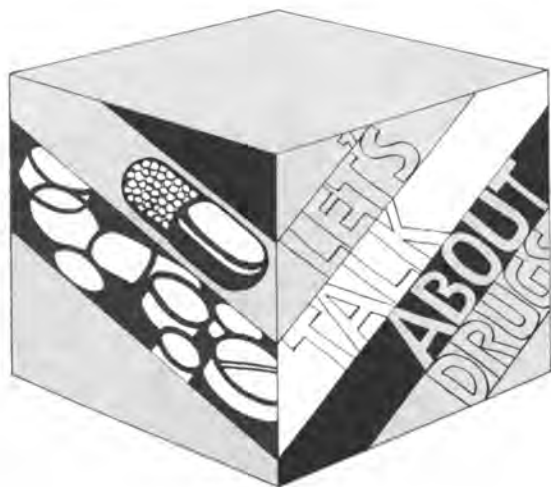
From the point of view of addiction, the most dangerous drugs may be those that appear legally in many medicine cabinets—the amphetamines and barbiturates. And from the point of view of long-range damage to health, as Dr. Fort insistently points out, the greatest threats are tobacco—linked to the big killers, heart disease and cancer—and alcohol.

The second step in drug-abuse prevention is for parents to examine their own attitudes toward drugs of all sorts, and their use of them—not only how much they smoke and drink, but just how carefully they take pills of every sort. Is the evening cocktail an inviolable ritual? Must every

"good time" be accompanied by a free-flowing bar? Does every twinge of pain call for a dash to the medicine chest? Or can some bad moments be faced down with inner strength and fortitude?

The example extends to the child's own medicine. It should be given judiciously and sparingly, not every time he is cranky or "feels bad." It should not be kept in the child's room, and he should not be allowed to get it for himself unsupervised. And he should not be bribed with tales of how good it tastes. The lesson is that medicine is prescribed by a physician, or precisely chosen by a parent, for a specific purpose.

Third, recognize that scare tactics about drugs and ominous warnings of their dangers don't work and may actually be counter-produc-



tive. The nationwide campaign against cigarette smoking is the classic example. In spite of the widely known and circulated evidence associating cigarettes with lung cancer and heart disease—and the sophisticated, high-powered advertising campaign carrying the message to every corner of the land—cigarette sales actually increased in 1972. Likewise, drug campaigns based on fear have proved less than effective. Young people have seen the message contradicted so many times in their own experience, or have heard so many cries of “Wolf!” that they no longer respond to them. Dr. Cohen’s samples, for example, showed that only a very few young people stayed off drugs out of fear of the consequences.

SETTING PRIORITIES

The toughest job in the world, but most important of all in preventing drug abuse, is building a core of principle to which a young person can rally in time of need. This involves helping him to establish values and priorities from the earliest age, following guidelines such as these:

- Give him in the simplest terms a clear understanding of what behavior is expected of him or her, why, and which guiding principles you consider most meaningful. Assume your role as concerned guide and parent, making decisions for him that you feel he is not

capable of making, but always explaining the underlying reason why the decision was made. Work toward a goal of the youngster’s independence, but without hurrying the process. Conversely, stake out areas early in which he may operate for himself, or with only minimal supervision.

To some parents, of course, making key decisions for an adolescent boy or girl smacks of the kind of authoritarianism that presumably went out with Queen Victoria. And, in fact, Dr. Fort warns:

“The adolescent who is seriously repressed and infantilized in his youth may develop a serious drug problem in his 30s—probably in the form of alcohol.” However, from Dr. Blum to Dr. Nellis, all agree that only firm and loving guidance toward making decisions for themselves can help young people make their way through our society.

- Assign him chores and responsibilities at an early age—not because “idle hands are the devil’s workshop,” but to show him that in a family each member has an obligation to the whole. Show him that love and responsibility are two-way streets; that his behavior reflects on the whole family as their behavior reflects on him.

- Ask for his views and opinions, even when he is very young, and treat them as matters of value. Listen to what he has to say, and dis-

cuss it with him, while making it clear that you're not going to cave in to his every whim. But let him know that you trust him, have confidence in the good sense he usually shows, and hold high expectations for him. And when he does break the rules, try to show that you consider his behavior a rare and unseemly exception.

- Be honest. Don't hide your own actions, don't lie about your own attitudes and motives, don't pretend to know everything, and don't bluff. As Donald Dougherty of New York's Association of Voluntary Agencies for Narcotics Treatment says,

"Young people pick up double messages very quickly. They are much more sensitive to the hypocrisy of society and are much more affected and alienated by its schizophrenic qualities."

- Be the person of strength and responsibility you want him to be. Give him clear roles and role models. Children learn from their parents, not only in matters of drugs but in all aspects of life. Father and mother are their first and best teachers.

- Play the role of confidant without judging; let him discuss whatever troubles

him, however it might violate your accepted Ideas of behavior. In an earlier day, it was the task of a grandparent or favorite aunt or uncle to hear a child's outlandish ideas and provide soothing advice. Today that task, too, usually falls to parents.

- Stress "naturalness" as a source of enjoyment and pleasure. Make clear from your own behavior that having a good time is not necessarily lubricated by alcohol; that quite often tremendous satisfaction can be found in music, in art, in sports, in a simple walk, in learning and expanding the



mind, in friendly conversation, and above all, in personal relationships, especially in the family. "The greatest pleasures in life," says Dr. Fort, "are those that are lasting and meaningful, not those that are temporary and hallucinatory." And it's *important* that you let your youngster know that you honestly feel this way.

When the child reaches an age when he makes his first contact with the world of drugs, it is time to face the subject openly and frankly—as a family. The approach should be exploratory, not exhortatory, with full discussion of the subject. Parents should acknowledge that they, too, might have a great deal to learn about drugs, and should not pretend to know all the answers; they should not defend "their" drug against the child's drug, or become involved in blind, polarized arguments. And while parents should be alert to indications that the child is using drugs, they should not be forever suspicious

and accusing; they should not treat one marijuana cigarette as the first step to hell.

In the end, says Dr. Allan Cohen, there is only one long-term answer to the problem of drug abuse: provide the user with appealing alternatives. Dr. Cohen recalls this dialogue with a young addict:

Cohen: "Why do you use drugs?"

Youth: "Why not?"

Cohen: "How could someone convince you to stop?"

Youth: "Show me something better."

Sometimes, says Cohen, the "something better" is simply the awareness that giving up drugs will make him feel better. More often, he requires some more permanent fulfillment of deeper psychological needs.

Basically, this alternative to drug abuse can only be a solid set of standards and values based on human love and consideration.

It's not simple to achieve, and not something that can be done halfheartedly or overnight.

"Ethics, morality, standards," says Dr. Fort. "These words seem today to be mainly used by summertime patriots and flagwavers.

But they are concepts that each person, each family, must think through and practice. Parents of young children particularly. We can't count on the politicians, the schools, or the church to do it anymore—they are all fragmented. Only the family has a chance. It is a difficult, brick-by-brick process. But close family ties, warmth, and love represent the true alternatives to drugs—the something positive that shows a child that pleasure and meaning in life come from the inside out, not from the outside in."



