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ABSTRACT

This workbook was developed to help adult literacy students learn about exercise and physical fitness. It contains information sheets and student worksheets, coordinated with an audiotape that is available. Some of the topics covered in the workbook are the following: benefits of exercise; stress; aerobic versus anaerobic exercise; exercise programs; maximum heart rate; nutrition; body composition; differences between the sexes; ways to fit more exercise into one's life; setting exercise goals; and exercising safely. Two appendixes provide information on caring for the back and special tips for walking and running; a glossary lists 41 terms that are underlined in the workbook. (KC)

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# HEALTH PROMOTION FOR ADULT LITERACY STUDENTS

*An Empowering Approach*

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

ED 368 950

## Exercise: Benefits for Body and Mind

### STUDENT WORKBOOK

The University of the State of New York • The State Education Department  
Bureau of Continuing Education Program Development • Albany, New York 12230

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# Important

What you are about to learn should **not** be used in place of attention from a health professional or other expert.

This workbook and tape contain the most current information available.

The New York State Education Department, the Hudson River Center for Program Development, Inc., and the authors do not assume responsibility for the correctness or completeness of the information.

If you have any questions, talk to your teacher or get more information from someone who works in the health field.

Please start the tape now.

## Exercise: Benefits for Body and Mind

This workbook will help you learn about exercise and physical fitness so that you can look, feel, and work better. You and your teacher can decide the best way to learn this: either working on your own with the cassette, or learning from your teacher with the rest of the class.

If working on your own with the cassette is best for you, the first step is to talk to your teacher about when it's available. When you have the tape and are ready to begin, find a well-lit room, a comfortable chair, and a steady writing surface.

I'll be saying exactly what is on the pages of your workbook so that you can read along with me. If you would like to listen to a certain section again, or need to think for a minute, feel free to stop the tape at anytime. In the workbook, you will see certain words underlined. These are words that are explained in the glossary. If you are still unsure about what the word means, ask your teacher to help you.

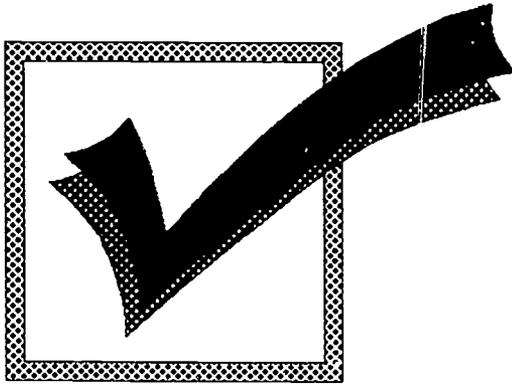
You will hear a "BEEP" after I give you instructions. Stop the tape after the beep, so that you can work on the exercises. Don't be nervous about them. They will help you remember what you have learned. If you have trouble with the answers, you can either review the section again by yourself, or ask your teacher for help. You should also talk with your teacher about your progress. Your teacher is there to help you, even if you just need to talk with someone about exercise.



Exercising on a regular basis helps you stay healthy and live longer. Even if we know how good exercise is for us, it's often hard for us to get enough exercise because we're so busy. This workbook will help you see how exercise relates to good health and how to fit it into your busy life. You will also learn how to share this with your friends and family, and how to exercise safely. And, you will learn that there are places and people right in your neighborhood or community that can help you get started and keep up with an exercise program.

The first thing to remember about regular exercise is that it can help your overall wellness. Wellness is good health in both your body and mind. Exercise can make you feel younger. For example, an **active** 65-year-old man can probably do the same things that an **inactive** 45-year-old man can do. Inactive people function like they are 20 years older than they really are.

How does exercise make you feel this way? There are many ways that exercise helps your body. It:



- gives you more energy,
- tones muscles,
- makes you stronger,
- helps you digest food,
- makes you feel better about yourself,
- helps you sleep,
- burns off calories,
- increases how much physical work you can do,
- helps your heart and lungs work better,
- relieves constipation, and
- lowers your risk of heart attacks.

Another thing exercise can do is "melt" tension, which lowers stress. Stress is how our bodies and minds deal with what's going on in our lives. We can be stressed by work, family, illness, or even by a happy event like a wedding. We all deal with stress differently, so a stressful time or event for one person isn't always stressful for someone else.

Believe it or not, there are bad and good kinds of stress.



"Good" stress is called eustress and helps you be more alert and ready for a crisis.



"Bad" stress is stronger and lasts longer. You probably already know that bad stress can cause headaches, fatigue, high blood pressure, ulcers, neck and back pain, or heart disease. It may also cause violence, alcohol and drug abuse, wild behavior, and depression.

