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The Army's Health Promotion Program

# Your "Fit to Win" Handbook

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Your "Fit to Win" Handbook

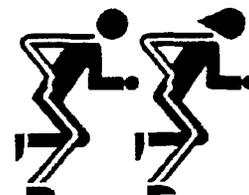
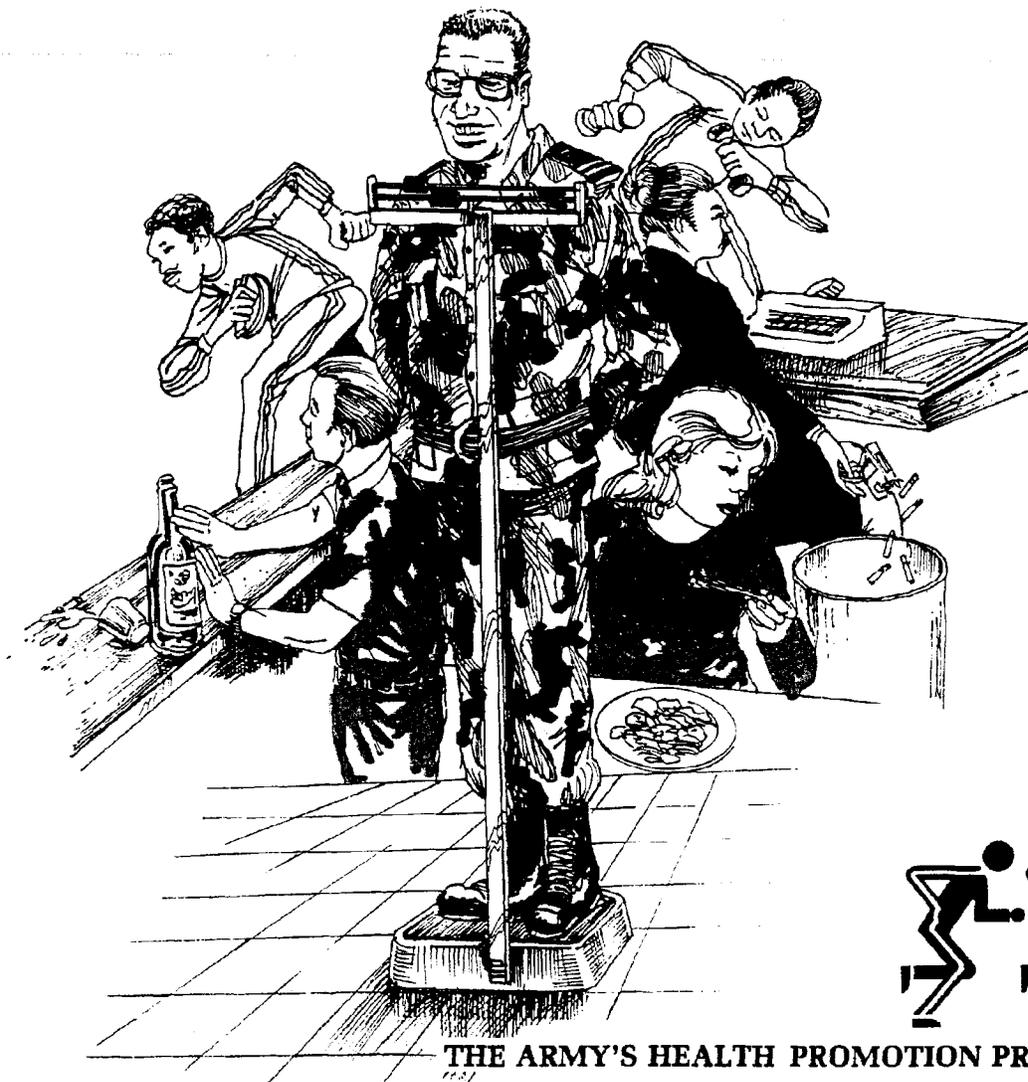
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# Fit to Win

## YOUR HANDBOOK



THE ARMY'S HEALTH PROMOTION PROGRAM

## The Army's Health Promotion Program

### Your "Fit to Win" Handbook

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**By Order of the Secretary of the Army:**

**CARL E. VUONO**  
*General, United States Army*  
*Chief of Staff*

**Official:**

**R. L. DILWORTH**  
*Brigadier General, United States Army*  
*The Adjutant General*

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## Chapter 1

### WHAT YOUR "FIT TO WIN" HANDBOOK CAN DO FOR YOU

There are many things that affect your health including heredity, environment, and the quality of health care you receive. Most important, however, are your lifestyle habits. Lifestyle habits are those behaviors that affect your health and are under your control. Your **Fit To Win Handbook** helps you assess your behaviors and focuses on those aspects of your health which you can improve.

Use your **Fit To Win Handbook** to find out how you can reduce your risks. As you review the handbook, remember that a single risk indicator such as hypertension may affect your risks for several different conditions. Also note that your risk of developing a specific condition may be affected by a number of different habits. For example, your risk of having a heart attack is affected by a combination of many risk indicators including blood pressure, smoking, exercise, and personality type. You can review your results and decide which changes you would like to make in your health habits. Each individual has different opportunities for reducing risk.

Use the HealthStyle as a guideline to determine where you may wish to begin modifying your health habits. This handbook is intended to serve as a reference guide to increase your knowledge concerning your health risks.

This handbook contains your personal assessment of health risk and a guide to various ways to assist yourself in improving your health. By making adjustments in your lifestyle behaviors, you can improve your chances of living a healthier and happier life.

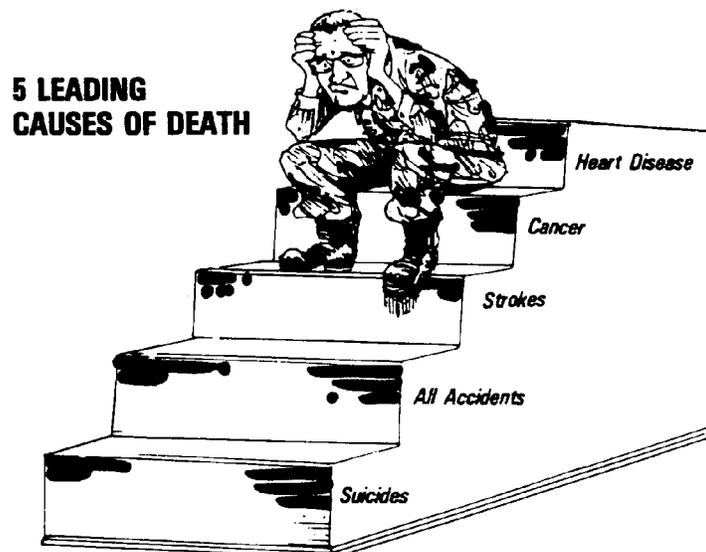


Figure 1. 5 Leading Causes of Death

#### 1-1. Identification of Your Health Risks

The HealthStyle is a self-test for you to complete prior to reading the rest of the handbook. This tool will be confidential unless you desire to share the results with someone else. The test is designed to aid you in looking at your behaviors which affect your health. It covers several areas: cigarette smoking; alcohol and drugs; eating habits; exercise/fitness; stress control; and safety. In each area, you will compute a score based on your current behaviors. When you have completed the self-test, you get an overview picture of your lifestyle behaviors. From there you learn what you can do to make a positive change.

#### 1-2. The Health Risk Appraisal Program

Your **Fit To Win Handbook** is based on the theory that you can modify hazardous lifestyle behaviors and, thus, reduce your probability of developing specific medical disorders. Begin to assess your health risks by taking the enclosed self-test. This self-test is one type of assessment tool. A computerized health risk appraisal has been designed for Army-wide use. If your health risks have been assessed previously through this formal system, use the self-test as a tool for your family. Together you and your family can get started on the path to a healthier life.

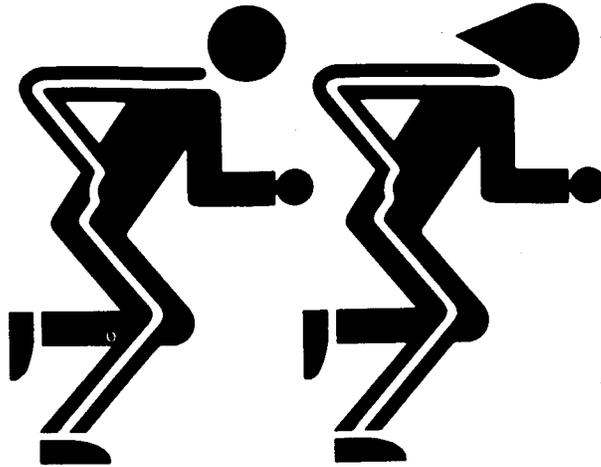


Figure 2. How this handbook can help you.

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All of us want good health. But, many of us do not know how to be as healthy as possible. Good health is not a matter of luck or fate. You have to work at it.

Good health depends on a combination of things... the environment in which you live and work... the personal traits you have inherited... the care you receive from doctors and hospitals... and the personal behaviors or habits that you perform daily, usually without much thought. All of these work together to affect your health. Many of us rely too much on doctors to keep us healthy, and we often fail to see the importance of actions we can take ourselves to look and feel healthy. You may be surprised to know that by taking action individually and collectively, you can begin to change parts of your world which may be harmful to your health.

Everyday you are exposed to potential risks to good health. Pollution in the air you breathe and unsafe highways are two examples. These are risks that you, as an individual, can't do much about. Improving the quality of the environment usually requires the effort of concerned citizens working together for a healthier community.

There are, however, risks that you can control: risks stemming from your personal behaviors and habits. These behaviors are known as your lifestyle. Health experts now describe lifestyle as one of the most important factors affecting health. In individuals under 65 years of age, 53 % of all deaths are lifestyle-related. In fact, it is estimated that as many as seven of the ten leading causes of death in the United States could be reduced through common sense changes in lifestyle.

That's what the brief test contained in this handbook is all about. The few minutes you take to complete it may actually help you add years to your life! How? Well to start, it will enable you to identify aspects of your present lifestyle that are risky to your health. Then it will encourage you to take steps to eliminate or minimize the risks you identify. All in all, it will help you begin to change your present lifestyle into a new **Healthstyle**. If you do, it's possible that you may feel better, look better, and live longer too.

### 2-1. Before You Take The Test

This is not a pass-fail test. Its purpose is simply to tell you how well you are doing to stay healthy. The behaviors covered in the test are recommended for most Americans. Some of them may not apply to persons with certain chronic diseases or handicaps. Such persons may require special instructions from their physician or other health professional.

You will find that the test has six sections: cigarette smoking, alcohol and drugs, eating habits, exercise/fitness, stress control and safety. Complete one section at a time by circling the number corresponding to the answer that best describes your behavior. Then add the numbers you have circled to determine your score for that section. Write the score on the line provided at the end of each section. The highest score you can get for each section is 10.

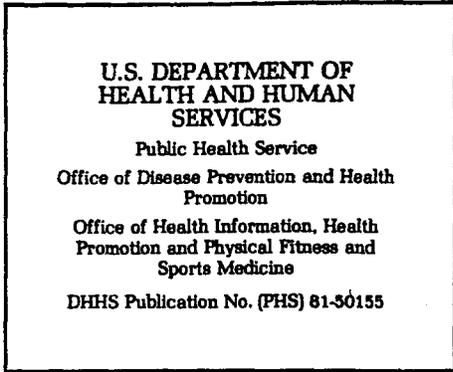


Figure 3. U.S. Department of Health and Human Services

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<b>CIGARETTE SMOKING</b>		Almost Always	Sometimes	Almost Never
If you never smoke, enter a score of 10 for this section and go to the next section on Alcohol and Drugs.				
1. I avoid smoking cigarettes.	2	1	0	
2. I smoke only low tar and nicotine cigarettes or I smoke a pipe or cigars.	2	1	0	
<b>Smoking Score:</b> _____				

<b>EATING HABITS</b>		Almost Always	Sometimes	Almost Never
1. I eat a variety of foods each day, such as fruits and vegetables, whole grain breads and cereals, lean meats, dairy products, dry peas and beans, and nuts and seeds.	4	1	0	
2. I limit the amount of fat, saturated fat, and cholesterol I eat (including fat on meats, eggs, butter, cream, shortenings, and organ meats such as liver).	2	1	0	
3. I limit the amount of salt I eat by cooking with only small amounts, not adding salt at the table, and avoiding salty snacks.	2	1	0	
4. I avoid eating too much sugar (especially frequent snacks of sticky candy or soft drinks).	2	1	0	
<b>Eating Habits Score:</b> _____				

<b>ALCOHOL AND DRUGS</b>		Almost Always	Sometimes	Almost Never
1. I avoid drinking alcoholic beverages or I drink no more than 1 or 2 drinks a day.	2	1	0	
2. I avoid using alcohol or other drugs (especially illegal drugs) as a way of handling stressful situations or the problems in life.	2	1	0	
3. I am careful not to drink alcohol when taking certain medicines (for example, medicine for sleeping, pain, colds, and allergies), or when pregnant.	2	1	0	
4. I read and follow the label directions when using prescribed and over-the-counter drugs.	2	1	0	
<b>Alcohol and Drugs Score:</b> _____				

<b>EXERCISE/FITNESS</b>		Almost Always	Sometimes	Almost Never
1. I maintain a desired weight, avoiding overweight and underweight.	3	1	0	
2. I do vigorous exercises for 20-30 minutes at least 3 times a week (examples include running, swimming, brisk walking).	3	1	0	
3. I do exercises that enhance my muscle tone for 20-30 minutes at least 3 times a week (examples include weight lifting and calisthenics).	2	1	0	
4. I use part of my leisure time participating in individual, family, or team activities that increase my level of fitness (such as bowling, golf, and baseball).	2	1	0	
<b>Exercise/Fitness Score:</b> _____				

Figure 4. A Test For Better Health

STRESS CONTROL	Almost Always	Sometimes	Almost Never
	2	1	0
1. I have a job or do other work that I enjoy.	2	1	0
2. I find it easy to relax and express my feelings freely.	2	1	0
3. I recognize early, and prepare for, events or situations likely to be stressful for me.	2	1	0
4. I have close friends, relatives, or others whom I can talk to about personal matters and call on for help when needed.	2	1	0
5. I participate in group activities (such as church and community organizations) or hobbies that I enjoy.	2	1	0
<b>Stress Control Score:</b> _____			

SAFETY	Almost Always	Sometimes	Almost Never
	2	1	0
1. I wear a seat belt while riding in a car.	2	1	0
2. I avoid driving while under the influence of alcohol and other drugs.	2	1	0
3. I obey traffic rules and the speed limit when driving.	2	1	0
4. I am careful when using potentially harmful products or substances (such as household cleaners, poisons, and electrical devices).	2	1	0
5. I avoid smoking in bed.	2	1	0
<b>Safety Score:</b> _____			

Figure 5. A Test For Better Health—Continued

### 3-1. Your Healthstyle Scores

After you have figured your scores for each of the six sections, circle the number in each column that matches your score for that section of the test.

Remember, there is no total score for this test. Consider each section separately. You are trying to identify aspects of your lifestyle that you can improve in order to be healthier and to reduce the risk of illness. So let's see what your scores reveal.

### 3-2. What Your Scores Mean To You

*a. Scores of 9 and 10.* Excellent! Your answers show that you are aware of the importance of this area to your health. More importantly, you are putting your knowledge to work for you by practicing good health habits. As long as you continue to do so, this area should not pose a serious health risk. It's likely that you are setting an example for your family and friends to follow. Since you got a very high score on this part of the test, you may want to consider other areas where your scores indicate room for improvement.

*b. Scores of 6 to 8.* Your health practices in this area are good, but there is room for improvement. Look again at the items you answered with a "Sometimes" or "Almost Never". What changes can you make to improve your score? Even a small change can often help you achieve better health.

*c. Scores of 3 to 5.* Your health risks are showing! Would you like more information about the risks you are facing and about why it is important for you to change these behaviors? Perhaps you need help in deciding how to successfully make the changes you desire. In either case, help is available.

*d. Scores of 0 to 2.* Obviously, you were concerned enough about your health to take the test, but your answers show that you may be taking serious and unnecessary risks with your health. Perhaps you are not aware of the risks and what to do about them. You can easily get the information and help you need to improve, if you wish.

Cigarette Smoking	Alcohol & Drugs	Eating Habits	Exercise & Fitness	Stress Control	Safety
10	10	10	10	10	10
9	9	9	9	9	9
8	8	8	8	8	8
7	7	7	7	7	7
6	6	6	6	6	6
5	5	5	5	5	5
4	4	4	4	4	4
3	3	3	3	3	3
2	2	2	2	2	2
1	1	1	1	1	1
0	0	0	0	0	0

Figure 6. What Your Scores Mean To You

### 3-3. You Can Start Right Now!

In the test you just completed were numerous suggestions to help you reduce your risk of disease and premature death. Here are summaries of the most significant risks. More indepth information is contained in this handbook.

*a. Avoid Cigarettes.* Cigarette smoking is the single most important preventable cause of illness and early death. It is especially risky for pregnant women and their unborn babies. Persons who stop smoking reduce their risk of getting heart disease and cancer. So if you're a cigarette smoker, think twice about lighting that next cigarette. If you choose to continue smoking, try decreasing the number of cigarettes you smoke and switching to a low tar and nicotine brand.

*b. Follow Sensible Drinking Habits.* Alcohol produces changes in mood and behavior. Most people who drink are able to control their intake of alcohol and to avoid undesired, and often harmful, effects. Heavy, regular use of alcohol can lead to cirrhosis of the liver, a leading cause of death. Also, statistics clearly show that mixing drinking and driving is often the cause of fatal or crippling accidents. So if you drink, do it wisely and in moderation.

*c. Use Care in Taking Drugs.* Today's greater use of drugs — both legal and illegal — is one of our most serious health risks. Even some drugs prescribed by your doctor can be dangerous if taken when drinking alcohol or before driving. Excessive or continued use of tranquilizers or "pep pills" can cause physical and mental problems. Using or experimenting with illicit drugs such as marijuana, heroin, cocaine, and PCP may lead to a number of damaging effects or even death.

*d. Eat Sensibly.* Overweight individuals are at greater risk for diabetes, gall bladder disease, and high blood pressure. So it makes good sense to maintain proper weight. But good eating habits also mean holding down the amount of fat (especially saturated fat), cholesterol, sugar and salt in your diet. If you must snack, try nibbling on fresh fruits and vegetables. You'll feel better — and look better, too.

*e. Exercise Regularly.* Almost everyone can benefit from exercise — and there's some form of exercise almost everyone can do. (If you have any doubt, check first with your doctor.) Usually, as little as 20-30 minutes of vigorous exercise three times a week will help you have a healthier heart, eliminate excess weight, tone up sagging muscles, and sleep better. Think how much difference all these improvements could make in the way you feel!

*f. Learn to Handle Stress.* Stress is a normal part of living; everyone faces it to some degree. The causes of stress can be good or bad, desirable or undesirable (such as a promotion on the job or the loss of a spouse). Properly handled, stress need not be a problem. Unhealthy responses to stress—such as driving too fast or erratically, drinking too much, or prolonged anger or grief—can cause a variety of physical and mental problems. Even on a very busy day, find a few minutes to slow down and relax. Talking over a problem with someone you trust can often help you find a satisfactory solution. Learn to distinguish between things that are "worth fighting about" and things that are less important.

g. **Be Safety Conscious.** Think “safety first” at home, at work, at school, at play, and on the highway. Buckle seat belts and obey traffic rules. Keep poisons and weapons out of the reach of children, and keep emergency numbers by your telephone. When the unexpected happens, you’ll be prepared.

### **3–4. Where Do You Go From Here?**

Start by asking yourself a few frank questions: Am I really doing all I can to be as healthy as possible? What steps can I take to feel better? Am I willing to begin now? If you scored low in one or more sections of the test, decide what changes you want to make for improvement. You might pick that aspect of your lifestyle where you feel you have the best chance for success and tackle that one first. Once you have improved your score there, go on to other areas.

If you already have tried to change your health habits (to stop smoking or to exercise regularly, for example) don’t be discouraged if you haven’t yet succeeded. The difficulty you have encountered may be due to influences you’ve never really thought about — such as advertising — or due to lack of support and encouragement. Understanding these influences is an important step toward changing the way they affect you.

There’s a lot you can do to stay healthy or to improve your health — and there are Army Programs that can help you. Start a new **HealthStyle** today!

## **Chapter 4**

### **YOUR “FIT TO WIN” SCORE: WHAT IT IS NOT**

a. **Not a Diagnostic Tool.** It should not be considered a final or definitive analysis of health nor should it be acted upon unless reviewed with a qualified health professional. It is not a substitute for the examination and testing done by a health professional.

b. **Not an Indication of Risks or Rare Diseases.** Your risk of contraction of rare diseases, or diseases for which the risk is unknown or un- substantiated by research is not included.

c. **Not a Substitute for Psychiatric Diagnosis.** The section on stress control gives you a description of how you are in terms of your mental well-being and distress. This profile is not a substitute for individual psychiatric counseling and treatment. Suggestions for dealing better with organizational, interpersonal, and physical stressors will be provided to you through a stress management intervention.

d. **Not a Test of Your Medical Knowledge.** Your Health Risk Appraisal Self-Test was designed to gather information on the risk-related characteristics needed to estimate your specific risks. There are no right or wrong answers. Your answers were appropriate if you selected the responses that best describe you.

e. **Not a Prescription.** This profile, which helps you to take stock of your health assets and liabilities, is only a first step in deciding what you want to do about your health. Some suggestions are included, but the profile does not contain a detailed program to accomplish your health objectives. The Army is tasked with providing you with a formal method of evaluating your health risks. Many of the programs to assist you in improving your lifestyle are offered through their assistance. If you have any concerns about something in particular in your health, seek the appropriate health care.



Figure 7. Risk Factors

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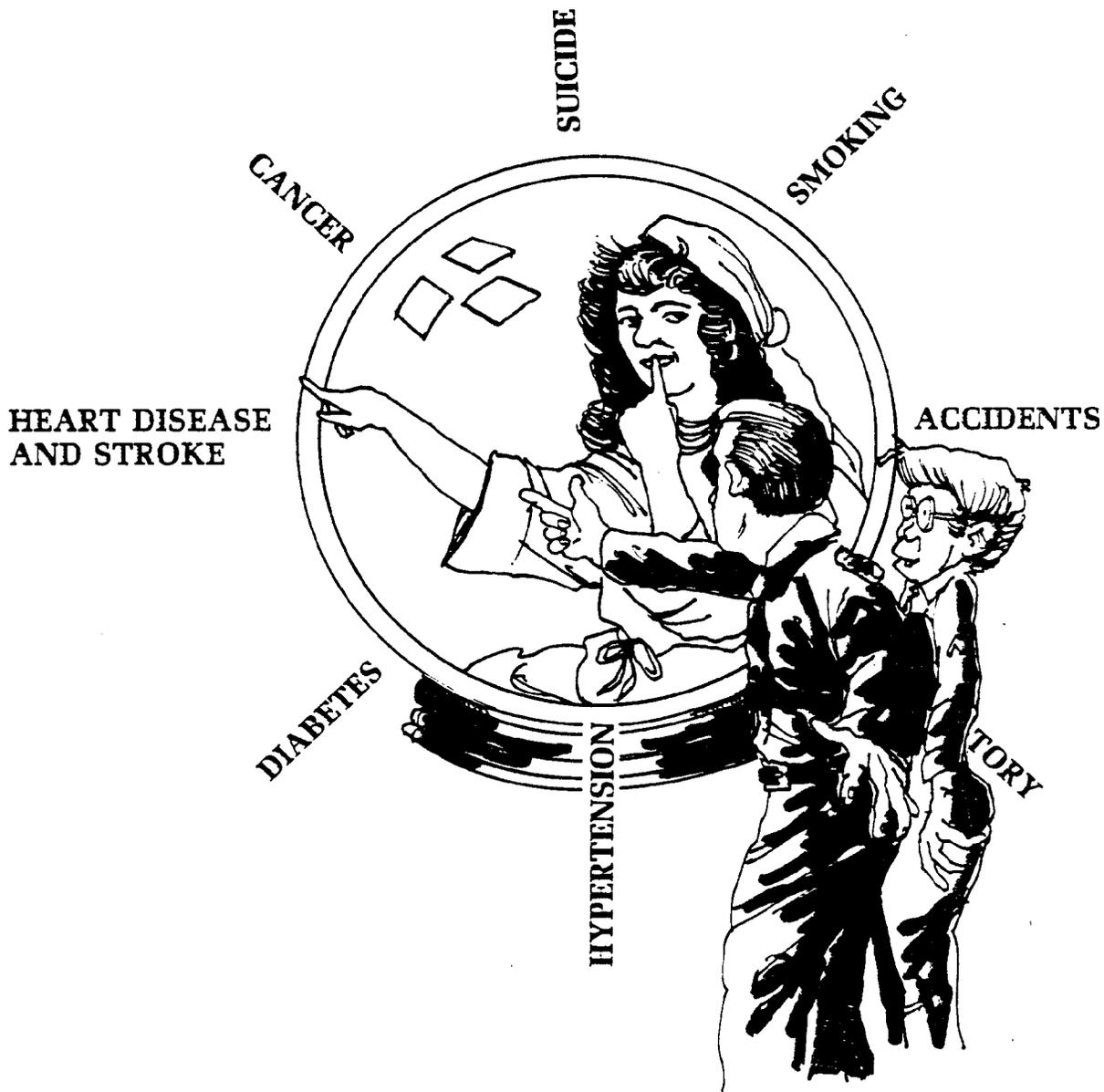


Figure 8. Wisdom For Better Health

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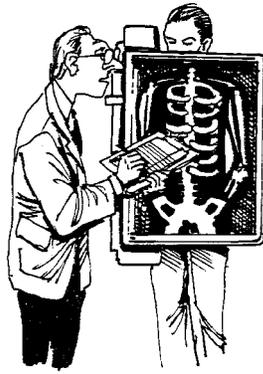


Figure 9. Chest X-ray

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### 5-1. Respiratory Ailments

a. **WHY BE CONCERNED?** Bronchitis, emphysema and pneumonia are all lung diseases. All of them disrupt the normal functioning of the lungs.

(1) **Chronic Bronchitis** is an inflammation of the lining of the bronchial tubes that continues for several months and returns every year generally lasting longer each time. The accompanying cough is often dismissed as a “smokers cough”. If continually untreated, the lining of the lungs become thickened, air flow is obstructed, and the danger increases for other respiratory infections, such as pneumonia.

(2) **Emphysema** is a disease of the alveoli (air sacs) of the lungs. These tiny air sacs become overstretched, lose their elastic properties and trap air. People who develop emphysema cannot exhale completely before the next breath and therefore, tire quickly.

(3) **Pneumonia** is a condition in which the lungs become inflamed or infected by bacteria, viruses, or mycoplasmas. The air sacs fill with liquid and air cannot be transferred into the bloodstream. Pneumonia organisms are present in healthy throats. Only when the body’s defenses are weakened in some way by illness, old age, or irritation of the airway from smoke or chemicals do the organisms sometimes multiply and invade lung tissue. An entire lung or a section of the lung may be affected. The infection quickly spreads through the bloodstream and the whole body is affected.