ANSWER SHEET—LESSON NO. 10

1. Write Yes after the statement if true; write No if false:

- a. Increase of deaths by overdose of drugs is one of the evidences of increased addiction. _____
- b. Experts are beginning to agree that the best way to prevent drug abuse is through legislation. _____
- c. Essential to helping people formulate a rational, sensible approach to drugs is to help them develop a set of values which places inner strengths first. _____
- d. Young people in homes where parents believe in the basic values of God, family, and country and hold firmly to parental prerogatives reveal little interest in experimenting with drugs. _____

2. List the three steps in preventing drug abuse in your own family:

- a. _____
- b. _____
- c. _____

3. Fill in the blanks in statements below:

- a. Give your child in the _____ terms a clear understanding of what _____ is expected of him, and which guiding _____ you consider most meaningful.
- b. Assign your child _____ and _____ at an early age.
- c. _____ to what your child has to say and treat it as a matter of value.
- d. Be _____. Don't lie about your own _____ and _____.
- e. Be the person of _____ and _____ you want your child to be.
- f. Play the role of _____ without _____.
- g. Stress _____ as a source of enjoyment and pleasure.



Success, Health, and the National Pastime

The telephone rang. My secretary said the call was from an old friend. When I answered, a stream of mangled words came flooding through my end of the phone. Some I could make out—others I could not.

"This is your old buddy, Jim," the anxious voice blurted out. "I'm no good. Good for nothing. But I had to call. I knew you could help, Jack. Help me! For God's sake and the sake of my family, help me!" Then Jim broke into uncontrolled sobs.

I hesitated a moment, asked where he was, then told him I'd be right over.

While driving to a small hotel in the center of Los Angeles, my mind wandered back thirteen months. . . . Yes, it was just thirteen months ago! It didn't seem possible. Jim had stopped

by my office on his way to work in Washington, D.C. I hadn't seen him for several years.

We went to dinner together. Jim ordered a cocktail immediately. Nothing out of the ordinary for a social drinker, but it wasn't long before that one led to several more. We talked about old times. He asked what I'd been up to. I sort of knew what he'd been doing, but was interested in learning more.

He recited a host of impressive accomplishments. As a lawyer for a major oil company, he had done considerable traveling throughout the world. He had been appointed to a special commission by the government. It was a vivid picture of what it's like to be up there near the top of corporate business.

Back in high school we all

LESSON^{no.} II



Social
drinking
may lead
to
alcoholism

thought that Jim would be a very successful man. He was chosen class president and the member "most likely to succeed."

We were right. He married his high school sweetheart, graduated from Cal State summa cum laude, and attended Harvard Law School, where he graduated with honors. . . .

I found a parking place. Soon I was with Jim in his shabby, poorly-lit room.

It was hard to believe that it all began as social drinking. He had meant well, worked hard, and climbed to the top in the business world. But that was all over now. An unpredictable sequence of events led from light to heavy drinking, from drinking with friends to drinking alone. After reaching the peak of success, he

lost his job. His wife was still hanging on to encourage him, but had made him promise to get help with his problem.

Alcohol is abused more than any other drug in the United States, according to the U.S. Department of Health, Education, and Welfare's *First Report to Congress on Alcohol and Health*. Why? What makes people use alcohol? What does it do to them?

The answers are complex. But Franklin S. Fowler, Jr., M.D., Director of the Center for Dependent Behavior at California's Loma Linda University, believes the reasons may be simplified.

WHY PEOPLE DRINK

First, people drink because alcohol loosens inhibitions. It helps them be what they

would really like to be. It lets them feel the way they would like to feel. Alcohol lubricates the tongue and lessens social distance. It makes the drinker feel secure, less alone. It temporarily takes him from routine pressures and anxieties to a feeling of relaxation, accomplishment and fulfillment.

Second, people drink because of social pressures. Everyone wants to belong. Your associates may be the men and women at work, your relatives, or your neighbors. Even though you may not like to drink, often you may gain a sense of belonging through alcoholic beverages.

Third, people frequently drink because they are physically and/or psychologically dependent on alcohol. This is most difficult to reverse.

Maurice Harrison Seevers conducted experiments with monkeys at the University of Michigan to determine the habitual and addictive potential of various drugs. Scientists believe his findings apply also to humans. A group of these monkeys were placed in individual cages, rigged with bells so that they could by ringing them indicate a desire for a drug. Seevers noted that the monkeys first experimented, then learned that they could get a pleasant effect from the



drug. As they recognized that the drug brought rewarding experiences it wasn't long till their bodies became dependent on it. Stopping the drug made them very ill.

The monkeys experimented only once with the hallucinogenic drugs LSD and mescaline. After one "trip," they never rang their bells again. But other drugs showed higher levels of bell-ringing activity, thus presumably indicating greater levels of reward and pleasure.

Topping the list was cocaine; the monkeys never stopped ringing their bells. Second was heroin—an opium derivative which causes a tenacious habit in man. Alcohol was their third drug choice. Alcohol, heroin, and cocaine all produced effects which stimulated a desire to try them again and again.

WHAT ALCOHOL DOES TO PEOPLE

For a long time medical authorities have been warning people of the harmful effects of alcohol. It interferes with the normal functions of our bodies in many ways. Various organs may become injured, often permanently.

Most individuals have heard that cirrhosis is a serious complication of alcohol.

This has been known since William Heberden wrote in his *Commentaries on the History and Cure of Diseases* in 1802: "The common cause of ('scirrhus livers') is an intemperate use of spiritous liquors, which specifically hurt the liver. . ."

Many physicians today aren't entirely sure how alcohol causes cirrhosis. But they are certain of one thing: alcohol is a foreign chemical and can damage the liver in many individuals irreversibly.

Alcohol doesn't need digestion as food does. It is absorbed through the walls of the stomach and small intestine very quickly. From there it is partially filtered by the liver. The remaining amount then circulates throughout the body. Repeated cycles of blood flowing through the liver gradually change most of it to carbon dioxide and water.

It is now known that alcohol can cause damage to the heart. This has come under increasing clinical investigation in recent years. Though much research is still underway, physicians know drinking can cause direct damage to the heart cells. The earliest effects are noted in the cells which are actually long elastic fibers. They lose their power to work or contract effectively. This can occur for several hours after social drinking.



The sober driver may have an accident, but



his risk increases 7 times with a 0.10% BAC



and 25 times with a 0.15% BAC

A person with 0.15 percent blood alcohol concentration is 25 times more likely to have a collision than a sober driver.

Heavy consumption of alcohol will cause permanent impairment of these muscle fibers in many individuals.

The stomach, small intestine, pancreas, muscles, endocrine glands, and almost every cell of the body may be adversely affected by alcohol. It attacks all the major body organs.

The greatest center of injury is in the nervous system. The brain, spine, and peripheral nerves may all be deeply affected. Though we have about 17 billion individual cells in the brain, which is more than we'll ever use, most damage to them is permanent. Just a couple of glasses of beer can affect the brain centers

which are related to worry and anxiety. A blood alcohol level of one half of one percent by volume can cause paralysis of the breathing centers in the lower part of the brain. Death could be the result.

