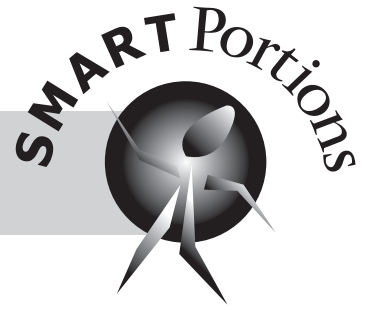


A Healthy Weight PROGRAM



Lesson III - Your Smart Activity Portions

Key concepts:

- Benefits of Exercise
- Getting Started Right
- Fitness Planning and Goals
- Safety in Exercising
- Homemade Workouts
- Managing Stress With Exercise

Eye-opening activity:

- Test Your Endurance (refer to Parlay Fact Sheet)
- Test Your Flexibility (refer to Parlay Fact Sheet)
- Test Your Strength (refer to Parlay Fact Sheet)
- Pay Attention to Your Heart Rate (refer to Parlay Fact Sheet)
- Taking Your Pulse (refer to Parlay Fact Sheet)

Background Information:

- Why start walking? (refer to AgCenter Fact Sheet: EFNEP Benefits of Exercise)

Suggested learning activities

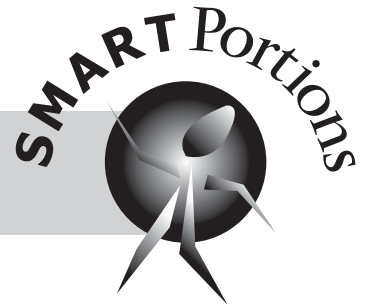
(refer to Walking Exercise Program fact sheet) The Walking Exercise Program was designed for any age level from 30 years of age up to 50+ years of age. This program also can be used for the excessively overweight along with healthy eating. The program encourages walkers to gain “points” for walking completed in a week’s time span. The goal for each participant is to earn at least 25 points per week. The progressive chart guides the participant through the walking program. The success of the program may be documented in an exercise journal. An optional program is the AgCenter fact sheet, Walking Program.

Project partially funded by the United States Department of Agriculture, Food and Nutrition Service, through the Louisiana Department of Social Services, Food Stamp Program.

Louisiana State University Agricultural Center, William B. Richardson, Chancellor
Louisiana Agricultural Experiment Station, David Boethel, Vice Chancellor and Director
Louisiana Cooperative Extension Service, Paul D. Coreil, Vice Chancellor and Director

Issued in furtherance of Cooperative Extension work, Acts of Congress of May 8 and June 30, 1914, in cooperation with the United States Department of Agriculture. The Louisiana Cooperative Extension Service provides equal opportunities in programs and employment.

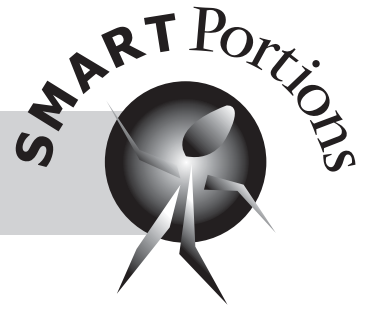
A Healthy Weight PROGRAM



Fact Sheets for Discussion:

Parlay Fact Sheet: Test Your Endurance
Parlay Fact Sheet: Test Your Flexibility
Parlay Fact Sheet: Test Your Strength
Parlay Fact Sheet: Pay Attention to Your Heart Rate
Parlay Fact Sheet: Taking Your Pulse
AgCenter Fact Sheet: Benefits of Exercise
AgCenter Fact Sheet: Beginner's Walking Program
Parlay Fact Sheet: Sensible Shoes
Parlay Fact Sheet: Eating Before Exercise
Parlay Fact Sheet: How Energy Works
Parlay Fact Sheet: Why Warm Up? Why Cool Down?
Parlay Fact Sheet: Fitness Essentials
Parlay Fact Sheet: Developing a Personal Fitness Plan
Parlay Fact Sheet: Setting Fitness Goals
Parlay Fact Sheet: Fit at Any Age
Parlay Fact Sheet: Fitting Fitness Into a Busy Schedule
Parlay Fact Sheet: Exercise and Weight Control
Parlay Fact Sheet: Warning: Being Out of Shape Is Hazardous to Your Health
Parlay Fact Sheet: Exercise Makes Your Cardiovascular System Healthier
Parlay Fact Sheet: Tips for Exercising Safely
Parlay Fact Sheet: Are You Overtraining?
Parlay Fact Sheet: RICEing Fitness Injuries
Parlay Fact Sheet: Replacing Fluids Lost From Exercise
Parlay Fact Sheet: Stretching for Flexibility
Parlay Fact Sheet: Strength Training Is Important, Too
Parlay Fact Sheet: A Homemade Workout: Choosing Exercise Equipment for Your Home
Parlay Fact Sheet: Walking
Parlay Fact Sheet: Running and Jogging
Parlay Fact Sheet: Low-Impact Aerobic Dance
Parlay Fact Sheet: Swimming
Parlay Fact Sheet: Anaerobic Metabolism: When You Need Instant Energy
Parlay Fact Sheet: Aerobic Metabolism: Energy With Oxygen
Parlay Fact Sheet: Stress Management Tool—Exercise
AgCenter Fact Sheet: Weight-Loss Plateaus and Pitfalls
AgCenter Fact Sheet: So, You Want to Spot Reduce?
AgCenter Fact Sheet: What You Need to Know to Purchase a Treadmill
AgCenter Fact Sheet: Everything in Moderation

A Healthy Weight PROGRAM



AgCenter Fact Sheet: Making Time for Exercising is Easy
AgCenter Fact Sheet: Exercise and Menopause
AgCenter Fact Sheet: Exercise and Type 2 Diabetes
AgCenter Fact Sheet: Exercise and Hypertension
AgCenter Fact Sheet: Exercise and Arthritis
AgCenter Fact Sheet: Exercising with Heart Disease
AgCenter Fact Sheet: Active Seniors Enjoy Life More

Support Materials

National Institute of Diabetes and Digestive and Kidney Diseases
www.niddk.nih.gov

American Heart Association
www.americanheart.org

American Society of Exercise Physiologists
www.css.edu/users/tboone2/asep/toc.htm

American College of Sports Medicine's Health & Fitness Journal
www.health-fitjrn.com

Women's Exercise Research Center
www.gwu.edu/~exsci/werc.html

Cooper Institute of Aerobics Research
www.cooperinst.org

References

The Walking Exercise Program found in *The New Aerobics for Women* by Kenneth Cooper.



Test Your Endurance

THE STEP TEST

In order to establish fitness goals, it helps to assess your physical strengths and weaknesses. The following test can help you determine your endurance: the length of time you can perform a repeated action before becoming fatigued.

NOTE: If you're over 40, a smoker, currently leading an inactive lifestyle or have a personal or family history of heart disease or other chronic medical conditions, check with a healthcare professional before performing this test. If at any point during this activity, you experience pain, discomfort or shortness of breath, discontinue the exercise immediately.

Heartbeats per Minute	Level of Endurance
Over 125	Poor
121–125	Fair
111–120	Average
91–110	Good
90 and Below	Excellent

The Step Test

To perform this test, you'll need a sturdy stepladder, stool or box (one that can support your full body weight) approximately 12 inches high. Alternating your feet, step on and off the stool 24 times a minute, one up-and-down step about every 2½ seconds. Continue stepping up and down for three minutes, keeping the pace of 24 steps a minute. As soon as you're done, check your heart rate by counting your pulse (on your wrist or neck) for 10 seconds and multiply that sum by six to determine heartbeats per minute. Then refer to the table at left to judge your level of endurance.

Reach and Pull Tests

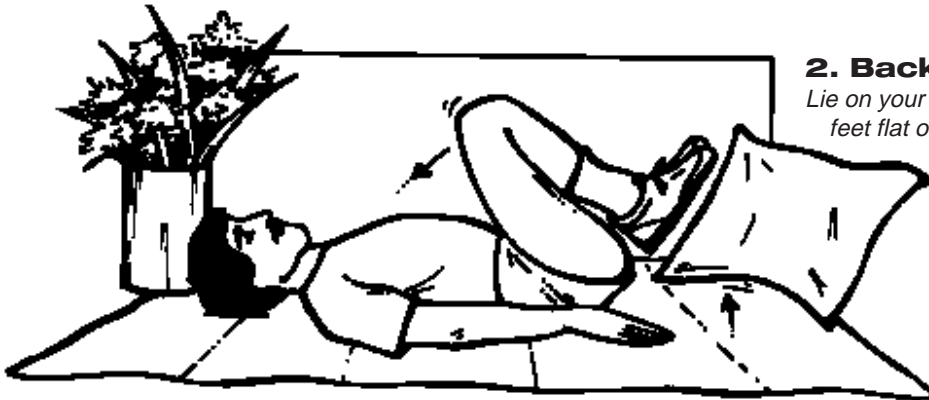


1. Hand-to-Shoulder Reach

From a standing position, bend your left arm at the elbow and reach behind and across your back. Try to stretch your left hand to your right shoulder blade without arching your back or bending your head forward. Hold for 20 to 40 seconds. Repeat the sequence, touching your right hand to your left shoulder blade.