Exercise can increase good stress while cutting down on bad stress.

*Now that we've talked about some of the things exercise does, stop the tape at the beep to look at what exercise **doesn't** do.*

\* \* \*

# Five Myths About Exercise<sup>1</sup>

## Myth 1. Exercising makes you tired.

As your body gets more in shape, you'll probably feel like exercising gives you even more energy than you had before. Regular, brisk exercise can also help you handle fatigue and stress.

## Myth 2. Exercising takes too much time.

You only have to exercise about 30 to 40 minutes, three times a week. Once you're in a comfortable exercise routine, exercising gets to be a normal part of your life.

## Myth 3. All exercises give you the same benefits.

All physical activities can be fun, but only regular, brisk and sustained exercises like brisk walking, jogging, or swimming make your heart and lungs work better and burn off extra calories. Other activities might give you other benefits such as better flexibility or stronger muscles.

## Myth 4. The older you are, the less exercise you need.

We aren't as active when we get older, so we need to make sure we get enough exercise. Exercise is as good for middle-aged and older people as it is for young people. It's important, no matter what your age, to match the exercise program to your own fitness level.

## Myth 5. You have to be athletic to exercise.

You don't have to have special athletic abilities to do most activities. Many people who had a hard time with school sports find that other activities are easy to do and fun.

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<sup>1</sup> Adapted from "Exercise and Your Heart," American Heart Association, 1989.

Since regular exercise is good for us, it seems like we would all be doing it. Unfortunately, this is not the case. In fact,

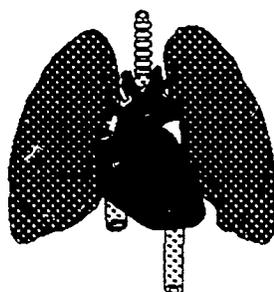
- ▶ Almost two-thirds of children in America can't pass a standard physical fitness test.
- ▶ More adults today have exercise-related problems like high blood pressure and heart disease than ever before.
- ▶ The average child exercises vigorously for less than 15 minutes per day, but watches TV for three to five hours per day.
- ▶ Many adults have poor habits in exercise, nutrition, and handling stress.
- ▶ There are about 34 million Americans who are obese. The earlier a person becomes obese, the more likely he or she will stay obese.



One way to change all of this is to help our children start exercising by setting a good example. Good exercise habits that start early can last all of our lives. If we exercise with our children, we start our own good exercise habits and enjoy our children's company. Since children like to try new things, their excitement can rub off on us.

There are some important things to know about exercise before you begin. First, there are two kinds of exercise: aerobic and anaerobic.

Aerobic exercise needs extra energy. For your body to make extra energy, it needs lots of oxygen. This kind of exercise conditions your heart and lungs because your heart beats faster and your lungs breathe harder. Swimming, brisk walking, running, jumping rope, or any other activity that makes you sweat are all examples of aerobic activity.



According to the American Heart Association, exercise that conditions your heart and lungs must be brisk, sustained, and regular. Brisk means that heart and breathing rates are faster. Sustained means that the exercise lasts 20 to 30 minutes without stopping. Regular means that the exercise is repeated at least three times per week.

Anaerobic exercise does not make your heart or lungs work harder because you don't need extra energy. Baseball and bowling are both anaerobic activities.



*For more examples of exercises that do, can, or cannot condition the heart and lungs, please stop the tape at the beep and read the chart on the next page, then complete **Worksheet #1**.*

\* \* \*

## Aerobic vs. Anaerobic Activities<sup>2</sup>

The chart below describes three kinds of activities and how they affect your heart.

**Column A** -- These exercises are very vigorous. You should do them for at least *20 minutes*, three times a week. They will help your heart and lungs, burn off calories, and give you other benefits like reducing stress.

**Column B** -- These exercises are moderately vigorous but can be good for the heart and lungs if done briskly for at least *30 minutes*, three times a week. When done briskly, they give the same benefits as those activities in Column A.

**Column C** -- These activities by nature are not vigorous or sustained. They still have certain benefits -- they can be enjoyable, help improve coordination and muscle tone, and help relieve tension. However, they neither condition the heart and lungs nor burn off many calories.