Dr. Melvin H. Knisely at the University of South Carolina Medical School discovered quite by accident the role alcohol plays in damaging cells. Alcohol causes the red blood cells to stick together. When these clumps of blood cells reach the tiniest blood vessels, called the capillaries, they pile up and completely plug them. When many capillaries are blocked in a given area, the cells die from lack of oxygen. If they are brain cells, they will never be replaced.

HEW's *Report to Congress on Alcohol and Health* states: "As in the case of cirrhosis, absolute abstinence from alcohol is a prerequisite for successful treatment." If we truly want a healthier America, sound education of everyone in all walks of life is necessary, especially for those who are making important decisions at home, work, and in society. There are hazards—great hazards—in using alcoholic beverages.

Note: If you or a friend are interested in a course which has helped many people with problem drinking write to:

DIRECTION
Box 3838
Hollywood, CA 90028



ANSWER SHEET—LESSON NO. 11

1. List the three reasons, according to Dr. Franklin Fowler, why people drink:
 - a. _____
 - b. _____
 - c. _____
2. Underline the correct statements below:
 - a. Alcohol interferes with the normal functions of our bodies in many ways.
 - b. Alcohol is a foreign chemical to the body.
 - c. Alcohol is digested as other foods are.
 - d. Alcohol attacks only the liver.
3. Complete the following sentences:
 - a. It is now known that _____ can cause damage to the _____.
 - b. Alcohol damages the _____ more than any other part of the body.
 - c. _____ cells are permanently damaged by alcohol and cannot be _____.
 - d. When capillaries are _____ in the brain, the cells _____ from lack of _____.

be wise... health- wise



LESSON^{NO.} 12

Health—what's that all about?

According to Webster, health has to do with soundness, vigor, hygiene and wholesomeness. That should say to us that the home is to be clean and well-organized, but not so exacting and precise that we feel uncomfortable. Health in the home is a way of life.

ORGANIZATION AND CLEANLINESS AT HOME

Let's look in on a couple of typical homes in our neighborhood. First, Belle's home, where things just never seem to work out.

Belle comes in from her last-minute shopping, dropping her sweater on the sofa. As she puts down her bundles in the kitchen, she

notices on the freezer a film of dust on which Johnny has played a game of tic-tac-toe.

As Nancy skips through the front door, she spots her mother's sweater lying on the sofa and adds her coat to what will become a heap by the time Daddy gets home from work. The heap will probably stay there until just before the weekend, when Daddy's mother is supposed to visit.

As Belle prepares supper, bottles of oil and seasoning, and milk cartons pile up around the stove. Most of the caps are off. In fact, they have a tendency to disappear. Some bottles will eventually return to the shelf topless. Trails of drippings never seem to get wiped up.

As a stack of mixing bowls, cooking spoons, pots and pans mounts up, supper finally takes shape. Belle is stirring the creamed corn when Lucy telephones—and there is no need to tell you what happens to the creamed corn.

The next day begins with Father's angry shout, "Where on earth are my clean socks, Belle?" and with Nancy screaming, "Who didn't clean out the bath tub?"

Belle's whole family—nice people, really—are following their mother's example and getting into the habit of letting things slide, everywhere—under the rug, behind the piano, inside their chaotic garage, onto the floor of an overstuffed closet. . .

Then there is Rosemarie. Checking her list, she swings by the cleaners on the way to the market before picking up the children at school. At home, she heads straight for the kitchen. Putting down her shopping bags, she reminds Cheryl and Tim to hang up their coats neatly in the hall closet. She deposits the dry cleaning in the appropriate rooms. Back in the kitchen, Rosemarie puts away the groceries and turns her attention to supper. She suggests that Cheryl work on her favorite project at the moment—making dolls out of yarn. Tim spends some time playing with the dog in the yard.

Rosemarie figures it will take 20 minutes to put together her special casserole and 20 minutes for it to bake. Slipping it into the oven, she makes a trip to the bedroom. At the clothes hamper she does a quick job of sorting. The white clothes go in the washer with the correct amount of detergent, and Rosemarie returns to the kitchen to finish preparing supper.

Canisters are put back in place, milk is returned quickly to the refrigerator, seasonings to their rack. When something spills, a damp sponge is always ready. There are no wasted moments in Rosemarie's life, although she always seems to have time for the things that count.

When her husband arrives home after a weary day at the office, Rosemarie greets him with a calm and happy spirit.

What's Rosemarie's secret? She and her family have formed good habits that have become second nature. It's not something they think about. It's just their way of life.

But life isn't always perfect for them. For instance, take the day Tim, their seven-year-old, was playing over at Johnny's garage.

Well, you know how Belle's husband takes care of that garage!

Tim tripped on an empty can of motor oil that had been left on the cement floor. He hit his head on the edge of the workbench drawer that Johnny's father never bothers to close. When Johnny's sister, Nancy, saw blood all over Tim's head from the big gash over his left ear, she went into a screaming fit.

It didn't take long for ten-year-old Cheryl to overhear the commotion two houses down. And since she had been taught where to find the phone numbers for the fire department and the police, her brother Tim was in competent hands within minutes.

"You won't even see the little scar when the stitches are out and the hair grows," said the doctor. Was Belle glad to hear that! She even asked Tim's mother for a copy of safety rules they kept posted inside the pantry door.

"You've already heard what happened today. You've got to fix up that work bench," said Belle to her husband when he came home that evening. "As a matter of fact, we've got to get to that entire garage. I'll help you, honey."

Then she explained how Rosemarie was planning a meeting of the parents on the block to see that none of the kids played in that vacant lot around the corner

Health Habits begin Young...

the blood that helps to cleanse the system when illness sets in.

To give a heat treatment for cold, flu, or sprain, take a large square (12"x24") of woolen blanket and fold it into the size of the sick person's area of congestion or soreness. Dip the blanket in boiling water and squeeze out the excess water by twisting the ends of the cloth in opposite directions. Place the hot, moist cloth between two bath towels—preferably bright colors if you're trying this on a sad-faced boy or girl—and put the pack on the area of the body in need of help.

The pack may be very hot. Caution must be exercised to see that you do not burn the patient. You can relieve the intensity of the heat by frequently rubbing the treated area with your hand. Keep the area as hot as the patient can stand without burning him by repeating the application with a second cloth. Apply about four times.

The finale comes when you take a washcloth and dip it into very cold—even ice water—and apply to the treated area, rubbing briskly. Dry with a rough towel. This treatment can be applied two or three times a day with excellent results.

Another treatment which stimulates circulation of the blood, is to place the feet alternately in hot and cold water.

There was a lot of dangerous equipment, and piles of boards and bricks.

"Maybe somebody ought to tell Lucy Johnson to label all those bottles she's got in that pharmacy-bathroom of hers, and also get rid of those used razor blades," ventured Belle.