Test Your Flexibility

In order to establish fitness goals, it helps to assess your physical strengths and weaknesses. These tests can help you determine your flexibility—your ability to move freely without strain or resistance.



2. Back Stretch

Lie on your back with knees bent and feet flat on the floor. Slowly raise your knees to touch your chest. Hold for 20 to 40 seconds.

3. Quadriceps Pull

Lie on your stomach with knees bent. Slowly touch your heels to your buttocks. You can hold onto your ankles to assist your stretch. Hold for 20 to 40 seconds.



Results

If you were able to perform each of the above tests without feeling strain or discomfort, you pass the flexibility test. If you were unable to touch hand to shoulder blade, knees to chest or feet to buttocks, you'll benefit by incorporating gentle stretching exercises into your regular activity program. Use these tests to monitor your progress. All exercise programs should include flexibility exercises.

NOTE: If you're over 40, a smoker, currently inactive or have a personal or family history of heart disease or other chronic medical conditions, check with your healthcare professional before performing these tests. If at any point during this activity you experience pain, discomfort or shortness of breath, discontinue the exercise immediately. When performing these tests, never try to stretch past the point of tightness or resistance.

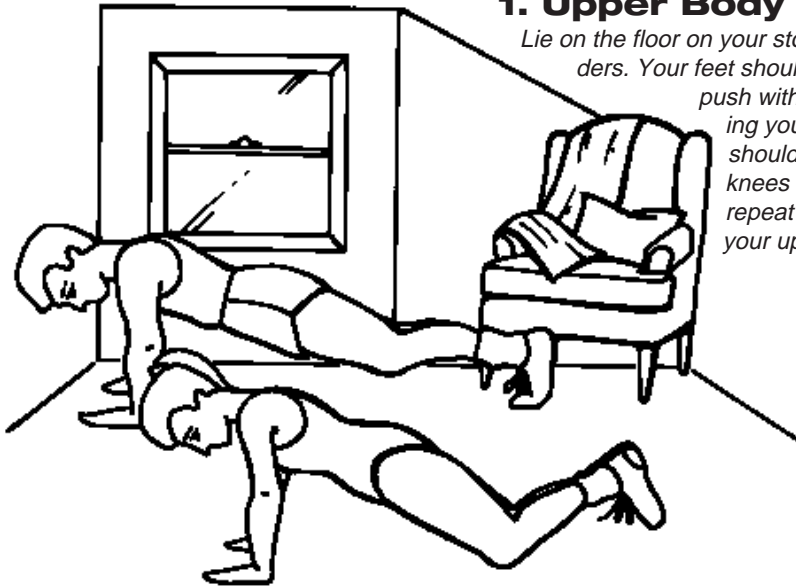
Resistance Tests

Test Your Strength

In order to establish fitness goals, it helps to assess your physical strengths and weaknesses. The following tests can help you determine your overall strength—the ability of your muscles to resist a progressively increased load. Use these tests to monitor your progress.

1. Upper Body Test

Lie on the floor on your stomach, hands placed palm-down next to your shoulders. Your feet should form a right angle to the floor. As you exhale, slowly push with your hands to raise your torso from the floor, keeping your back straight and your elbows slightly bent. (Men should keep their legs straight; women should keep bent knees on the floor.) Slowly lower yourself to the floor and repeat as many times as you can. Then refer to the table for your upper body strength level.



Number of Repetitions*	Level of Strength
0–9	Poor
10–19	Average
20–29	Good
30 and over	Excellent

* People under age 35 should add two to each of the repetition ranges.

2. Abdominal Strength Test

Lie with your back and feet on the floor, keeping your knees bent and your arms crossed over your chest. As you exhale, look toward the ceiling and slowly raise your shoulders off the floor as far as you can without straining. Relax. Repeat as many times as you can. Then refer to the table for your abdominal strength level.

Number of Repetitions*	Level of Strength
0–15	Poor
15–30	Average
31–45	Good
45 and over	Excellent

* People under age 35 should add two to each of the repetition ranges.



NOTE: If you are over 40, a smoker, currently inactive or have a personal or family history of heart disease or other chronic medical conditions, check with your healthcare professional before performing these tests. If at any point during this activity you experience pain, discomfort or shortness of breath, discontinue the exercise immediately. When performing these tests, never try to stretch past the point of tightness or resistance.

Pay Attention to Your Heart Rate

Most people know that aerobic exercise conditions the cardiovascular system. And they also know that the harder they exercise, the faster their heart beats. But some people are unsure of just how hard they should be exercising.

“Heart rate” is the term used to describe how many times the heart beats in a minute. At rest, an unconditioned heart beats about 80 times per minute. This is called the resting heart rate. At the other extreme, the fastest a heart can beat is called the maximum heart rate.

Your Target Heart Range (THR)

In order to improve cardiovascular fitness, a person must exercise hard enough to raise the heart rate above the resting level. How high to raise the heart rate above the resting level varies from person to person, depending on age and physical condition. Generally, people are advised to exercise hard enough to raise their heart rate to 60 percent to 85 percent of their maximum heart rate. This range is known as their target heart range, or THR.

To achieve the most benefit from aerobic exercise, a person must exercise regularly and continuously in his or her THR. The target heart range is calculated by first subtracting a person’s current age from 220 to determine the maximum heart rate. Then multiply that number by .6 and .85 to determine the target heart range.

For example, the target heart range for a 36-year-old woman is 110 to 156 beats per minute.

Here’s how it’s calculated:

- **220 minus her age of 36 yields 184, her maximum heart rate**
- **184 times .6 yields 110, the lower end of her target heart range**
- **184 times .85 yields 156, the upper end of her target heart range.**

So her THR while exercising is 110 to 156 beats per minute.