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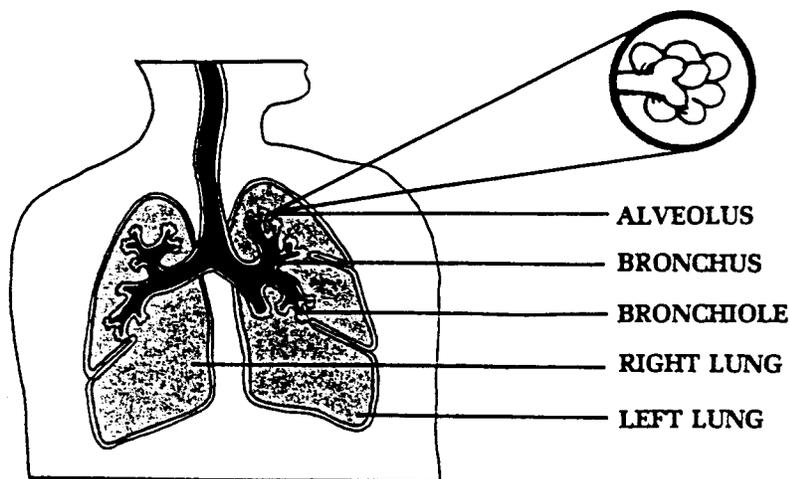


Figure 10. Alveoli (air sacs)

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b. **WHAT CAN YOU DO?** Prevention is the most important form of treatment. Smoking and air pollution are the major causes of all three ailments. Antibiotics can be used to treat these conditions but prevention is the best measure.

- (1) Don't *SMOKE!*
- (2) Avoid obesity.
- (3) Engage in a regular aerobic exercise program.
- (4) Avoid exposure to particle matter (smoke or pollution) in the air you breathe.
- (5) Ask your doctor about getting a flu vaccination or a booster shot if you have already been vaccinated.
- (6) See your doctor at the beginning of any cold or respiratory infection.

## 5-2. Heart Disease and Stroke

a. **HEART DISEASE: WHY BE CONCERNED?** Coronary atherosclerosis is the most common cause of heart disease. Atherosclerosis is the progressive narrowing of the coronary arteries, which supply blood to the heart muscle, by a substance called plaque. Plaque tends to form in the artery lining at sites where wear and tear is greatest. It is composed of calcium, cholesterol and products of the clotting process. Blood flow to the heart muscle is restricted by the narrowing so that the heart's oxygen needs cannot be met. A mild or temporary insufficiency of oxygen causes no permanent damage and may produce an uncomfortable sensation in the chest known as angina pectoris. Prolonged and severe lack of oxygen may cause permanent damage of a portion of the heart muscle. This damage is called a myocardial infarction (MI) or heart attack.

Coronary heart disease (CHD) is the leading cause of death after the age 35 or older, of 40 in men and after the age of 50 in women. Statistics regarding CHD are quite disturbing: 95% of all cases first appear as MI, angina pectoris or sudden death and 60 % of persons suffering an MI die before reaching the hospital.

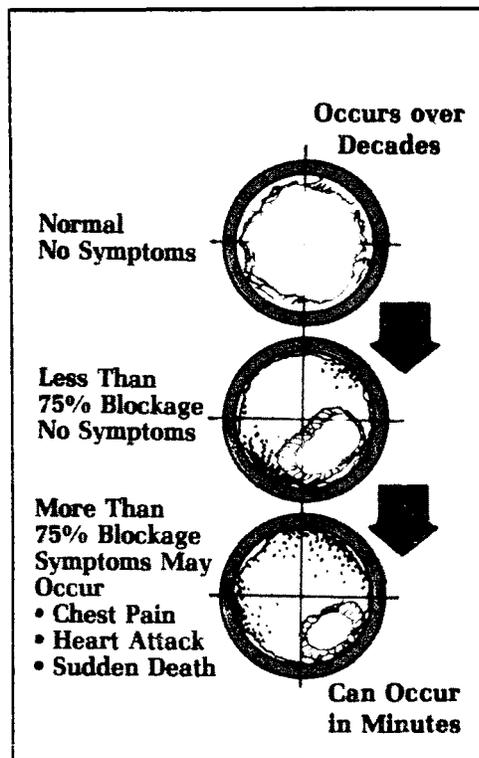


Figure 11. Narrowing of the Coronary Arteries

**b. STROKE: WHY BE CONCERNED?** Stroke is a major contributor to physical and psychological disability and is one of the leading causes of death in the United States. The consequences of a stroke are often severe. A stroke causes an interference in the blood supply to the brain, thus the cells of the brain are often damaged. Brain cells cannot regenerate! Like the coronary arteries of the heart, the arteries that lead to the brain can become progressively narrowed by a build up of plaque.

Blood clots can either totally block the artery at that location or part of the clot can break off and travel deeper into the vessel of the brain and block the vessel at another location. This leads to a decrease in blood flow to the brain and causes a stroke.

A stroke can also occur due to an aneurysm, a weakening in the wall of an artery, leading to the brain. The weakened portion can actually balloon out as the pressure within the vessel increases. If the pressure increases too much, the vessel may rupture and blood may enter into the brain.



Figure 12. Stroke (clot)

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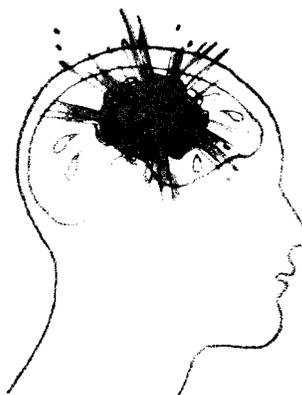


Figure 13. Stroke (ruptured vessel)

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c. **RISK FACTORS RELATED TO HEART DISEASE AND STROKE**

**Risk Factors Which Can Be Changed:**

(1) **SMOKING.** How much you smoke, whether or not you inhale, and how long ago you stopped smoking influence your risk of cardiovascular disease.

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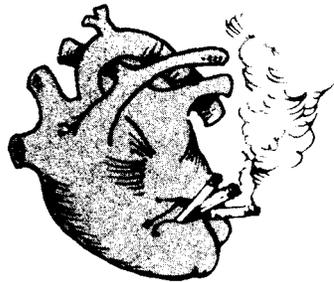


Figure 14. Smoking

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(2) **STRESS.** How you cope with stress and the way you react to difficult situations affect your risk of heart disease and stroke.

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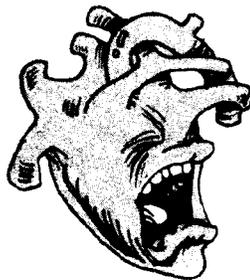


Figure 15. Stress

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(3) **WEIGHT CONTROL.** Obesity puts a strain on the heart by forcing it to work harder.



Figure 16. Overweight

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(4) **EXERCISE.** An adequate amount of vigorous exercise on a regular basis may protect you against heart disease and stroke.

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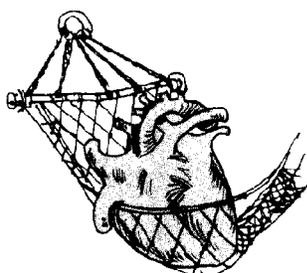


Figure 17. Sedentary Lifestyle

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(5) **BLOOD PRESSURE.** High blood pressure makes the heart work harder and increases your risk of heart disease and stroke.

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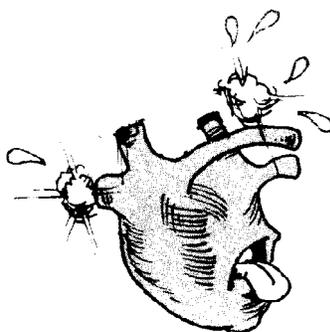


Figure 18. High Blood Pressure

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(6) **BLOOD SUGAR.** Diabetes increases the risk of heart attack. Weight control, dietary changes, and medication can be used to keep diabetes under control.

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Figure 19. Diabetes

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(7) **BLOOD CHOLESTEROL.** An increased level of cholesterol in our blood increases your risk of heart disease and stroke. Cholesterol in the blood is a major cause of the buildup of fatty deposits in the arteries.

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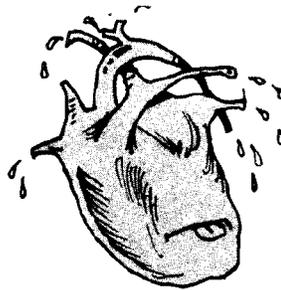


Figure 20. High Cholesterol

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*d.* **UNCONTROLLED RISK FACTORS:** There are other risk factors that we cannot control or change. These are family history, age, gender, and race. These risk factors influence our chances for having heart disease or stroke. If your mother or father or a sibling died of heart problems or a heart attack before age 50, you are at increased risk. Obviously, you cannot preselect a parent or a sibling to control this factor. You cannot control your age or determine your gender. The older you get, the more likely you are to sustain a heart attack. Men are at greater risk than women for heart disease. Black Americans are at higher risk because they more often suffer from high blood pressure.

*e.* **TAKE IMMEDIATE ACTION!**

(1) **WHAT YOU CAN DO**

(a) Develop an emergency medical plan.

(b) Learn Cardiopulmonary Resuscitation (CPR).

(c) Seek medical attention upon any symptoms of heart disease/stroke.

(d) When a person develops symptoms, reduce his/her physical activity and call an ambulance. **Take Immediate Action!**

(e) Be prepared to give CPR.

(2) **SYMPTOMS OF STROKE**

- Dizziness or unsteadiness.
- A temporary loss of memory or change in mental ability.
- Numbness or weakness in face, arm, or leg.

- Garbled speech or difficulty understanding speech.
- Eye problems — temporary dizziness/loss of sight/double vision particularly in one eye.
- Recent, severe, sudden headaches.

(3) **SYMPTOMS OF A HEART ATTACK**

- A heavy, squeezing pain in the center of the chest, lasting two minutes or longer.
- The discomfort may spread into the shoulder, arms, neck or jaw.
- Sweating, nausea.
- Dizziness, faintness, or shortness of breath.

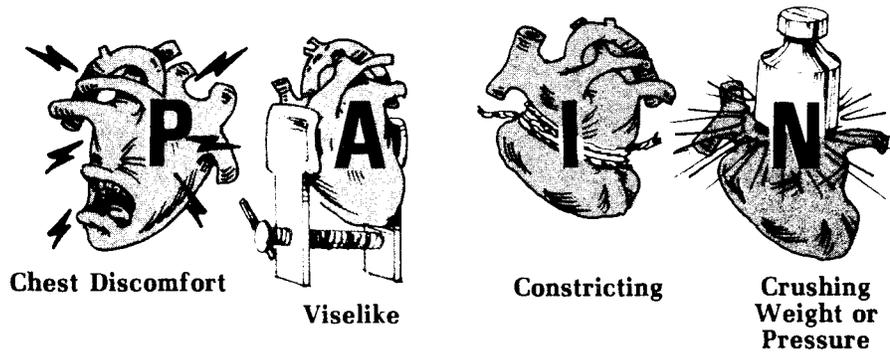


Figure 21. Symptoms of Heart Attack



Figure 22. Ambulance

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*Prevention*  
is the  
*Key!!*

Figure 23. Prevention statement

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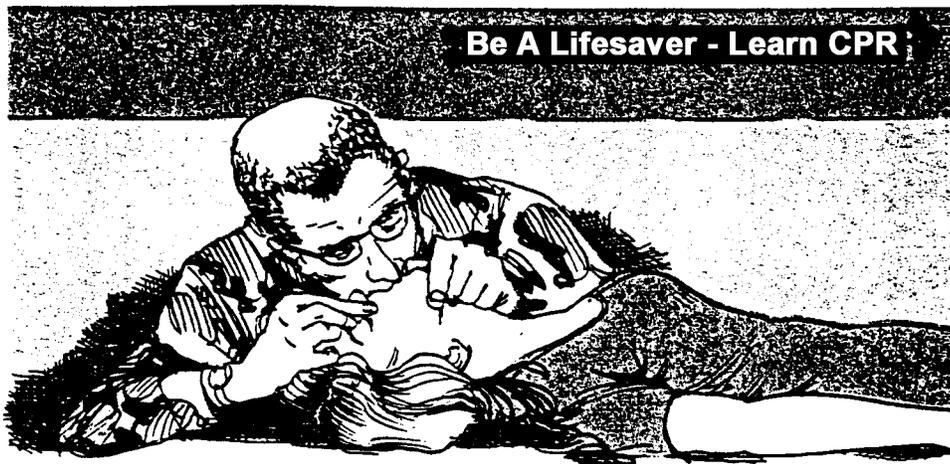


Figure 24. Learn CPR

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### 5-3. Cancer

a. **WHY BE CONCERNED?** Cancer is an ancient and widespread disease that attacks virtually all multi-celled plants and animals. Approximately 765,000 new cases of cancer are detected in the United States each year. The leading killers are the cancers of the lung, breast, colon or rectum and prostate. Information about specific forms of cancer appears on the following pages.

Cancer is basically uncontrolled cell growth and reproduction. Compared with normal well-regulated cells, cancer cells do not present a uniform appearance; instead, their cell shape and size are irregular and may spread to other tissues of the body, crowding out normally-functioning cells. This spreading process is called metastasis.

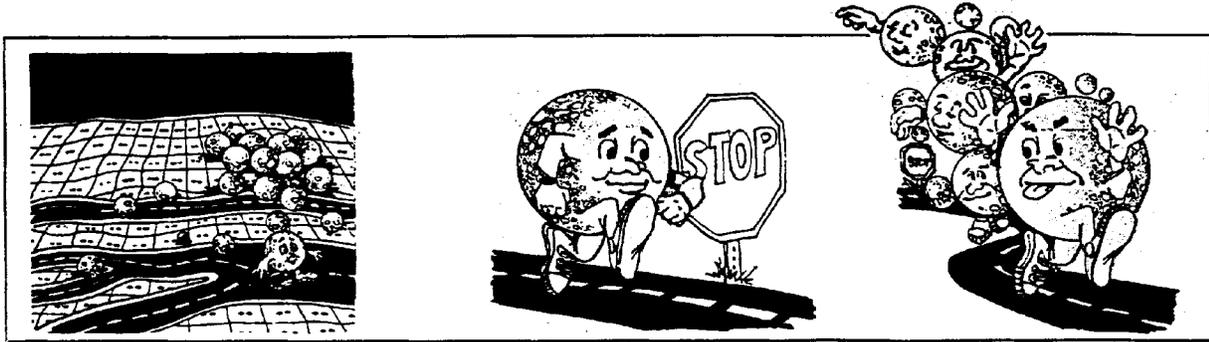
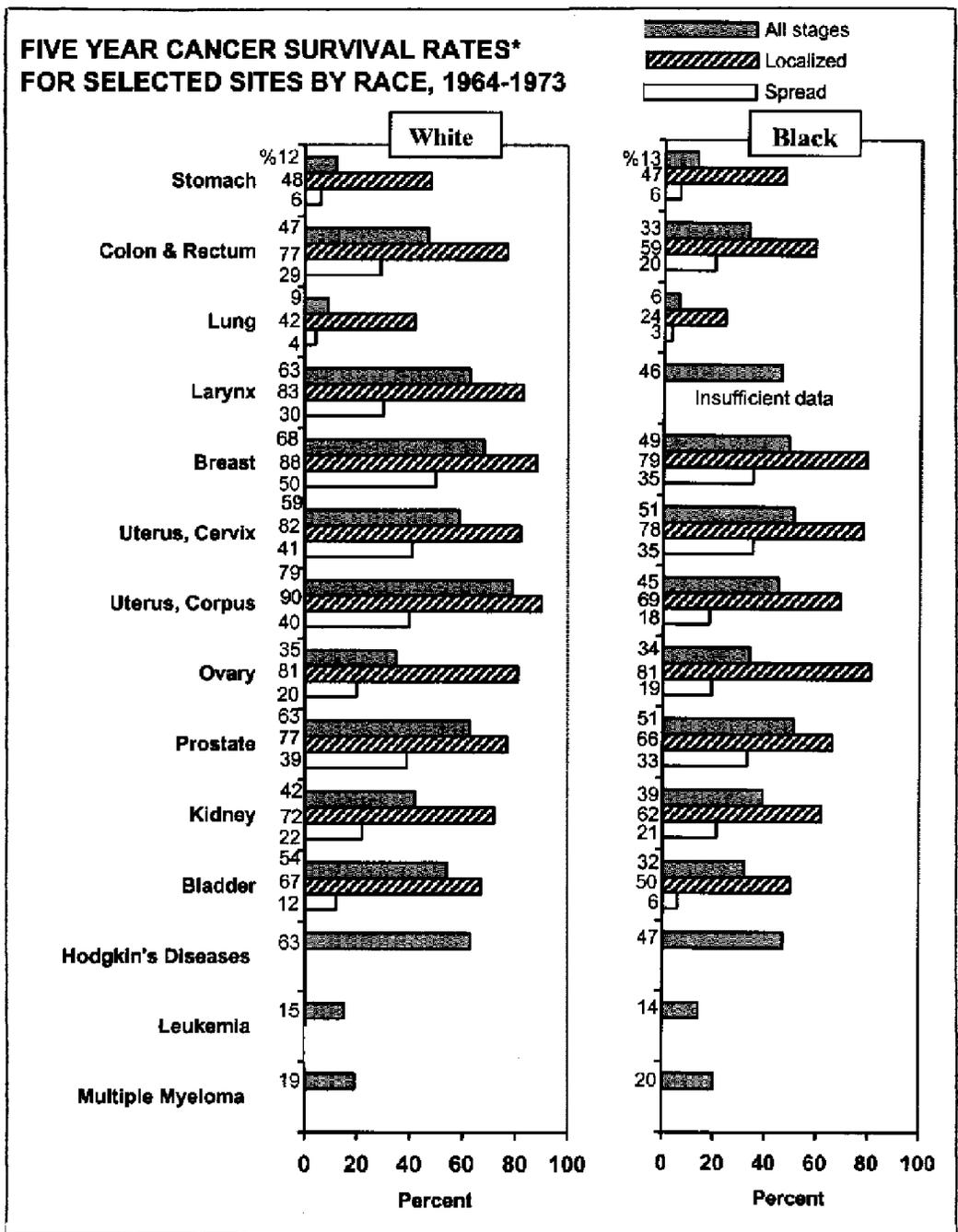


Figure 25. Cancer cartoon

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\*Adjusted for Normal Life Expectancy.  
 Note: This chart is based on cases diagnosed in 1964-1973 and is the latest data available on survival by stage.  
 Source: Biometry Branch, National Cancer Institute.

Figure 26. Five Year Cancer Survival Rates

b. **WHAT CAN YOU DO?** Prognosis depends upon the location and extent of the cancer when it is detected, as well as the timing and effectiveness of the treatment. Treatments of cancer may include drugs (chemotherapy), surgical procedures and/or radiation therapy. As the graph on page 12 illustrates, early detection is possible in many cases and may greatly improve a person's chances for survival.

The American Cancer Society (ACS) has published **The Seven Warning Signs of Cancer**. These are guidelines for the early detection of cancer. If you should develop one of these signs of cancer, seek advice from your health care provider without delay. To detect cancer before these signals may be evident, follow ACS recommendations for periodic screening examinations.

<b>RECOMMENDATIONS FOR EARLY CANCER DETECTION IN ASYMPTOMATIC PEOPLE</b>			
<b>TEST OR PROCEDURE</b>	<b>SEX</b>	<b>AGE</b>	<b>FREQUENCY</b>
Sigmoidoscopy (Colon Cancer Detection)	M & F	over 50	every 3-5 years; after 2 negative exams 1 year apart
Stool guiac (blood)  (Colon Cancer Detection)	M & F	over 50	every year
Rectal examination	M & F	over 40	every year
Pap Test (Uterine Cancer)	F	20-65; under 20,	at least every 3 years after 2 negative exams 1 year apart
Pelvic Examination	F	20-40 over 40	every 3 years every year
Endometrial tissue sample (Cancer Detection)	F	at menopause women at high risk	at menopause
Breast self-examination	F	over 20	every month
Breast physical examination	F	20-40 over 40	every 3 years every year
Mammography (X-Ray of Breast Tissue)	F	between 35-40 under 50 over 50	baseline consult personal physician every year
Testicular self-examination		over 20	every month
Chest X-Ray (Lung Cancer Detection)		not recommended	
Health counseling and cancer checkup	M & F M & F	over 20 over 40	every 3 years every year

Figure 27. Recommendations for Early Cancer Detection

### c. SELF-EXAMINATION TECHNIQUE FOR WOMEN

(1) **BREAST EXAMS: WHAT YOU SHOULD KNOW.** Breast cancer is the most common form of cancer among American women. The average woman has 1 chance in 11 (or about 9 percent) of developing breast cancer during her lifetime. This year in the United States approximately 114,000 women will learn they have breast cancer. Two-thirds of them will be more than 50 years old, but breast cancer does occur in younger women (and in about 900 men a year).

No one knows exactly what causes breast cancer, so there is little anyone can do to prevent it. But it is known that breast cancer is most treatable and curable when the tumor is small. Also, treatment may be more limited and less disfiguring if the cancer is found when it is confined to a small area of the breast. For these reasons cancer research scientists have long looked for methods of detecting or finding breast cancer early in its growth before it has had a chance to spread to other parts of the body.

Breasts come in all sizes and shapes, just as women do. One woman's breasts are not the same as any others. Nor will her own breast remain the same throughout her adult life. The monthly menstrual cycle, menopause, childbirth, breastfeeding, age, weight change, birth control or other hormone pills and even nutrition may change the shape and size of her breasts.

In addition, many women develop one of a variety of noncancerous breast conditions which, as a group, are referred to as "benign fibrocystic disease." Among themselves, women often call them "lumpy breasts." If a woman has one of these conditions, lumps or nodules are "normal" for her.

So, the last step in screening might be termed as "self screening." It is breast self examination, sometimes called BSE. It is easy to do and, as the name implies, a woman does it herself.

Breast self-examination is done once a month so that a woman becomes familiar with the usual appearance and feel of her own breasts. Familiarity makes it easier to notice any changes in the breast from one month to another. In fact, some physicians suggest that women do BSE every day for the first month so that they really know the "geography" of their breasts before they switch to a monthly schedule. Early discovery of a change from what is "normal" is the whole idea behind BSE.

For a menstruating woman, the best time to do BSE is two or three days after the end of her period, when her breasts are least likely to be tender or swollen. A woman who is no longer menstruating may find it helpful to pick a particular day, such as the first of the month, to remind herself it is time to do BSE.

If a woman discovers anything unusual — such as a lump, discharge, dimpling or puckering — she should see her physician at once. Eight out of 10 breast lumps are not cancer, and there are other causes for changes in the breast's appearance. But any change is best diagnosed by a physician. And, if it is cancer, early diagnosis may mean less surgery and a better outlook for cure.



Figure 28. Breast Exams: What You Should Know

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## (2) HOW TO EXAMINE YOUR BREASTS

(a) **In the Shower:** Examine your breasts during bath or shower; hands glide easier over soapy skin. Fingers flat, more gently over every part of each breast. Use right hand to examine left breast, left hand for right breast. Check for any lump, hard knot, or thickening.



Figure 29. Examine Your Breast: In the Shower

(b) **Stand Before a Mirror:** Inspect your breasts with arms at your sides. Next, raise your arms high overhead. Look for any changes in contour of each breast, a swelling, dimpling of skin, or changes in the nipple.

Then, rest palms on hips and press down firmly to flex your chest muscles. Left and right breast will not exactly match-few women's breasts do.

Regular inspection shows what is normal for you and will give you confidence in your examination.

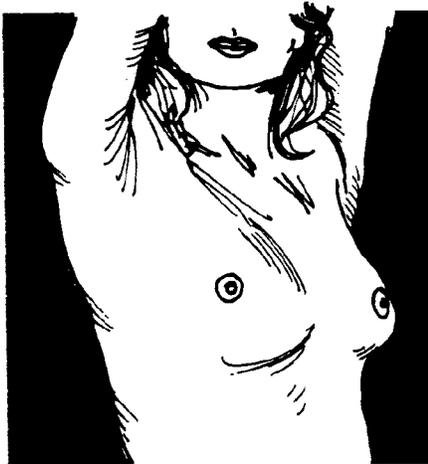


Figure 30. Examine Your Breast: Stand Before a Mirror

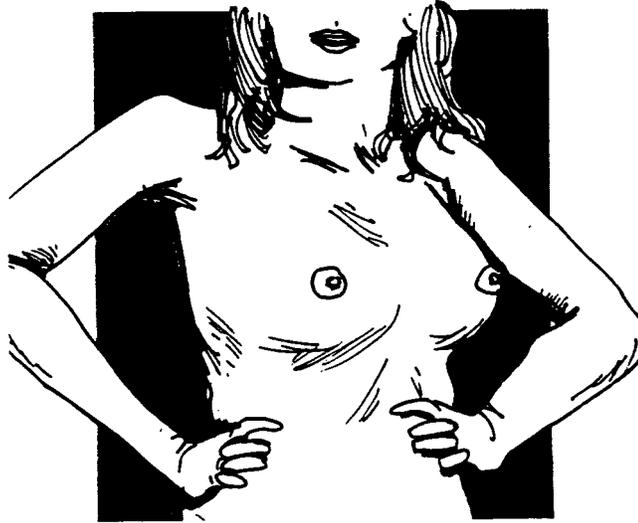


Figure 31. Examine Your Breast: Stand Before a Mirror—Continued

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(c) **Lying Down:** To examine your right breast, put a pillow or folded towel under your right shoulder. Place right hand behind your head. This distributes breast tissue more evenly on the chest. With left hand, fingers flat, press gently in small circular motions around the breast. Begin at outermost top of your right breast, then move the circles slowly around the breast. A ridge of firm tissue in the lower curve of each breast is normal. Then move in an inch, toward the nipple, keep circling to examine every part of your breast, including nipple. This requires at least three more circles. Now slowly repeat procedure on your left breast, placing left hand behind your head. NOTICE how the texture of the breast underneath the skin feels.

Finally, gently squeeze the nipple of each breast between thumb and index finger. Any discharge, clear or bloody, should be reported to your doctor immediately.