"Well, Belle, since you're a good enough friend of Lucy's..." and so it went on until the epidemic of home safety rules spread all over the neighborhood. A year, and no accidents later, no one even remembered Tim's accident.

TREATMENTS FOR MINOR ILLS AT HOME

In the home where health thrives, mother is knowledgeable about home remedies. The more simple they are the better. If it's a cold, the kids know they have to drink "just gallons and gallons" of water. Simple heat treatments that increase the circulation of the blood are a part of combating a cold or fever—it's



MENTAL HEALTH AT HOME

Mental health is maintained by instilling in each family member a sense of security, personal interest, goals, hobbies, and the appreciation of the beautiful in the home surroundings.

When the children were very little, Mr. and Mrs. Thomas decided to provide the kids with some wholesome, innocent—but educational—interests. Because Mom and Dad like animals, they hoped the children would, too. So they started out simple. With fish. And they all took turns cleaning out the tank. Kathy and Ken soon came to appreciate doing things with Mother and Dad.

Five years and a move later, the fish were exchanged for another pet, a beautiful dog, which won the heart of the whole family. Another two years brought horses—and Mom and Dad learned to ride along with the kids. Whether climbing in the

mountains, or romping at the beach, the family always played together.

Mrs. Thomas once overheard a couple of neighbors talking about her daughter, Kathy. The one neighbor remarked that Kathy was so different from many of the girls in the area whose interests were constantly centered around fashions, dates and parties.

"Kathy seems to have so many other interests. I'm not sure whether she appreciates her parents' constant managing of her life. She just may turn out to be a real wild one when she leaves that little nest that Mr. and Mrs. Thomas have so carefully planned," confided the other neighbor.

But Mrs. Thomas knew her Kathy. She was genuinely interested in taking the dog to obedience school, helping her brother train the horse, sewing her own clothes, and helping in the garden. She

loved roses. She delighted in the simple but wholesome things of life, and her reward was the close association and approval of a wonderful family of friends.

Not everyone is fortunate enough to own a farm. But everyone can cultivate a garden of interests that parents and children alike may share. Every family can grow together. You may not have a tall pine tree to shade your western ranch house, but you can grow an evergreen son. All he needs is an understanding father who is willing to give him direction and encouragement in learning to do things which bring rewards.

Nor may you have a garden of roses to add beauty to your home. But you can raise a rose of a daughter if you keep her close to you.

The home is where spiritual, mental, and physical health should and must begin.

*Yours
to
Protect...*



YOUR PRESCRIPTION FOR A HEALTHIER HOME

1. Make cleanliness and neatness a way of life for the whole family.
2. Organize your family's life with check lists. (Not too many!)
3. Teach your children to practice thrift and economy.
4. Children need love and discipline. Make few rules, but consistently enforce them.
5. Plan for emergencies. Teach the family how to call for emergency services such as ambulance, police, fire department, etc. Teach them how to use the first aid kit in your home.
6. Inspect your home for health and safety hazards.
7. Get involved in community safety and beautification projects.
8. Learn all you can about simple home remedies.
9. Teach and practice common-sense preventive measures which are in harmony with the laws of health.
10. Instill in each member of the family a sense of security and worth.



ANSWER SHEET—LESSON NO. 12

1. Underline the correct word or words:

- a. Keeping the home well organized is (a part) (the whole) of good home health.
- b. Organizing and planning in the home saves (time) (money) (energy).
- c. A mother should know how to care for (minor) (major) illnesses in the family.

2. Fill in the blanks below:

- a. Make _____ and _____ a way of life for the entire family.
- b. Teach your children to practice _____ and _____.
- c. Make _____ rules, but _____ enforce them.
- d. Keep your home free from _____ and _____ hazards.

3. If the statement is true circle the T; if false circle the F.

- T F a. Safety first in the home includes having a place for everything and everything in its place.
- T F b. Children are too young to be taught responsibilities with chores.
- T F c. Teach your children the dangers of taking medicine, then leave the medicine where they can get it.
- T F d. Water is a cleansing fluid.
- T F e. The atmosphere of a home can have much to do with the mental attitude of its occupants.
- T F f. Pets help children learn responsibility.
- T F g. Children need to work with their parents to learn how to work.
- T F h. When children are involved in home activities they do not have the urge to be away from home.

FIRST AID & YOUR FAMILY



You are baking in the kitchen. Suddenly from outside you hear your son's hysterical screams, "Mommy, come quick, Daddy's dead." Rushing out the door, you find your husband lying unconscious on the recently watered lawn with an electric drill in his hand. What do you do?

On a pleasant afternoon's drive through the countryside, you round a curve in the road and see an overturned vehicle beside the pavement. Several occupants lie bleeding on the ground. Another is trapped inside the car. What do you do?

Awakened during the night by a kaleidoscope of impressions—the smell of smoke, the crackling sound of a

fire, and the shouts and screams of people needing help—you look out your bedroom window to discover that your neighbor's house is in flames. What do you do?

Not knowing what to do in an emergency may cause you to become hysterical. Knowing what to do will help you maintain your presence of mind as you immediately go into action. To act quickly may save a life.

Dr. Max Klinghoffer, who organized the emergency first aid unit at Chicago's O'Hare International Airport, suggests the following care for the injured person: (These are listed in order of importance.)

LESSON^{NO.} 13



Dragging an unconscious person from a burning building

1. Stop major bleeding.
2. Restore breathing and heart beat. (Use mouth-to-mouth resuscitation.)
3. Limit the movement of broken limbs by using splints, unless medical help is immediately available.
4. Control pain by making the injured area immovable and the patient as comfortable as possible. Talk reassuringly to the victim to prevent shock.
5. Don't move the victim unless you have to. Do it carefully and deliberately.

HOW TO CARE FOR BLEEDING FROM AN ARTERY

Bleeding from an artery can be detected by massive spurts of blood from the wound.

1. Hold a clean cloth tightly over the wound for four or five minutes. If you don't have a clean cloth available, use the cleanest one you can find immediately. Stopping the

bleeding is more important than the cleanliness. If you wish a sterile cloth later, you can hold it above a lighted match. Do not scorch or burn it.

2. Apply pressure to the artery above the wound (between the wound and the heart) for five minutes after the bleeding has stopped.
3. Be prepared to resume pressure if bleeding begins again.
4. If the wound is on an arm or a leg, raise the limb above the body.
5. When the bleeding stops, place several layers of sterilized gauze over the wound and tape. An elastic bandage is best.
6. A tourniquet can be dangerous; it can injure healthy tissue and cause more serious problems. It should be used to control bleeding only as a last resort, and in no case left on longer than two hours.

HOW TO CARE FOR BLEEDING FROM A VEIN

Bleeding from a vein can be detected by the darker, more purplish color of the blood. There is also less of a spurt in the blood flow.

Treatment is the same as for a bleeding artery except that the pressure should be applied on the side of the wound away from the heart.

Caution: BLEEDING TAKES PRIORITY OVER ALL OTHER FIRST AID. ASK SOMEONE ELSE TO CALL A DOCTOR, OR WAIT UNTIL THE BLEEDING IS UNDER CONTROL.