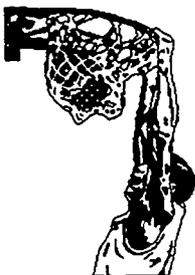
A <u>Do Condition Heart and Lungs</u>	B <u>Can Condition Heart and Lungs</u>	C <u>Do Not Condition Heart and Lungs</u>
<i>Bicycling</i>	<i>Downhill Skiing</i>	<i>Baseball</i>
<i>Brisk Walking</i>	<i>Basketball</i>	<i>Bowling</i>
<i>Cross-Country Skiing</i>	<i>Field Hockey</i>	<i>Football</i>
<i>Hiking (uphill)</i>	<i>Calisthenics</i>	<i>Golf (on foot or by cart)</i>
<i>Ice Hockey</i>	<i>Handball</i>	<i>Softball</i>
<i>Jogging</i>	<i>Racquetball</i>	<i>Volleyball</i>
<i>Jumping Rope</i>	<i>Soccer</i>	
<i>Rowing</i>	<i>Squash</i>	
<i>Running in Place</i>	<i>Tennis (singles)</i>	
<i>Stationary Cycling</i>		

<sup>2</sup> Adapted from "Exercise and Your Heart," American Heart Association, 1989.

# WORKSHEET #1

List some of the activities you like to do and note whether they are aerobic or anaerobic. You will complete the third column of the worksheet after listening to the next section.

ACTIVITIES I LIKE TO DO	<u>AEROBIC</u> OR <u>ANAEROBIC?</u>	FITNESS GROUP



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Conditioning the heart and lungs is called increasing cardiorespiratory endurance. By increasing your cardiorespiratory endurance, it is easier for your body to deliver oxygen and nutrients to its cells and take wastes away. Besides increasing your cardiorespiratory endurance, your workout should build stronger muscles and improve flexibility. Your body composition should also improve because you will have less body fat and more lean body mass. All of these fitness groups help you become physically fit.

*For ideas on fitting different fitness groups into your exercise program, stop the tape at the beep and read the chart on the next page, then look at **Worksheet #1** and fill in what fitness groups your favorite activities belong to.*

\* \* \*

*Exercise: Benefits for Body and Mind*

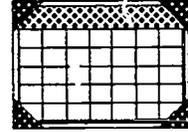
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# IDEAS

FITNESS GROUP	SUGGESTED ACTIVITY	HOW OFTEN TO DO IT
Cardiorespiratory Endurance (heart and lungs)	Swimming Running	Three 20-minute sessions per week
Muscular Strength	Weight Lifting	Two 20-minute sessions per week
Muscular Endurance	Pushups	Three 30-minute sessions per week
<u>Flexibility</u>	Stretching	10 - 12 minutes each day

*Now go back to Worksheet #1 on page 8 and fill in what fitness groups the activities you like to do are in. If you are not sure, ask your teacher or a classmate for help.*

You must plan a safe and healthy exercise routine. Try making a schedule of how often, how long, and how hard you will work out, as well as when you will exercise during the day. Remember that you shouldn't exercise for at least two hours after eating so you don't get cramps. You should wait about 20 minutes after exercising before you eat so you don't get sick to your stomach. Choose a time when you'll be sure to exercise.



Are your favorite activities with a team or better for just one person? Exercising with a partner can push you to show up for your workout and help you stick with it. Where you like to exercise can also make a big difference in what you do. Some activities can be done anywhere, but others are either for inside or outside. For example, you can walk anywhere, but you can usually lift weights only in indoor gyms.



You might have to spend a lot of money to buy expensive equipment or join a health club, but depending on what you choose, you may only need a good pair of shoes. Check for cheaper options, then think of ways to save money by doing things like lifting heavy cans or doing body resistance exercises instead of using weights.

Next, follow a few basic rules to keep your body in good working condition and your mind interested:

1. Talk to a health professional before starting exercise, especially if you've been sedentary for a long time. This is especially true if you have had:
  - ✓ Heart trouble before
  - ✓ A family history of heart problems
  - ✓ Breathlessness
  - ✓ High blood pressure
  - ✓ Arthritis, or
  - ✓ A medical condition like diabetes that needs special care.

Your health professional may tell you to build up your strength slowly, starting with an easy aerobic exercise like brisk walking or swimming. Once you're stronger, you can move on to something more vigorous.

2. Begin each exercise session with a five-minute warm-up. Warming up gets your body ready to work hard and lessens the chance for injury. Warm up by stretching, then exercising slowly. Speed up a little at a time.
3. Work on your problem areas, but don't overdo any one part. If you want to condition your heart and lungs, choose an aerobic activity. If you're more interested in flexibility or just plain fun, choose something lighter. Let your body rest from hard workout days by throwing in easier days now and then.

4. While exercising, you should be able to talk to someone without running out of breath. Once your body gets used to one level of activity, exercise a little harder to keep improving your physical fitness.
5. End your exercise session with cool-down. Slow your heart rate down to less than 100 beats per minute by walking and stretching for at least four minutes.
6. Care for your back when you're exercising, but also when you are sleeping or lifting. See Appendix A for some rules on back care.
7. Change your exercise program once in a while so you don't get bored.