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Figure 32. Examine Your Breast: Lying down

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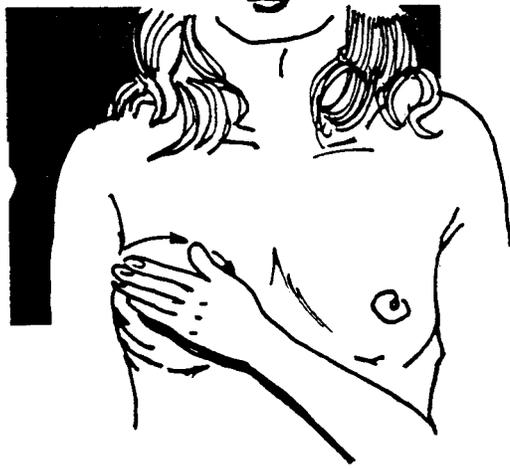


Figure 33. Examine Your Breast: Lying down—Continued

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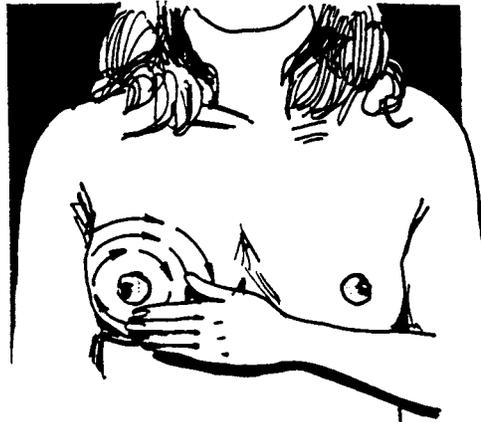


Figure 34. Examine Your Breast: Lying down—Continued

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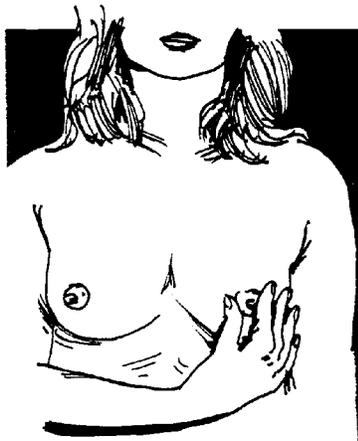


Figure 35. Examine Your Breast: Lying down—Continued

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**d. SELF EXAMINATION TECHNIQUE FOR MEN.** Most people think that cancer is disease that old people get. Cancer of the testicle is different. It is not one of the most common types of cancer in this country, but it is the second most common cancer in young men 20–40 years old. Your risk of getting testicular cancer is much higher, about 40 times the normal rate, if you have a testicle that never descended into the scrotum or descended after you were 6 years old.

Lives could be saved if more testicular cancers were detected and treated early — when they are over 58 % curable. Treatment does not mean losing your “manhood”, or your ability to have normal sex, and it doesn’t mean you can’t have children.

Men themselves discover most testicular cancers. By learning how to examine your testicles, and doing it once a month, you can greatly increase the chances of finding a testicular cancer early if it does occur.

The first sign of testicular cancer is usually a slight enlargement and change in the consistency of the testes. Although these tumors may be painless, there is often a dull ache in the lower abdomen and groin, accompanied by a sensation of dragging and heaviness. If the tumor is growing rapidly and hemorrhage is present, there may be sharp testicular pain.

Because many testicular cancers spread while the primary or original growth is still small, the first indication of the disease is often in the region or organ to which the cancer has spread.

Illustration and information courtesy of American Cancer Society.

**e. HOW TO EXAMINE YOUR TESTICLES. The Technique is Simple:**

- (1) Perform the examination once a month, after a warm bath or shower, when the scrotal skin is most relaxed.
- (2) Examine each testicle gently with the fingers of both hands by rolling the testicle between the thumb and fingers.
- (3) Usually testicular cancer appears as a small lump the size of a pea, generally on the front part of the testicle. There is a natural structure at the back of each testicle called the epididymis. Learn what it feels like so you will not confuse it with an abnormal lump.
- (4) If you do find a lump, tell your physician about it right away. Remember not all lumps are cancerous. Don’t let fear keep you from getting the medical attention which could save your life. Cancer will not go away if you ignore it.

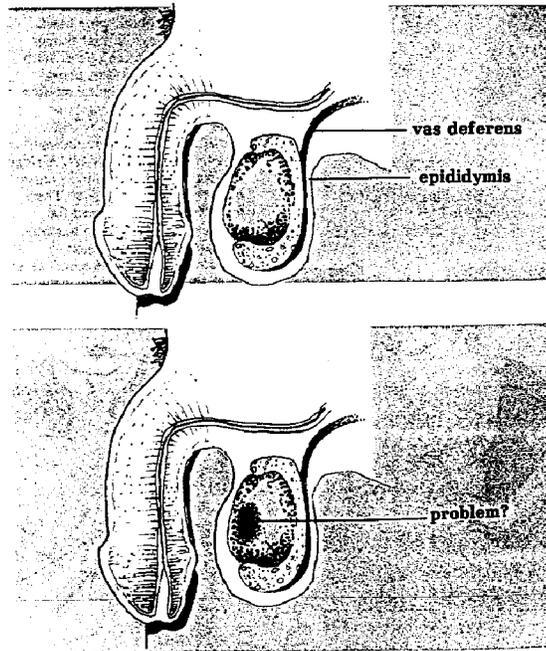


Figure 36. Examine Your Testicles

f. **CANCER STATISTICS (1984) FOR FORMS OF CANCER.** The estimates of the incidence of cancer are based on data from the National Cancer Institute's Surveillance, Epidemiology and End Results (SEER) Program (1973-1979). Nonmelanoma skin cancer has not been included in the statistics. The incidence of nonmelanoma skin cancer is estimated to be about 400,000. Prepared by Edwin Silverberg, Supervisor, Statistical Information Services, Department of Epidemiology and Statistics, American Cancer Society, New York, New York.

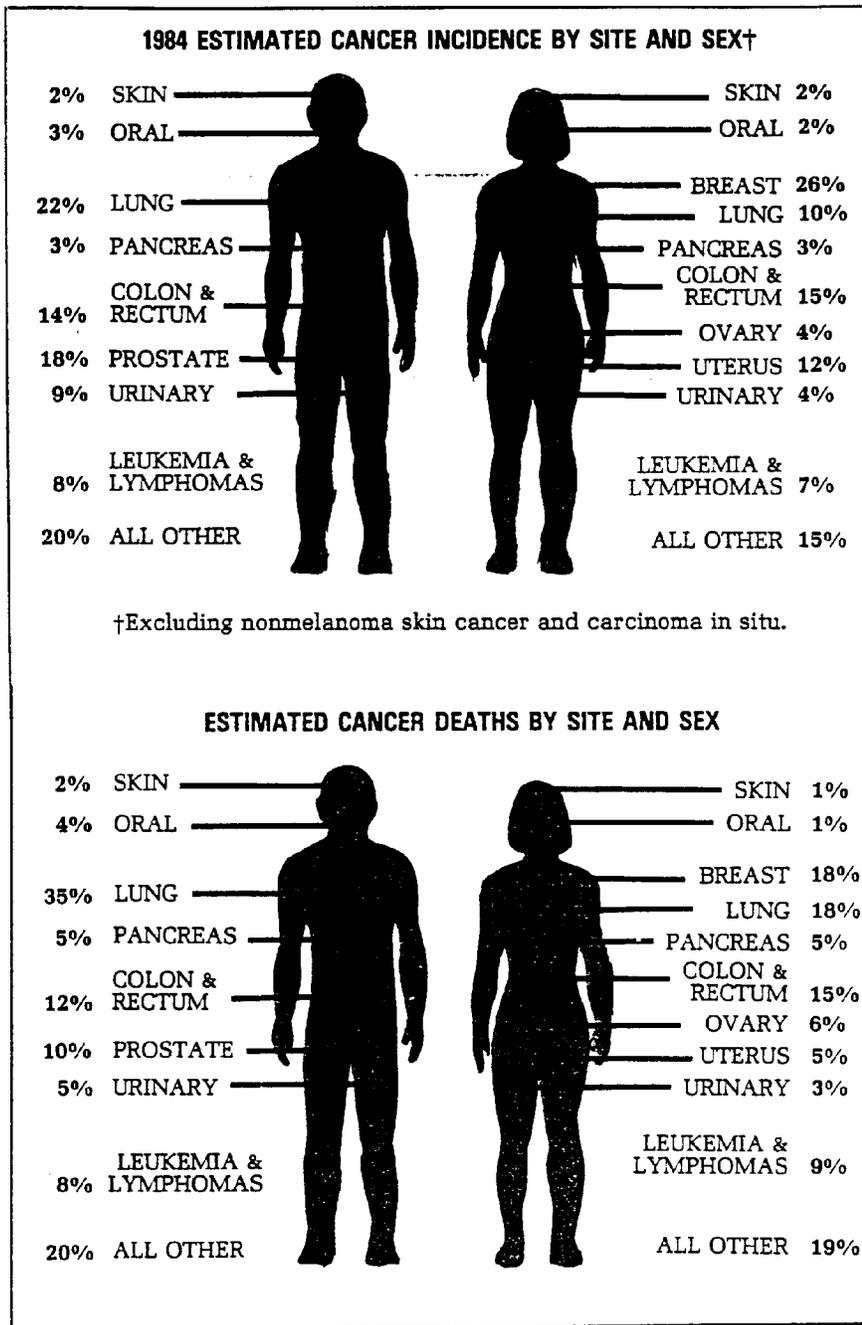


Figure 37. Cancer Statistics

**g. CANCER PREVENTION TIPS**

- (1) Don't smoke or use tobacco in any form.
- (2) If you drink alcoholic beverages, do so only in moderation.
- (3) Eat foods low in fat.
- (4) Include fresh fruits, vegetables, and whole grain cereals in your daily diet.
- (5) Avoid unnecessary X-rays.
- (6) Keep yourself safe on the job by using protective devices (respirators, protective clothing).
- (7) Avoid too much sunlight; wear protective clothing; use sunscreens.
- (8) Take estrogens only as prescribed.

**h. KNOW THE SEVEN WARNING SIGNS OF CANCER**

- (1) Change in bowel or bladder habits.
- (2) A sore that does not heal.
- (3) Unusual bleeding or discharge.
- (4) Thickening or lump in breast or elsewhere.
- (5) Indigestion or difficulty swallowing.
- (6) Obvious change in wart or mole.
- (7) Nagging cough or hoarseness.

**5-4. Accidents**

**a. WHY BE CONCERNED?**

- (1) **Accidents** are the major cause of death in the 1-24 year old age group and the third cause of death in the 25-64 year old age group.
- (2) More than 100,000 Americans die each year from accidental injuries, half of the deaths from automobile accidents, the rest from shooting accidents, falls, burns, poison, and recreational accidents.
- (3) Each year millions of people suffer non-fatal accidental injuries requiring medical treatment.
- (4) Teenagers and young adults have the highest motor vehicle death rate of any age group. The two major contributions are driving while drinking alcohol and non-use of seat belts.



**Figure 38. Don't smoke in bed**

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**b. WHAT CAN BE DONE ABOUT ACCIDENTAL INJURIES?**

(1) **Guns** — Many people, especially children, die each year from hand gun accidents. Guns must be kept in a locked place, with ammunition stored separately. Proper gun-handling safety rules should be a mandatory first step in learning about guns.

(2) **Burns** — Don't smoke in bed. Over one-half of the fatal residential fires and a large number of burn injuries are cigarette-related. Smoke detectors and a fire extinguisher are essential products in every home.

(3) **Poison** — Once a leading cause of death in children, poisoning has decreased significantly as paint lead content has been reduced and drugs and household products have been packaged in childproof containers. Poison control centers provide immediate information on emergency measures for use in poisoning. The following cannot be overemphasized: The importance of storing toxic substances separate from food supplies, making sure safety caps are fastened and not introducing medicine as candy to children.

(4) **Recreational Accidents** — All children should be taught to float and swim at an early age. Adults should avoid water sports when intoxicated (1/3 of adult drownings are related to high levels of blood alcohol). Young people in team sports should be taught safety measures as part of their training (i.e., avoiding dehydration, using protective equipment, wearing the right shoes for different playing surfaces).



Figure 39. Accidental Injuries

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**c. WHAT CAN BE DONE ABOUT MOTOR VEHICLE ACCIDENTS?** A number of preventive strategies have been suggested to minimize the number of motor vehicle accidents as well as reduce injuries when collisions do occur.

(1) Reduce private vehicle miles travelled by using public transportation when possible. Subway, bus, train and plane are all safer modes of transportation.

(2) Observe lower speed limits which reduce both the rate and severity of crashes.

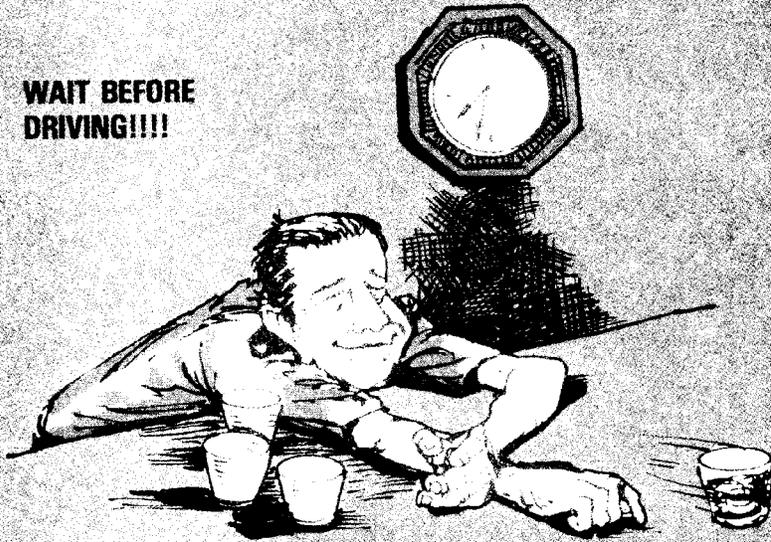
(3) Wait an hour before driving after every alcoholic drink and eat some food along with each drink. In one-half of the drive involved in fatal crashes, blood alcohol levels were found to be excessive. Also don't let your friends or family leave your home if you feel they can't drive safely! Drive them home, call a taxi, or put them to bed on the couch.

(4) Use your lap-shoulder seat belt. Your likelihood of surviving serious injury or death in a crash increases by 57% if you use your seat belt. All young children should wear seat belts or ride in car seats at all times starting with the newborn's trip home from the hospital. This not only reduces risk of injury or death, it also helps to instill as an important protective and, hopefully, lifelong habit of using seat belts. It's also important to use seat belts all the time as 75% of all accidents occur within 25 miles of your home.

(5) Be sure to use a helmet when you drive or ride a motorcycle. Helmets are the most effective way of protecting drivers and riders from death or serious injury during collision. Helmets are now worn 90% of the time in states that require them, and only 60% of the time in states which have repealed this law. (In these latter states, deaths from head injuries doubled after the helmet laws were repealed.)

# DRINK IN MODERATION

**WAIT BEFORE  
DRIVING!!!!**



**TO AVOID THIS:**



**DON'T DRINK  
AND DRIVE!!!!**

Figure 40. Drink in Moderation — Don't Drink and Drive

## 5-5. Suicide

a. **WHAT ARE THE MYTHS ABOUT SUICIDE?** “He isn’t the type to kill himself.” “People who talk about suicide don’t really do it.” “They say she attempted suicide, but she was just trying to get attention, if nobody makes a big fuss over it she won’t do it again.” “Calling attention to suicide just encourages people to do it. The best thing to do is ignore it.”

These statements have two things in common. First, they are often heard. Second, they are wrong. As a result of these beliefs, suicide claims an estimated 35,000 lives each year. Add to this figure another 216,000 suicide attempts and a truer picture of the massive problem emerges.



Figure 41. Suicide

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b. **THE DANGER SIGNS.** Any indication that someone is considering suicide is a call to action, but there are five distinct signs that are common enough to merit specific mention. They are:

(1) **Suicide Threats.** Suicide threats or other statements that reveal a desire or intention to die are often ignored because people believe that those who are serious about ending their lives keep it to themselves. This is not true. A person may hint about his plan, or make comments about death that he tries to disguise with a joke or a light manner. He may go to the doctor and complain vaguely about the way he feels, hoping that the doctor will somehow uncover the real reason behind his visit.

(2) **Previous Attempts.** Suicide attempts often don’t appear to be very serious. For example, the person takes a bottle of pills at a time when he or she is sure to be discovered. In one way or another, it seems apparent that he/she didn’t really want to die. When an attempt of this kind is made, it is very easy for people to ignore it or to pass it off

with a joke. Even the person who made the attempt may make light of it or try to explain it away. However, these attempts are a cry for help that is usually very desperate. And perhaps a more serious attempt is likely to follow.

(3) **Mental Depression.** Mental depression is not easy to spot. Here are some symptoms/conditions:

- long period of sadness/loneliness
- loss of a loved one
- loss of self-esteem
- loss of job
- loss or gain of appetite
- sleep disturbances
- bodily complaints

(4) **Marked Changes in Behavior or in Personality.** The changes in behavior or personality indicating someone is thinking about suicide generally are sudden and quite noticeable. The person who always has been reserved or conservative suddenly becomes loud and conspicuous. The person who was outgoing and friendly becomes aloof and wants to be alone.

(5) **Making Final Arrangements.** Final preparations before suicide vary with the person's personality and circumstances. They often consist of what is generally referred to as "getting one's affairs in order." To the head of the household, this might mean preparing a will and reviewing insurance papers. To a housewife, this might mean writing a long overdue letter and patching up bad feelings with relatives and neighbors. A teenager might give away personal possessions of sentimental value — jewelry, skis, records. Final preparations may be made very quickly, with the suicide following immediately.

Of course, none of these signs is a positive indication that the person is going to commit suicide. These signs together with other indications may be important clues. When the signs are there it is time to act. The danger of embarrassment through overreaction is not nearly as great as the danger of death through failure to act.



Figure 42. Will

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### c. WHAT CAN YOU DO?

(1) **Believe It.** Accept the possibility that the person is really suicidal. Don't assume that he isn't the "type" or that he wouldn't really do it. If he is open enough to talk about suicide, he should be taken seriously.

(2) **Speak Freely.** Your friend, by talking about his feelings, has opened lines of communication that may not easily be opened again. Take advantage of it by asking questions and talking clearly and calmly about the situation. How long have you been feeling this way? Do you know why you feel this way? Have you thought about how you would end your life? Have you made a plan? Have you acquired the means? Your willingness to talk this way can be a big relief to your friend, who probably feared that you would be judgmental or would try to cut off communication and leave.

In addition to offering a sense of relief and hope, the questions you ask will yield information that will be valuable in helping a professional to evaluate the seriousness of the suicide risk. In general, the more specific the thoughts and the plans of suicide, the graver the risk. If the person tells you he has decided to take an overdose of medication, has done research to determine how much medication he will need, and has been stockpiling his prescriptions until he is sure that he has enough, then there can be little doubt of the seriousness and immediacy of the risk. If on the other hand, he has vague notions of ending his life but no concrete plan, the risk probably is not imminent.

(3) **Get Help.** No matter what else you do, what your discussion leads to, or how much the person denies his intention to commit suicide, make sure he gets professional help. Encourage your friend to get help through a suicide prevention center, crisis intervention center, mental health clinic, physician, qualified mental health professional, hospital emergency room outpatient clinic, or through his clergyman. If he refuses, explain the situation to a reliable member of his family or take the initiative yourself by calling the suicide prevention center or other source of help explaining the situation. In the meantime, if the danger of suicide seems immediate, don't leave him alone.

(4) **A Final Word.** If these danger signs apply to you, be your own best friend and get some help immediately! Your knowledge of the few principles of suicide prevention presented in this section, and your willingness to apply that knowledge, might save someone's life, perhaps your own! By sharing that knowledge with others, you might also break down some of the barriers of misconception and myth that have kept many suicides from being prevented. The more people who understand and accept suicide for what it is — a needless and preventable cause of death — the greater the chance that suicide will eventually be removed from the list of leading causes of death.

## 5-6. Diabetes

*a.* **WHY BE CONCERNED? Diabetes mellitus** is a disease in which the body does not properly utilize or produce sufficient insulin. Insulin is a hormone essential to properly metabolize sugar (glucose) and to maintain the proper blood sugar level. This insufficiency results in an inability of the body to metabolize glucose in the normal way. The failure of the body to properly handle glucose results in metabolic changes which have adverse effects on the body. Included are changes in the blood vessels which make them more susceptible to damage. The eyes, kidney, extremities, and heart may be affected. Individuals with diabetes have a greater occurrence of eye disorders, kidney disease, and atherosclerosis. Additionally, poor circulation in the feet and legs may lead to gangrene and amputation. Diabetes can never be cured, but it can be controlled.

*b.* **WHO HAS DIABETES?** There are probably over 4½ million people in the U.S. with diabetes. About 1½ million people do not know they have diabetes.

*c.* **DO ALL DIABETICS HAVE TO TAKE SHOTS OR MEDICATIONS?** No. There are primarily two types of diabetes. Type I usually occurs in younger people (under 25) and requires insulin shots. Type II is the most common type, almost always occurs in adults, and often can be controlled by diet alone.

*d.* **WHAT CAUSES DIABETES?** The development of diabetes is probably due in part to genetics. Whether or not these genetic traits are expressed as diabetes is believed to be due to a number of factors. While you cannot control your genetic makeup, you can control these other factors. By doing so you can delay the possible onset of diabetes for years and minimize any complications which may occur.

*e.* **WHAT YOU CAN DO?** To reduce your chance of developing diabetes and its complications: The primary factor that is under your control is your body weight.

- (1) Achieve your ideal body weight — aim for a mid-range value — not the upper limit of the weight tables.
- (2) Follow a diet that helps to reduce the likelihood of developing hardening of the arteries.
- (3) Exercise on a regular basis.

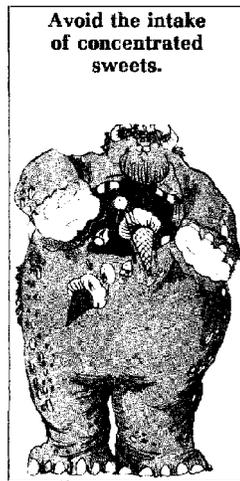


Figure 43. Avoid sweets

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### 5-7. Homicide

*a.* **WHY BE CONCERNED?** Homicide is more prevalent among people who are:

- (1) Owners of weapons for recreational and professional purposes.
- (2) Residents of congested, high crime areas.
- (3) Black males, 18-24 years old.
- (4) People likely to criticize or argue with strangers.
- (5) People frequently involved in potentially violent arguments, especially where alcohol plays a role.

As with other industrialized nations, homicide is more frequent on weekends and at night and is often associated with alcohol abuse. The American homicide rate is much greater than for most other industrialized nations. Many factors are undoubtedly involved in our high homicide rate. Economic deprivation, family breakup, the media, and the availability of handguns are all prominent factors.

*b.* **WHAT CAN YOU DO?** If you fall into any of the mentioned categories of people more susceptible to homicide, you can take measures to reduce your risk. Awareness, of course, is the first step. Also, using self-discipline and control to avoid alcohol-induced arguments with strangers will reduce your risk significantly. Keep weapons secure at all times even when used for recreational or professional purposes.

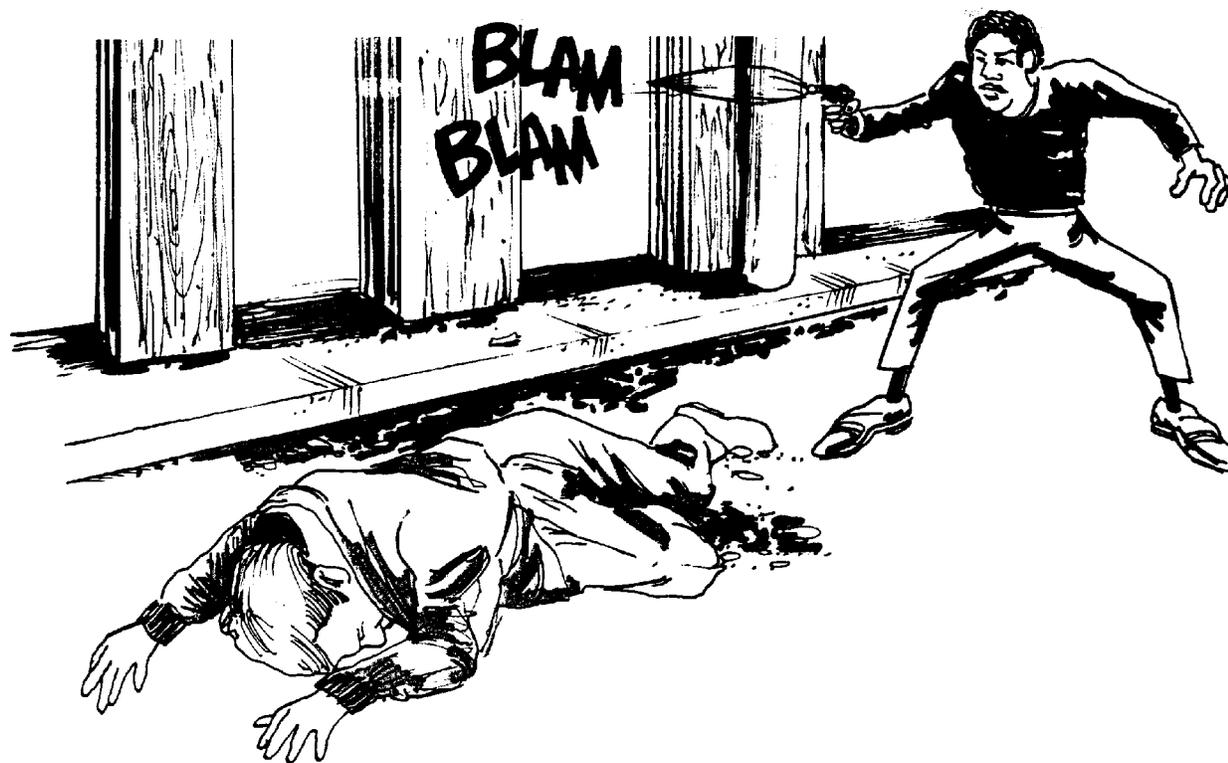


Figure 44. Homicide

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## 5-8. Smoking Cessation

RATE YOUR BEHAVIOR		
DO YOU...	YES	NO
Smoke?		
Smoke cigarettes?		
Smoke more than 20 cigarettes per day?		
Smoke a brand of cigarettes with more than 5 milligrams of tar?		
Smoke a pipe?		
Use chewing tobacco or snuff?		
Smoke more than 5 pipesful per day?		
Smoke cigars?		
Smoke more than 5 cigars per day?		
Have high blood pressure?		
Have heart disease?		
Have chronic lung disease?		
Have a history of lung Cancer in your family?		

If you answered "yes" to one or more questions... read on.

Figure 45. Rate Your Behavior — Smoking

### a. DID YOU KNOW?

(1) Overall, those who are now smoking have approximately a 70 % greater chance of dying from disease than nonsmokers (100 % for 2 pack-a-day smokers).

(2) Smokers have a shorter life expectancy at any given age than do nonsmokers. That difference is greatest among people between the ages of 45 to 64 for both men and women.

(3) Cigarette smokers of all ages are nearly twice as likely to die of heart disease such as heart attack.

(4) The strongest link between tobacco use and any disease shown is lung cancer. The death rate for this disease among lifetime smokers is 16 times as high as for nonsmokers.