HOW TO TREAT A WOUND

Do not be overly concerned about minor cuts and other injuries. However, if they become infected they can bring much discomfort and possible disfigurement or disability. The following suggestions may save the victim unnecessary pain.

1. Wash all cuts and abrasions (scraped skin) with soap and warm water. Dress with a sterile gauze or prepared bandage after bleeding has stopped. If the bleeding immediately soaks through the gauze, more pressure should be applied.
2. Keep a close watch on hand and wrist injuries; if infection develops see a doctor.
3. Any facial cuts or bruises should be immediately treated by a doctor.
4. Scalp wounds may bleed heavily. Have the victim lie down with head elevated. Then apply pressure with a clean cloth until bleeding stops. See a doctor to prevent serious complications.
5. A puncture wound should be made to bleed freely if possible. Check with your doctor as soon as possible for protection from tetanus infection.
6. Stop a contusion (a crushing blow that does not break the skin) from internal bleeding by placing an ice-pack on the wound. After 24 hours soak in hot water to break up collected blood and relieve the pain.
7. Think: Stop the bleeding of wounds which bleed freely. Hold wound under water for cleansing. Wounds which do not bleed—induce to bleed.

HOW TO TREAT A BROKEN BONE

A broken bone can be detected by the following symptoms: severe and persisting pain in the injured area which is aggravated by motion; an abrupt and immediate swelling of the painful area; a limited amount of body motion; shortening or distortion of a limb.

Treatment of this kind of injury should include the following:

1. Avoid use of the injured area.
2. Use a board or other stiff object wrapped with soft, bulky material to support the injured area.
3. Water is a natural support. If the victim is in the water and it is not too cold, allow him to remain until professional help arrives. Give him a thermos jug, innertube, air mattress, or even a picnic table to keep him buoyant. Stay with him in the water and reassure him.

Caution: DO NOT TRY TO RESTORE THE BONES TO THEIR NORMAL POSITION. IF POSSIBLE DO NOT MOVE THE VICTIM UNTIL PROFESSIONAL HELP ARRIVES. NEVER TWIST OR MOVE THE BODY WHEN THERE IS A BACK INJURY UNLESS ABSOLUTELY NECESSARY BECAUSE OF OTHER DANGERS TO THE VICTIM'S LIFE.





WHAT TO DO WHEN BREATHING STOPS

Immediate aid is important, since cutting off oxygen from the body tissues for only 4½ minutes may cause permanent damage, especially to the brain. If the oxygen is cut for 6-7½ minutes, the victim may die.

1. If a child stops breathing, turn him upside down and hold him by the heels to be sure he is not choking. An adult should be placed with his head turned so that his mouth is lower than the rest of his body. Pull the tongue forward. Take out any dentures. Clean the victim's mouth and airways by removing any foreign matter with your fingers.
2. To straighten airways, tilt the victim's head back so that the chin is pointing up, and bring the jaw forward. With the fingers of the other hand, pinch the nostrils shut so that no air can escape through the nose. **Caution: DO NOT GIVE RESUSCITATION**

UNTIL YOU HAVE TAKEN THE STEPS ABOVE AND ARE SURE THERE IS NO OBSTRUCTION.

3. Take a normal breath through your mouth. With firm pressure place your lips tight against the victim's mouth, and exhale with a gentle, steady force. (If the victim is a child exhale only half a breath.) If the victim's chest does not expand, there may still be an obstruction.
4. If the victim's chest expands moderately, take your mouth away so that the victim can exhale. He will do this naturally. **Caution: IF THE VICTIM VOMITS, CLEAR COMPLETELY AND PROCEED IMMEDIATELY WITH THE RESUSCITATION.**
5. Continue to breathe into the mouth of the victim every four seconds until he begins to take regular breaths of his own. If you need relief, call on another person. It may be several hours before the patient is able to breathe normally.

HOW TO TREAT A HEART ATTACK VICTIM

Lay the patient down in a comfortable position, with the head and shoulders raised. If he is unconscious, do not give medicine. Call medical help immediately.

WHAT TO DO IN CASE OF FIRE

First, make sure that everyone is out of the house. Then, call the fire department.

If you discover that someone is still in the house, tie a wet cloth over your mouth and nose and crawl to the place where the victim is. Tie his hands, place his arms around your neck, and drag him out of the building as you continue to walk on hands and knees.

If the fire is small, you may try to put it out yourself. It is always good to have a water hose that will reach to any part of the house.

If the fire is in the floor, sweep with a spray of water from the edge of the blaze toward the fire. When the fire is in the wall, direct the spray of water at the bottom of the fire and sweep up.

Always stay near a door for quick exit.

Don't go into small closets or attics—you could suffocate. Never open a window or door. A draft will cause the flames to increase. If the smoke becomes too heavy, leave the area.

If the fire becomes large, get out, and let the firemen fight it when they arrive.

Do not spray water on a grease or oil or on an electrical fire. It only spreads the flames. Water conducts electrical currents and you could be electrocuted. A carbon dioxide fire extinguisher, baking soda, or even plain dirt, will put the fire out in moments. Turn off the power. (A dry chemical extinguisher is even better for an electrical fire.)

If a person's clothing catches fire, quickly wrap him in a blanket, bath towel, rug, coat—anything that will suffocate the flames. Be sure to protect his head by putting the material close around his neck. Lay him down in an area away from the fire and roll him to put out the flames. You can also gently beat out the flames. Then treat the burns.

When a person is overcome by smoke or gas, immediately take him out into the fresh air. Lay him down. If he is not breathing, give him mouth-to-mouth resuscitation. Call the fire department rescue unit. Then call the doctor.

Symptoms of suffocation may be one or more of the following: dizziness, unconsciousness, violent coughing, irregular breathing, ringing in the ears, seeing spots.

HOW TO TREAT BURNS

The best antidote for a chemical burn is to pour quarts of water over the burned area. Wash thoroughly.

Burns caused by a hot object or by flames should be immediately immersed in cold, even icy water. Unless it is a very mild burn, nothing should be smeared on it. You may cover it with several thicknesses of sterile gauze.

When the burn is caused from burned clothing, it is well to cut away the unburned clothing so that it will not pull on the sticking clothing and cause the skin to be loosened. Place the victim in cold water or under a cold shower and wrap him loosely in a sheet and blankets. This helps to prevent shock and keeps the burns from contamination. Treat for shock if necessary.

HOW TO TREAT SHOCK

The symptoms of shock are: The victim begins to look gray and is apprehensive. His pulse is rapid. His mouth feels dry. He is short of breath. Chilly feelings may alternate with excessive perspiration. His blood pressure may drop. He will continue to be conscious unless the shock is severe.

To treat the victim in shock, the first thing is to reassure him that you will stay by and that medical help will come immediately.

1. Keep him comfortable in a lying-down position, with his head lower than his body.
2. Keep him warm with anything that is available.
3. Do not give him anything by mouth.
4. It is best to assume that shock is severe.
5. Secure medical help immediately.