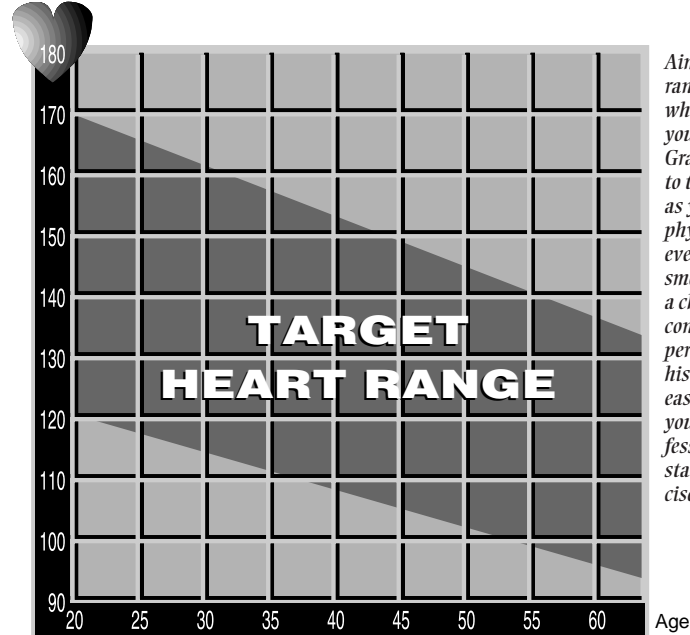
A Short Cut to Knowing Your Heart Rate

During exercise, it may be easier to count the heart beats in a

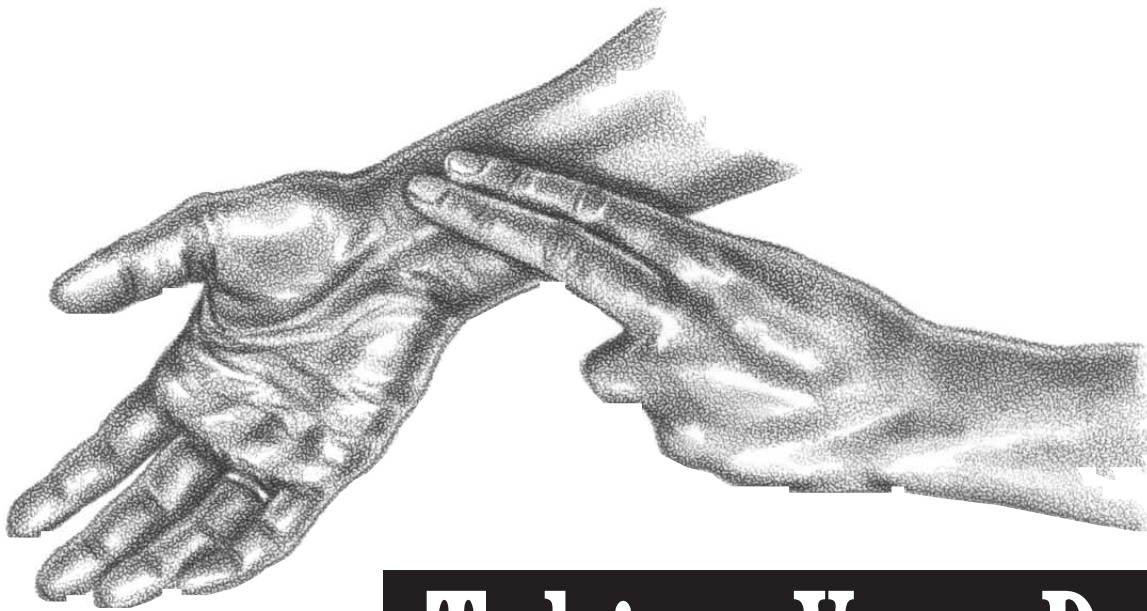
10-second interval. So divide the numbers in your THR by 6—the number of 10-second blocs in a minute. Thus, the woman in the example would aim for a heart rate of 18 ($110 \div 6$) to 26 ($156 \div 6$) beats every 10 seconds.

If you’re over 40, at risk for a heart condition, have diabetes or are trying to control hypertension or some other disorder, consult with your healthcare provider before embarking on any exercise program. If it’s OK for you to start exercising, do so within your target heart range. It will not only benefit your cardiovascular system, you’ll be getting the most out of the time you spend exercising—without overdoing it.

Heart Rate



Aim for the low range of your THR when you first begin your fitness plan. Gradually work up to the higher range as you become more physically fit. However, if you’re a smoker, suffer from a chronic medical condition or have a personal or family history of heart disease, check with your healthcare professional before starting any exercise program.



Taking Your Pulse

In order for aerobic exercise to be effective you need to exercise within your target heart range (THR) for a minimum of 20 minutes at least three times a week. You may know how to calculate your THR (220 minus your age multiplied by .6 and by .85), but how and when do you take your pulse to know if you've reached or are maintaining your THR?

Which fingers do you use to find your pulse? Do you take your pulse on your neck or on your wrist? Do you count from "0" or from "1"? How long do you take it? The following pointers can help answer these common questions.

Finding and Taking Your Pulse

Before you can take your pulse, you have to find it. Use the pads of your index and middle fingers to find the pulse on your opposite wrist. Feel for the base of your thumb with the hand turned upward. Move your fingers to just about an inch below the thumb base and press down lightly until you feel an intermittent throbbing sensation in your wrist. That's your pulse.

If you prefer to take your pulse on the side of your neck, lift your chin slightly and feel around for a pulse in the soft spot on your throat just to the side of your "Adam's apple." Be careful not to restrict the blood flow to your head when pressing to find and feel a pulse.

Once you've found it, look at a clock or watch with a second hand and start counting the number of beats for a period of 10 seconds. Begin your count with "0." Look away from the clock while counting and then look back to see when the 10 seconds are up. Multiply the number of heartbeats by six to find out your heartbeats per minute.

When To Take Your Pulse

Before you try to find your exercising pulse, it may help to practice taking your pulse while doing other activities. For instance, take your pulse while lying down, sitting, standing and jogging in place. You'll notice that as your level of activity increases so does the number of heartbeats per minute.

During exercise, it's best to take your pulse about five minutes into your exercise session to see if you've reached your THR. If you haven't, slightly increase your level of activity and take your pulse again in five minutes. Once you've reached your THR, maintain that level of activity for at least 20 minutes more before cooling down.

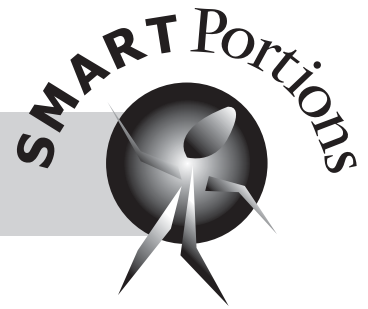
Remember, if you reach a point where you are breathless or unable to talk, decrease your level of activity. You are probably pushing the upper range of your THR.

It's also a good idea to take your pulse after cooling down to help determine how long it takes for your heart to return to its resting rate. The more fit you become, the less time it will take for your heart to return to its resting rate.

A Valuable Skill

As simple as it seems, learning to take your pulse accurately is a valuable skill for everyone but particularly for the active person. By learning how to take your pulse properly, you can gauge the intensity of your activities and modify your exercise plan accordingly. You will also be able to measure your progress by tracking your resting pulse rate.

A Healthy Weight PROGRAM



Benefits of Exercise

Exercise

- increases the strength and capacity of your heart, blood vessels and lungs.
- improves the circulation of oxygen and nutrients to your brain and body cells.
- reduces emotional stress, depression, anxiety and muscle tension.
- improves sleep habits and reduces insomnia.
- increases stamina, endurance and resistance to illness.
- builds self-confidence and a sense of well-being.
- decreases constipation problems.
- may reduce the incidence of migraine headaches.
- improves control of diabetes.



You'll Feel Better and Have More Energy



You'll Look Better

As part of the aging process, we lose muscle and gain fat. Exercise helps you to keep the muscle and lose the fat, resulting in a firmer, trimmer figure. Exercise also helps improve your posture.



Your Bones Will Be Stronger

Regular exercise helps prevent loss of calcium from the bones, which may result in osteoporosis. Exercise also strengthens muscles, keeps joints supple and combats stiffness. Exercise may help preserve full range of motion in people with arthritis.

You'll Control Your Weight

Healthful eating and physical activity are essential for controlling your weight.

Exercise helps control your weight by....

Burning Calories and Fat

Exercise accelerates weight loss by increasing the calories you burn. Exercise decreases body fat stores and promotes fat burning. New research suggests regular exercise promotes fat burning and decreases body fat stores because it causes us to burn more fat than carbohydrates for energy. When we don't exercise, we burn a higher percentage of carbohydrates for energy than fat.

To burn fat and build muscle, the American College of Sports Medicine recommends:

- aerobic exercise 30 - 45 minutes, 4-5 times a week and
- strength training 20 - 30 minutes, 2-3 times a week.

Different activities burn different amounts of calories. The important factor is to exercise regularly so you'll burn these calories on a regular basis.

Regulating Appetite

Research suggests exercise can help control appetite and usually doesn't stimulate appetite.

Regular physical activity also changes your appetite so you want lighter, lower-fat foods.

Preserving and Building Muscle

If you lose weight without exercise, you lose both fat and muscle. Exercising regularly and cutting back on fat will help you lose mostly fat. Exercise builds muscle which requires more calories than fat to perform its work. The more muscle you have, the more calories you burn.

Increasing Metabolic Rate

Dieting and weight loss slow down your metabolism (calories you burn daily). This is bad news because your body then uses fewer calories at a time when you want to burn more calories.

Exercising during a diet may help offset this drop in metabolic rate.