(5) Cigarette smoke acts synergistically to increase the damage done by many environmental poisons (asbestos, carbon monoxide, and most industrial carcinogens) and to worsen many diseases such as high blood pressure, high cholesterol and allergies.

(6) The disease-causing effect of cigarettes is related to the number and kind of cigarettes smoked.

b. **BAD NEWS FOR WOMEN WHO SMOKE.** Studies indicate that cigarette smoking increases the risk of heart disease among women and that risk increases with the number of cigarettes smoked per day. Women who smoke are 2 to 6 times more likely to suffer a heart attack than nonsmoking women. Also, pregnant women who smoke are more likely to have stillborn babies, spontaneous abortions, or premature deliveries than are women who do not smoke. Babies born to women who smoke usually are smaller than those born to nonsmoking mothers. The combination of cigarette smoking and the use of birth control pills greatly increases the risk of heart disease among women. Recent studies have shown women smokers who used oral contraceptives were up to 39 times more likely to have a heart

attack and up to 22 times more likely to have a stroke than were women who neither smoked nor used birth control pills. Smoking in conjunction with birth control multiplies the rate of heart disease among women.

c. **GOOD NEWS FOR SMOKERS WHO QUIT.** Smokers can and do reduce their extra risk of heart disease and earlier death when they quit smoking. Here's an example. Cigarette smokers enrolled in the National Heart, Lung, and Blood Institute sponsored Multiple Risk Factor Intervention Trial who quit smoking had a risk of heart disease death one half (46 percent) that of those who did not quit when followed over a 6-year period. Other studies also have shown that quitting results in a substantially lower heart disease death rate compared with those of persons who continue to smoke. Within 5 to 10 years, smokers who have quit a pack or less a day habit have the same life expectancy as a nonsmoker. For ex-smokers who had smoked more than one pack per day, the risk of death due to heart disease is proportional to the total lifetime exposure to cigarette smoke.

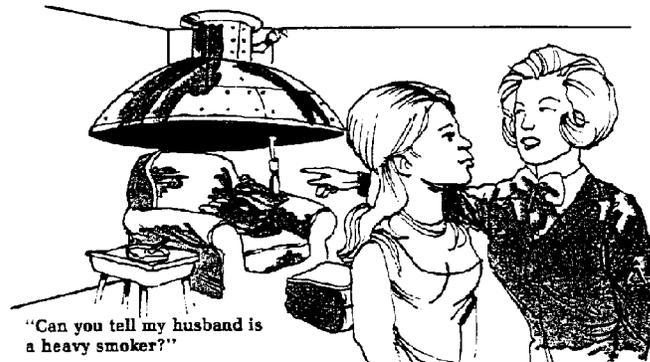


Figure 46. Heavy smoker

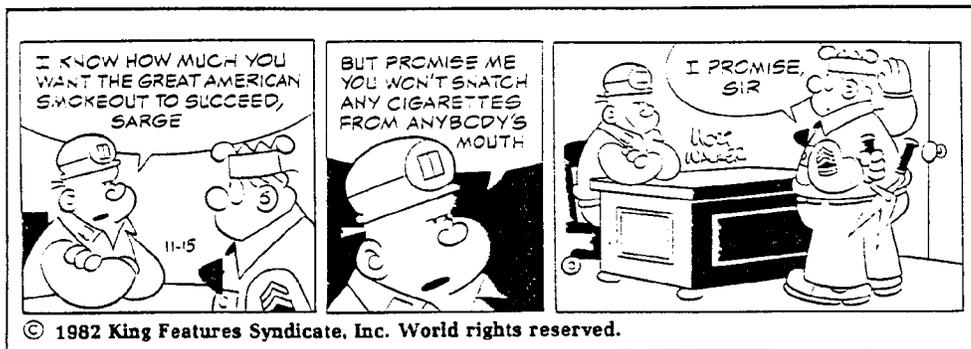


Figure 47. Cartoon — Smoking

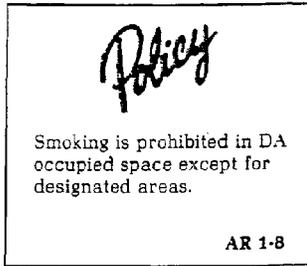


Figure 48. Smoking Policy Statement

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d. **RISK FACTORS IN COMBINATION.** If you have more than one risk factor present, your risk of heart disease increases.

A combination of two or more of the major risk factors such as elevated blood cholesterol and smoking, for example, can seriously increase your chances of having a heart attack. If you have high blood pressure, elevated blood cholesterol and you smoke cigarettes, your risk is increased even more.

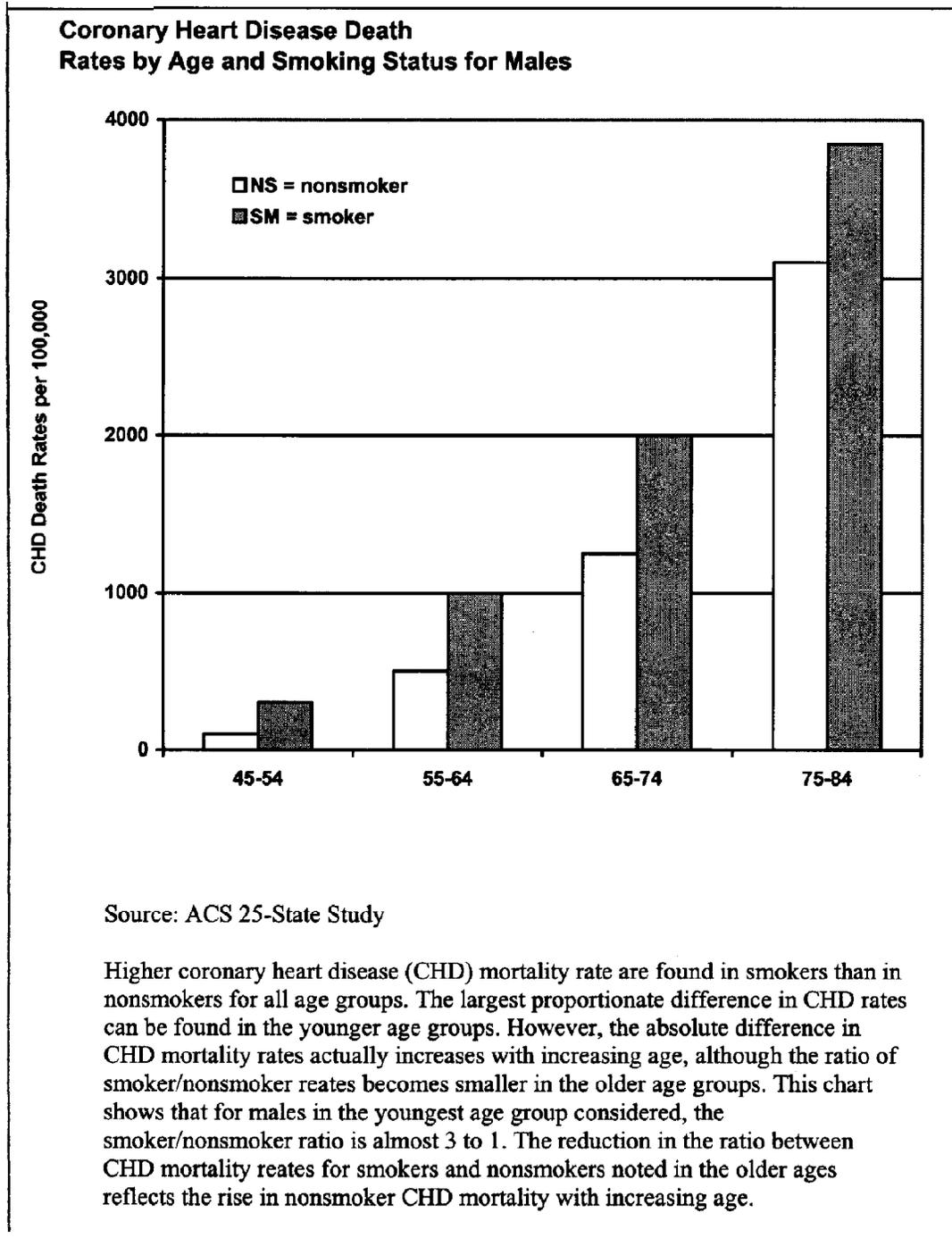


Figure 49. Coronary Heart Disease Death Rates

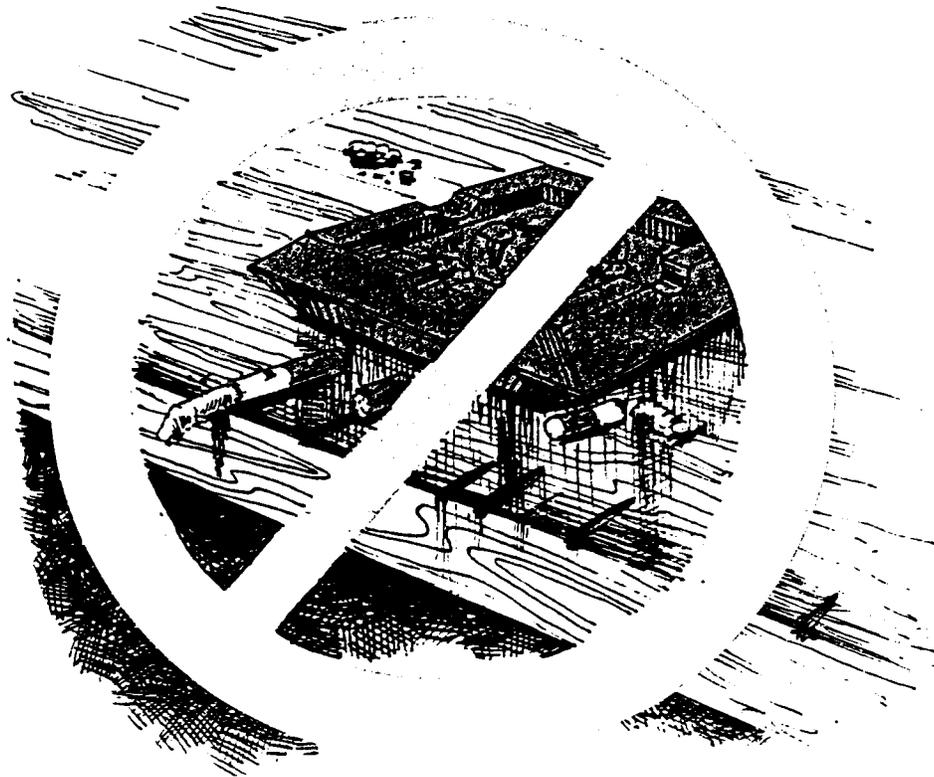


Figure 50. Stop Smoking

*e.* **HOW TO QUIT SMOKING.**

(1) Make a commitment. Set a target date and stick to it. Let your family and friends know about your intentions; it helps to strengthen your resolve.

(2) Make a list of reasons why you want to quit. Refer to it often and add to it throughout your effort to quit.

(3) For the three days preceding your quit-day you should smoke as usual. Record the time and rate you desire a cigarette. (Rank your desire from 1 to 5, 1 being minimal need and 5 being the greatest need). Analyze this data to identify patterns of behavior. Note your **CRITICAL** times where your response is so automatic that you don't even think about it—these are trigger situations.

(4) For each trigger situation (i.e., coffee break, watching T.V., talking on the telephone) develop a plan of action. A good plan of action should include 3 coping strategies: a) an alternative behavior, b) a situation that makes smoking difficult (barrier), and c) a behavior that allows you to avoid the cigarette. An example is:

**Trigger:** Coffee Break

**Coping Strategies:**

(a) Eat carrot sticks or other low calorie snacks. (Alternative)

(b) Put cigarettes out of reach. (Barrier)

(c) Skip your coffee break that day. (Avoidance of trigger)

(5) On your "quit day" throw away all of your cigarettes, matches, and ashtrays. Put your plan of action to work as each trigger situation arises.

(6) If physiological symptoms arise, remember that your body is already beginning its return to a normal state. The symptoms are only temporary and they will go away. In the meantime try deep breathing exercises, get plenty of rest, and drink lots of water.

(7) Reward yourself for your success; go see a movie, treat yourself to nutritious, low calorie meal, or buy some flowers.

(8) Help yourself maintain your nonsmoking status; use relaxation exercises (deep breathing), participate in regular aerobic exercise, and eat low-calorie, nutritious foods. (Many people resort back to smoking if they gain a few pounds after quitting). If you think a group setting will make quitting easier for you, enroll in a smoking cessation class.

---

**IF YOU QUIT,  
YOU WILL  
AVOID OR  
DELAY THE  
ONSET OF:**

- Emphysema
- Lung cancer
- Chronic bronchitis
- Heart Disease
- Vascular disease

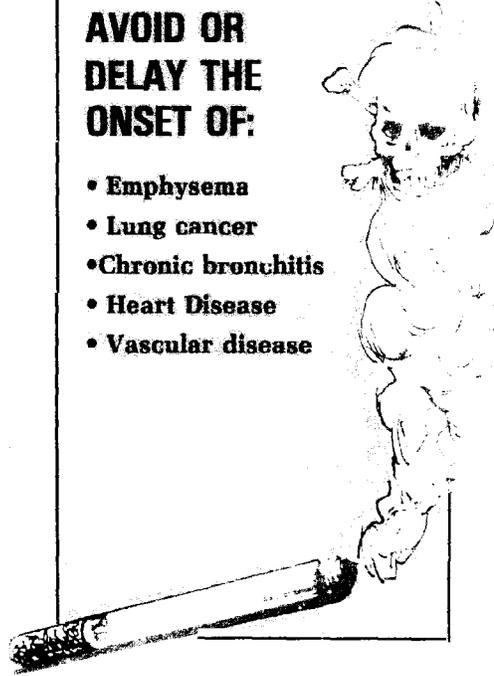


Figure 51. Quit Smoking

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## 5-9. High Blood Pressure

<b>RATE YOUR BEHAVIOR</b>		
<b>DO YOU . . .</b>	<b>YES</b>	<b>NO</b>
<b>Have your blood pressure checked regularly, at least twice a year?</b>		
<b>Know that high blood pressure often has no symptoms and that many people don't know they have it?</b>		
<b>Know if you have high blood pressure?</b>		
<b>Know that high blood pressure is a risk factor for many diseases such as stroke, kidney failure and coronary atherosclerosis?</b>		

If you answered "no" to one or more questions . . . read on.

Figure 52. Rate Your Behavior — High Blood Pressure

*a. WHY BE CONCERNED? High Blood Pressure*, is at epidemic proportions in the United States population. An estimated 35 million people in the United States have high blood pressure. Since high blood pressure has no symptoms, half of the people with the condition don't even know that they have it. It is often detected during routine check-ups or medical exams.

*b. WHAT IS HIGH BLOOD PRESSURE?* High blood pressure, also called hypertension, is defined as blood pressure that is consistently elevated above 140/90 mm Hg (millimeters of mercury) in the adult. An individual would never be diagnosed as hypertensive on the basis of one blood pressure reading alone. People with borderline high blood pressure (140/90) or those with occasional elevated readings should take frequent blood pressure measurements to monitor the development of hypertension.

*c. WHAT DO THE NUMBERS MEAN?* When the cuff is placed on your arm to measure your blood pressure, two measurements are taken. The first measurement ("top" number) is called the systolic pressure. It is the pressure or force that the blood exerts against the vessel walls as the heart pumps the blood to the body. The second measurement ("bottom" number) is the diastolic pressure. It is the pressure exerted against the vessel walls as the heart relaxes.

*d. DOES CONTROLLING MY BLOOD PRESSURE REDUCE MY RISKS?* Controlling your high blood pressure reduces your chances of suffering from the complications of high blood pressure such as stroke, heart disease, and kidney disease. Several studies have shown that people who have controlled high blood pressure have fewer strokes and less heart disease than do those who have uncontrolled high blood pressure. Although more remains to be done, it is encouraging to note that, compared to 20 years ago, a substantially greater proportion of people with high blood pressure now have it under control.

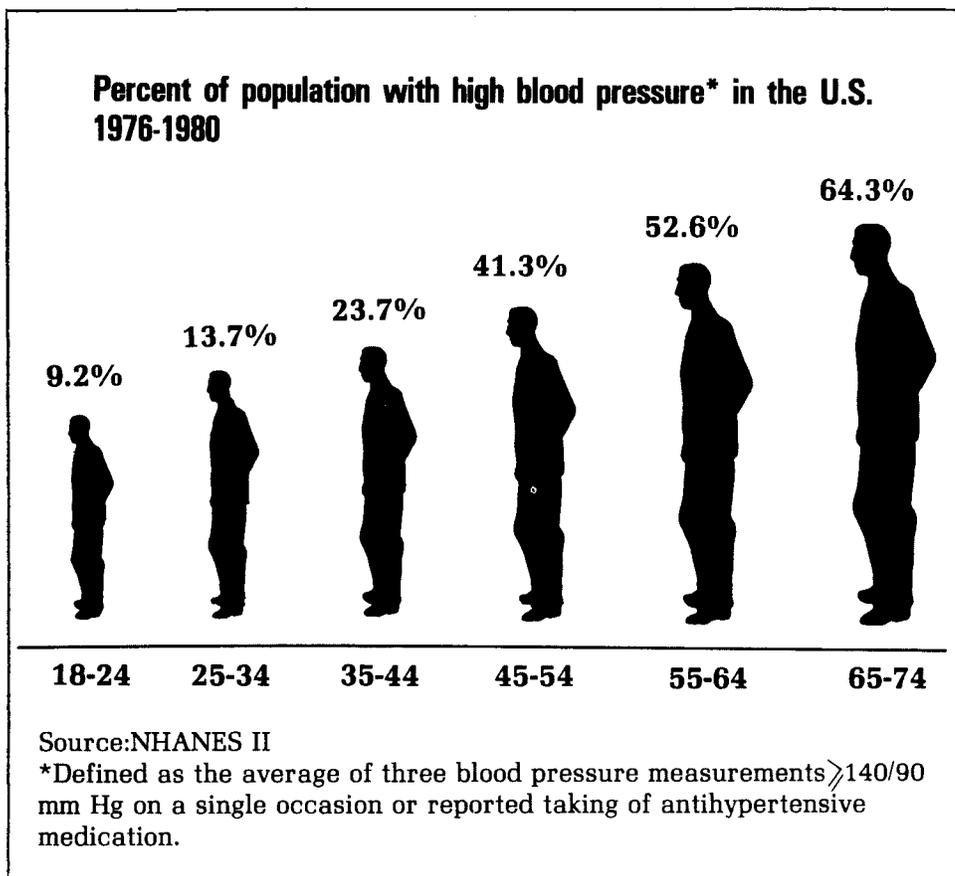


Figure 53. Percent of population with high blood pressure

*e. WHAT ARE THE SYMPTOMS OF HIGH BLOOD PRESSURE?* High blood pressure usually has no symptoms. You can feel fine and not know you have this very serious disease.

*f. HOW IS HIGH BLOOD PRESSURE TREATED?* After a sincere effort is made to modify lifestyle habits contributing to hypertension, a physician may recommend drug therapy. Very often changes in lifestyle habits will help reduce high blood pressure. These include weight reduction, stress management, smoking cessation, salt reduction, regular exercise, and caffeine avoidance. However, if a sincere effort to modify lifestyle behaviors results in little change in blood pressure, a physician may recommend drug therapy. Although there are a variety of prescription drugs available, it is better to try to control it through nondrug therapies if at all possible, since almost all medications have some side effects.

*g. LIFESTYLE FACTORS CONTRIBUTING TO HYPERTENSION*

- Overweight
- High Levels of Sodium in the Diet
- Stress
- Lack of Regular Aerobic Exercise
- Tobacco
- Heavy Caffeine Consumption

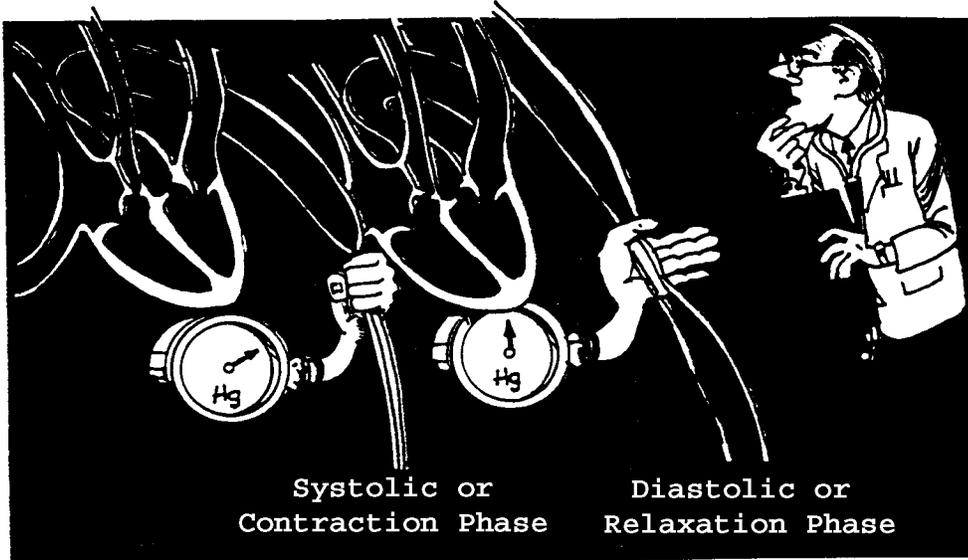


Figure 54. Systolic and Diastolic Phase

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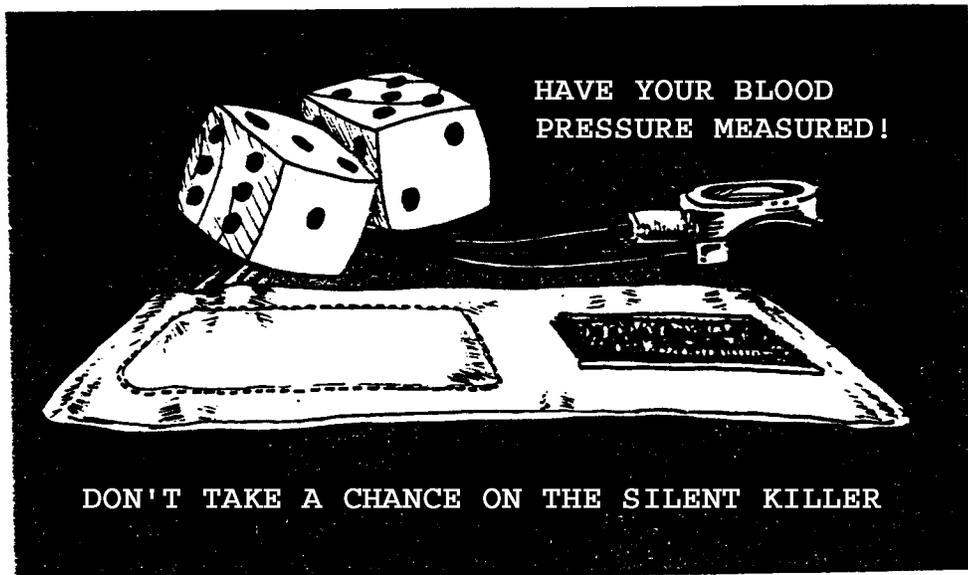


Figure 55. Measure Your Blood Pressure

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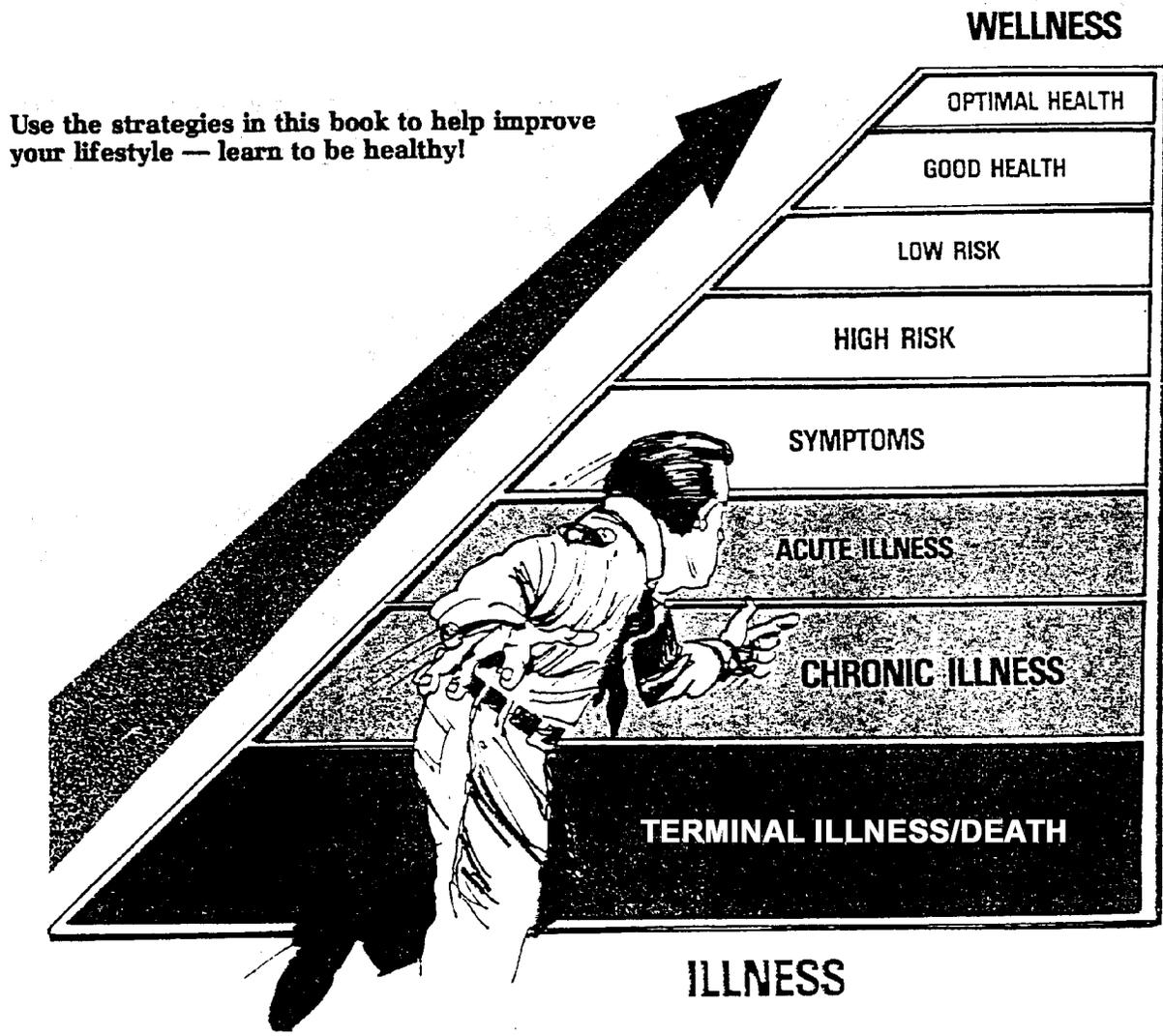


Figure 56. Learn to be healthy

### CHOLESTEROL & YOUR HEART... WHY CARE?

One good reason is that cholesterol in the blood is involved in the development of coronary heart disease — our nation's number one cause of death. Coronary heart disease often affects people who are in the prime of their productive lives.