HOW TO TREAT ONE WHO SWALLOWS POISON

One of the most traumatic experiences which a person can encounter is when a child or an adult takes poison. It is essential that the poison container be found. Call a doctor, hospital, or Poison Control Center immediately. Read the label to the doctor so that he

knows what the victim has swallowed, and follow his direction.

If you are unable to contact a doctor, here are some general rules which can be followed.

1. Call for professional help immediately.
2. You can often discover the poison by smelling the victim's breath. When the poison is a caustic substance (lye, automatic dishwasher compound) or any petroleum product (kerosene, gasoline, turpentine), dilute by giving the victim water, milk, thick soup, or gravy.
3. When the poison is non-caustic (sleeping pills, aspirin, chlorine bleach) induce vomiting by tickling the victim's throat or using your finger to stimulate gagging. After he has vomited, dilute the remainder of the poison in

the stomach with water, milk, thin soup, or gravy. Save the vomit for analysis in case the doctor needs to treat the victim for resultant complications. Caution: DO NOT USE BURNED TOAST, TEA, OR MILK OF MAGNESIA AS AN ANTIDOTE.

4. The victim should be taken to the doctor to avoid complications.

HOW TO TREAT ACHING MUSCLES

At the beginning of the gardening or sporting season, some people simply can't remember that the way to avoid hours of aching muscles is to proceed with caution in their new exercises. Muscles resent being awakened too rapidly after they have been resting for a period of time. Begin your new activities with only a short period of play or work, and gradually toughen your

muscles for strenuous activity later.

If you do forget and enter into your new activity with zest, you will come home with aching muscles. They will partially forgive you if you will relax 20 to 30 minutes in a tub of hot water. This relaxation drains most of the poison the muscles have built up during the unaccustomed exercise. Consequently, they will not be nearly so sore, and you will be more comfortable.

HOW TO TREAT SUNBURN

Too much sun can result in a miserable experience. You can prevent it by exposing your skin to the sun for only short periods of time in the beginning. Be sure to use creams, and take advantage of partial shade. Remember that too much exposure can cause aging of the skin and other complications.



Sunburn is best treated by using cool packs on the affected areas. Do not break blisters.

HOW TO TREAT AN EYE PROBLEM

We cannot afford to neglect our eyes. If a foreign object has lodged in the eye, it can often be removed by pulling the upper lid over the lower, which acts as a brush. The lower lid may be rolled back on a pencil or a stick to

detect foreign objects. Sometimes the objects will move toward the inner corner of the eye and can be removed. An eye bath of sterile water held over the eye with an eye glass, or slowly poured into the eye as the victim blinks many times, may wash out the invader.

For any serious eye injury, expert professional help is imperative.

Every family should encour-

age at least one of its members to take a First Aid Course conducted by the Red Cross or Medical Self-Help course produced and conducted by the Division of Emergency Health Services of the U.S. Department of Defense Preparedness Agency.

Health Services and Mental Health Administration
5600 Fisher Lane
Rockville, Maryland 20852

ANSWER SHEET—LESSON NO. 13

1. List below first aid steps to be taken in the order of their importance:
 - a. _____
 - b. _____
 - c. _____
 - d. _____
 - e. _____
2. Place a check (✓) after each true statement:
 - a. When there is massive bleeding, hold a cloth tightly over the wound for four to five minutes. _____
 - b. A tourniquet is now considered to be dangerous to use except in very heavy bleeding. _____
 - c. Blood from a cut artery is more purplish than blood from a cut vein. _____
 - d. There is danger of tetanus infection from a punctured wound. _____
 - e. The best antiseptic for a wound is soap and water. _____
 - f. A victim of broken bones should be picked up carefully, placed in the nearest auto available, and rushed to a hospital emergency room. _____
 - g. If a child stops breathing, turn him upside down. _____
 - h. Mouth-to-mouth resuscitation should be applied to a victim who has stopped breathing. _____
 - i. If a person's clothing catches fire, roll him on the ground. _____
 - j. Burns are best treated by immersing them in icy water. _____
 - k. A person who is in shock should be left alone. _____



LESSON^{no.} 14



NATURE'S WAY OF HEALING

The medical lecture ended. But a group of young doctors lingered in the hospital staff room. A famous heart surgeon had been lecturing about the success of a remarkable heart repair just performed by his team. The woman was now in intensive care recovery room resting comfortably. Her heart was beating regularly, and her breathing was normal.

The doctors were enthusiastically discussing the rare operation when the conversation drifted toward how to prepare a patient to face death when hope declines. Someone asked about divine healing, whether it has a place in modern medicine.

One member of the heart team, who was still writing his report, broke in, "Is there any healing other than divine healing?" No one answered. It was a new idea.

After a short pause he continued, "Surgery sometimes becomes so common to us that we give little thought to the miracle that takes place afterward. You men are developing fantastic skills to save life. But how do you know that the tissues will

heal? What makes them heal? Certainly nothing that any of us, no matter how highly trained, can do. When you have bypassed a worn-out heart vessel and the surgery is over, you have done all that you can do. Nature does the rest. What is that but divine healing?"

The heart surgeon paused. Then he said thoughtfully, "Too often we think of the healing process being a result of our skill, but, you know, I see the healing of a wound as one of the truly great miracles of nature. We really can't take it for granted. Some wounds heal quickly, and others more slowly. But to me, every healing wound is a miracle."

HOW NATURE HEALS

Suppose you have had an accident. Several large blood vessels and an important nerve trunk in your arm have been severed. Before you know it you're in an ambulance speeding toward the hospital.

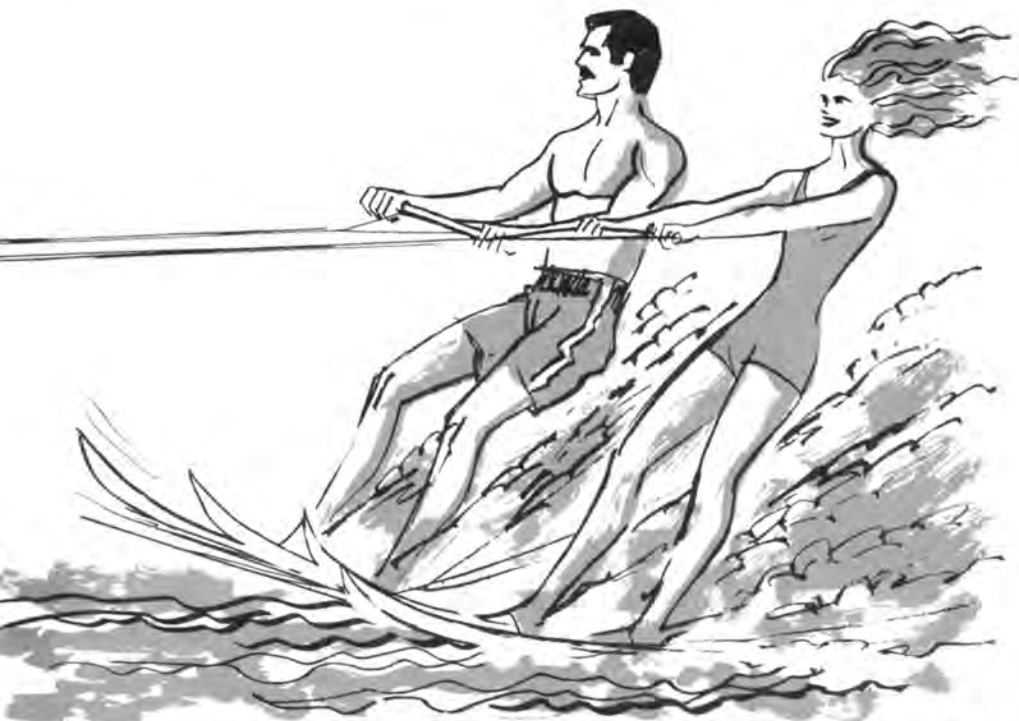
In the emergency room the surgeon quickly controls the bleeding and carefully cleanses the wound. He brings together the torn blood vessels. When this is done, he carefully brings the ends of the severed nerves together, aligning them as perfectly as possible. The wound is then closed and proper dressings applied.