*Please stop the tape at the beep and look at Appendix A in the back of the workbook, and the two sample exercise programs on the next pages. You may want to use these as models for planning your own program on Worksheet #2.*

\* \* \*

## TWO SAMPLE EXERCISE PROGRAMS

### A Sample Walking Program<sup>3</sup>

	Warm Up	Target Zone Exercising	Cool Down	Total Time
<b>Week 1</b>				
Session 1	Walk slowly 5 min.	Then walk briskly 5 min.	Then walk slowly 5 min.	15 min.
Session 2	Repeat above pattern.			
Session 3	Repeat above pattern.			
<i>Keep doing at least three exercise sessions during each week of the program.</i>				
<b>Week 2</b>	Walk slowly 5 min.	Walk briskly 7 min.	Walk slowly 5 min.	17 min.
<b>Week 3</b>	Walk slowly 5 min.	Walk briskly 9 min.	Walk slowly 5 min.	19 min.
<b>Week 4</b>	Walk slowly 5 min.	Walk briskly 11 min.	Walk slowly 5 min.	21 min.
<b>Week 5</b>	Walk slowly 5 min.	Walk briskly 13 min.	Walk slowly 5 min.	23 min.
<b>Week 6</b>	Walk slowly 5 min.	Walk briskly 15 min.	Walk slowly 5 min.	25 min.
<b>Week 7</b>	Walk slowly 5 min.	Walk briskly 18 min.	Walk slowly 5 min.	28 min.
<b>Week 8</b>	Walk slowly 5 min.	Walk briskly 20 min.	Walk slowly 5 min.	30 min.
<b>Week 9</b>	Walk slowly 5 min.	Walk briskly 23 min.	Walk slowly 5 min.	33 min.
<b>Week 10</b>	Walk slowly 5 min.	Walk briskly 26 min.	Walk slowly 5 min.	36 min.
<b>Week 11</b>	Walk slowly 5 min.	Walk briskly 28 min.	Walk slowly 5 min.	38 min.
<b>Week 12</b>	Walk slowly 5 min.	Walk briskly 30 min.	Walk slowly 5 min.	40 min.

**Week 13 on:** check your pulse every now and then to see if you are exercising within your target zone. As you get more in shape, try exercising at the upper end of your target zone. Remember to keep having fun as you get the benefits of exercise.

<sup>3</sup> Adapted from "Exercise and Your Heart," American Heart Association, 1989.

## A Sample Jogging Program<sup>4</sup>

If you are over 40 and haven't been active, start with something less demanding than jogging, like a walking program. After you go through the walking program, you can start with week 3 of the jogging program below.

	Warm Up	Target Zone Exercising	Cool Down	Total Time
<b>Week 1</b>				
Session 1	Stretch and limber up for 5 min.	Then walk 10 min. Try not to stop.	Then walk slowly 3 min. and stretch 2 in.	20 min.
Session 2	Repeat above pattern.			
Session 3	Repeat above pattern.			
<i>Keep doing at least three exercise sessions during each week of the program.</i>				
<b>Week 2</b>	Stretch and limber 5 min.	Walk 5 min., jog 1 min., walk 5 min., jog 1 min.	Walk slowly 3 min.; stretch 2 min.	22 min.
<b>Week 3</b>	Stretch and limber 5 min.	Walk 5 min., jog 3 min., walk 5 min., jog 3 min.	Walk slowly 3 min.; stretch 2 min.	26 min.
<b>Week 4</b>	Stretch and limber 5 min.	Walk 4 min., jog 5 min., walk 4 min., jog 5 min.	Walk slowly 3 min.; stretch 2 min.	28 min.
<b>Week 5</b>	Stretch and limber 5 min.	Walk 4 min., jog 5 min., walk 4 min., jog 5 min.	Walk slowly 3 min.; stretch 2 min.	28 min.
<b>Week 6</b>	Stretch and limber 5 min.	Walk 4 min., jog 6 min., walk 4 min., jog 6 min.	Walk slowly 3 min.; stretch 2 min.	30 min.
<b>Week 7</b>	Stretch and limber 5 min.	Walk 4 min., jog 7 min., walk 4 min., jog 7 min.	Walk slowly 3 min.; stretch 2 min.	32 min.
<b>Week 8</b>	Stretch and limber 5 min.	Walk 4 min., jog 8 min., walk 4 min., jog 8 min.	Walk slowly 3 min.; stretch 2 min.	34 min.
<b>Week 9</b>	Stretch and limber 5 min.	Walk 4 min., jog 9 min., walk 4 min., jog 9 min.	Walk slowly 3 min.; stretch 2 min.	36 min.