Keeping Weight Off

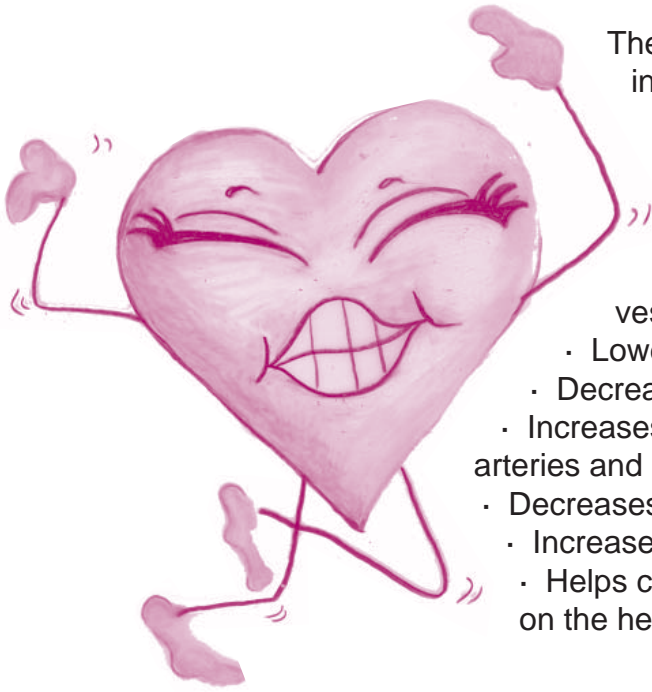
Exercise is the factor which best predicts who will lose weight and keep it off. If dieters are followed a year or more after a program, those who are exercising tend to be the ones who keep weight off. The sense of well-being that accompanies regular exercise seems to be an important key to successful weight maintenance.

Physical Activity Chart

Activity	Calories Per Hour	Time Needed to Burn 250 Calories	Activity	Calories Per Hour	Time Needed to Burn 250 Calories
Walking (4 mph) (15 min per mile)	400	37 minutes	Swimming (crawl, 45 yd/min)	530	30 minutes
Jogging (6 mph) (10 min per mile)	600	25 minutes	Jogging (5.5 mph) (11 min per mile)	650	23 minutes
Aerobic Dance	345	45 minutes	Biking (13 mph)	650	23 minutes
Skating (moderate)	345	45 minutes	Jogging (7 mph) (8.5 min per mile)	850	18 minutes

These figures are for a 150-lb. person. If you weigh more, you'll burn more calories in the same time; if you weigh less, you'll burn fewer calories.

You'll be Heart-Healthy



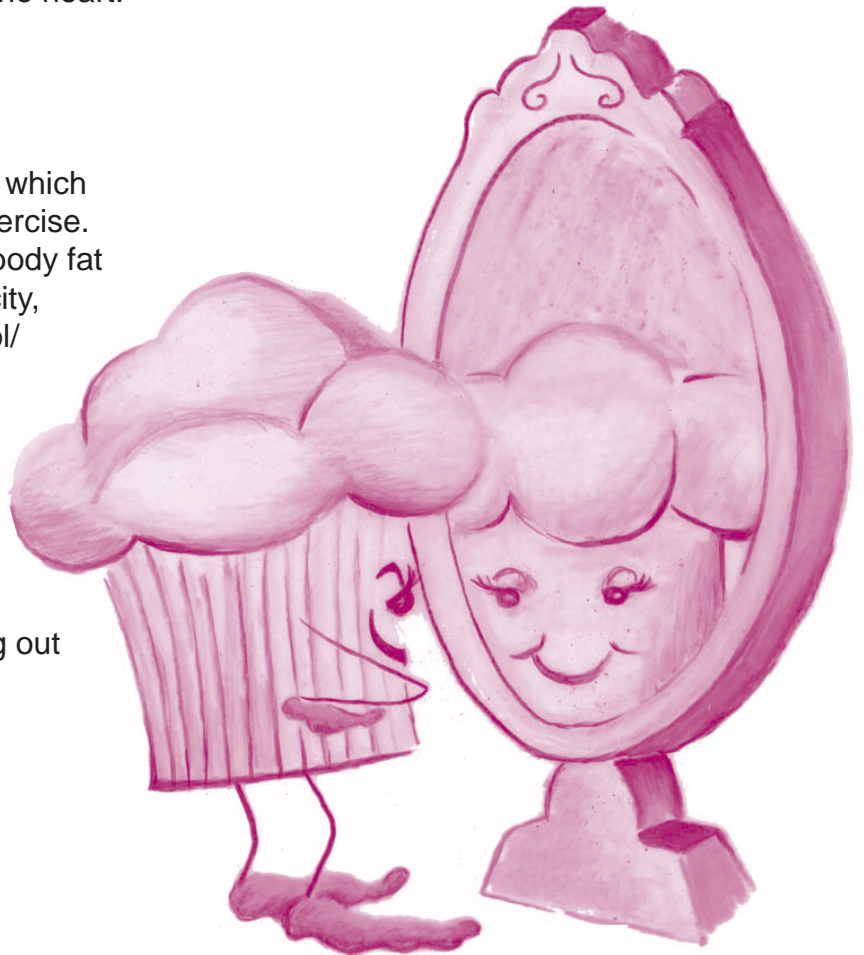
The American Heart Association now lists physical inactivity as one of the leading risk factors for heart disease along with high blood pressure, smoking and high serum cholesterol.

Exercise....

- Increases the efficiency of your heart, blood vessels and lungs.
- Lowers resting heart rate.
- Decreases blood pressure.
- Increases blood flow by enlarging the diameter of coronary arteries and increasing the number of blood vessels.
- Decreases blood cholesterol, triglycerides and glucose.
- Increases beneficial HDL-cholesterol blood levels.
- Helps control excessive weight which places an extra burden on the heart.

You'll Age Better

Research suggests that several factors which affect how we age are influenced by exercise. These include muscle mass, strength, body fat percentage, metabolism, aerobic capacity, blood pressure, blood sugar, cholesterol/HDL ratio, bone density and regulation of internal body temperature. For example, preserving muscle mass and strength can mean the difference in living independently or requiring nursing home care as we age. Even simple tasks such as tying shoes, getting to the bathroom or taking out the garbage are impossible if we don't have sufficient muscular strength.



You'll Be More Effective in Everything You Do

Studies show that people who exercise regularly usually perform better no matter what they do. Regular exercisers have more energy, productivity and increased ability to handle stress. Some research has shown that exercise may also make you smarter.

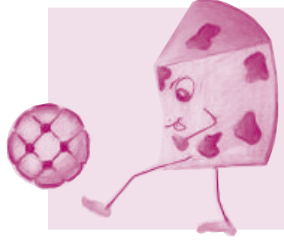
Types of Exercise

A combination of aerobic exercise and anaerobic conditioning exercise will help to promote fitness.



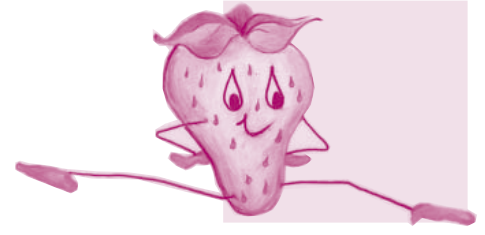
Anaerobic Exercise (Muscular Strength)

- ◆ Increases muscle tone and strength
 - Builds muscle and helps you burn body fat
- Strength is your muscles' ability to apply force. For muscular strength, do shoulder shrugs, push-ups, knee lifts, or use free weights or weight machines.*



Aerobic Exercise (Endurance)

- ◆ Strengthens the heart, blood vessels and lung capacity
- Builds endurance through sustained vigorous activity (walking, jogging, dancing, swimming, bike riding, raking, etc.)
- ◆ Promotes oxygen transport through the body, leading to fitness and fat burning.



Flexibility

- ◆ Flexibility is the ability to move and stretch your muscles to their full extent. You should be able to move, bend, stretch and twist easily. *For flexibility, try stretching exercises like crawl strokes, arm circles, finger stretching and reaching.*

Amount of Exercise

Dietary Guidelines for Americans recommendations:

- **Be physically active for at least 30 minutes most days of the week.**
- **Increasing the intensity or the amount of time that you are physically active can have even greater health benefits and may be needed to control body weight. About 60 minutes a day may be needed to prevent weight gain. 60 to 90 minutes may be needed to sustain weight loss.**
- **Children and teenagers should be physically active for 60 minutes every day, or most every day.**

The 30 minutes of exercise don't need to be done in one session to get many health benefits. Divide the 30 minutes into three, 10-minute sessions a day if this suits your schedule better. *Examples of moderate physical activity for healthy U.S. adults:*

- walking briskly (3-4 mph)
- mowing lawn with power mower
- dancing
- home care, general cleaning
- fishing, standing/casting

Walking is a great way to increase physical activity. It's easy to do, doesn't require expensive equipment (except good shoes) and can be done year-round.