All the way down your arm, from the point of the injury

to the fingers, the severed nerve fibers die, and the muscles they serve begin to die. There may be no sensation in the skin of your fingers and hand. Will the feeling return to your arm?

Soon after the injury those nerve fibers above the cut will begin to grow again. Even though these nerve fibers have shown no sign of growth for many years, under some mysterious impulse each of these nerve fibers now begins to reach toward the place where it had served before the cut. Obstacles may obstruct its way; yet, if at all possible, it will continue determinedly on its course. Other kinds of tissue cells are busy repairing the damage at the site of the injury. But between these cells the tiny nerve fiber carefully threads its way, yet never unites with any other types of tissue.

Once past the obstruction, the young nerve fibers press on rapidly until they reach the spot where the old cells lie dead. Then, tunneling along through the old nerve trunk, they finally arrive at the spot where the muscle cells lie wasted and paralyzed. Contact is established, and soon the wasted muscle begins to recover. The regeneration of a damaged nerve and the awakening of a wasted muscle may take weeks, even months, but it is truly a miracle.



HOW THE WOUND IS REPAIRED

If you cut your hand, nature begins at once to repair the injury. Instantly the blood oozes out and washes the wound clean. After a short time the blood clots, preventing any further loss of blood, and sealing off the wound from external contamination. Within a few hours all the connective-tissue cells surrounding the wound begin to multiply and repair the damage. The tiny blood vessels that have been severed soon grow back into the wound, providing nutrients and building materials for the cells that are busy repairing the damage.

The connective tissue cells from each side of the wound begin to reach over and

make contact with those on the other side. Tiny fibro-plasts (fiberlike cells) bridge the gap, uniting the edges of the wound, so that in a few days all that can be seen is a thin line of scar tissue. Once the repair is completed the cells no longer multiply. They settle down to a normal, quiet existence, and life goes on just as before.

HOW INFECTION IS CONQUERED

You have an infection. Germs begin to multiply. Large numbers of tiny white blood cells begin moving out from the bone marrow, along the blood vessels, to the site of the infection. There they quickly surround the germs and begin to devour them. Once inside the white cells, the germs are

completely dissolved by the powerful digestive ferment produced by those valiant little white cells. The more the germs multiply in the wound, the more rapidly the white blood cells pour out from the bone marrow to do battle with the invaders.

Another substance in the blood which cooperates with the white blood cells is fibrinogen. In the blood it is a liquid. When exposed to the air it turns into tiny threads of fibrin. As the blood clots in the wound, these threads bridge the gap and prepare a suitable battleground on which the white cells can fight the infection and heal the wound.

Of course, not every battle is successful. Sometimes large numbers of white cells are killed by the poisons from

the germs. Yet in their death these tiny white cells serve the body. As they die, they break up and release powerful chemicals that help to dissolve the dead tissues and speed healing. You have witnessed another miracle.

HOW A FRACTURE HEALS

When a bone breaks, its broken ends usually begin to bleed. As the blood clots, the tiny threads of fibrin begin to bridge the gap. Soon the bone cells go into action. They work in teams, producing new bone.

Under a powerful microscope this remarkable process has been filmed. When the film is projected upon a screen, fine chalky spicules, or spike-like pieces of bone, may be seen moving across the screen, as if builders were raising scaffold poles for a new building. Cells that have been dormant for years now go into a riot of activity. Yet there is nothing haphazard about what is taking place; it is always an orderly process. And, what is equally remarkable, when the ends of the bone are joined together the activity stops just as mysteriously as it started. Even the excess callous is reabsorbed—once it is no longer needed.

Some people try to explain away these mysteries as "natural causes." But can anyone really think that all this "just happens"?

Even the skeptic Voltaire was perplexed over the tendency of some around him who felt that life had no design. Holding up his watch, he said to a critic, "This world embarrasses me. I cannot think that this watch exists, and yet has no watchmaker!"

The marvel of the human body is its unique planning and design.

BE AS YOUNG AS YOU ARE

If so much care went into planning our bodies, it is logical to search out the secrets of healthful living and learn how to care for our bodies.

Everyone, young or old, has two ages. There is a chronological age over which we have no control, for without fail, birthday anniversaries come and go. But there is also physiological age.

The ability to use oxygen and burn food, which is called basal metabolism, is an indication of the physiological age. Endurance or stamina is another vital index to the age and condition of the body in terms of physical fitness.

Early aging results from our modern lifestyle. Indications are that aging can and often does begin as early as ten years of age. In the past people survived primarily through physical effort. But

modern man exists through using his mental skills. His weakness is lack of exercise. Yet vigorous exercise is one of the best means of slowing down the aging process. Exercise on a regular basis along with balanced diet and a positive attitude are the keys to staying as young in body as you are in years.

Daily exercise produces many benefits. Muscle and blood vessel tone improve. Circulation in the blood vessels increases. The rate of physical deterioration is definitely slowed down. There is an improvement in the body's defense mechanisms against diseases. All systems of the body are strengthened to meet successfully the physical and emotional stresses of modern living. The risk of heart attack decreases significantly. The mental outlook improves. Work output may increase up to 20 percent.

DEEPER HEALING

Deeply implanted within the human mind is a consciousness of Someone greater than ourselves.

Behind the dim unknown,
Standeth God within the
shadow,
Keeping watch above
His own.

When we begin to lose our health, our thoughts often turn to God.

GOD: the Master Healer



Centuries ago, Augustine of Hippo expressed man's need of divine help in his prayer: "O God, Thou hast made us for Thyself, and our restless spirits will find no rest until we find it in Thee."

Prayer brings healing in times of illness and pain. Through prayer we are

brought into direct contact with the One who has made all things and who cares for His children. Along with healing our bodies, God gives healing to our spiritual natures.

Sometimes for good reasons, healing may come only gradually; at times, not at all. But giving ourselves into

God's hands, we find peace in knowing that we can safely rest our future with Him.