#### Here's how most coronary heart disease happens:

The heart, like any other muscle in your body, requires a good supply of blood. Your heart muscle receives its blood through the coronary arteries.

In coronary heart disease, fats in the blood—especially cholesterol—are deposited on the inner walls of the coronary arteries. The more fats and cholesterol you have in your blood, the greater their tendency to build up in artery walls. These deposits build up over time.

Eventually one of the major coronary arteries may become **completely blocked** — either by the built-up deposits or by a blood clot forming in the narrowed passageway.

**The blockage can result in a heart attack.**

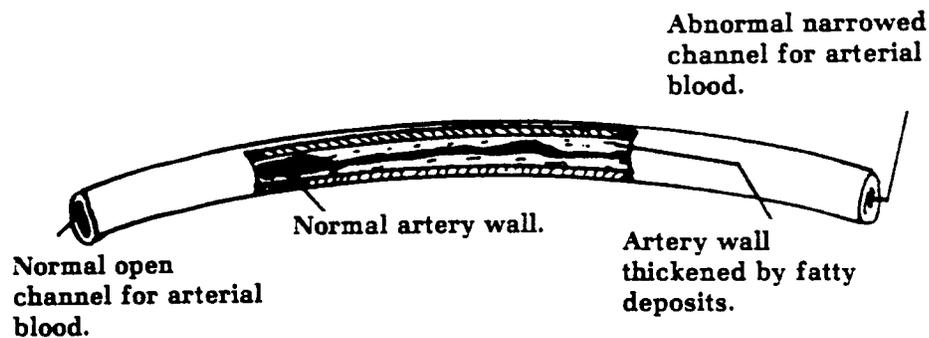


Figure 57. Cholesterol & Your Heart

<b>RATE YOUR BEHAVIOR</b>		
<b>DO YOU . . .</b>	<b>YES</b>	<b>NO</b>
<b>Know what percent of your average daily intake of calories is derived from fat?</b>		
<b>Frequently substitute fish and poultry (skinless) for beef, lamb, and pork?</b>		
<b>Use liquid vegetable oils and margarines high in polyunsaturated fat?</b>		
<b>Substitute baking, boiling, roasting, and broiling for frying more often than not?</b>		

If you answered "no" to one or more questions . . . read on.

Figure 58. Rate your behavior — Cholesterol

*a. WHAT IS BLOOD CHOLESTEROL?* Pure cholesterol is an odorless, white, powdery substance. You cannot taste it or see it in the foods you eat. Cholesterol is found in all foods of animal origin and is part of every animal cell. Even if you didn't eat any cholesterol, your liver would manufacture enough for you body's needs. Your body uses it to make essential substances such as cell walls and hormones. Cholesterol is like a fat in that it will not mix with water. To carry it in the blood, the body wraps it in protein "packages". The combination of cholesterol and protein is called a lipoprotein. To measure your blood cholesterol level, a small blood sample is taken and the amount of cholesterol carried by your lipoproteins is calculated.

*b. WHAT DETERMINES MY CHOLESTEROL?* Your blood cholesterol level is mainly determined by your particular body chemistry, which is an inherited trait like hair or eye color. However, about 1/4 of your blood cholesterol is the result of the food you eat. Your body's response to altering the amount of cholesterol and fat in your diet is partially determined by inheritance.

*c. WHAT ARE LDL AND HDL?* LDLs are the low density lipoproteins that contain the greatest percentage of cholesterol and may be responsible for depositing cholesterol in the artery walls. For that reason LDLs are known as "bad" cholesterol.

Another type of lipoprotein "package" that your body makes is called HDL or high density lipoprotein. HDLs contain the greatest amount of protein and the smallest amount of cholesterol. They are believed to take cholesterol away from cells and transport it back to the liver for processing or removal from the body. Researchers have noted that persons with higher levels of HDL have less heart disease. Thus, HDLs have become known as the "good" cholesterol. Women generally have higher levels of HDL, and this may explain in part why they have fewer heart attacks than do men.

*d. WHAT CAN I DO TO RAISE MY LEVEL OF HDL?* Higher levels of HDL usually are found in people who exercise regularly, don't smoke, and stay at normal weight. The dietary habits which lower total cholesterol may also increase the HDL component or fraction. Adopting these practices may be beneficial in terms of raising your HDL level. However, this is a new research area and more needs to be known about the effects of changing levels of HDL.

*e. WHAT ARE SATURATED FAT AND DIETARY CHOLESTEROL?* The fat we eat is saturated, monounsaturated or polyunsaturated. These terms refer to the chemical structure of the fat molecules. Saturated fat usually is hard at room temperature. The major sources of saturated fat in the diet are meats and dairy products such as whole

milk. Most vegetable oils are cholesterol-free and most are rich in polyunsaturated fat except for coconut and palm oil. Listed according to the highest degree of polyunsaturation, these are safflower oil, sunflower oil, corn oil, soybean oil and cottonseed oil. Dietary cholesterol is not visible to the eye although it is in all foods of animal origin. A food may contain substantial cholesterol and only a moderate amount of saturated fat (an egg yolk, for example).

In the typical American diet, the saturated fat content is the greatest contributor to raising blood cholesterol. However, the cholesterol in food also raises blood cholesterol and some people's everyday diet contains very substantial amounts of cholesterol. With such eating habits, the dietary cholesterol may be the principal contributor to elevated blood cholesterol.

Polyunsaturates will lower blood cholesterol, but only half as much as saturated fats will raise it. In other words, if eating a given amount of saturated fat will raise your blood cholesterol by 10 percent, eating the same amount of polyunsaturated fat will lower the blood cholesterol by only 5 percent.

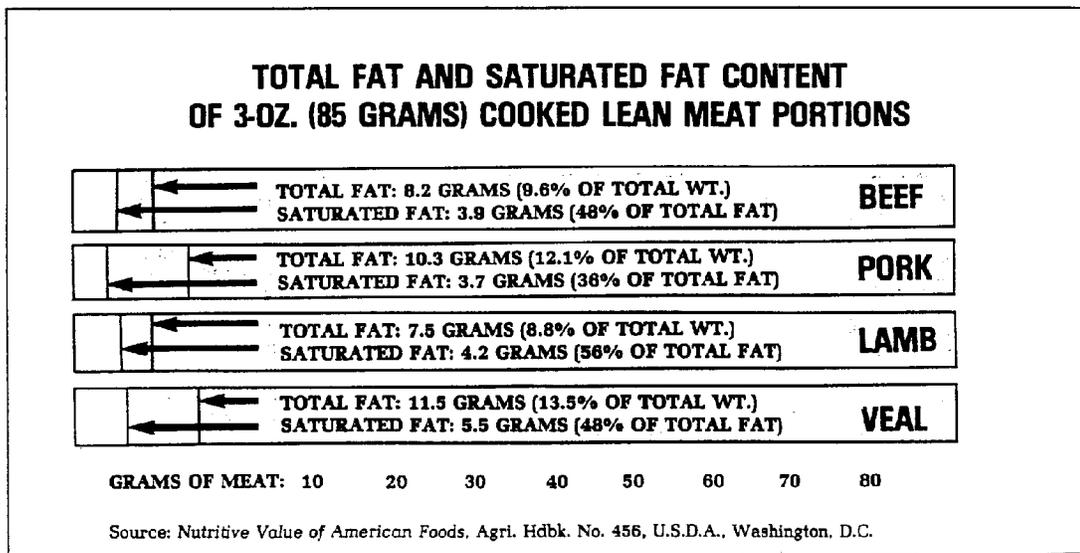


Figure 59. Fat and Saturated Fat Content

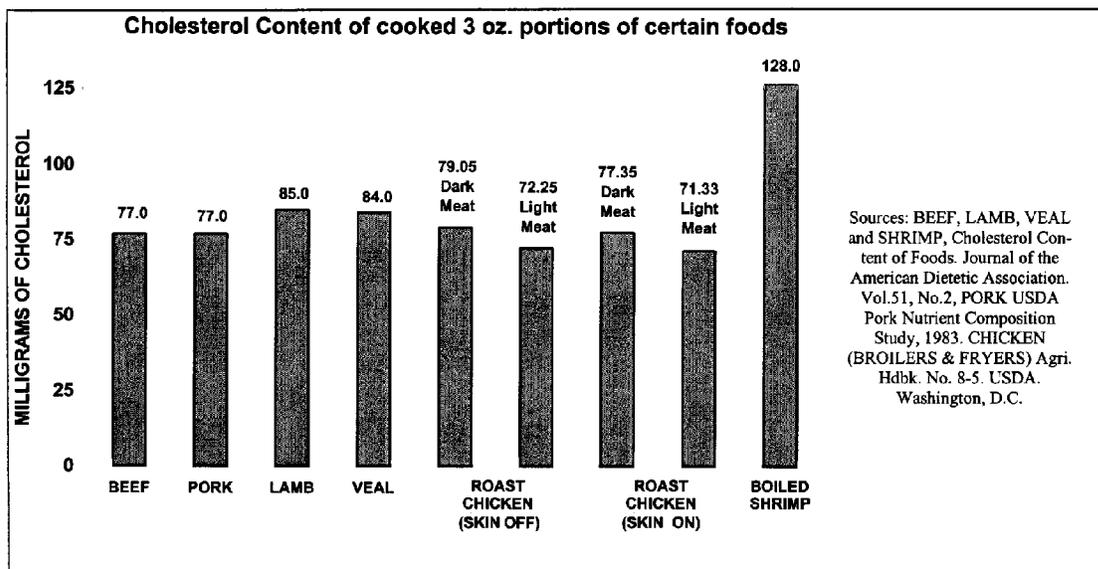


Figure 60. Cholesterol content

*f. CAN I LOWER MY BLOOD CHOLESTEROL BY DIET?* Many studies have shown that blood cholesterol can be reduced by 10 to 15 percent, or even more, by dietary changes. For anyone who is overweight, reduction of dietary fat is advisable for two reasons. All fats, whether they are saturated or polyunsaturated, are high in calories. Reducing dietary fats, the most concentrated source of calories, is essential in weight reduction. Also, reduction of saturated fats in the diet will reduce blood cholesterol.

*g. HOW DO I LOWER MY BLOOD CHOLESTEROL?* First, for those who are overweight, take steps to lose weight. Body weight can be reduced by increasing amount of exercise and reducing the number of calories taken in. Cutting down on fats in the diet is an effective way to lose weight. Plans for dietary change must take into account certain personal factors such as your lifestyle and family history. The diet must be one that reduces calories but preserves a balanced nutritional intake. Then the person should begin with an exercise program designed to allow a gradual transition from inactivity to exercise while maintaining adequate caloric intake.

Second, for most individuals, blood cholesterol can be lowered by eating less saturated fat and cholesterol, and by substituting polyunsaturated fat for part of the saturated fat. Key points to remember are that:

- (1) Cholesterol is found only in animal products (organ meats, eggs, meats, butter, cheese).
- (2) Saturated fat is found mostly in animal products and some vegetable oils (coconut and palm oils).
- (3) Vegetables, fruits, cereal grains, and starches contain no cholesterol and little or no saturated fat.
- (4) Vegetable oils usually are polyunsaturated.

Practical steps to cut down on cholesterol and saturated fat include:

- (1) Choose more vegetables, fruits, cereal grains, and starches.
- (2) Choose fish, poultry, and lean cuts of meat and serve moderate portions.
- (3) Remove skin from chicken before cooking.
- (4) Remove skin from chicken before eating.
- (5) Eat less, or avoid, organ meats such as liver, kidney, or brains.
- (6) Eat less commercial baked goods made with lard, coconut oil, palm oil, or shortening.
- (7) Eat less sausage, bacon, and processed luncheon meats.
- (8) Use skim or low fat milk.
- (9) Choose low fat cheeses.
- (10) Eat less cream, ice cream, or butter.
- (11) Use low fat yogurt.
- (12) Eat less food fried in animal fats or shortening.
- (13) Eat fewer egg yolks.
- (14) Eat margarine with twice as much polyunsaturated fat as saturated fat.

Butter is an animal fat — that means it's high in saturated fats and cholesterol. This is why a lot of people have

switched to margarine.

**Problem:** Not all margarines are alike! Some help lower your blood cholesterol more than others.

**Solution:** Try to find a margarine that has at least TWICE AS MUCH POLYUNSATURATED FAT as saturated fat. Look for a nutrition label on the package. (Unfortunately not all margarines list saturated and unsaturated fat.)

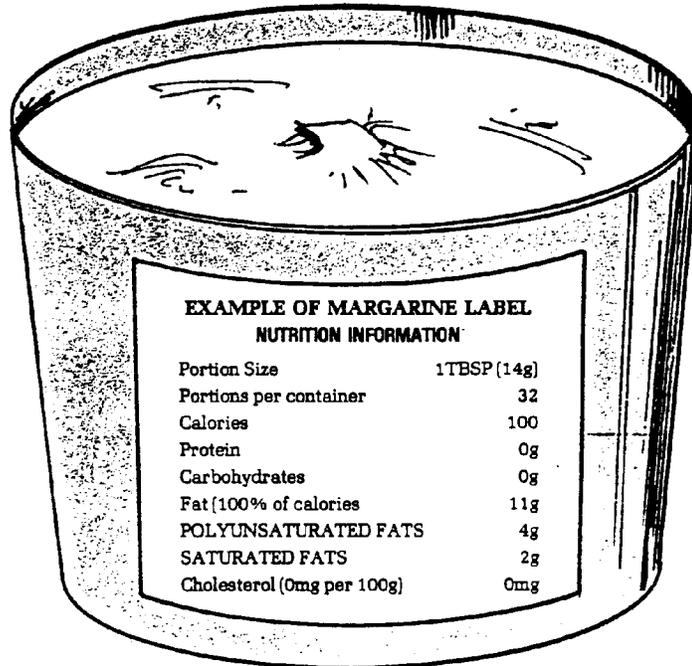


Figure 61. Example of Margarine Label

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**MARGARINES WITH TWICE AS MUCH  
POLYUNSATURATED FAT AS SATURATED FAT.**

**Margarines                      Grams of Fat per Tablespoon**

<b>Brand Name</b>	<b>Polyunsaturated</b>	<b>Saturated</b>
Chiffon, whipped	3	1
Fleischmann's, diet	2	1
Hollywood	5	2
Kitchen Craft	6	2
Lady Lee, tub	4	2
Mazola, stick	4	2
Mazola, diet	3	1
Mrs. Filbert's, stick	5	2
Nuccoa, tub	4	2
Parkay, tub	4	2
Parkay, squeeze	4	2
Promise, tub	10	2
Saffola, stick	5	2
Satin Gold, tub	4	2
Shedd's, squeeze	6	2
Southern Belle, stick	4	2



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Figure 62. Margarines

## 6-2. Stress.

### a. WHAT IS STRESS?

**Stress** is defined as your body's response to any real or imagined demands placed upon it.

**b. THE BODY'S RESPONSE** Your body's initial response to stress is a chemical one. You produce chemicals that travel throughout your body getting you ready to fight this challenge or run from it. As the result of this chemical discharge, your heart rate increases, your breathing rate speeds up, your muscles become tense, blood leaves your hands and feet and travels to your large muscles, your blood platelets get sticky, your pupils dilate, and your digestion ceases. All of these physical changes occur to get you ready for this fight or flight reaction.

This fight or flight response is a very primitive protective response that was built into our bodies and enables us to function at peak efficiency during truly high stress or emergency situations (e.g., battle, athletic competition, saving someone's life, etc.). The problem with our modern highly competitive, fast paced, multi-role lives is the stimulation of our body's emergency stress response over and over again throughout the day. Neither fighting nor running are appropriate for dealing with the numerous hassles or stresses of our daily problems at work or at home, pressures of traffic, waiting in lines, and our own self-talk about what we must or should do. We have no way to discharge the energy that our body produces with this fight or flight response. This becomes a problem when it occurs too often, is too intense, or lasts too long when the rate of wear and tear on our body is increased, the eventual result may be a stress-related disease or disorder. The following list includes some of the stress-related diseases.



Figure 63. Cartoon – Stress

### c. STRESS-RELATED DISEASES

#### (1) Muscle & Skeletal Disorders

- Back pain
- Joint disease
- Tension headaches

#### (2) Cardiovascular Disorders

- High blood pressure
- Irregular heart beat
- Coronary heart disease
- Migraine headaches
- Raynaud's disease (abnormal blood vessel constricting)

#### (3) Respiratory Disorders

- Bronchial asthma
- Hay fever
- Allergies
- (4) **Skin Disorders**
  - Infections
  - Hives
- (5) **Sexual Disorders**
  - Impotence
  - Menstrual problems
  - General sexual dysfunction
- (6) **Gastro-Intestinal Disorders**
  - Inflammation of colon
  - Duodenal ulcers
- (7) **Disorders of the Immune System**
  - Tumors
  - Blood diseases

*d.* **COMMON SOURCES/CAUSES OF ARMY STRESS**

- Person/job mismatch
- Role conflict
- Role ambiguity/uncertainty of what is expected
- Work overload
- Long/erratic working hours
- Highly reactive work
- Un-realistic expectations/surprises
- Conflict
- Loss of control over work
- Rapid and unpredictable changes

*d.* **WHAT ARE YOUR STRESSORS?** A stressor is any demand (real or imagined) which causes you to adapt or change.

- (1) **External Stressors**
  - Traffic
  - Noise
  - Overcrowding
  - Extremes in temperatures
  - Excess caffeine, nicotine
- (2) **Job Stressors**
  - Work deadlines
  - Time pressures
  - Job ambiguity
  - Work overload
  - Boredom and inactivity
  - Promotions
  - Giving/receiving negative feedback
  - Dealing with angry/aggressive people
- (3) **Personal/Social Stressors**
  - Illness (self or family)
  - Fatigue
  - Friction
  - Prolonged worry
  - Increased mobility
  - Changing roles
  - Financial problems
- (4) **Self-Talk Stressors**
  - Self-imposed demands
  - Personal performance
  - Expectations
  - “Shoulds”, “musts”, “oughts”
  - Personal myths and beliefs

e. **ANXIETY PRODUCING BELIEFS.** Dr. Albert Ellis, a well known psychologist has identified a handful of irrational beliefs that underlie many of our anxieties. These irrational beliefs are:

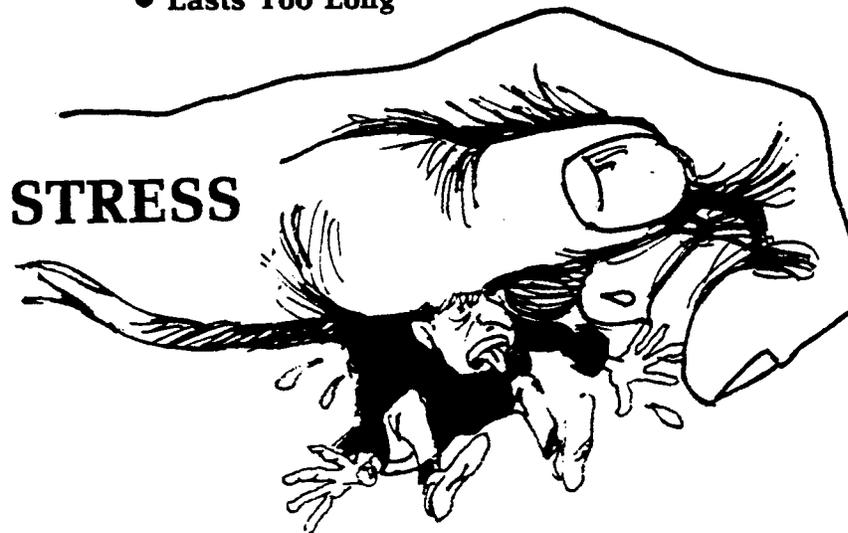
- (1) It is necessary that we be loved by everyone, and everyone must approve of everything we do.
- (2) We must be perfectly competent, adequate, intelligent, and successful in all things in order to consider ourselves worthwhile.
- (3) Certain people are evil or inept, and should not be that way. They should be blamed and punished.
- (4) It is a terrible catastrophe when things don't go the way we think they should.
- (5) Unhappiness is caused by external events, and we have little ability to control or change our feelings about these events.
- (6) If something is or may be dangerous or fearsome, we should be terribly concerned about it and should constantly dwell on it until it passes.
- (7) It is easier to avoid life's difficulties and responsibilities than to face them.
- (8) The influence of the past must affect our present behavior and cannot be overcome.
- (9) There is always a perfect solution to a problem and it is a catastrophe if this "perfect" solution is not found and applied precisely.
- (10) Maximum pleasure comes from always relaxing and enjoying yourself.
- (11) When others disapprove of us, it invariably means we are wrong or bad.
- (12) Our worth as human beings depends on how much we achieve or produce.
- (13) In order to consider ourselves worthwhile, we must be better (smarter, more productive, etc.) than those around us.

Once identified, you can work on eliminating or modifying your irrational belief systems. Classes in stress management can be very helpful in this process.

---

## **STRESS BECOMES A PROBLEM WHEN IT:**

- **Occurs Too Often**
- **Is Too Intense**
- **Lasts Too Long**



**ARE YOU CAUGHT UP  
IN STRESS?**

Figure 64. Stress becomes a problem

---

<b>RATE YOUR BEHAVIOR</b>		
<b>DO YOU . . .</b>	<b>YES</b>	<b>NO</b>
Have a habit of explosively accentuating key words in your ordinary speech and a tendency to speak the last few words of your sentences with increased speed?		
Always move, walk, and eat rapidly?		
Feel impatient at the slowness at which most events take place?		
Frequently find yourself finishing someone else's sentences for them?		
Become furious when you have to wait in a long line to be seated at a restaurant?		
Frequently try to do or think about two or more tasks simultaneously (for example, eating while working, thinking about work while playing, etc.)?		

Figure 65. Rate Your Behavior — Stress

**Stress Behavior** is a unique way of responding, confronting or interpreting daily stressful situations particularly those involving threat, challenge, and control. In general, stress behavior is a way of approaching life that might have some short term benefits, but more often than not, it impairs efficiency over the long run and undermines health.



Figure 66. Stress Behavior

---

**a. IT MANIFESTS ITSELF IN:**

- Irritation with slow drivers.
- Interrupting others to finish their sentences.
- Anguish at waiting in line.
- Impatience with repetitive duties.
- Thinking or doing more than one thing at a time.
- Continually turning the conversation to one's interests.
- A belief that success is due to working faster and harder than others.
- A belief that there is not enough time to complete all the things worth doing.
- Difficulty in sitting and relaxing.
- Not noticing interesting things in the environment.
- Not experiencing much delight in life.
- Ceaseless, joyless striving in all tasks.
- Being easily provoked.

**b. BEHAVIORAL MANNERISMS:**

- Facial tautness
- Jaw clamped
- Lateral smile
- Eye blinking
- Abrupt speech
- Tongue clicking
- Loud, explosive speech
- Staccato or unpleasant voice
- Hurrying speech of others
- Finger and knee jiggling
- Pounding fist when talking
- Clenching fist when talking
- Tense posture
- Sighing
- One word responses "Absolutely!", "Super!"



Figure 67. Behavioral Mannerism

---

**c. SIGNS OF AGGRESSION AND HOSTILITY INCLUDE:**

- Tendency to be angry.
- Hyperreacting to small or unpredicted events.
- Challenging other stressed Type A individuals.
- General distrust of others' motives.
- Irritation or rage when remembering past events that aroused anger.
- Rarely giving another person individual attention.
- Explosively accentuating key words.
- Always playing games to win.
- Clenching fists, pounding table, pointing fingers.
- Facial expression of anger & struggle.



Figure 68. Signs of Aggression

---

**d. IT IS CHARACTERIZED BY:**

- Chronic sense of time urgency.
- Impatience with the world and its inhabitants including self.
- Always moving, walking, eating rapidly.
- Chronic struggle with self and others.
- Excessively striving for achievement.
- Quest for numbers.
- Insecurity of status.
- Hostility and aggressiveness.
- Polyphasic thought or performance.
- Excessive drive.
- Competitiveness.

Stress behavior is learned and the parts that make you more susceptible to disease, hostility, and hyperactivity, can be changed.

## **6-4. Stress Management Strategies**

**Recognize Your Own Personal Stressors and Stress Signals.** Listen to your body.

**a. Take Care of Yourself!**

- (1) Get 7-8 hours of sleep (or the amount you need to awake refreshed).
- (2) Exercise 30 minutes three times a week and monitor target pulse rate.
- (3) Do not smoke or inhale smoke of others.
- (4) Drink only moderate amounts of alcohol (0-2 drinks daily).
- (5) Maintain normal weight.
- (6) Develop and maintain support system (family, friends, pets!).
- (7) Eat breakfast.
- (8) Use your seat belt.

**b. Change Your Body's Response to Stress through Practicing and Utilizing:**

- (1) Diaphragmatic breathing or other breathing techniques.
- (2) Progressive muscle relaxation.
- (3) Meditation and imagery,
- (4) Autogenic exercises.
- (5) Other relaxation techniques (Yoga, T.M., Zen, Hypnosis, Biofeedback, etc.).

**c. Change, Avoid or Minimize Stressors.**

- (1) Change commuting patterns. Use music, or relaxation tapes in car.
- (2) Avoid exposures to stressors (traffic, caffeine, and smoke).
- (3) Check chairs, desk and workplace for correct fit.
- (4) Regulate extremes of temperature, lighting, and noise.
- (5) Learn to deal with aggressive personalities.
- (6) Avoid continuous interruptions.
- (7) Anticipate and prepare for change.
- (8) Leave the situation (take breaks, go out for lunch, take yearly vacations).

**d. Change The Way You Think and Communicate.**

- (1) Change your negative self-talk and irrational thinking.
- (2) Examine your personal performance expectations.
- (3) Work on raising your self-esteem.
- (4) Learn to communicate effectively; practice active listening and assertiveness.
- (5) Practice anger management.
- (6) Identify and eliminate your anxiety-producing beliefs.
- (7) Practice the "three C's" for thinking about and coping with stress: control, challenge and commitment.

**e. Find Your Optimal Stress Level and Stay There.**



Figure 69. Stressors

---

*f.* **STRESS SIGNALS**

(1) **Physical**

- Tense muscles
- Stiff neck and shoulders
- Headaches
- Backaches
- Tight or fluttery stomach
- Pounding or racing heart
- Rapid pulse
- Shortness of breath
- Increased perspiration
- Cold hands and/or feet

(2) **Emotional**

- Worrying
- Lack of concentration
- Desire to cry or run away
- Loss of self-confidence
- Anxiety, fear, panic
- Irritability or edginess
- Frequent anger
- Frustration

(3) **Behavioral**

- Change in appetite
- Change in sleep pattern, sexual functioning
- Change in use of alcohol, tobacco, drugs
- Forgetfulness
- Accident proneness
- Crying, yelling, blaming
- Nail biting, teeth grinding
- Decline in productivity
- Absenteeism
- Avoiding others
- Change in personal appearance

<b>RATE YOUR BEHAVIOR</b>		
<b>DO YOU...</b>	<b>YES</b>	<b>NO</b>
Exercise at least 3 times per week?		
Exercise at a heart rate that is 60-80% of your maximal heart rate?		
Exercise for at least 20-30 minutes per session?		
Take 5-10 minutes to warm-up before exercise to gradually increase your heart rate?		
Take 5-10 minutes to cool-down after exercise to decrease your heart rate?		
Include flexibility and strength training exercises as part of your exercise program?		