<sup>4</sup> Adapted from "Exercise and Your Heart," American Heart Association, 1989.

<b>Week 10</b>	Stretch and limber 5 min.	Walk 4 min., jog 13 min.	Walk slowly 3 min.; stretch 2 min.	27 min.
<b>Week 11</b>	Stretch and limber 5 min.	Walk 4 min., jog 15 min.	Walk slowly 3 min.; stretch 2 min.	29 min.
<b>Week 12</b>	Stretch and limber 5 min.	Walk 4 min., jog 17 min.	Walk slowly 3 min.; stretch 2 min.	31 min.
<b>Week 13</b>	Stretch and limber 5 min.	Walk 2 min., jog slowly 2 min., jog 17 min.	Walk slowly 3 min.; stretch 2 min.	31 min.
<b>Week 14</b>	Stretch and limber 5 min.	Walk 1 min., jog slowly 3 min., jog 17 min.	Walk slowly 3 min.; stretch 2 min.	31 min.
<b>Week 15</b>	Stretch and limber 5 min.	Jog slowly 3 min., jog 17 min.	Walk slowly 3 min.; stretch 2 min.	30 min.

**Week 16 on:** check your pulse every now and then to see if you are exercising within your target zone. As you get more in shape, try exercising at the upper end of your target zone. Remember to keep having fun as you get the benefits of exercise.

▶▶ The patterns for both of the sample exercise programs are just guidelines.  
Listen to your body and go more slowly if you need to. ◀◀

▶▶ For special tips for walking and running, see Appendix B. ◀◀

## WORKSHEET #2

### Your Personal Exercise Program

*Write in the activity you plan to do for each fitness group listed on the left. Place an "X" in the box under each day of the week you plan to do that activity. Be realistic and remember not to overdo it!*

FITNESS GROUP	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
<u>Aerobic Activity:</u>							
<u>Muscular Strength:</u>							
<u>Muscular Endurance:</u>							
<u>Flexibility:</u>							

Now that you've planned what you will do, let's talk about how hard, how long, how often, and how much you will exercise.

We already talked about warm-up and cool-down, which many people skip because they think it's a waste of time. Please don't make this mistake; without warm-up or cool-down, your heart is first jolted into high activity, then shocked with a sudden stop.



You should start exercising slowly, then speed up a little bit at a time. Keep track of your heart rate to be sure you're not going too much. Your heart has a limit to how much it can do. This limit is called your maximum heart rate or MHR. To find your MHR, subtract your age from 220.

For example: a 30-year-old's MHR would be  $220 - 30$ , or 190 beats per minute.

To condition the heart and lungs, the American Heart Association says you should raise your heart rate to 60 - 75% of your MHR. This level is called the target zone or target heart rate. If you go below 60% or above 75%, you either won't condition your heart or you will overwork it.

Start slowly at 60% of your MHR and work your way up to 75%. You should work in your target zone for 20 to 30 minutes. Once you're fine at the top of your target zone, you can climb to as much as 85% of your MHR, but you don't have to to be fit.

*Please stop the tape at the beep and complete **Worksheet #3** on the next page.*

\* \* \*

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## WORKSHEET #3

### Heart Rates

Complete the following steps to figure your resting, maximum, and target heart rates.

1. To find your resting heart rate (RHR), count your pulse for 60 seconds while you are completely relaxed -- the best time is before you even get out of bed in the morning.

**Resting Heart Rate = \_\_\_\_\_**

2. Your maximum heart rate (MHR) is 220 minus your age.

**220 - (your age) = \_\_\_\_\_.**

3. Your goal is to raise your heart rate to 60 - 75% of your MHR into your *target zone*.

To find the range of your target zone, multiply your MHR by 60 percent.

**MHR x .60 = low end of your target zone**

Then, multiply your MHR by 75 percent.

**MHR x .75 = high end of your target zone**

4. Count your pulse for six seconds as soon as you stop exercising and multiply by 10 to see if you're in your target zone. An easy way to multiply by 10 is to tack a zero on the number counted. **Example: pulse beats counted in six seconds = 16; actual heart rate = 160 beats per minute.**

- a. Your pulse counted in six seconds = \_\_\_\_\_.
- b. Tack on a zero.
- c. Your actual heart rate = \_\_\_\_\_.
- d. Is this number in your target zone?



We can't say too much about how important it is to exercise regularly. If you stop for a while, don't overdo it the first day back -- start slowly and work your way back up to the top of your target zone. If you were sick, be sure you're feeling better before exercising again.