Keep these points in mind when exercising:

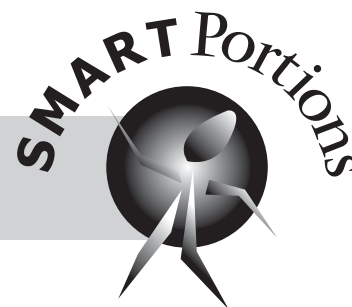
- If you're a man over 40 or a woman over 50, consult your doctor before starting an exercise program.
- Exercise moderately and routinely.
- Increase exercise gradually.
- Warm up before and cool down after exercise.
- Drink plenty of water before, during and after your workout.
- If you stop exercising because of illness, start back slowly.
- Choose an exercise you enjoy, and get started.

Made available by Beth Reames, PhD, LDN, RD, Specialist, Nutrition and Health

Louisiana State University Agricultural Center, William B. Richardson, Chancellor
Louisiana Agricultural Experiment Station, David Boethel, Vice Chancellor and Director
Louisiana Cooperative Extension Service, Paul D. Coreil, Vice Chancellor and Director

Issued in furtherance of Cooperative Extension work, Acts of Congress of May 8 and June 30, 1914, in cooperation with the United States Department of Agriculture. The Louisiana Cooperative Extension Service provides equal opportunities in programs and employment.

A Healthy Weight PROGRAM



Beginner's Walking Program

Walking briskly can be a great exercise. It doesn't require special facilities or equipment other than sturdy, properly fitting shoes with cushioned soles and arch supports that help protect the ankle and knee joints. You don't have to worry unduly about injuries, and walking can fit into almost any schedule.

If a particular week's schedule is overly tiring, repeat it for another week before going on to the next level. **Do at least three exercise sessions each week.** You do not have to complete the walking program in 12 weeks.



	Warm Up	Walk Briskly	Cool Down	Total Time
Week 1	5 min	5 min	5 min	15 min
Week 2	5 min	7 minutes	5 min	17 min
Week 3	5 min	9 minutes	5 min	19 min
Week 4	5 min	11 minutes	5 min	21 min
Week 5	5 min	13 minutes	5 min	23 min
Week 6	5 min	15 minutes	5 min	25 min
Week 7	5 min	18 minutes	5 min	28 min
Week 8	5 min	20 minutes	5 min	30 min
Week 9	5 min	23 minutes	5 min	33 min
Week 10	5 min	26 minutes	5 min	36 min
Week 11	5 min	28 minutes	5 min	38 min
Week 12	5 min	30 minutes	5 min	40 min

Week 13 and on:

Check your pulse periodically to see if you are within your target zone. As you get more in shape, try to be within the upper range of your target zone.

Gradually increase your brisk walking time to 30 to 60 minutes, three or four times a week. Remember that your goal is to get the benefits you are seeking and enjoy your activity.

Warm Up

Warming up prepares the body for more intense activity to come and decreases the likelihood of straining or pulling a muscle. The warm-up can start with stretching exercises to loosen muscles, tendons, ligaments and joints. After stretching, there should be a brief period of moderate exercise to prepare the body for more strenuous activity in general. The more strenuous the activity, the longer and more vigorous the warm-up period should be.



Cool Down

Exercise should never end abruptly. Gradually slowing down your exercise activity is as important as warming up. Cooling down helps prevent sudden changes in your cardiovascular system. Cool down should last 5 to 10 minutes or until your heart rate is within 10 to 20 beats of your pre-exercise heart rate. Stretching as a part of cooling down after vigorous exercise helps prevent your muscles from tightening up and minimizes muscle discomfort. It also helps maintain and improve flexibility.

Target Zone

Age	Target Heart Rate Zone
20 years	100-150 beats per minute
25 years	98- 148 beats per minute
30 years	95-142 beats per minute
35 years	93-138 beats per minute
40 years	90-135 beats per minute
45 years	88- 131 beats per minute
50 years	85- 127 beats per minute
55 years	83- 123 beats per minute
60 years	80- 120 beats per minute
65 years	78-116 beats per minute
70 years	75- 116 beats per minute

Reference: Step by Step Walking Program, National Heart, Lung and Blood Institute, National Institutes of Health, 2000

Visit our Web site:
www.lsuagcenter.com

Made available by
Beth Reames, PhD, LDN, RD, Specialist, Family and Consumer Sciences

Louisiana State University Agricultural Center, William B. Richardson, Chancellor
Louisiana Agricultural Experiment Station, David Boethel, Vice Chancellor and Director
Louisiana Cooperative Extension Service, Paul D. Coreil, Vice Chancellor and Director

Issued in furtherance of Cooperative Extension work, Acts of Congress of May 8 and June 30, 1914, in cooperation with the United States Department of Agriculture. The Louisiana Cooperative Extension Service provides equal opportunities in programs and employment.

Here's how to check to see if you are within your target heart rate:

1. Right after you stop moving, take your pulse: Place the tips of your first two fingers lightly over one of the blood vessels on your neck, just to the left or right of your Adam's apple. Or try the pulse spot inside your wrist just below the base of your thumb.
2. Count your pulse for 10 seconds and multiply the number by 6.
3. Compare the number to the correct grouping below: Look for the age grouping that is closest to your age and read the line across. For example, if you are 43, the closest age on the chart is 45; the target zone is 88-131 beats per minute.





Walking Exercise Program

Note: The goal of the walking program is to earn at least 25 points per week.

Under 30 Years of Age

Week Number	Distance in Miles	Time Goals in Minutes	Frequency per Week	Points per Week
1	1.0	16	5	5
2	1.0	14	5	5
3	1.5	22	5	10
4	1.5	21	5	10
5	2.0	30	5	15
6	2.0	28	5	15
7	2.5	36	5	20
8	2.5	35	4	26
9	3.0	43	4	32
10	3.0	42	4	32

30 - 49 Years of Age

Week Number	Distance in Miles	Time Goals in Minutes	Frequency per Week	Points per Week
1	1.0	18	5	5
2	1.0	16	5	10
3	1.5	24	4	14
4	1.5	23	5	17.5
5	2.0	32	4	20
6	2.0	30	5	25
7	2.5	38	4	26
8	2.5	37	4	26
9	3.0	45	4	32
10	3.0	44	4	32



50+ Years of Age

Week Number	Distance in Miles	Time Goals in Minutes	Frequency per Week	Points per Week
1	1.0	20	5	5
2	1.0	18	5	5
3	1.5	27	5	10
4	1.5	26	5	10
5	2.0	36	5	15
6	2.0	34	5	15
7	2.5	42	5	20
8	2.5	40	5	20
9	2.5	37:30	4	26
10	3.0	48	5	25

Walking Maintenance Program Possibilities

Distance in Miles	Time Requirement	Frequency per Week	Points per Week
2.0 or 3.0	24:01-30:00	6	30
3.0 or 4.0	36:01-45:00	4	32
4.0 or 4.0	48:01-60:00	3	33
	60:01-80:00	5	35



Progressive Walking Program for the Excessively Overweight Individual

(To Be Used in Conjunction with Dieting)

Week Number	Distance in Miles	Time Goals in Minutes	Frequency per Week	Points per Week
1	2.0	40:30	3	3
2	2.0	39:00	3	9
3	2.0	38:00	4	12
4	2.0	37:00	4	12
5	2.0	36:00	5	15
6	2.0	35:00	5	15
7	2.5	45:00	5	20
8	2.5	43:00	5	20
9	3.0	52:00	5	25
10	3.0	51:00	5	25

When you're exercising to lose weight, the length of each exercise session is key. Work out at a pace that you can sustain for more than half an hour. Why? During the first few minutes of each workout, your body is burning mainly carbohydrates. Only as your exercise period continues does adipose tissue become the predominant fuel supply. Thus the intensity of your effort is less critical than time when you're focusing on weight loss.

Project partially funded by the United States Department of Agriculture, Food and Nutrition Service, through the Louisiana Department of Social Services, Food Stamp Program

Louisiana State University Agricultural Center, William B. Richardson, Chancellor
 Louisiana Agricultural Experiment Station, David Boethel, Vice Chancellor and Director
 Louisiana Cooperative Extension Service, Paul D. Coreil, Vice Chancellor and Director

Issued in furtherance of Cooperative Extension work, Acts of Congress of May 8 and June 30, 1914, in cooperation with the United States Department of Agriculture. The Louisiana Cooperative Extension Service provides equal opportunities in programs and employment.