If you answered "no" to one or more questions... read on.

Figure 70. Rate Your Behavior — Physical Conditioning

a. **DID YOU KNOW?** In order to achieve an appropriate level of total fitness that is safe and effective, you should be answering "yes" to the above questions. Under-exercising may cause you to experience benefits to a much lesser extent or not at all. Regular aerobic exercise increases cardiorespiratory fitness levels. Examples of aerobic exercises are running/jogging, brisk walking, swimming, bicycling, and aerobic dance or calisthenics to music. When beginning an exercise program it is wise to exercise every other day for 20-30 minutes. Start slowly-try alternating walking with jogging and other forms of aerobic exercise. **The key is to gradually build up frequency, duration, and intensity of exercise.**

## BENEFITS OF EXERCISE

Decrease		Increase
X	Body Fat	
X	Resting Heart Rate	
	Strength	X
	Flexibility	X
	Respiratory Efficiency	X
	Efficiency of the Heart	X
X	Blood Pressure	
X	Stress, Tension, Depression	
X	Chance of Back Pain	
	Energy Level/Vitality	X
X	Recovery Time After Exercise	
	Positive Self-Image	X
X	Chance of Heart Attack	
X	Cholesterol	
	HDL	X
	Aerobic Work Capacity	X

Figure 71. Benefits of Exercise



Figure 72. Cartoon — Physical Conditioning

**b. FLEXIBILITY/STRETCHING.** While flexibility is a very important component of overall fitness, proper stretching techniques to achieve greater flexibility are equally important. Traditional ballistic movement (rapid bouncing) was once thought to be the best way to improve flexibility, However, researchers now tell us that ballistic stretching is not only an ineffective method of stretching, but it is unsafe and can result in injury. Static stretching of the muscle is felt by many to be the best and safest way to increase flexibility. It involves slow, steady stretching for a period of 20-30 seconds. This prevents overstretching and aids in relaxing the muscle.

It is a good idea to stretch for 5-10 minutes before you exercise to warm-up your muscles. After you exercise, your muscles are warm and supple and this is a good time to stretch for flexibility improvement. Stretching at this time may also reduce muscle soreness.

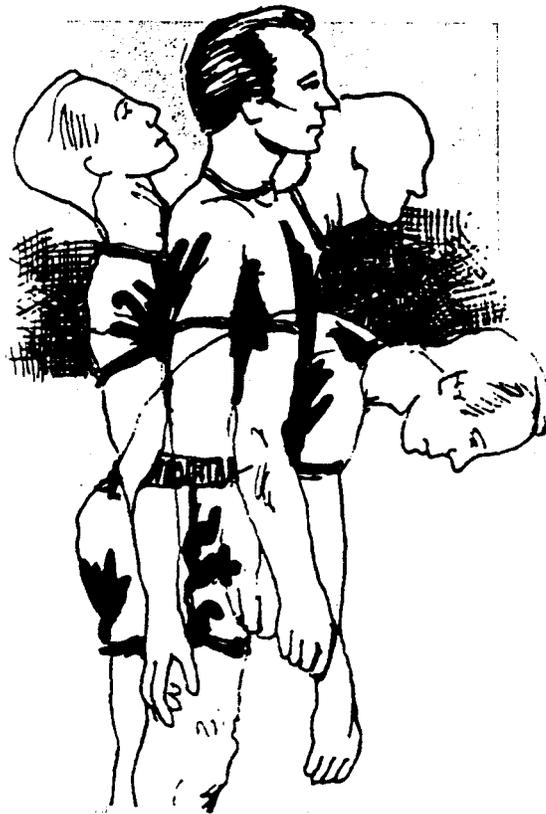


Figure 73. Flexibility/Stretching

c. **STRENGTH.** Strength training should be a part of your fitness program. Aerobic exercise improves muscle tone and muscle endurance. Strength training does not mean body-building and does not have to result in large bulky muscles in men or women. Improving your strength is surpassingly helpful for many daily living activities. Carrying heavy items, climbing stairs, opening a jar with a tight lid, to name only a few, do not have to be the chores that they can seem to be. Runners are often surprised to see how much their running improves when they start a strength training program. Women are amazed at the tasks they can complete on their own without asking assistance from a man!

d. **ARE THERE RISKS INVOLVED?** There are potential risks involved when participating in an exercise program. The major risks are injuries to the muscles and joints and heat stroke/heat exhaustion disorders. However, most risks can be avoided by taking the following precautions:

(1) Build up your level of exercise gradually. Too often new exercisers try to make up for many years of inactivity in one week and end up with an injury that prevents them from exercising at all.

(2) Proper stretching reduces chance of injury by improving the flexibility of the joint. It can take pressure off tendons by increasing the length of the resting muscle.

(3) Strengthening the muscles allows them to be more resistant to bodily trauma (such as twisting an ankle, breaking a fall, etc.) Keep in mind that you don't need access to an actual set of weights in order to increase your strength. Push-ups, sit-ups, even things like regular yard work (push mowing, raking, etc.) require the muscles to work harder than at rest and can result in muscle strength gain.

(4) When exercising in hot weather be sure to wear proper clothing and make sure that you take in plenty of water (drink more than you're thirsty for!). Drink at least 10 oz. of water before starting your workout. Reduce your distance and/or pace in severe heat. Sometimes a work out can do you more harm than good if you aren't careful.

(5) R.I.C.E. The basic formula for treating an injury to the muscles or joints is REST, ICE, COMPRESSION, and ELEVATION applied immediately after injury. In severe cases, and if pain and swelling persist, seek help from a physician.

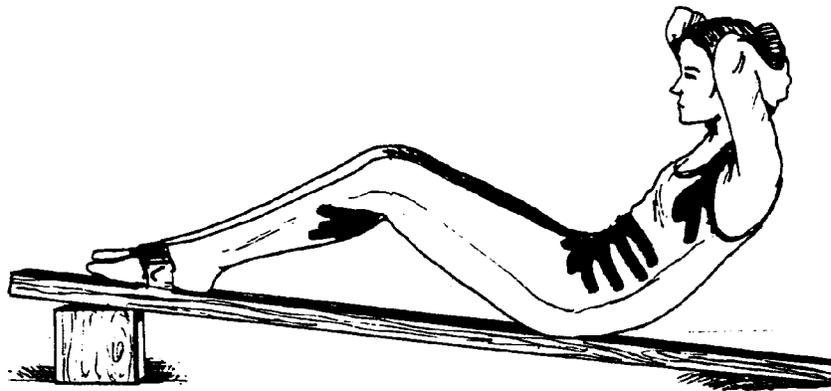


Figure 74. Strength

**EXAMPLE**  
35 year old sedentary man  
in good health, RHR of 72  
and just beginning a  
exercise program.

$$\begin{array}{r}
 220 \\
 - 35 \\
 \hline
 185 \text{ (MHR)} \\
 - 72 \text{ (RHR)} \\
 \hline
 113 \\
 \times .60 \text{ (\%)} \\
 \hline
 68 \\
 + 72 \text{ (RHR)} \\
 \hline
 140 \text{ (THR)}
 \end{array}$$

This man should be exercising  
at a heart rate of 135-145  
beats per minute.

Figure 75. Target Heart Rate

**e. FIGURING YOUR TARGET HEART RATE (THR)**

- (1) First start with your predicted maximum hear rate (MHR):  
     220 minus your age for males  
     225 minus your age for females
- (2) Then your resting heart rate (RHR) while sitting at rest during a relaxed state. To be accurate, take it several times during a 3 day period and use the lowest value. Subtract your RHR from your MHR.
- (3) Next you should select one of the following 4 categories that most appropriately describes you and your exercise habits. Use that percentage in calculating your THR.

<u>Fitness/Activity Level</u>	<u>Percentage</u>
• Extremely poor condition or have an otherwise limiting factor for a three month period. ....	50%
• Healthy, but sedentary individual just beginning an exercise program. ....	60%
• Individual who has participated in a regular exercise program for at least 3 months at 60 % with no problems. ....	70%
• Individual who has participated in a regular exercise program for at least 6 months and has progressed through a level of 70 % with no problems. ....	80%

- (4) Once you have selected your percentage level, multiply it by the difference between MRH and RHR. The last

step is to add back the RHR. This gives you your target heart rate for exercise. Set your pace/intensity so that you are exercising within  $\pm 5$  beats of your target heart rate. If you are on medication that alters your heart rate, consult your physician before calculating your heart rate.

(5) Check your pulse rate 10 minutes into your workout. Continue to move as you take this measurement. Place the tip of your third finger (never the thumb) lightly over one of the blood vessels in your neck (carotid arteries) located to the left or right of your Adam's apple. Another convenient pulse spot is the inside of your wrist just below the base of your thumb.

(6) Count your pulse for 10 seconds and multiply by 6.

(7) If your pulse is below your target zone, increase your pace. If you're above your target zone, exercise a little easier and if it falls within the target zone, you're doing fine. Recheck in 10-15 minutes and at completion of exercise.



Figure 76. Pulse

---

*f.* **CAUTION.** Formulas based on predicted maximum heart rate should not be used to determine training heart rates for persons with heart disease, suspicious symptoms of heart disease, or who are taking medication that lowers heart rate such as beta blocking agents (propranolol or similar drugs prescribed for hypertension or heart disease.) Consult your physician for guidance.

<b>RATE YOUR BEHAVIOR</b>		
<b>DO YOU...</b>	<b>YES</b>	<b>NO</b>
Give up snacks when dieting?		
Think low protein diets are safe and effective?		
Overeat when depressed?		
Believe that exercise is useless in controlling weight.		
Use diet pills to get started on your weight control program?		
Find you are always on a diet?		

If you answered "yes" to one or more questions read on.

Figure 77. Rate Your Behavior — Weight Control

a. **HOW SHOULD I LOSE WEIGHT? Body Fatness** is a reflection of the balance each individual maintains between food they eat and their activity. One pound of fat tissue represents an imbalance of 3500 calories. Although there are a number of factors such as heredity which do appear to affect weight, to lose weight you must burn up more calories than you take in. This can be done by increasing your activity, reducing your intake of calories, or a combination of both. Increasing activity and controlling or moderately reducing the calories you eat is the best method to lose fat and keep it off.

The yo-yoing of weight due to on and off again adherence to fad diets is not desirable. When fat is lost, it usually is lost evenly from all over the body. A relapse into old habits which leads to an increased intake of calories will of course, promote fat formation. However, as one gets older new fat accumulates not in even proportion all over the body, but in increased amounts in the abdominal area, forming "the potbelly."

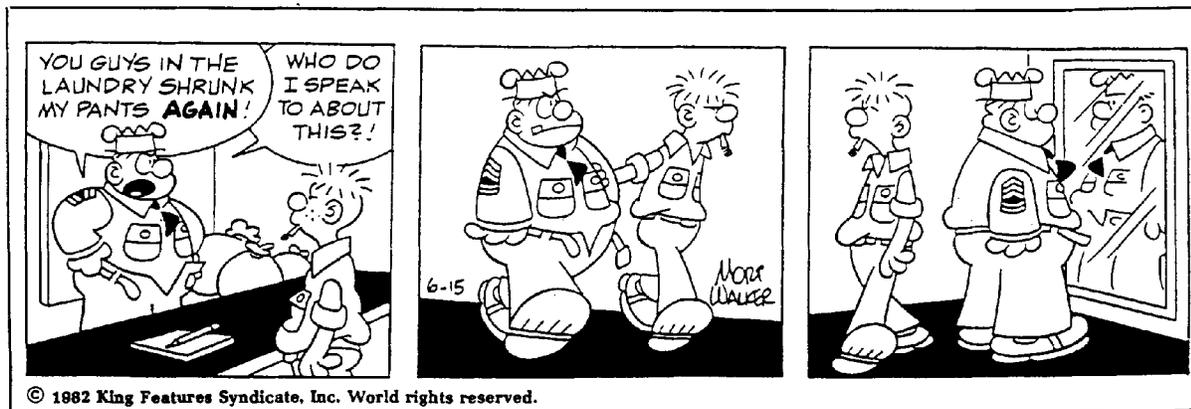


Figure 78. Cartoon — Weight Control

**b. WEIGHT LOSS SHOULD BE GRADUAL.** A rapid weight loss may be medically hazardous. Usually quick weight loss diets are not nutritionally complete. They may promote the formation of kidney stones or electrolyte disturbances which may lead to cardiac difficulties and death. A gradual weight loss averaging not more than one to two pounds a week is best. Remember that not all weight is fat. Lost weight usually consists of a combination of fat, lean body mass, and water. The more rapidly weight loss occurs, the larger the amount of lean body mass lost. Thus, while the scale may register a significant loss, the type of tissue lost is not all fat. Some of the rapid weight loss that is achieved by rash diets is caused by a large loss of water. There is always some loss of water during any diet. Generally speaking, this type of fluid loss is only temporary and once a normal diet is restarted, the body will then retain the natural amount of fluid it needs to function.



Figure 79. "Too Good to be True"

c. **CHANGE YOUR HABITS.** Many people decide to go on a quick loss diet with the aim of a rapid reduction in weight. They then plan to eat less in order to keep the weight off. As good as this sounds, it almost always fails. The way you eat and exercise got you where you are today; there is no way around it. If you were magically twenty pounds lighter but you did not change the way you eat or exercise, you would gradually regain your weight and end up right back where you are today. You have to change your habits.

- Examine your diet for unnecessary calories. Fat, sugar, and alcohol are called empty calories. They provide energy without any essential nutrients.

- We “eat with our eyes”. For many of us to see food is to desire it. Try to see food that is appropriate in quantity and preparation.

- Many calories can be cut out of the diet by simply reducing our sugar and fat intake.

d. **WEIGHT MAINTENANCE.** A weight control program is doomed to failure if it does not address weight maintenance. The emphasis must be placed on developing sensible eating and exercising habits.

A habit is something which is relatively permanent; it is also something which is learned through practice. If you are concerned about reducing body fat, then you should look at changing habits connected with both your daily activity and eating patterns. Any change in a habit would be relatively permanent, something you feel you can do for the rest of your life.

Excess calories are often consumed because they are available. Individuals frequently eat snacks while reading, playing cards, or watching television. Hunger is not present — just the habit and the availability of food. Many people reduce their total caloric intake by becoming more conscious of the availability of food and eating opportunities. Once these habits have been identified you can take the steps necessary to correct them. Some people find a food diary helpful. This is a listing of food items and the amount eaten. It should be completed immediately before or after eating an item.

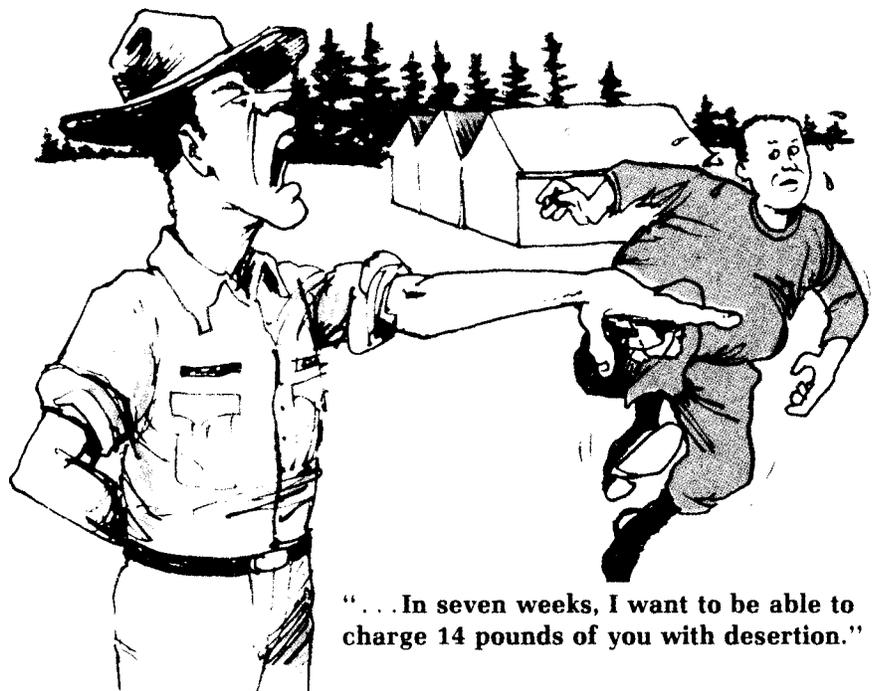
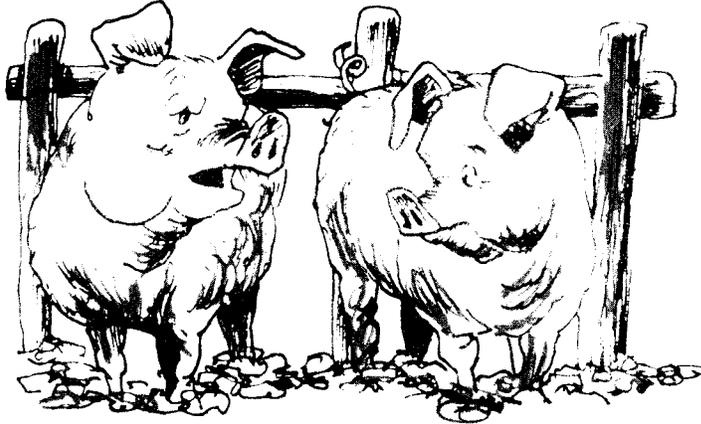


Figure 80. Lose weight

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**Exercise will help you control your weight. Find an exercise program you “really” enjoy. That way you can live with it, forever. Be creative!!**



**“Wanna mud wrestle?...It can be good exercise!”**

Figure 81. Exercise

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**e. HINTS OR COMMENTS.**

(1) **Get Motivated.** Forget those old excuses: “But I’ve got a large frame; you know — big bones!” “Gosh, I haven’t weighed 180 since I was 15 years old!” “I can’t lose weight; not when I have to face all that greasy mess hall chow!”

If you are serious about reducing, you will have to give up some of these typical excuses. You will be more successful and less resentful if you consider yourself as the responsible initiator of a selfbenefiting plan rather than to think of dieting as a punishment inflicted on you. If your desire for food is stronger than your desire to lose weight, you’ve already admitted to defeat and you will probably remain unhealthy and self-conscious about your weight for the rest of your life.

(2) **Try Not To Be Food-Centered.** Make sure that food has not become the primary source of your enjoyment and satisfaction. If it is a substitute activity for feelings of boredom, anger, loneliness, or discouragement then concentrate on finding alternate activities to occupy your time. This is imperative if you plan on being successful at losing weight. Get involved in intramural sports or pick a new hobby. Resolve to control food instead of letting food control you.

(3) **Set Achievable Goals.** Realistic goals for successful dieters are to lost 1 to 1-1/2 pounds per week.

(4) **Enjoy Your Meals.** Slow down, savor flavors, and don’t stuff yourself. Take pleasure in mealtime even if you are curtailing what you eat.

(5) **Don’t “Pig Out”.** The best assurance for healthful eating for the rest of you life is acceptance of the fact that you are at all times responsible for what you are eating. Overindulgence, regardless of the circumstances where and when you are eating, hurts no one but yourself!

(6) **Portion Control.** There isn’t a single food that is so prohibitively high in calories that it can’t be eaten occasionally in small amounts. Many people must recognize that they have an obsession for a particular food. For them, trying to eat “just one” cookie, BBQ spare rib, or whatever is like falling out of a skyscraper window and expecting to drop only one floor. In that case it may be best to avoid them entirely. You and you alone are responsible for the amount of food you consume.

(7) **Schedule Meals.** People who skip breakfast or lunch tend to overcompensate later in the day. Regular and planned meals help prevent eating too much.

(8) **Shopping.** Only buy foods on a full stomach and avoid buying snack foods for future use.



Figure 82. Bad foods...

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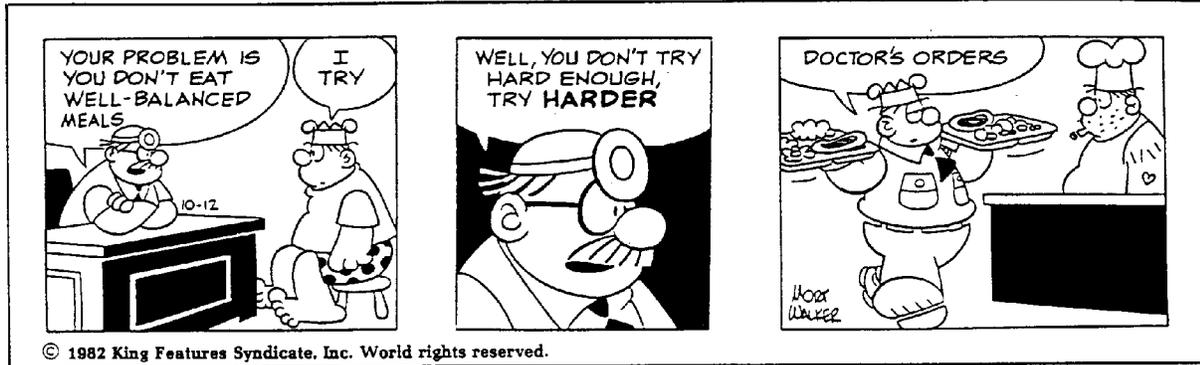


Figure 83. Cartoon — Nutrition

a. **WHAT IS A HEALTHY DIET AND WHAT WILL IT DO?** A healthy diet will contain a wide variety of foods with the majority of calories coming from high nutrient carbohydrate foods such as vegetables, starches, and fruits. It will not contain excessive amounts of sugar, salt, alcohol, and fat. If you eat a healthy diet you can expect it to:

- Allow you to feel your best and to function at your full potential.
- Provide the right combination of nutrients that may prevent the development of degenerative diseases such as cancer, heart disease, hypertension, and osteoporosis.

The following seven guidelines are a basis for selecting a diet which promotes optimal health and fitness:

- (1) **Eat a Variety of Foods.** An adequate intake of all the nutrients you need can be assured. Your exposure to any one food which may contain excessive carcinogens may be reduced.
- (2) **Maintain Your Ideal Body Weight.** This can be achieved by balancing your caloric intake with your needs.
- (3) **Avoid Foods With Too Much Fat, Particularly Saturated Fat.**
- (4) **Eat Foods With Adequate Starch and Fiber.**
- (5) **Avoid Too Much Sugar.** You can balance caloric intake with your needs and reduce your chance of developing cavities.
- (6) **Avoid Too Much Salt.** This helps to delay the onset and severity of high blood pressure in persons who are susceptible.
- (7) **If You Drink Alcohol, Do So in Moderation.**

b. **HEALTH AND FITNESS FOOD CATEGORIES**

(1) **Foundation Foods** are those foods which are relatively low in fat, sugar, and salt. Usually they are unrefined and, therefore, may be higher in fiber, and higher in some vitamins and minerals. These foods should be the foods which make up the major portion of your diet.

(2) **Extra Foods** are those foods which are moderate in sugar, salt, and fat content. If a food in this group has a large amount of fat, it is primarily a polyunsaturated oil. These foods should be restricted to a few servings a day and used primarily to add variety to your basic diet.

(3) **Restricted Foods** are those foods which are high in cholesterol, sugar, or fat, are excessively salty, or may be highly refined and unenriched. Infrequently these foods could be included in your diet. They should be reserved for special occasions such as a holiday meal, birthday dinner, or meals away from home when appropriate foods are unavailable. Complete listings are given under each food group.

c. **THE FRUIT AND VEGETABLE GROUP**

(1) **Why:** The foods in this group are important sources of fiber, minerals, and vitamins, especially folate, vitamin A and vitamin C.

(2) **Serving Size:** The serving size for most of these foods is equal to:

- 1/2 cup of canned, frozen, or fresh fruit or vegetable

- 1/4 of a small cantalope
  - 1 medium size piece of fresh fruit
- (3) **Amount Daily:** At least four servings preferably FIVE TO NINE servings.
- One or more servings should be a food rich in vitamin A. These foods are usually deep yellow or orange, or are leafy and dark green. They include spinach, kale, broccoli, cantalope, pumpkin, peaches, apricots, carrots, watermelon, and tomatoes.
  - One or more of these servings should be a food rich in ascorbic acid (vitamin C). Included in this group are tomatoes, citrus fruit and juice, potatoes (excluding instant), cabbage or sauerkraut, most berries, and watermelon.