If you want to exercise more than the minimum, good for you! There are no limits to how much you can exercise, as long as you keep taking good care of your body and answer any warning signs. Extra exercise will help your heart and lungs even more. You will also use up more calories, which many people like because they think exercise is a way to control their weight. They're right! Regular exercise can help you lose, gain, or keep your weight the same. Whatever your goals are, remember that regular exercise and good nutrition are important for being fit and healthy.

To keep your weight the same, the calories you eat must equal the calories you use up. This is called energy balance. Energy intake (food) has to equal energy output (exercise). If you eat more calories than your body uses up, the extra calories become fat. If you don't eat as many calories



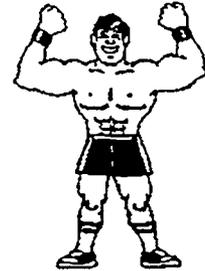
as you use up, your body will burn stored fat to keep going. Exercise should burn up 1500 - 2000 calories per week. If you're trying to lose weight, be sure to do it in a healthy way. Eat at least 1200 calories each day unless your health professional tells you differently, and don't lose more than two pounds per week.



For your body to work its best, you must exercise and eat well. A "well-balanced diet" doesn't mean how much or little you eat, but what you eat and how good it is for you. You should never skip meals or go hungry -- just make sure your calories count for good health. It's important to get calcium and vitamins A and C. Eat fresh fruits and vegetables, lots of complex carbohydrates (whole-grain breads and other starches), and a medium amount of proteins or meats. Fat, saturated fat, and cholesterol should be cut down to 30% or less of your total daily calories.

Also, be sure to drink lots of liquids that are caffeine-free, especially if you've been sweating. For more information on nutrition, ask your teacher about the module called *Nutrition: Eating for Better Health*.

Overweight and overfat are not the same thing. How much you weigh isn't as important as how much fat and lean body mass you have. Muscle weighs more than fat, so muscular people may seem to be overweight on the scale. On the other hand, a person who weighs an "average" amount might have more body fat than lean body mass. Women's bodies should be 20% fat, while men's should be 15% fat. An easy way to measure your body fat is to "pinch an inch." If you can pinch more than one inch of body fat between your waist and abdomen, you may be overfat.



Remember -- you don't have to be skinny, only healthy. Exercise can help increase lean body mass by building muscle and decrease fat by using extra fat cells for energy. This means you could make your body better without actually losing weight. You could even *gain* weight after starting to exercise because you will have stronger, heavier muscles.



Our body shapes and sizes may make us feel nervous about exercising. No matter what, everyone can and should exercise. If you're overweight, don't let other people's negative attitudes towards large people get you down. Even though TV and magazine ads train us to think "thin is in," it really isn't true. Losing weight won't make your life perfect, and you don't need to be thin to exercise. Give yourself a chance to have a healthy heart, an able body, and feel better about yourself. Choose an exercise that uses your whole body or at least the large muscle groups. For obese people with muscle and bone problems, walking may not be a good choice. Stationary cycling, rowing, and swimming are all good. Water activities are good because extra weight is a help in the water.



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Exercise may or may not help an overweight person lose weight, but it is sure to help increase lean body mass. Good health, not less pounds, is the sign of success, so get going and do *something*.



Men and women are different, which may mean that certain exercises might be more useful for men or for women. Don't worry about how much someone else can exercise. Stay at your own pace.

*Please stop the tape at the beep to look at the next page, which lists some basic differences between men and women.*

\* \* \*

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## Differences between the Sexes

There are definite differences between men and women, which may make a difference when exercising. Here are some of the ways men and women, *on the average*, differ:

	Men ♂	Women ♀
Height	A little over 5 feet, 8 inches	A little over 5 feet, 3 inches
Weight	144.8 pounds	126.6 pounds
Muscle	have 50% more than women	only 80% as strong as men
Fat	Stored in back, chest, and <u>abdomen</u>	Stored in buttocks, arms, and thighs
Bones	more bone mass	pelvic structure is wider and center of gravity is lower
Heart	slower pulse	25% smaller than men's
Lungs	capacity 25-30% greater than women's	capacity less than men's
Other	Sweat more and evaporate more heat than women	More flexible than men



Most pregnant women who exercised before becoming pregnant can keep exercising with no problems. In fact, women who stay active during pregnancy seem to have fewer premature births, shorter labor, and fewer backaches. Remember to consult your health professional. Don't try to work out at the same level you were at before you became pregnant.

As with large people and pregnant women, exercise is important for older people, too. A fitness program for senior citizens should try to improve health or naturally "slow down" the aging process. Exercise in older people helps prevent heart attacks, stop osteoporosis, and control weight.