Sensible Shoes

Choosing the Right Exercise Shoes

When most of us were kids, there was only one kind of exercise shoe—the canvas-topped, rubber-soled footwear commonly known as sneakers (or in some quarters, as tennis shoes). Our only choice regarding these shoes was whether to purchase the regular-cut or high-top variety. Now, however, with the fitness movement in full swing, our choice of exercise shoes seems limitless. How can you be sure that you've chosen the right footwear for your activity? These guidelines can help you.



Running Shoes

Activities where your feet strike the ground forcefully for an extended period of time (such as running and jogging), require shoes with adequate cushioning for shock-absorption. Shoes for these activities must also provide arch and

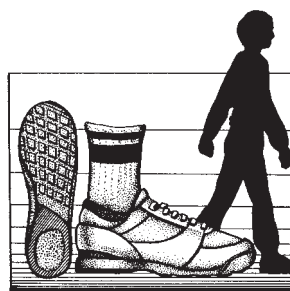
heel support plus a wide heel base to prevent your foot from rolling sideways. Padded heels to protect the Achilles' tendon are likewise important.



Aerobic Shoes

Like running and jogging, aerobic dance can be a high-impact activity. Aerobic shoes should have well-cushioned soles and good overall support. Aerobic shoes have a relatively narrow and low

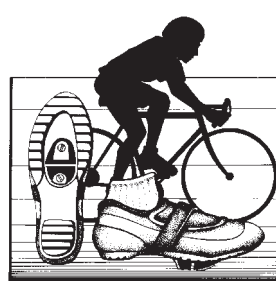
heel to allow for sideways movement. Aerobic shoes also require firm, yet flexible soles for ease of movement. If you suffer from weak ankles, a high-top variety can provide additional ankle support.



Walking Shoes

When selecting a good walking shoe, choose one with flexible soles. Heel cushioning is important, since this is where your foot strikes the ground. However, since your foot rolls forward as you walk, too much cushioning in

the front part of the shoe may make you trip. Running shoes make excellent walking shoes.



Specialty Shoes

There are numerous types of footwear designed for specific sports: bicycling, golf, football, baseball, skiing and so on. Each shoe has characteristics designed to improve comfort and performance for specified activities. No matter what

your activity, the key to the right shoe is that it fits and provides adequate support and stability.

Does the Shoe Fit?

A properly fitting shoe should allow enough toe room when you're standing so that neither the big toe nor the little toe extend over the sole of the shoe. The heel of the shoe should feel snug without pinching. For the best support, the inner side of exercise shoes should prevent the foot from collapsing inward. An arch support that conforms to your foot is also important for good fit, support and comfort.

Then Wear It!

Whether you run, jog, walk or dance, shoes can make a difference. The best exercise shoe is one that fits your foot. Try on several pairs of shoes by various manufacturers before making your final selection. New shoes require a break-in period, so limit the wearing time during your first few workouts. Also, try not to use your exercise shoes for casual wear—this wears them down and decreases their life span. Exercise shoes should be replaced when wear and tear starts breaking down the support. Depending on the intensity and frequency of your exercise program, this can be anywhere from six months to two years. Shoes are perhaps the most basic piece of "equipment" for any sport, so make sure your shoe has the right fit—then wear it.

Eating Before Exercise

What foods, if any, are safe to eat before exercise? What effect does food have on exercise performance?

Sports Diets Have Changed

At one time athletes and trainers believed that the best way to prepare for competitive events was to eat a meal high in protein. Such foods as steak and eggs were highly recommended. Sports nutritionists now recognize that excessive protein does not improve athletic performance. The best foods to improve exercise performance are those that are high in calories from complex carbohydrates.

Energy Food

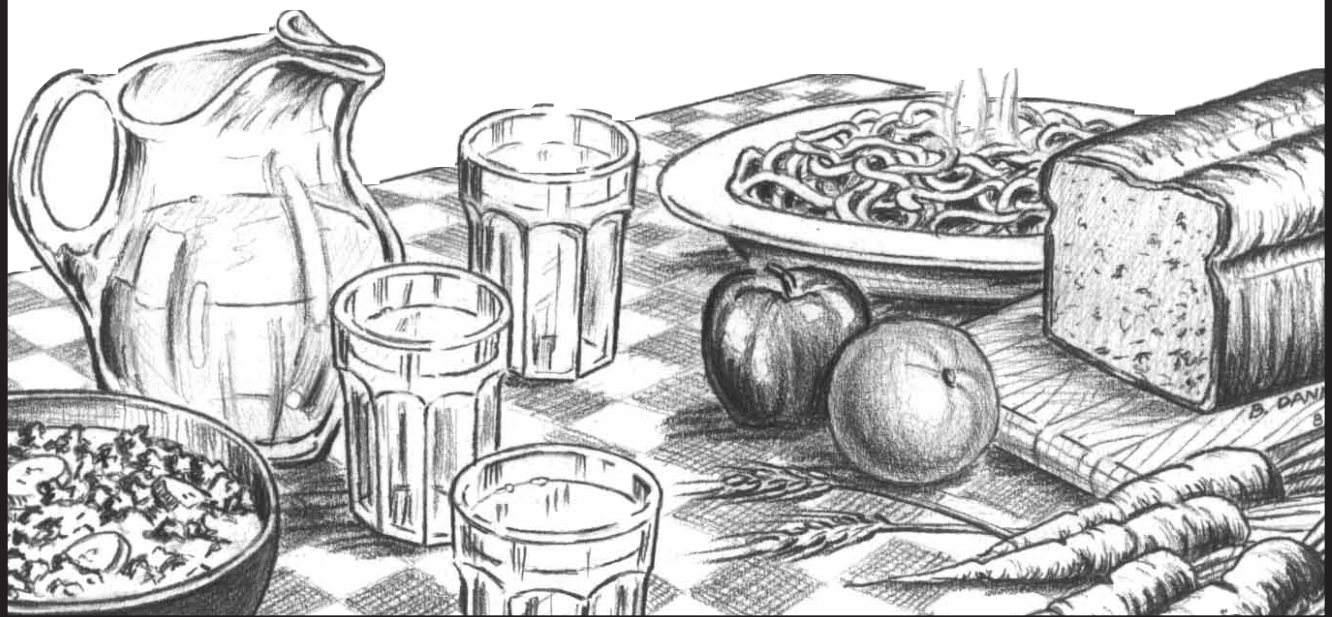
Complex carbohydrates include breads, cereals, pastas, potatoes and rice. These foods are converted to glycogen, the muscle sugar that gives athletes endurance. They also happen to be the foods that nutritionists recommend we all eat more frequently.

A meal taken before strenuous exercise, such as a competitive event, should include easily digestible carbohydrates. Typical carbohydrates of this type include refined cereals, pasta and white bread. They should be eaten three to five hours before the event to allow the stomach to empty and give some time for digestion. Foods that are high in fiber or that produce gas

should be avoided in the pre-event meal. As for taking a high-sugar snack or sweet drink just before a strenuous event, that technique is still controversial.

Good Advice vs. "Fad" Advice

What you eat does affect your athletic performance. Consult a trained sports nutritionist before making any drastic changes in your diet. Avoid fad foods such as protein powders, fasting or unusual regimens recommended by acquaintances or on the packages of such products. In sports or any strenuous exercise program, there's no substitute for proper training and good, well-timed nutrition.



How Energy Works

Activity, Fatigue and Recovery

Have you ever wondered why the exercises you do to improve your level of fitness and build energy often leave you feeling fatigued and sometimes sore? You might say that a total picture of energy actually involves a cycle of activity, fatigue and recovery. Each of these is an important consideration when planning your fitness program.



Activity

Sudden strenuous activity or muscle exertion relies on muscle stores of carbohydrates for immediate energy. One by-product of burning this sort of fuel for energy is lactic acid, which can cause fatigue and a burning sensation in the muscles. Your body requires oxygen to remove lactic acid, so if you continue to exercise beyond your body's ability to provide adequate oxygen, the lactic acid can build up and cause moderate to severe muscle pain. And since your cardiovascular system cannot meet the excess demand, you are apt to feel short of breath and rapidly fatigued.

ACTIVITY

Fatigue

Fatigue, or lack of energy, can be affected by many factors including the length and intensity of activity. Illness, stress, anxiety, depression, improper nutrition, lack of sleep, boredom and even long periods of *inactivity* can contribute to fatigue. When you start a new activity you may become fatigued more easily until your body adapts to the new energy needs. Similarly, if you exercise during hot weather, you are apt to become fatigued more quickly, since much of your body's energy is being used to cool itself down (through sweating). When you reach the point of fatigue, don't push yourself further. It's your body's warning that it's time to take a break and recover.