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**THE FRUIT AND VEGETABLE GROUP**

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<b>Foundation Foods</b>	<b>Extra Foods</b> (a few times a day)	<b>Restricted Foods</b> (once or twice a week)
fresh, frozen or canned without salt dried fruit	vegetables canned with salt juices with added sugar or salt vegetables with a cream or cheese sauce vegetables fried in oil (french fries, zucchini, mushrooms) banana chips sauerkraut	pickles vegetables fried in fat (most restaurants fry in fat rather than oil) potato chips

Figure 84. Fruit and Vegetable Group

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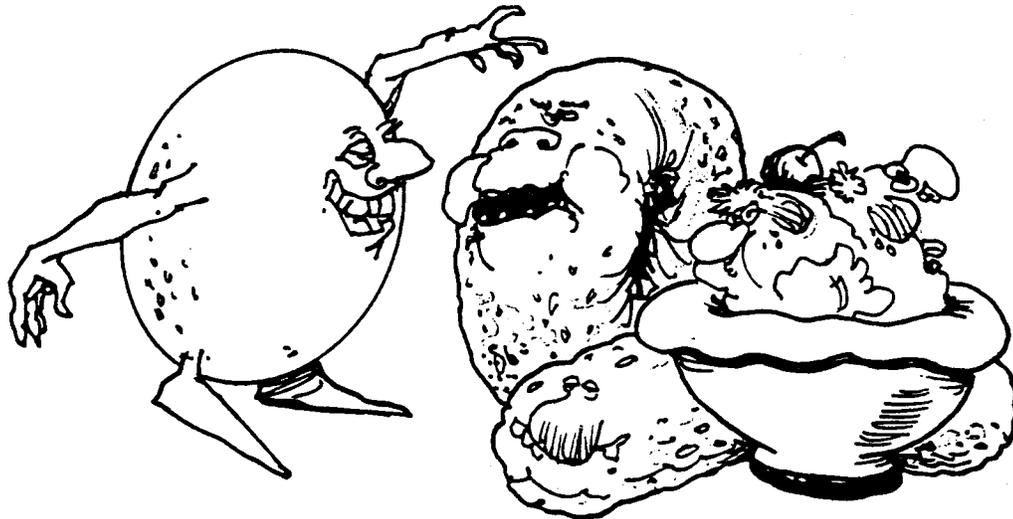


Figure 85. Fruit and Vegetables

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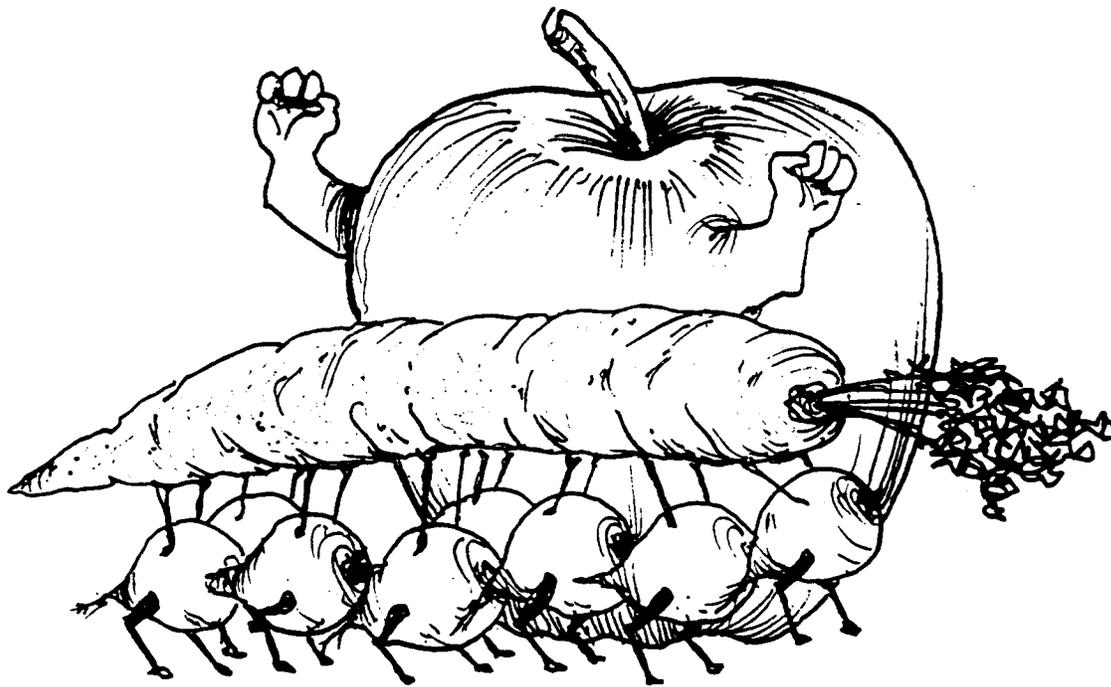


Figure 86. Fruit and Vegetables

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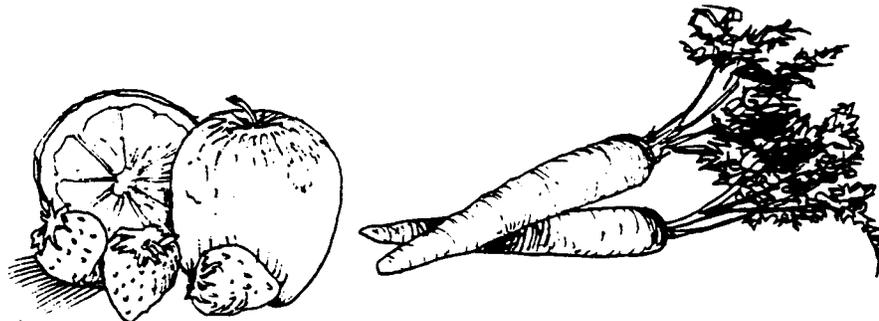


Figure 87. Fruit and Vegetables

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**d. THE BREAD AND CEREAL GROUP**

(1) **Why:** The foods in this group are important sources of carbohydrate, iron, and vitamins such as thiamine, niacin, and riboflavin. Whole grain products also contain significant amounts of fiber.

(2) **Serving Size:** One serving is equal to:

- 1 slice of bread, 1 roll, or muffin
- 1/2 cup of cooked cereal, pasta, or rice
- 3/4 to 1 cup of dry flake-type cereal

(3) **Number of Servings:** At least four servings a day, preferably SIX TO ELEVEN.

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**THE BREAD AND CEREAL GROUP**

---

<b>Foundation Foods</b>	<b>Extra Foods</b> (a few times a day)	<b>Restricted Foods</b> (once or twice a week)
<b>Bread &amp; Rolls:</b> whole wheat rye pumpnickel corn tortillas	<b>Bread &amp; Rolls:</b> raisin bread flour tortillas white, enriched cornbread	<b>Bread &amp; Rolls:</b> croissants doughnuts pastries biscuits pancakes waffles
<b>Cereals:</b> oatmeal	<b>Cereals:</b> refined, unsugared grits granolas	<b>Cereals:</b> sugar coated
<b>Crackers &amp; Snacks:</b> Rye Krisp whole wheat matzo whole grain crackers graham crackers	<b>Crackers &amp; Snacks:</b> pretzels melba toast matzo saltines	<b>Crackers &amp; Snacks:</b> flavored snack crackers potato chips corn chips vanilla wafers
<b>Rice, Pasta, Noodles:</b> brown rice whole wheat pasta air popped popcorn	<b>Rice, Pasta, Noodles:</b> white rice spaghetti macaroni noodles	

Figure 88. Bread and Cereals

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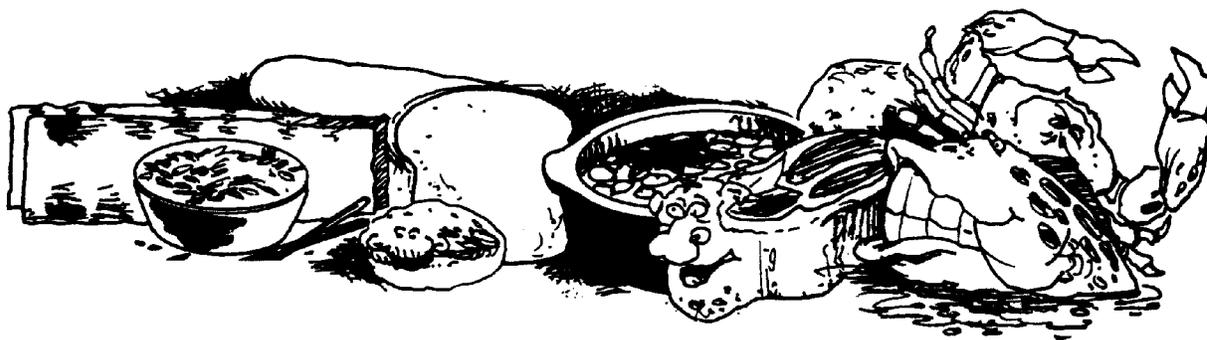


Figure 89. Bread, Cereal and Meat

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**e. THE PROTEIN-RICH "MEAT" GROUP**

- (1) **Why:** The foods in this group are important sources of protein, minerals such as iron and zinc, and vitamins such as B12, thiamine, and niacin.
- (2) **Serving Size:** Serving sizes are moderate. Some individuals may find that one normal serving for them is actually counted as two servings from these groups. One serving is equivalent to:
  - 2-3 ounces of cooked meat, (a chicken breast is three ounces of meat)
  - two eggs, or the equivalent commercial "cholesterol-free" egg substitute
  - 1 cup of mature beans, peas, soybeans, or lentils.
- (3) **Number of Servings:** Two a day, preferably one serving of meat and one serving of another protein-rich food.

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**THE PROTEIN RICH "MEAT" GROUP**

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<b>Foundation Foods</b>	<b>Extra Foods</b> (a few times a day)	<b>Restricted Foods</b> (once or twice a week)
<b>Egg Products</b> egg whites egg substitutes		<b>Egg Products</b> egg yolks & whole eggs omelets deviled eggs
<b>Poultry</b> baked, broiled stewed, grilled chicken or turkey without skin	<b>Poultry</b> with skin fried in oil (with- out skin)	<b>Poultry</b> duck commercially fried chicken
<b>Fish</b> baked, broiled stewed, grilled low fat fish such as: tuna in water shellfish (except shrimp) flounder perch halibut	<b>Fish</b> fried in oil shrimp tuna packaged in oil sardines	
	<b>Red Meat</b> trimmed and cooked without extra fat lean meats such as: flank steak sirloin veal	<b>Red Meat</b> sausage liver hot dogs corned beef ribs cold cuts bologna

Figure 90. The Protein Group

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*f.* **THE DAIRY "MILK" GROUP**

(1) **Why:** The foods in this group are important sources of protein, minerals such as calcium and phosphorous, and vitamins such as riboflavin and vitamin D.

(2) **Serving Size:** The serving sizes vary depending upon the type of food. Most serving sizes are designed to provide the amount of calcium found in one 8-oz. cup of milk. One serving is equivalent to:

- 1 cup of skim, low fat or whole milk or yogurt
- 1½ cups of cottage cheese, ice cream, or ice milk
- 2 ounces of cheese

(3) **Amount Daily:** Three servings, preferably skim or low fat products.

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**THE DAIRY "MILK" GROUP**

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<b>Foundation Foods</b>	<b>Extra Foods</b> (a few times a day)	<b>Restricted Foods</b> (once or twice a week)
skim milk buttermilk yogurt made from skim milk low fat cottage cheese non-fat dry milk evaporated skim milk	low fat or 2% milk low fat cheeses low fat yogurt cottage cheese ice milk frozen, low fat yogurt sherbet, fruit ice skim milk puddings	whole milk evaporated milk condensed milk whole milk yogurt flavored yogurts eggnog cheese fondue cheesecake sour cream coffee creamers

Figure 91. The Dairy Group

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g. **WHAT ABOUT VITAMINS AND MINERALS.** Vitamins and minerals are substances which are required by your body in small amounts. They are essential for most bodily functions such as energy production and oxygen transport. But they cannot be metabolized by your body to produce energy. Excesses of vitamins and minerals above the Recommended Dietary Allowance have not been shown to be beneficial, and in some cases (though rare) have been proven to be both detrimental to good health and toxic.

Advertisements for vitamin and mineral supplements may emphasize the importance of certain minerals and vitamins in maintaining certain bodily functions or activities. However, remember that the manufacturers of supplements are out to make money, and as such, they use some high tech methods of advertising, at times promising glamour and improved performances. In actuality, taking supplements will not produce better health, happiness, a state of fitness, or a maximum enjoyment of life.

You can obtain all the necessary vitamin and minerals your body needs by eating a properly balanced diet.

There are no supplements that are nutritionally complete. Some vitamins are regulated by law and require a prescription. They are useful under specific circumstances, but remember they are supplements, not replacements for a good diet. The only way to insure adequate intake of nutrients is through a balanced diet.

The selection of a good diet rests with you. Take the time to select a nutritious diet which is moderate in calories, sugar, and salt.

h. **CUTTING DOWN ON SODIUM.** The sodium we eat comes from:

(1) Processed foods, where sodium is added mainly in the form of salt. Salt is a mixture by weight of 40% sodium and 60% chlorine.

(2) The salt that you use for cooking and that you add during the meal.

(3) Foods that contain sodium naturally, before they've been processed or prepared in your home.

**Most of the sodium you eat comes from #1 and #2 above — in the salt you and the processor add to food. To Avoid Too Much Sodium.**

Learn to enjoy the unsalted flavors of foods. Cook with only small amounts of added salt. Add little or no salt to food at the table. Limit your intake of salty foods, such as potato chips, pretzels, salted nuts, popcorn, condiments (soy sauce, steak sauce, garlic salt), cheese, pickled foods, and cured meats. Read food labels carefully to determine the amounts of sodium in processed foods and snack items.

**Avoid Salty Condiments.**

Try to reduce your use of high condiments: ketchup, steak sauce, barbecue sauce, soy sauce, worcestershire sauce, pickle relish, prepared mustard and olives. Substitute tasty vegetables like onion or green pepper, lemon juice, or spices like thyme, oregano, garlic, curry, cinnamon, chili, or tarragon.



Figure 92. Avoid Salt

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i. **CUTTING DOWN ON SUGAR.** A regular 12-ounce soft drink contains about 145 calories, which is 9 teaspoons of sugar. The person who has a 2-can soft-drink-a-day habit takes in 290 calories a day just from the sugar in the soda. Every twelve days that is the caloric equivalent of one pound or 30 pounds a year. A 30-pound a year sugar habit. By reducing the number of soft drinks taken in, an individual can easily reduce the number of calories taken in.

Another common place where sugar is consumed is in tea or coffee. Drinking sweetened tea and coffee is a learned habit that can be unlearned. If going “cold turkey,” drinking plain tea or coffee is unacceptable to you, then reduce the amount by half — learn to drink with one teaspoon of sugar instead of two.

**Learn To Avoid Excessive Sugars.**

Use less of all sugars, including white sugar, brown sugar, honey, and syrups. Eat less of foods containing these sugars such as candy, soft drinks, ice cream, cakes, or cookies. Select fresh fruits or fruits canned without sugar or in light syrup rather than heavy syrup. Read food labels for clues on sugar content — if the names “sucrose, glucose, maltose, dextrose, lactose, fructose,” or syrups appear first, then sugar is the major ingredient in that food.



Figure 93. Cut Down on Sugar

*j.* **CUTTING DOWN ON FAT.** Cutting down on fat is another excellent way to reduce calories. Examine your diet to reduce high fat foods, particularly those foods to which you may add fat or those that are cooked in fat — french fries, doughnuts, chips, fried chicken. Most of us would probably not be willing to give up fried chicken; however, by reducing the number of times each year we eat fried chicken we can reduce extra fat calories. Instead of having fried chicken as often, substitute barbecued, baked, or stewed chicken.

Reducing your intake of foods containing both large amounts of fat and sugar is an excellent way to reduce total caloric intake. Cakes, pies, pastries, and cookies are the foods that are usually high in fat and sugar. Changing your habits does not mean eliminating your favorite foods entirely. It does mean putting them in their proper place by saving them for special occasions. This may mean having fresh fruit more often as dessert or for a snack.

**CUT DOWN**

**Approx. lbs lost per year**

• A pat of butter or margarine on a potato 35 calories, 60 pats a month .....	7
• Sugar and nondairy cream in coffee or tea (1 tsp. Each) 25 calories, 90 cups a month .....	8
• A slice of apple pie (5.6 oz. Or 1/8 of 9" pie) 300 calories, 8 pieces a month .....	8
• A can of beer (12-oz) 150 calories, 30 cans a month .....	15
• 15 potato chips (1-oz bag) 170 calories, 30 bags a month .....	17
• A cake donut (2-oz) 230 calories, 30 donuts a month .....	24
• One teaspoon of mayonnaise on a sandwich 40 calories, 30 sandwiches a month .....	8
• Drinking low fat (2%) milk in place of whole milk 170 calories, 6-8 oz glasses a month .....	10

6-8. Seat Belts

RATE YOUR BEHAVIOR		
DO YOU...	YES	NO
Find using seat belts are too much trouble?		
*Just don't think about using seat belts?		
Not use seat belts because it will wrinkle your clothes?		
Feel seat belts don't work anyway?		

If you answered "yes" to one or more questions . . . read on.

Figure 94. Rate Your Behavior — Seat Belts

a. **SEAT BELTS.** There are many reasons frequently cited for not using seat belts. Even though car seat belt laws have been in effect since 1966, only 15 % of the American population use seat belts regularly. Despite statistics that dramatically demonstrate that serious injuries and death rates are cut in half with the use of seat belts, the majority of Americans continue not to use them.

Most of us carry an umbrella if it looks like rain, pay health insurance premiums in case of illness, follow regular exercise habits, and yet continue to ignore the use of seat belts. Some states have passed mandatory seat belt laws for adults and children. Perhaps the only way to teach people to use seat belts is to start with your newborn child on the trip home from the hospital and continue the belting-in procedure each time a child rides with you in the car until it becomes automatic for each child. Perhaps you could also teach the child to buckle up all adults riding in the car — or at least to remind them. It may not be too late to teach an "old dog new tricks" and a little child could lead us toward this goal.

b. **THE SEAT BELT SYSTEM.** The seat belt system consists of a single lap belt, generally employing a metal snap-buckle and a shoulder strap, running from the waist area across the body and one shoulder to an upper-vehicle attach point. The shoulder strap employs an inertial-reel principle. This strap is relatively loose and allows freedom of movement until the inertial-locking device is activated by a sudden deceleration force. At this time, the belt locks into place and restrains the entire upper body from forward movement. The table below shows the almost-instantaneous locking feature of this system for several sudden rates of deceleration.

Deceleration Rate	Time to Lock
10 mph	15 millisec
20 mph	11 millisec
30 mph	9 millisec
40 mph	7 millisec

Figure 95. Seat Belt System Locking Feature

c. The combined seat belt system minimizes injuries in six ways:

- (1) The “ride down” benefit. The belt begins to stop the wearer as the car is stopping and allows him to ride forward and down slightly during the deceleration phase.
- (2) The head and face of the wearer are prevented from striking the steering wheel, windshield, and dash of the vehicle.
- (3) The belt system distributes the stopping force of the vehicle across the strong parts of the body, i.e. the pelvic structures.
- (4) The belt prevents occupant from collisions with one another as the crash occurs.
- (5) The belt restraint helps the driver to maintain control of the vehicle, thus preventing further collisions.
- (6) The belt system prevents ejection from the car during the crash.

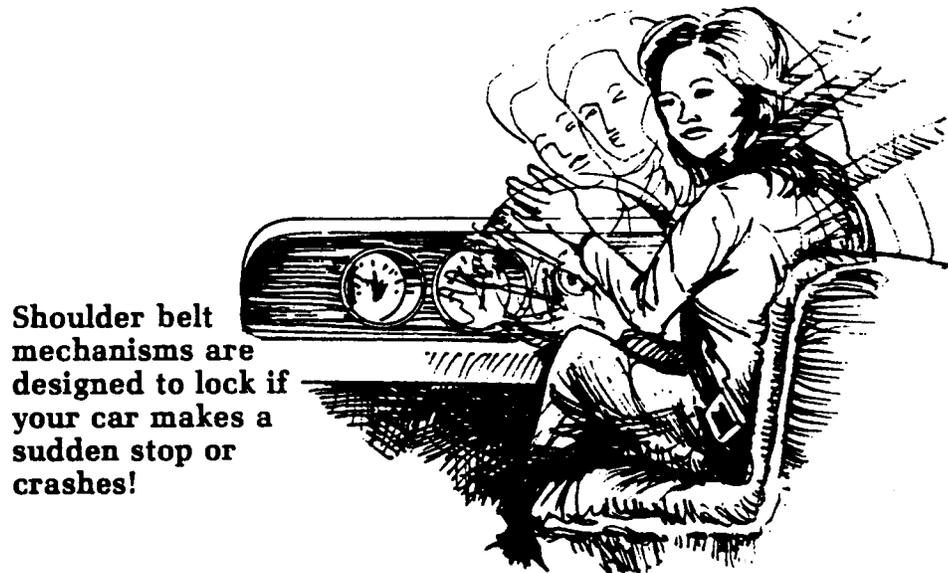


Figure 96. Shoulder belt mechanisms

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<b>RATE YOUR BEHAVIOR</b>		
<b>DO YOU...</b>	<b>YES</b>	<b>NO</b>
Find your spouse or friends ever worry or complain about your drinking or drug abuse?		
Feel you can get a little extra out of life by occasional drug abuse?		
Feel the need to escape, and use drugs or alcohol to do it?		
Find a marital, financial, legal or other problem causes you to drink or abuse drugs?		
Look forward to having a drink or using drugs after work?		
Use drugs because all your friends do?		
Ever try to limit your drinking to certain times of the day or certain places?		
Ever feel bad about your drinking or drug use?		
Use drugs to control weight or modify your moods without a doctor's prescription?		

Figure 97. Rate Your Behavior — Drug Abuse

There are no right or wrong answers, but if you answered “yes” to any of these questions you should think very carefully about how alcohol or drugs are affecting you and your family life.

*a. WHAT CAN YOU DO?* On the following page you will find some basic classifications of drugs that people use... and abuse. The dangers from abuse can, of course, be very serious. Professional help and counseling should be sought at the earliest possible stage. Countless community, hospital, and Army Programs exist.

Unless an abuser of drugs can face the truth, however, no program will help. Often new skills for coping with stress and overcoming the drug dependency are needed. It is never easy ... but it is worth the effort to rid yourself of this dangerous habit.

You may find yourself in the position of helping your own child or a young soldier overcome a dependency. Knowing the symptoms is important.

b. **HOW TO TELL IF SOMEONE IS USING DRUGS.** The following symptoms are those primarily associated with illegal drugs:

- (1) A decline in attendance or performance at work or school.
- (2) Heightened secrecy about actions and possessions.
- (3) Increased borrowing of money from parents, spouse, or friends; stealing from home, school or employer.
- (4) Unusual flare-ups of temper.
- (5) Continual staying out late.
- (6) Change in mood or attitude.

Other things to look for: drug paraphernalia, use of drug jargon, and use of incense or room deodorizers to disguise odors. Contact your Drug/Alcohol Office for further referral and help.



Figure 98. Drugs

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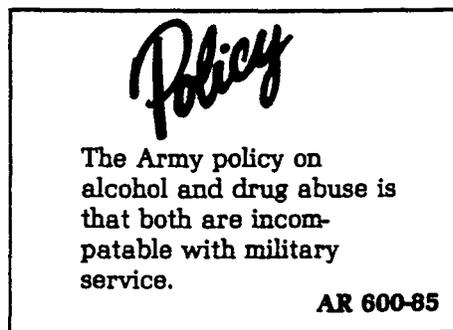


Figure 99. Alcohol and Drug Abuse Policy Statement

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TYPE	EFFECT ON BODY	EFFECT ON NERVOUS SYSTEM	DANGERS FROM ABUSE
<p><b>Stimulants</b> – speed the action of the central nervous system.</p> <ul style="list-style-type: none"> <li>• Cocaine</li> <li>• Amphetamines (Speed)</li> </ul>	<p>Different types can cause a variety of reactions such as: increased heart rate and blood pressure, dry mouth, sweating, increased activity, shaking and restlessness.</p>	<p>Delusions of unlimited mental and physical capabilities. Large doses can cause hallucinations.</p>	<p><i>Mental confusion and dizziness</i> can occur. High doses can cause death. A physical dependence does not often occur as frequently as a psychological one does.</p>
<p><b>Depressants</b> – relax (depress) the central nervous system.</p> <ul style="list-style-type: none"> <li>• Opiates - heroin, morphine, codeine</li> <li>• Barbituates</li> </ul>	<p>Reduced hunger, thirst, Sex drive and pain. Sends user into a stupor Or sleep as it depresses The action of skeletal and Heart muscles.</p>	<p>User experiences a high euphoric dreamy state. It can depress the action of nerves – leading to confusion. Ability to think, work and concentrate is lessened.</p>	<p>They lead to both <i>physical and psychological</i> Dependency. The body needs increasingly higher doses. Overdoses can cause death. <i>Barbituates</i> are the leading cause of accidental poisoning and suicides in the U.S.A.</p>
<p><b>Hallucinogens</b> – cause Changes in perception And consciousness, “Mind Benders.”</p> <ul style="list-style-type: none"> <li>• LSD</li> <li>• PCP</li> </ul>	<p>Increase in heart rate, blood pressure, body temperature, and a reduction in appetite. It affects thought processes and memory.</p>	<p>It causes vivid sensory and visual distortions, alters mood and thought. the effects can range from ecstasy to terror. The experiences will vary depending on individual physical and</p>	<p>Hallucinogens do not produce physical dependence but can lead to psychological need. <i>They are mind affecting drugs that can lead to Paranoia, “Flashbacks” or DEATH.</i></p>
<p><b>Marijuana</b> – is technically a “mild” hallucinogen due to tetrahydrocannabinol (THC). THC is classified as a mild hallucinogenic compared to LSD.</p>	<p>Increased heart rate, lowering of body temperature, reddening of eyes, stimulated appetite, drowsiness, lack of coordination and inflammation of mucous membranes and bronchial tubes.</p>	<p>Increases and distorts senses. Loss of ability to separate fact and fantasy. Loss of sense of time. Chronic heavy users suffer concentration and memory impairment.</p>	<p>A psychological not physical dependence can occur. The tar in marijuana is 50% greater by weight than tobacco.</p>

Figure 100. Classification of Drugs

<b>RATE YOUR BEHAVIOR</b>		
<b>DO YOU...</b>	<b>YES</b>	<b>NO</b>
Need a drink to get over a hangover?		
Like to drink alone?		
Lose time from work to drinking?		
Need a drink at a definite time of day?		
Find it harder to get along with others?		
Suffer loss of memory while or after drinking?		
Find efficiency or drive decreasing?		
Drink to relieve stress, fear, shyness, insecurity?		
Find that drinking is harming or worrying the whole family?		
Become more moody, jealous or irritable after drinking?		

If you answered "yes" to one or more of these questions you should consider alcohol abuse as a potential problem.

Figure 101. Rate Your Behavior — Alcoholism

*a.* **RISK FACTORS.** Some people are at higher risk than others for becoming alcoholics. If you are in one of the following categories, you have a higher risk of developing an alcohol problem and should be aware of the danger signs indicating a drinking problem.

- (1) Family history of alcoholism, especially where strong moral overtones existed in the family.
- (2) History of teetotalism in family.
- (3) Coming from a home with much parental discord, particularly where strong moral overtones were present.
- (4) Having female relatives of more than one generation who have had a high incidence of recurrent depression.

Alcoholism is associated with an increased incidence of cirrhosis of the liver and cancer of the mouth, throat and esophagus. Alcoholics also have increased incidence of pneumonia and brain damage.

APPROXIMATE BLOOD ALCOHOL PERCENTAGE									
Drinks	Body Weight in Pounds							Influenced	
	100	120	140	160	180	200	220		240
1	.04	.03	.03	.02	.02	.02	.02	.02	Rarely
2	.08	.06	.05	.05	.04	.04	.03	.03	
3	.11	.09	.08	.07	.06	.06	.05	.05	
4	.15	.12	.11	.09	.08	.08	.07	.06	Possibly
5	.19	.16	.13	.12	.11	.09	.09	.08	
6	.23	.19	.16	.14	.13	.11	.10	.09	
7	.26	.22	.19	.16	.15	.13	.12	.11	Definitely
8	.30	.25	.21	.19	.17	.15	.14	.13	
9	.34	.28	.24	.21	.19	.17	.15	.14	
10	.38	.31	.27	.23	.21	.19	.17	.16	

Subtract .015% for each hour of drinking.