We should take better care of our bodies as we get older. We can look forward to our later years by remaining active and improving with age. Lots of activities are good for senior citizens, including aerobic dance. Walking is also a good choice since it is cheap, easy, and less strenuous.



Another idea is yoga, a low-impact exercise that features breathing and stretching. Your health professional can talk to you about an exercise program that is fitting *and* comfortable for you.

Besides your regular vigorous exercise, look for ways to use your body and feel better all day: take the stairs rather than the elevator, or scrub harder when you mop. Small moves can use lots of energy, tone muscles, and make you more flexible. Think of it like this:

- o 1 pound of fat = 3500 calories.
- o 15 minutes of moderate exercise or walking one mile will use 100 calories.
- o Walking one mile every day adds up to 700 calories in one week.
- o If you do this all 52 weeks in a year, you could burn up 36,400 calories or 10.4 pounds worth!

Here are some ways to fit more exercise into your life:

- |   |  |   |   |
|---|--|---|---|
| o | Take the stairs.   | o | Scrub the floors and windows.                 |
| o | Park farther away from where you're going.                       | o | Go out to eat instead of ordering in.         |
| o | Get off the bus early.   | o | Do exercises in front of the TV.              |
| o | Mow and weed the lawn.   | o | Do leg lifts while brushing teeth.            |
| o | Make yeast breads from scratch. (Kneading is hard work!)         | o | Stand rather than sit while waiting.          |
| o | Walk a dog or cat.   | o | March in place while doing wash.              |
| o | Wash the car.  | o | Walk more, sit less.                          |
| o | Plant a garden.  | o | Walk to, rather than call your neighbor.      |
| o | Carry your groceries home.                                       | o | Tense <u>abdominal</u> muscles while driving. |
| o | Plan physically active trips.                                    |   |   |
| o | Go to the store with your kids rather than sending them for you. |   |   |

*Please stop the tape at the beep and write down on the next page some of your own ideas for fitting more exercise into your life.*

\* \* \*



The activities we just talked about aren't only good for adding up extra exercise, they also save money! Nobody has extra money to spend on expensive exercise equipment. The cheapest kinds of exercise are walking or running, since all you need is a good pair of shoes. They can cost anywhere from \$30 to \$50 or more, depending on what you want and where you shop. Don't try to save money by taking a chance on getting hurt. Invest in good shoes, a helmet, or safety glasses if you need them.



Exercise classes like aerobics cost between \$2 and \$10 per class. You can sometimes find the lower-cost classes at community centers or school gyms. If you join a health club, it can cost up to \$500 or more a year. Check with your local YMCA and YWCA to see if they offer scholarships, and if you can apply for one.

We all mean to do what's best for us, but sometimes we may want to give up. It will take awhile to get in shape, so don't get down if you can't do as much as you want. Try setting short-term and long-term goals so you have something to work toward. For example, if you're a jogger, set a long-term goal like entering a race or some short-term goals like running a mile or running a number of days in a row. Don't compare yourself to friends or classmates, either. Your goal should be **physical fitness**, not doing better than someone else. Your body has its own needs and limits, and you can only develop to your own potential.



*Please stop the tape at the beep and think of some short-term and long-term goals for yourself. You can write these down on the next page.*

\* \* \*

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*Short-Term Goals*

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

*Long-Term Goals*

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

Exercising is no good if you don't do it safely. People usually get hurt by doing too much too soon and too often. If you're in pain or think you might be hurt, **stop** exercising.

The best way to keep from getting hurt is to protect yourself. We've already talked about:



Consulting a health professional before exercising;



Warming up and cooling down;



Letting your body "recover" between workouts;



Using the right equipment; and



Listening to your body's signals.

o You should also take care if you have feelings of pain or pressure on the left of your chest, neck, shoulder, or arm; nausea, dizziness, cold sweat, paleness, or collapse. This could mean you have a heart problem. If you ignore these signs, you might make the problems worse. Call your health professional right away.

- o **Please also take care if you are exercising outdoors.** *In warm weather,* try to exercise when it's cooler like early in the morning or just after sundown. Wear sunscreen, dress lightly, and slow down a bit until you're used to the heat. Remember to drink lots of water. If you stop sweating or feel dizzy, light-headed, or really tired, you may have heat stroke -- see a health professional. *In cold weather,* dress in warm layers of clothing. Cotton is best since it lets sweat out but keeps you warm. Be sure to wear mittens, a hat, and cotton socks.

- o The weather isn't the only thing that can hurt you. We've all heard horror stories of joggers being attacked. Use common sense to protect yourself: go out in daylight, bring a whistle, or exercise with a partner.