FATIGUE

Recovery

When you become physically fatigued, your body needs time to recover. That doesn't mean lying down and putting your feet up, but merely decreasing the intensity of your activity to allow your body to rest and recuperate. For instance, if you feel fatigued during an aerobics class, stop and walk around the room until your breathing returns to normal and your heart rate begins to subside. If you follow a vigorous, long-term aerobics program, alternate the days that you do aerobics with other types of activities, such as strengthening and flexibility exercises. For example, you might do aerobics on Monday, calisthenics on Tuesday, aerobics on Wednesday and so forth. Building adequate recovery time into your fitness plan can actually result in quicker gains and less risk of injury.



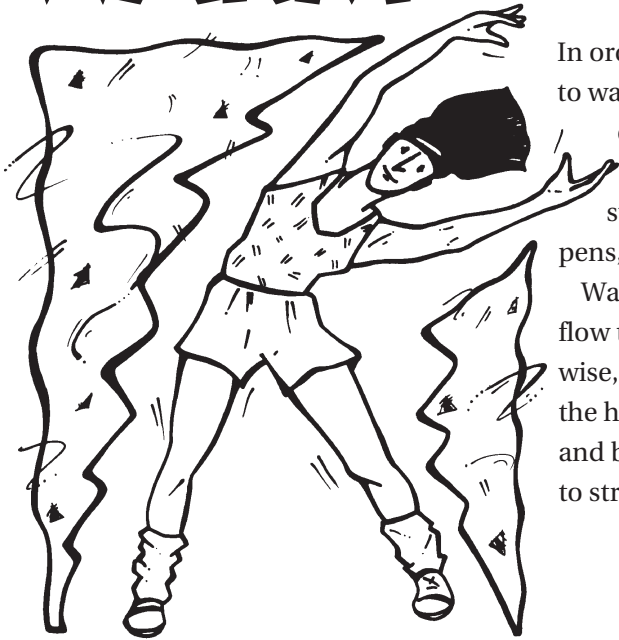
RECOVERY

YOUR ENERGY CYCLE

Your Energy Cycle

Understanding the cycle of activity, fatigue and recovery is an important aspect of your total fitness plan. It takes your body anywhere from 24 to 48 hours to recover from an "all-out" workout, and it is during this recovery period that the physiological changes that improve your level of fitness occur. Working out too hard, too soon can actually harm your progress. Don't shortchange your fitness goals by pushing too hard. Remember, recovery from fatigue is as important to fitness as activity or exercise itself.

WHY? WARMUP



In order to enjoy injury-free aerobic activity, it's very important to warm up and cool down correctly. People who exercise without warming up risk muscle strains, joint injury and overall stiffness and soreness. At that point, the activity might stop being fun and turn into a chore, and when that happens, you're more likely to stop the program altogether.

Warming up muscles increases blood, oxygen and nutrient flow to their fibers, preparing them for the activity ahead. Likewise, a bit of less vigorous activity before the "real thing" gets the heart and lungs going, gradually increasing the heart rate and blood circulation. Warm muscles are also more responsive to stretching.

WHY? COOL DOWN

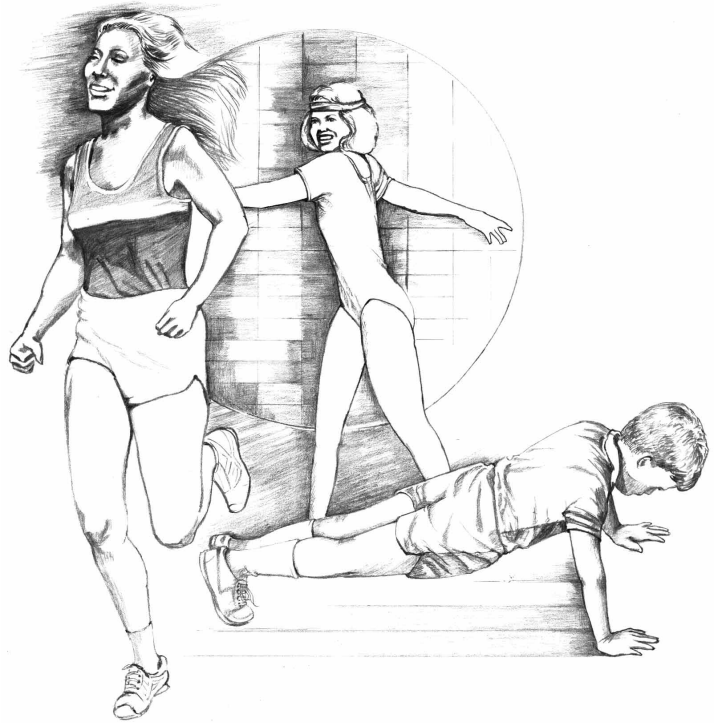


After exercise, it's smart to slow down and, as Satchel Paige suggested, "jangle around loosely." Cooling down slowly prevents blood from pooling in the lower extremities, and the pumping action of the leg muscles helps blood flow back to the heart. A proper cool-down allows the respiration and heartbeat to return to normal in a gradual way and lessens the possibility of muscular or skeletal injury. This is the time to fit in a few stretches, walk slowly and maybe put on a light windbreaker to avoid getting a chill.

PARTS OF YOUR TOTAL FITNESS PICTURE

Most people don't think about it, but to exercise successfully means to *continue* to exercise. So anything you can do to prevent injury and keep it interesting is a step in the right direction. Warming up before exercising and controlled cooling down afterwards should be integral parts of your total fitness program. Not only will your workouts go more smoothly and safely, but you'll feel better the rest of the time.

Fitness Essentials



When most people think about fitness, the first question they usually ask is, “Where do I start?” Exercise can sometimes appear difficult, awkward and time-consuming. A helpful approach is to look at the four essential parts of fitness:

- **cardiovascular health**, which refers to the condition of a person’s heart and blood vessels after aerobic conditioning;
- **flexibility**, which is gained by increasing the range of motion of the joints and muscles in the body;
- **strength**, which comes from training the muscles;
- **endurance**, gained over time from consistent fitness training.

The most successful exercise programs combine all three of these fitness essentials.

Aerobics and Your Heart

Exercises that strengthen the heart are called “aerobic” exercises. This kind of exercise increases the heart’s power and efficiency and improves the body’s use of oxygen. Typical aerobic exercises include:

- **brisk walking**
- **running**
- **swimming**
- **bicycling**

All these aerobic exercises should be performed for at least 20 to 30 minutes at a pace that is brisk but does not make you short of breath. Remember to include a five minute warm up and five minute cool down, too.

Stretching Is Important

The most effective way to increase the body’s flexibility is to do regular stretching exercises. This kind of exercise can improve the body’s range of motion within a relatively short time. It feels good and may increase your strength gains. Remember to stretch slowly, without bouncing, holding each stretch for at least 20 seconds. Breathe normally during a stretch.

Building Your Strength

Muscle strength can be improved by forcing the muscles to work against increasing amounts of resistance. The most common methods of building muscle strength are lifting weights and using specially designed resistance machines. Be sure to warm up before doing any strengthening exercises. Work up to three sets of 10 repetitions each, resting between sets.

The Fitness Program

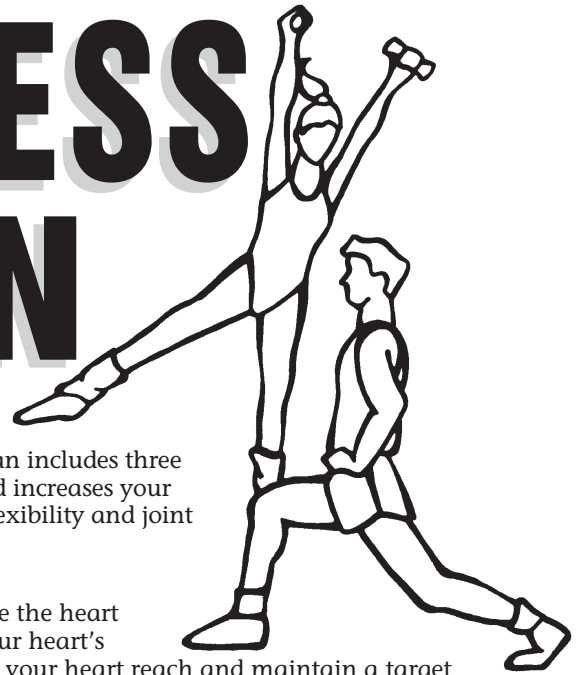
The key to fitness is to begin slowly and work gradually toward greater flexibility, strength and endurance. Try to schedule exercise at least three times a week for 20 to 30 minutes each time and include a mix of the three fitness essentials. Also remember to warm up for a few minutes before exercising and to cool down for a few minutes at the end of each workout. If you experience pain or severe fatigue after exercising, contact a physician. And if you have an existing medical condition or a family history of heart disease, get expert advice on developing a safe exercise program first. Take the first step toward a fitter, healthier body by incorporating these essentials into your life.