Figure 102. Know Your Drinking Limits

ONE DRINK MEANS:

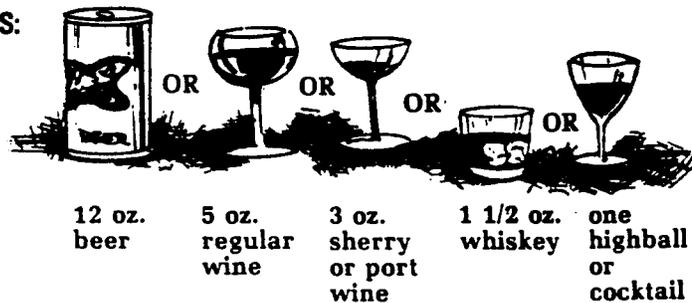


Figure 103. One Drink

**b. STAGES OF ALCOHOLISM — DANGER SIGNS**

**(1) Early Stages**

- (a) Makes PROMISES to quit — but breaks them.
- (b) Drinks to relieve tensions or to escape problems.
- (c) Drinks MORE AND MORE for same effect.
- (d) Has trouble stopping drinking once begun.

**(2) Middle Stages**

- (a) Tries to deny or conceal drinking.
- (b) Drinks in morning and alone.
- (c) Drinking becomes a daily necessity.
- (d) Harder to get “feeling good” regardless of quantity.

**(3) Final Stages**

- (a) Lives to drink. Liquor comes before job or family.
- (b) Loneliness. Avoids and distrusts people.
- (c) Loss of ambition. Less efficient. Losses time at work.

c. **ALCOHOLISM AND WOMEN.** The growing number of women alcoholics is cause for concern. This problem is particularly difficult to control because they are often hidden drinkers. It may be hidden because they drink at home and their spouses protect them ... whatever the reason it takes women longer to seek help.

Women drink to calm their nerves and to combat depression, boredom, loneliness.

d. **ALCOHOLISM AND TEENAGERS.** Teenager drinking, another alarming problem, must be recognized by parents. Teenage alcoholism often results from emotional and personality problems. Teenagers often use drinking to release hostility.

Be alert to DANGER signs: solitary drinking, prolonged drunkenness at an early age, blackouts, memory lapses.

Parents should take responsibility to teach teenagers the limits of social drinking. They must learn to recognize the difference between safe and unsafe drinking.

e. **WHAT CAN AN ALCOHOLIC DO?**

(1) **Face the Truth** that alcohol is ruining his life and that he cannot control his drinking.

(2) **Want to Stop Drinking** for good. Total abstinence is the surest way ... an alcoholic can't stop after "just one drink."

(3) **Get Help** from doctors, social workers. "Alcoholics Anonymous" groups. They can provide the moral support needed to get well. **It is best to start treatment early.**

f. **THE ARMY'S REHABILITATION PROGRAM.** To deal with identified abusers who have potential for future service, the Army has a three track "needs-oriented" rehabilitation program.

(1) **Track I:** 12 hours of education awareness and group counseling.

(2) **Track II:** Minimum of 30 days nonresidential counseling and education awareness.

(3) **Track III:** Residential treatment (up to 8 weeks) and a 300 day follow-up phase (non-residential) of counseling and education awareness.



Figure 104. DWI

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<b>RATE YOUR BEHAVIOR</b>		
<b>DO YOU...</b>	<b>YES</b>	<b>NO</b>
Hear a constant or frequent buzz or high-pitched ringing?		
Have difficulty understanding speech when you are in a group of people, or in the presence of background noise?		
Have difficulty hearing or understanding over short distances?		
Have difficulty localizing where sound is coming from?		

If you answered yes to any of the above questions, then you may have a hearing loss. Furthermore, if you work in a high noise area like most soldiers, this hearing loss can be prevented.

Figure 105. Rate Your Behavior — Hearing Conservation

*a. WHY BE CONCERNED?* Noise surrounds us and spreads through every area of our lives. Any unwanted sound is noise; from the neighbor's mower during your afternoon nap to sonic booms and traffic noise, we are constantly bombarded by noise. The effects of noise often run deeper than the mere irritation. Noise is a form of stress, and can reveal itself in the forms of: high blood pressure, sleep loss, or mental problems. Studies show a higher rate of family arguments and divorce among families living near major metropolitan airports, largely due to the stress of constant aircraft noise.

For the worker exposed on the job, to hazardous levels of noise, the incidence of noise induced hearing loss is staggering. Noise induced hearing loss is the number one occupational health hazard in the Army. For soldiers in the combat arms branches, 20-30 % develop significant hearing loss due to noise within the first three to five years of service. After ten years of service, more than half of all soldiers in these branches will have significant hearing loss due to noise exposure.

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**INNER EAR**  
Changes sound  
(mechanical) energy to  
nerve energy and sends to  
brain.

**MIDDLE EAR**  
Sends sound to and pro-  
tects inner ear, equalizes  
pressure on eardrum.

**OUTER EAR**  
Directs sound waves to  
middle and inner ear, and  
protects inner parts.

**NERVE CELLS IN THE INNER  
EAR ARE DESTROYED BY NOISE!!!**

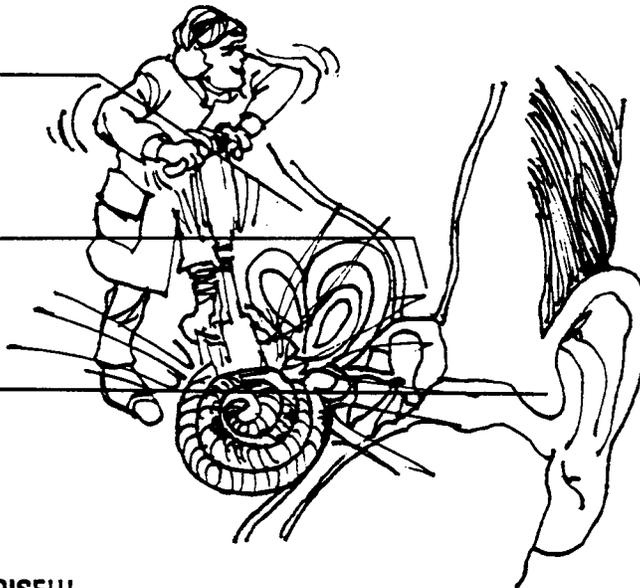


Figure 106. Nerve cells in the inner ear

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*b. WHAT CAN BE DONE?* Because noise damages the inner ear nerve, noise induced hearing loss is permanent in nature and cannot be medically corrected. The key, therefore, is to PREVENT the hearing loss from occurring. In the Army this is accomplished through active hearing conservation education. The Army's hearing conservation program basically contains five areas of concern:

(1) **Identifying Hazardous Noise Sources.** Audiologists and industrial health technicians routinely measure the noise levels of vehicles, aircraft, weapons, and other noise sources that the soldier is exposed to on the job. If the level of noise at the point of exposure exceeds 85 decibels (dB) (a measure of sound intensity), then the noise is hazardous and will damage hearing. This noise source is then identified as hazardous by the posting of a "Danger" sign or decal. A good rule of thumb to remember is, if you have to shout in order to be heard over the noise, your hearing is in danger.

(2) **Engineering Controls.** Once the noise source is identified as hazardous, effort is taken to separate personnel from the noise. Whenever possible this is accomplished through engineering controls. Such measures range from isolating or inclosing the noise source (e.g., sandbags around generators, etc.) to concentrating noise hazardous equipment in a confined area away from the majority of personnel.

(3) **Hearing Protection.** When engineering controls are not possible, the wearing of hearing protection should be strictly enforced. Hearing protective devices in the Army include earmuffs, earplugs, and protective helmets. Earplugs are the most commonly used form of hearing protection, and effectively protect one's hearing as long as certain guidelines are followed. First, earplugs should be fit according to the size of an individual's ear canal. Secondly, the individual should know how to properly wear the earplugs. This requires that earplugs be fit by trained personnel, usually unit medics, who can instruct personnel in the proper wear and use of earplugs.

(4) **Monitoring Hearing Tests.** In order to effectively measure the success of a unit's hearing conservation program, and monitor the hearing of its personnel, periodic hearing tests are conducted by the installation hearing conservation clinic. These periodic evaluations provide information of a possible shift in hearing, from one year to the next, of an individual who works in hazardous noise. A decrease in hearing may indicate the need for more conscientious hearing conservation and use of hearing protection while in noise. A significant decrease in hearing could even result in a MOS (Military Occupational Specialty) reclassification. However, the purpose of these hearing tests is to protect the soldier by detecting the signs of noise induced hearing loss as early as possible.

(5) **Health Education, Supervision, and Discipline.** The final component of an effective hearing conservation program is education. The soldier must recognize the subtle effects of noise on their hearing, and the permanent weakening effect that such a hearing loss causes. The fact that a soldier "gets used to the noise" that he works around, does not prevent the noise from damaging their hearing. When working around areas/equipment which has been identified as noise hazardous, regular use of hearing protection is the only way to effectively prevent hearing loss due to noise.

c. **THE COST OF HEARING LOSS.** The cost of hearing loss to the Army is staggering. Monetary compensation for hearing loss awarded by the Veteran's Administration has exceeded one billion dollars over the past 11 years, and this continues to increase at an annual rate of nine percent. The loss of manpower to the unit due to MOS reclassification, medical intervention, etc., for noise induced hearing loss cannot even be estimated. Preservation of hearing as a matter of personal well being and quality of life is indeed an important reason for hearing conservation. However, it is equally important to stress the importance of hearing to the accomplishment of the mission. In an offensive or defensive posture, hearing is frequently one of the primary senses used to detect movement through brush, localization of where fire is coming from, or radio communications. A significant hearing loss incurred from training could endanger the lives of the soldier and his squad, and jeopardize the mission, in a combat situation.

**Remember: Noise induced hearing loss cannot be corrected, only prevented. Wear your ear plugs or ear muffs in noisy areas, on duty or off.**



Figure 107. Noise

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<b>RATE YOUR BEHAVIOR</b>		
<b>DO YOU...</b>	<b>YES</b>	<b>NO</b>
<b>Brush thoroughly at least once a day?</b>		
<b>Floss correctly at least once a day?</b>		
<b>Limit the number of exposures to sweets?</b>		
<b>Avoid chemical irritants (smokeless tobacco, smoking, excessive alcohol)?</b>		
<b>Have regular dental examinations?</b>		

Dental fitness means healthy gums and tissues, jaw joints (temporomandibular joint) and muscles. It means healthy teeth in their sockets. Teeth should last a lifetime and with proper care — they will.

Figure 108. Rate Your Behavior — Dental Health

*a.* **TOOTH DECAY.** Tooth decay begins with plaque, a soft transparent, sticky colony of harmful bacteria. Oral bacteria takes less than 24 hours to form organized colonies. Bacteria in plaque efficiently use sugar and starches from the food you eat to produce acids which result in tooth decay.

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## BRUSHING

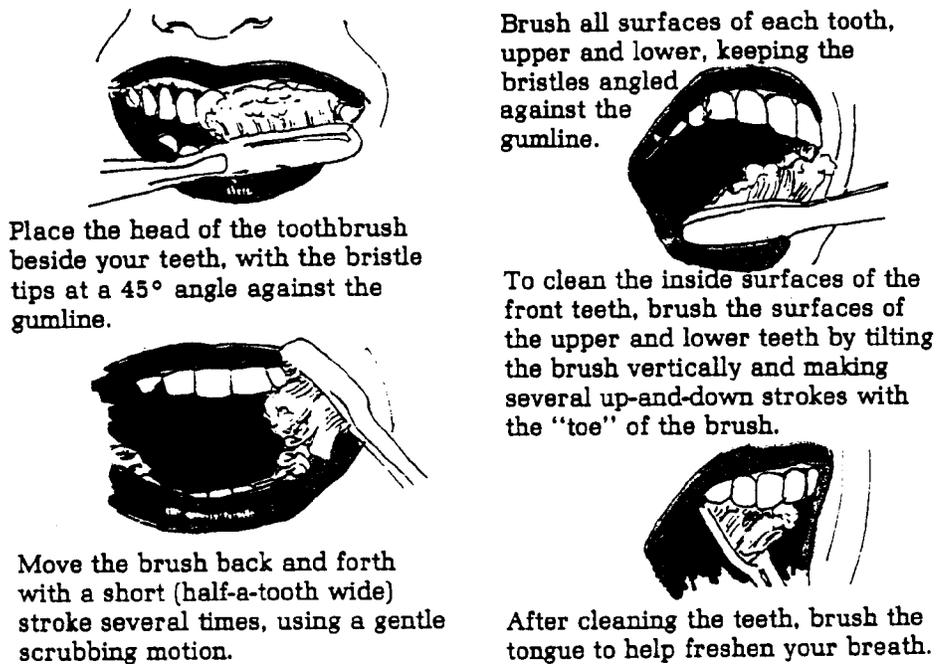


Figure 109. Brushing your Teeth

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**b. PERIODONTAL DISEASE.** Periodontal disease is caused by the waste products of the bacteria in plaque. It appears slowly, so slowly that you may not realize you have a problem. It is responsible for about 70 % of all tooth loss and now affects 75 % of people over 35 years old. Periodontal disease attacks the gums, bone, and other structures which hold the teeth in the jaw.

In periodontitis, the irritated gums and supporting tissue pull away from the teeth and form "pockets" between the teeth and bone. Periodontal disease advances much more rapidly when "pockets" are present because you can not remove the plaque which forms in these pockets.

Periodontal disease requires treatment by a dentist and a change in oral health care habits to reestablish a healthy mouth. If treatment for periodontal disease is not sought, the bone supporting the teeth may be destroyed, the teeth become loose and are eventually lost.

The good news is that periodontal disease and tooth decay are largely preventable, if you follow the instructions on promoting oral health.

**c. TIPS FOR PROMOTING EXCELLENT ORAL HEALTH**

- Brush and floss thoroughly at least once a day, after meals when you can, and before going to bed.
- Limit snacks between meals (especially avoid sweets that cling to your teeth).
- Avoid chemical irritants (smoking etc.)
- Have regular dental examinations and receive necessary care to maintain a dental class 1 or class 2 condition.

**d. SIGNS OF DENTAL PROBLEMS**

- teeth which are sensitive to heat, cold, or sweets
- tender gums that bleed easily
- bad breath, bad taste, dry mouth
- swelling or drainage at or below the gums when the gums are pressed
- pain when chewing
- teeth that are loose or separating
- changes in the way your teeth fit together
- pain in your jaw joint or muscles
- poor appearance of teeth or gums

*e.* **FLOSSING.**

(1) Break off about 18 inches of floss and wind most of it around one of your middle fingers. Wind the remaining floss around the same opposite finger of the opposite hand. This finger will take up the floss as it becomes soiled.

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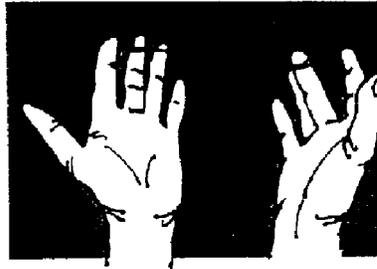


Figure 110. Flossing

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(2) Hold the floss tightly between your thumbs and fore fingers, with about an inch of floss between them. There should be no slack. Using a gentle sawing motion, guide the floss between your teeth. Never snap the floss into the gums.

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Figure 111. Flossing—Continued

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(3) When the floss reaches your gumline, curve it into a C-shape against the tooth. Gently slide it into the space between the gum and the tooth until you feel resistance. Gently scrape the side of the tooth, moving the floss away from the gums. Without removing the floss, curve it around the other tooth.

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Figure 112. Flossing—Continued

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*f.* **WARNING SIGNS FOR ORAL CANCER**

- White, smooth, or scaly patches in the mouth or on the lips
- Swelling or lumps in the mouth or on the neck, lips, or tongue
- Numbness, burning, a feeling of dryness, or pain in the mouth without apparent cause
- A red spot or sore on the lip, gums, or inside the mouth that does not heal within 2 to 3 weeks

*g.* **MILITARY FITNESS CLASSIFICATION**

- (1) **Class 1** — soldier requires no dental treatment
- (2) **Class 2** — unlikely to have a dental emergency within 12 months
- (3) **Class 3** — likely to have a dental emergency within 12 months
- (4) **Class 4** — soldier who needs a dental examination or whose status is unknown

*h.* **SELF-EXAMINATION FOR ORAL CANCER.** This examination, which should be done regularly, can be performed alone with a mirror or with another person. Be sure to look for or be aware of any recurring sore areas, lumps, masses, or growths that were not apparent before, or white patches.

- (1) Look at the face and neck. Tilt the head all the way back to observe the jaw and neck area for any unusual masses.

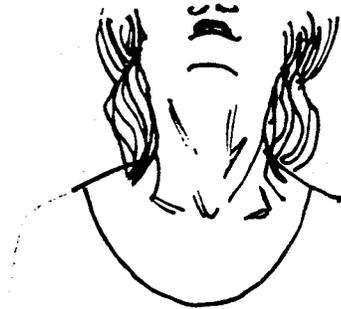


Figure 113. Jaw and Neck area

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- (2) Feel the right side of the neck and the area under the jaw. Do both sides appear and feel the same?

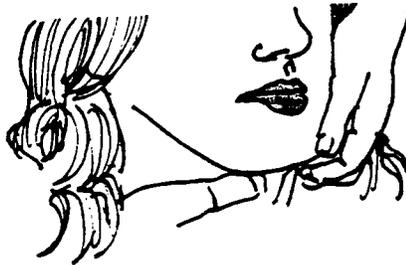


Figure 114. Sides of Neck and Jaw area

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(3) **Lips:** inspect the lips by first looking at and feeling the outside. Pull down the lower lip using the thumb and forefinger, then feel the inside and outside of the lip. Repeat for the upper lip. Are there any color changes or lumps?

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Figure 115. Lips

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(4) **Gums:** examine the gums with the lips pulled away. Remember to look at and touch the gums by using the forefinger. Does everything look the same as during the last examination?

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Figure 116. Gums

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(5) **Cheeks:** with the thumb and forefinger at the corner of the mouth, draw the cheek away from the teeth. Keeping the mouth slightly closed, look at the cheek and feel it with the fingers. Repeat for the other cheek. Are any changes noticeable?

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Figure 117. Cheeks

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(6) **Tongue:** stick out the tongue and grasp the end with a gauze square. Look at and touch the top surface. Pull the tongue to the right and then to the left. Observe and touch each side. Are any lumps or growths apparent on the tongue?

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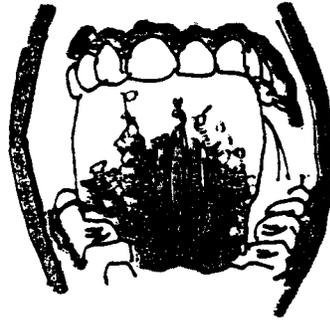


Figure 118. Tongue

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(7) Next, touch the tip of the tongue to the back of the roof of the mouth and look at the floor of the mouth and the underside of the tongue. Feel this area in the same manner as before, using the forefinger. Are any differences noticeable?

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Figure 119. Mouth

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(8) Say “Ah” to see the very back of the mouth. A good source of light is necessary to view the tonsil area. Tilt the head slightly back to see the roof of the mouth. Use the forefinger to feel the entire area. Are any white patches or lumps visible?

### 6-13. AIDS (HIV)

- a. **DO YOU KNOW?** These diseases CANNOT be spread in the following manner:
- Casual social contact such as shaking hands, hugging, social kissing, crying, coughing or sneezing
  - Sharing bed linens, towels, cups, straws, toothbrushes, dishes or other eating utensils
  - Touching toilets, doorknobs, telephones, office machinery or household furniture
  - Donating blood
  - Swimming in pools
  - Bathing in hot tubs
  - Eating in restaurants
  - Through body massages, masturbation or any non-sexual contact
- b. **WHO IS AT RISK?** HIV is more prevalent among the following people with **HIGH RISK BEHAVIOR**:
- Men and women with multiple and anonymous sexual partners (Anonymous means you don't know their sex habits or behaviors well enough to know if they are infected!)
  - Men who have participated in at least one homosexual activity since 1977
  - Bisexual men (Men who have both male & female sexual partners)
  - Women who have sexual contact with bisexual men
  - Intravenous drug users both men and women, particularly those who share needles
  - Hemophiliacs
  - Infants born to mothers with HIV
  - Prostitutes, both men and women, especially those who use drugs
  - Men, women, and children who have had transfusions of blood or blood products (These make up a very small number of the people infected with HIV.)
- c. **WHAT IS A SEXUALLY TRANSMITTED DISEASE?** A sexually transmitted disease is a disease spread by sexual contact such as penis-vagina, mouth-vagina, mouth-penis, mouth-rectum, contact or kissing in which saliva is exchanged.
- Examples of sexually transmitted diseases are gonorrhea syphilis, Herpes simplex II, and HIV.

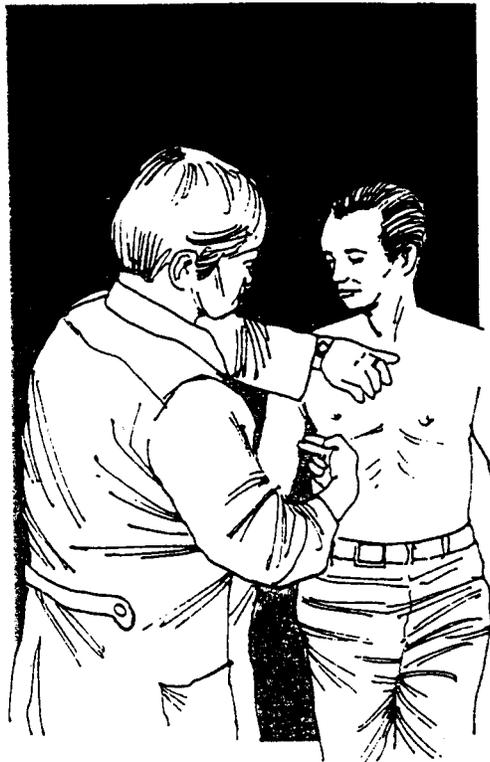


Figure 120. AIDS (HIV)

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*d.* **WHAT IS HIV?** HIV (human immunodeficiency virus), also called HTLV-III, and LAV, is an infectious, sexually transmitted disease. The HIV virus causes AIDS (Acquired Immune Deficiency Syndrome) a condition that reduces the body's ability to fight infection. It is contagious, but it cannot be spread in the same manner as the common cold or measles or chicken pox.

A person acquires the virus during sexual contact with an infected person's blood or semen and possibly vaginal secretions. The virus then enters the unaffected person's bloodstream through small unseen tears or abrasions in the vagina, penis, mouth, or rectum. A person can slowly acquire the virus through contaminated blood and contaminated hypodermic needles.

Outside the body, HIV is very fragile — household bleach in water destroys it.

*e.* **WHY BE CONCERNED? NOBODY'S IMMUNE**

Just because you don't fall into any of the above **HIGH RISK BEHAVIOR** areas does not mean you cannot become infected with HIV. It takes only one sexual contact with someone who is infected! They may not even know they are infected! There is no known vaccine or cure for HIV. **LOW RISK BEHAVIOR** is the only hope for protection and prevention of the virus.

*f.* **WHAT ARE LOW RISK BEHAVIORS THAT WILL PREVENT AND PROTECT ME FROM ACQUIRING HIV INFECTION? PRACTICE "SAFER SEX"**

- Know your sexual partner. Avoid having many sex partners and avoid sexual contact with others who do.
- Know if your sexual partner has been tested for HIV and what the results were.
- Get yourself tested for your own peace of mind. The military requires testing every 2 years for all of its soldiers.
- Use a condom with a spermicide every time you have sexual contact, from start (prior to intimate contact) to finish (actual sexual intercourse and ejaculation). Never use a petroleum jelly or a petroleum based product, as these may damage the condom. The condom is the safest protection available against the HIV virus.
- Carry a condom with you, both men and women, at all times. (Good intentions are not enough!! — both partners must be prepared!)
- Always use a new condom.
- Avoid sexual contact with those people who have **HIGH RISK BEHAVIOR** — homosexuals, bisexuals, prostitutes, individuals with many sex partners or drug abusers.
- **DON'T "SHOOT" UP** (Use drugs).

**DON'T LET FEAR GET IN THE WAY OF THE FACTS!!**

## 6-14. Your Doctor and Your Health

Your health is your responsibility! However, there are areas in which you need your doctor's assistance. Here are some ways to keep yourself FIT:

- **Regular visits to a health care provider.** These visits are checkups which detect health problems in the early stages when they are more easily treated. Some examples of the problems that can be detected early are cancer, TB and high blood pressure.

- **Take care of yourself between health care visits.** Eat a proper diet, get plenty of sleep, balance leisure activities and work, and exercise regularly.

- **Be alert to your own health. Know early warning signals which tell you there is a problem.** Report these findings to your health care provider right away.

- **Seek health-care early if you become ill.** Don't wait to get treatment since some illnesses can cause permanent damages if not cared for.

The health care provider looks for specific health problems when you get a check-up. Certain conditions are more common at specific ages and for a particular sex. Family background may show a tendency for specific health problems. All these things together can give your health care provider a roadmap to looking for illnesses or health care problems.



Figure 121. Your Doctor

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# *Fit to Win* **YOUR HANDBOOK**

## **WISDOM AND WIT FOR A COMMONSENSE FIT**

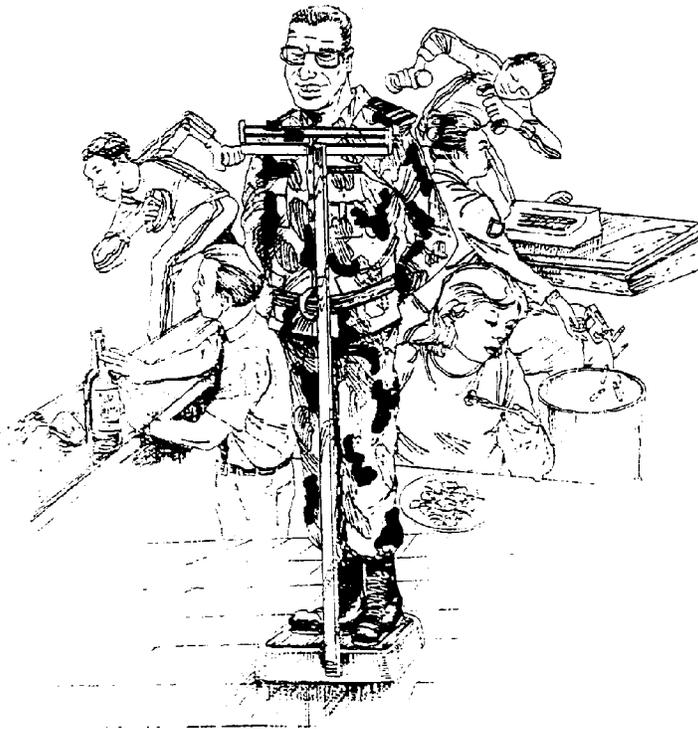


Figure 122. Wisdom and Wit

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Special thanks to the National Dairy Council, American Cancer Society, National Institutes of Health and Mort Walker of Beetle Bailey Cartoons for assistance and support in the development of this document.

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# *Fit to Win* **YOUR HANDBOOK**



Figure 123. The End

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