Now that you've started exercising, it's time to let everyone know how great you feel. Your fitness habits can help get your family and friends moving! Once they're involved, you can support each other and plan activities together. Remember to do something that interests you, that you enjoy, and that challenges you, and by all means,

**keep exercising!**

## APPENDIX A

# Care for Your Back!



- ▶ Stand upright with a mild "in-curve" of your lower back and with your knees slightly bent.
- ▶ Sit with your lower back curved in slightly. Don't slouch or allow your back to "round off."
- ▶ Sleep on your side or back. Try not to sleep on your stomach.
- ▶ When lifting, keep your back relatively straight. Bend at the knees and keep objects close to your body.
- ▶ Never bend at the waist with knees straight or bend and twist at the same time.

Adapted from "*Fit to Win: Physical Conditioning*," Department of the Army, 1987.

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## APPENDIX B

# Special Tips for Walking and Running

- ▶ Walk or run on soft, even surfaces like grass or dirt paths to lessen impact on feet, knees, and legs.
- ▶ Take it easy on your feet and legs by landing on your heels, rather than the balls of your feet.
- ▶ Wear light-colored clothing and face oncoming traffic so drivers can see you better.
- ▶ Keep your feet clean and toenails trimmed.
- ▶ Wear soft, absorbent socks.
- ▶ Wear high-quality footwear designed for the activity.
- ▶ Inspect your feet before and after you work out; treat blisters right away.
- ▶ See a foot doctor for foot problems that won't go away.

Source: "Exercise and Your Heart," American Heart Association, 1989.

## GLOSSARY

<i>abdomen</i>	the area of the body containing the digestive organs; the belly area
<i>absorbent</i>	able to suck up or drink in moisture
<i>aerobic</i>	exercise, such as running and swimming, that conditions the heart and lungs by using extra oxygen
<i>anaerobic</i>	exercise that does not require extra oxygen
<i>arthritis</i>	inflammation of a joint or joints
<i>brisk</i>	quick and energetic
<i>body composition</i>	the makeup of a body, including muscle, bones, and vital organs
<i>body resistance</i>	exercise in which resistance, or motions in opposition, is used to tone muscles
<i>calcium</i>	a grayish-white substance found in bones and teeth. Without proper calcium, bones are weakened.
<i>calorie</i>	a unit for measuring the energy value of food
<i>condition</i>	to bring into a proper or desired state of being; to become used to (for example, the heart and lungs are <i>conditioned</i> , or become used to, exercise)
<i>constipation</i>	a condition in which elimination from the bowels is infrequent and difficult.
<i>coordination</i>	harmonious action, such as of muscles in producing complex movements

<i>diabetes</i>	a disease in which sugar and starch are not properly absorbed by the body.
<i>digest</i>	changing food in the mouth, stomach, and intestines by juices and enzymes into a form that can be absorbed by the body
<i>endurance</i>	the ability to last, continue, or remain under pain, fatigue, etc.
<i>energy balance</i>	the number of calories you use up in relation to the amount you take in
<i>fatigue</i>	physically or mentally tired; weariness
<i>flexibility</i>	the ability to bend without breaking; not stiff or rigid; easily bent
<i>health professional</i>	one with advanced training or knowledge on being well and not sick; examples are doctors, nurses, pharmacists, and others
<i>lean body mass</i>	the weight of one's muscle, bone, and vital organ tissues
<i>maximum heart rate (MHR)</i>	the uppermost limit to what to what one's heart can do
<i>minimum</i>	the smallest number or least amount possible or permissible
<i>moderate</i>	within reasonable limits; not too much nor too little
<i>myth</i>	an untrue or unscientific story, theory, or belief
<i>nutrition</i>	the way to keep a person alive and well by means of food
<i>obese</i>	20 percent or more above desired weight
<i>osteoporosis</i>	a condition of fragile bones from lack of calcium; usually strikes older women
<i>potential</i>	that can, but has not yet, come into being; possible
<i>premature</i>	happening or arriving before the proper or usual time
<i>resting heart rate</i>	how fast your heart beats when you are completely relaxed
<i>sedentary</i>	of or marked by much sitting about and little physical movement

<i>stationary</i>	not moving or movable; fixed or still
<i>strenuous</i>	requiring great effort or energy
<i>stress</i>	mental or physical tension or strain
<i>sustained</i>	kept up or maintained
<i>target zone</i>	the range of your heart rate in which you should exercise; between 60 - 75% of your maximum heart rate
<i>tension</i>	mental or nervous strain, often with muscular tightness
<i>ulcers</i>	an open sore, usually on the lining of the stomach
<i>vigorous</i>	forceful or powerful; strong; energetic
<i>wellness</i>	the state of being in good health and overall mental and physical condition