Once we have been restored to health, we discover that life is best and happiest when we follow the rules of health which our Designer intended.

ANSWER SHEET—LESSON NO. 14

You have been studying a very brief course in healthful living. It was written to help all people enjoy better health. Now you can help us. Please share with us your feelings about this course. Space has been provided on the Answer Key Sheet which you will be returning to the school. Thank you for your cooperation.

These lessons were prepared in cooperation with the School of Health, Loma Linda University.
Published by The Voice of Prophecy, 1100 Rancho Conejo Blvd., Newbury Park, CA 91320.

ANSWER KEY

**PLEASE DO NOT LOOK AT THIS SHEET UNTIL YOU HAVE COMPLETED
THE ANSWER SHEETS IN YOUR GOOD FOOD BOOKLET.**

Correct Answers for Answer Sheet No. 1 —

YOUR FABULOUS BODY

1. All the statements are correct.
2. a. Purified, warmed, moistened.
b. Natural.
c. Infections, lungs.
d. Oxygen, walls, red.
3. All statements except c. are correct.
4. a. Fresh air. b. Good food. c. Pure water. d. Rest. e. Exercise. f. Sunlight

Correct Answers for Answer Sheet No. 2 —

WHAT TO DO FOR HEADACHES

1. All the statements are true except a.
2. a. Systemic. b. Tension. c. Migraine.
3. The correct statements are a. and d.
4. a. Rigid muscles, aching in the back of the neck.
b. Adult women, adolescent boys.
c. Taking him to the family physician.
d. Accept your own limitations, get plenty of sound sleep, exercise daily in the open air, avoid substances to which you are allergic.
5. a. Hot foot bath.
b. Light massage.
c. Ice packs.
d. Extra oxygen.

Correct Answers for Answer Sheet No. 3 —

HOW TO LIVE WITH STRESS

1. a. Stress.
b. Moving.
c. 3.
2. The correct statements are b. and c.
3. a. Work, rest, play.
b. 7, 9.
c. Tension.
d. Worry.

Correct Answers for Answer Sheet No. 4 —

GETTING ALONG WITH PEOPLE

1. a. Yes.
b. No.
c. Yes.
d. Yes.
2. a. Feelings, wounded.
b. Walk, work.
c. Scenery.
d. Retaliate.

Correct Answers to Answer Sheet No. 5 —

HOW TO BE HEALTHY AND MARRIED

1. All the statements are true except c.
2. a. Fill, happiness, satisfaction.
b. Togetherness, weekend.
c. Common.
d. Together.

Correct Answers to Answer Sheet No. 6 —

FEEL GOOD — LOOK GOOD

1. a. Restful sleep.
b. Fresh air.
c. Good posture.
d. Outdoor exercise.
- e. Pure water.
f. Sunlight.
- Possible Answers:
Balanced diet.
Smile.
2. a. An evening walk, a warm bath, restful music, pleasant reading.
b. Tonic.
c. Soothe.
d. Sun.
3. a. Cut down on chocolate.
b. Pleasant smile.
c. Adequate sleep.

Correct Answers to Answer Sheet No. 7 —

EAT AND GROW THIN

1. Both a and c are true.
2. a. A regular balanced diet.
b. Refined carbohydrates.
c. One or two, six months to a year.
3. Correct your answers from the list given in your lesson on page 47.
4. a. Sweets.
b. Fats.
c. Fried foods.
- Possible Answers:
Refined cereals.
Refined breads.

ANSWER KEY

PLEASE DO NOT LOOK AT THIS SHEET UNTIL YOU HAVE COMPLETED THE ANSWER SHEETS IN YOUR GOOD HEALTH BOOKLET.

Correct Answers for Answer Sheet No. 8

BE GOOD TO YOUR HEART

- | | |
|-------------------------------------|-----------------------------------|
| 1. a. Muscle death. | b. Narrow, deposits. |
| 2. a. T. | c. F. |
| b. T. | d. F. |
| 3. a. Weigh yourself on the scales. | b. Take your pulse while resting. |
| 4. a. Lack of exercise, overeating. | c. Two. |
| b. Proteins, carbohydrates. | d. Destroy, maintain. |

Correct Answers for Answer Sheet No. 9

LEARN ABOUT CANCER—AND LIVE

- a. A change in bowel or bladder habits.
b. A sore that does not heal.
c. Unusual bleeding or discharge.
d. A thickening lump in the breast or elsewhere.
e. Indigestion or difficulty in swallowing.
f. An obvious change in a wart or mole.
g. A nagging cough or hoarseness.
- a. One fourth.
b. Tar, pitch, benzopyrene, arsenic, benzol, asbestos, aniline dye.
c. Tobacco smoke.
d. 60,000, lung.
- a. 10, 40. b. Many. c. Psychological. d. Difficult.
- All statements are correct except b.

Correct Answers for Answer Sheet No. 10

LET'S TALK ABOUT DRUGS

- All statements are true except b.
- a. Understand that drug use and drug abuse are not the same.
b. Parents should examine how much they smoke and drink and how carefully they take pills.
c. Recognize that scare tactics do not reduce drug use.
- a. Simplest, behavior, principles.
b. Chores, responsibilities.
c. Listen.
d. Honest, attitudes, motives.
e. Strength, responsibility.
f. Confident, judging.
g. Naturalness.

Correct Answers for Answer Sheet No. 11

LET'S TALK ABOUT ALCOHOL

1. a. To loosen inhibitions. b. Because of social pressures.
c. Because they are physically and psychologically dependent on alcohol.
2. Statements a and b are correct.
3. a. Alcohol, heart. c. Brain, replaced.
b. Nervous system. d. Plugged, die, oxygen.

Correct Answers for Answer Sheet No. 12

BE WISE—HEALTHWISE

1. a. A part. b. Time, money, energy. c. Minor.
2. a. Cleanliness, neatness. c. Few, consistently.
b. Thrift, economy. d. Health, safety.
3. All statements are true except for b and c.

Correct Answers for Answer Sheet No. 13

FIRST AID AND YOUR FAMILY

1. a. Stop major bleeding.
b. Restore breathing and heart beat.
c. Limit the movement of broken limbs by using splints.
d. Control pain by making injured area immovable and patient comfortable.
e. Don't move the victim unless you have to.
2. The following statements are true: a, b, d, e, g, h, j.

Answer Sheet No. 14

Your statements will guide the editorial staff in future planning.

1. Underline the words which best explain your reaction to the lessons.
 - a. The lessons were (very) (somewhat) (not) informative.
 - b. I feel the lessons (gave me specific ideas on how to improve) (were too general in nature to be helpful) (were too theoretical).
 - c. I felt like (not reading through to the end) (reading it through) (reading it through and asking for more on other topics).
 - d. The illustrations would appeal to (all ages) (grade school level) (high school level) (young adults) (above age 40).
 - e. I will (be happy) (not be willing) to recommend the lessons to my friends.
2. Express your reaction as to what should or should not have been included.
 - a. The following subjects should have been included: _____

 - b. The following lessons were not essential to good health _____

3. In the area below we will be happy for any suggestions you wish to share