DEVELOPING A PERSONAL

- ▶ **Aerobics**
- ▶ *HEALTH*
- ▶ **Flexibility**
- ▶ *Resistance Exercise*
- ▶ **STRENGTH**
- ▶ *Stretching*

FITNESS PLAN



FITNESS. It's a much-confused term. To some, it means being trim or muscular. But total fitness is more than that—it means keeping your body in top working order. A total physical fitness plan includes three types of exercise—aerobic (which exercises large muscle groups and increases your body's ability to use oxygen), stretching (which improves muscle flexibility and joint mobility) and resistance (which increases muscle strength).

Aerobics—The Core of Your Program

Your heart pumps oxygen-rich blood to the rest of your body. Since the heart itself is a muscle, aerobic exercises maintain and even increase your heart's strength and endurance. When done correctly, such exercises help your heart reach and maintain a target heart range (THR) for 20 to 30 minutes. Your THR is the safest and most effective range of heartbeats per minute during exercise. (The chart shows approximate THR for various ages.) Activities such as swimming, walking, jogging, stair-climbing and cross-country skiing are aerobic.

Stretching for Flexibility

Stiff, weak muscles can limit movement, increase your risk of injury, fail to support the rest of your body and make it hard to maintain a vigorous activity long enough to reach your THR. Stretching exercises improve muscle flexibility, strength and joint mobility when the stretch is comfortably held for 20 to 40 seconds without bouncing and while breathing regularly.

Resistance Exercise for Strength

Muscles not only support all the bones in your body, they make even routine physical activities possible, not to mention sudden or strenuous ones. Strengthening muscles strengthens joints and reduces the risk of osteoporosis. Push-ups, pull-ups and weight lifting are resistance exercises that strengthen muscles.

A Healthy Lifestyle— Rounding out Your Plan

Fitness also includes weight control, proper nutrition and stress reduction. Becoming fit is saying "yes" to a fuller life and "no" to unhealthy habits, such as smoking, alcohol and drug misuse. A total fitness plan can increase both the number and the quality of the years ahead of you.

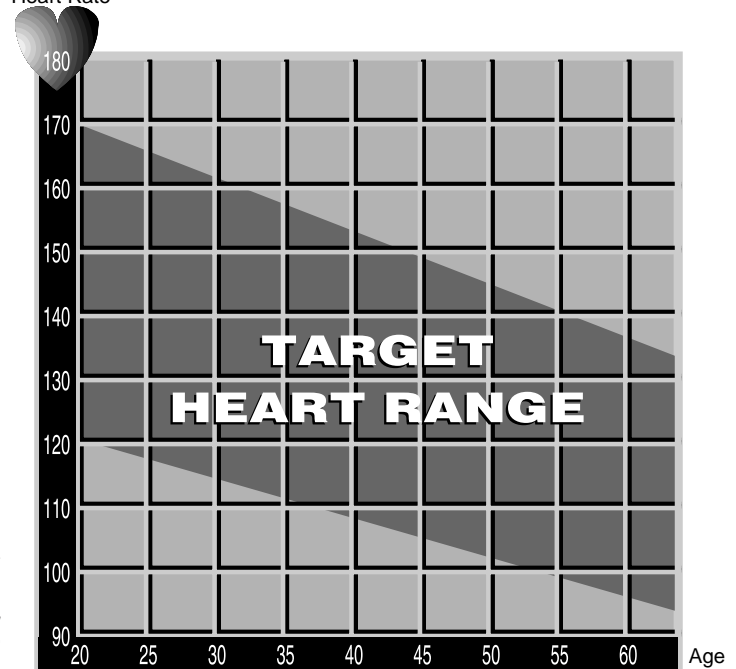
Starting Your Plan

As you begin your fitness plan, pace yourself. Learn your correct THR and try not to exceed it. Choose activities you enjoy as your core aerobic exercises and do a variety of conditioning exercises to improve flexibility and muscle strength. Finally, make healthy lifestyle choices to help yourself become healthy and fit.

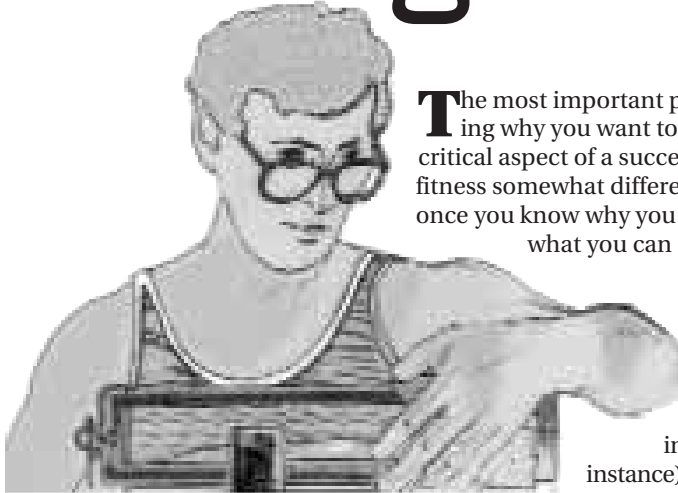
To find your THR, subtract your age from 220 and multiply that number by .6 and again by .85. The two resulting numbers give you the low and high ends of your THR.

Aim for the low range of your THR when you first begin your fitness plan. Gradually work up to the higher range as you become more physically fit. However, if you're a smoker, suffer from a chronic medical condition or have a personal or family history of heart disease, check with your healthcare professional before starting any exercise program.

Heart Rate



Setting Fitness Goals



The most important part of developing a personal plan for physical fitness is knowing why you want to become more fit. As simple as that may sound, it is actually a critical aspect of a successful fitness plan. If your goal is weight loss, you'll approach fitness somewhat differently than if your goal is building strength and endurance. And once you know why you want to become more fit, you can more easily determine what you can do to reach that goal.

Setting Long-Range Goals

Be specific. Sit down with paper and pencil and jot down exactly what you hope to accomplish by becoming more physically fit. If your goal is to lose weight, how much? If you want to improve your endurance, how will that help you? If you wish to improve specific skills (your bicycling, swimming or golf game, for instance), state them. Knowing what you want in the long run will help you tailor your program to achieve your ends and provide motivation.

Writing down well-planned working goals can help you achieve what may seem to be an “impossible dream.”

Setting Working Goals

If your long-range goal is to lose 15 pounds, start by setting short-range “working” goals—small steps that will help you reach your long-range wish. Working goals specify what, how much, when and how often you will do an activity that helps you move toward your final goal. For instance, a working goal might be to attend a one-hour exercise class after work on Mondays, Wednesdays and Fridays. Each time you attend a class, you've met one working goal. If your ultimate goal is to increase the amount of weight that you can bench-press, your working goals will center around progressively “overloading” your muscles until you can build up to the desired weight.

Keeping a Planner

The best way to outline working goals—and to make your fitness plan a firm commitment—is to keep a planner. Write down the activities you will do, which days you will do them on, and when and how long you will do them. It's best to space similar workouts at least 24 hours apart to allow for adequate recovery time. If you exercise using high-impact aerobics on Monday, wait until Wednesday to repeat that activity. On Tuesday, you might engage in strength training, flexibility exercises or a low-impact workout, such as swimming or bicycling. A certified trainer can help you design a program that is both safe and effective.

For optimum results, exercise vigorously three to five times a week. When you've accomplished each goal, take a minute to write a comment or two on how you felt afterward. Did you feel a sense of accomplishment? Have you noticed that you're exercising with greater ease than when you first started? Did eating lunch before your workout affect your performance? Keep notes about your progress and use this information to analyze any problems you may be having, to award your achievements and to keep yourself motivated.

The Payoff

Long-range goals can be easy to lose sight of. That's why working goals and planners are important. By writing down what you hope to accomplish and setting well-planned working goals, you'll find that the payoff isn't the “impossible dream,” it's the final, inevitable, successful result of a series of hard-earned achievements.

