

## Staying Active Pays Off!

Those who are physically active tend to live longer, healthier lives. Research shows that even moderate physical activity — such as 30 minutes a day of brisk walking — significantly contributes to longevity. A physically active person with such risk factors as high blood pressure, diabetes or even a smoking habit can get real benefits from regular physical activity as part of daily life.

As many dieters have found, exercise can help you stay on a diet and lose weight. Regular exercise can also help lower blood pressure, control blood sugar, improve cholesterol levels and build stronger, denser bones.

## The First Step

Before you begin an exercise program, take a fitness test, or substantially increase your level of activity, and make sure to answer the following questions. This physical activity readiness questionnaire (PAR-Q) will help determine your suitability for beginning an exercise routine or program.

- Has your doctor ever said that you have a heart condition or that you should participate in physical activity only as recommended by a doctor?
- Do you feel pain in your chest during physical activity?
- In the past month, have you had chest pain when you were not doing physical activity?
- Do you lose your balance because of dizziness? Do you ever lose consciousness?
- Do you have a bone or joint problem that could be made worse by a change in your physical activity?
- Is your doctor currently prescribing drugs for your blood pressure or a heart condition?
- Do you know of any reason you should not participate in physical activity?

If you answered yes to one or more questions, if you are over 40 years of age and have been inactive, or if you are concerned about your health, consult a physician before taking a fitness test or substantially increasing your physical activity. If you answered no to each question, then it's likely that you can safely begin fitness testing and training.

## About Walking

Walking is something that most people do every day. It is one of the simplest and least expensive options available to increase your physical activity level and improve your overall health. Walking is also a weight-bearing exercise that helps maintain bone density and is easy on the joints. *Walking at a brisk pace is generally considered moderate-intensity physical activity, and doing this most days of the week for 30 minutes or more enables you to meet the criteria for physical activity for health benefits recommended by ACSM and the American Heart Association (Haskell et al., 2007).* Completing 30 minutes or more of activity can be achieved in one exercise bout or accumulated in multiple, shorter bouts of 10-15 minutes each.

Just becoming active (i.e., getting off the couch) significantly reduces risk for cardiovascular disease, Type II diabetes, obesity and other diseases. Research has shown that both adults and children who are physically active and/or have high levels of cardiorespiratory fitness have a much lower risk for disease and premature death even if they are carrying extra body weight and/or body fat. Adopting and maintaining a physically active lifestyle is one of the keys to good health and weight maintenance, and walking is an easy way to become and stay active for life.

## Selecting and Effectively Using

# A Walking Program



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In addition, walking works several major muscle groups of the body – the knee extensors (quadriceps), hip extensors (hamstrings and gluteal muscles), and muscles of the lower legs (gastrocnemius and soleus in the back, anterior tibialis on the front, and arch muscles in the feet). These muscles help pump blood back to the heart, and exercising them improves circulation, muscular endurance, and dynamic balance.

## What Do I Need to Start a Walking Program?

First of all, you need a pair of well-fitted walking shoes with a flexible sole that provide good arch support and adequate cushion for your heel. Look for shoes with a toe box wide enough to allow toes to wiggle freely with about ½ inch between the toes and end of the shoe. There are many companies that make shoes specifically for walking. However, cross-training and running shoes will also provide more arch support, motion control, and cushion than fashion-type sneakers and street shoes. Good footwear is of primary importance since ground reaction forces involved in walking are first experienced by the bones, ligaments, muscles, and other support structures of the feet before being transferred to the knee, hip and lower back. Specifically designed shoes appropriate for walking can be found at retail locations that specialize in athletic footwear. Other than that, loose-fitting, comfortable clothing appropriate for the weather conditions (i.e., sun, wind, rain, cold/heat) and, perhaps, sunscreen and sunglasses are all that are needed to start a walking program. See the [Selecting and Effectively Using Clothing for Inclement Weather](#) brochure for more information on what to wear for outdoor activities.

The following questions should be considered when preparing to start a walking program:

### 1. Is this a good time for me to start exercising? If not, when is a good time for me to start?

If this is a time that is unusually busy for you or you don't feel ready to start a walking program, you might identify a good time to start, such as after a work deadline has passed or when you have childcare available, if applicable. Actually, there is no time like the present to begin, but you might need to resolve some commonly regarded obstacles to starting your program, such as lack of time, feeling too tired, having care giving responsibilities, or not having a good place to walk. To cope with these obstacles, identify a specific time or times in your day and week and schedule time to walk, develop social support (walk with a significant other/spouse, family member, or friend), get assistance to free up some time to walk, and locate a safe place in which to walk (outdoors and/or indoors). In addition, if you have care giving responsibilities, you could push a child in a stroller or a disabled adult in a wheelchair. By doing this, you engage the other person and enhance his/her quality of life as well as yours, because you are taking care of yourself by being physically active. Per-Olaf Åstrand, a well-known physiologist, researcher, and exercise enthusiast throughout his life, has encouraged everyone to walk their dog, and if one does not have a dog, he suggests getting one or borrowing one from someone else! A moderate walking program will help reduce fatigue and leave you feeling refreshed.

### 2. Am I prepared to start a walking program? Do I have good footwear and comfortable clothing in which I can walk?

As mentioned earlier, good footwear with arch support, cushion impact, and motion control (if you pronate or supinate your feet when you walk) is the most important piece of equipment needed to start a walking program. Additional clothing should be comfortable, allow freedom of movement, and can be layered to maintain a relatively constant body temperature. As

previously noted, clothing should be selected to provide protection from the elements (a hat to shield you from the sun and/or retain body heat, a wind or rain jacket, sunglasses and sunscreen, etc.). If you walk at dawn, dusk, or at night, wear light-colored reflective clothing to be more easily seen. Additional items to use when walking are a watch (especially convenient if it has a stop-watch or timing function) and a good pedometer (see additional information regarding pedometers later in this brochure).

### 3. Where can I walk safely?

Does my neighborhood have sidewalks and well-lit areas in which to walk? If not, are there facilities nearby in which I can walk (parks, recreational facilities, malls, etc.)? Many shopping malls have special hours when they are open for walkers prior to shopping hours. Walking around a mall perimeter is also an option. Parks and schools may offer walking trails or outdoor tracks for walking. In addition, airports are great places in which to walk while waiting for planes to arrive or depart.

## Developing a Walking Program

The following questions should be considered when developing a walking program:

### 1. How much time do I have available to spend walking each day?

For health benefits, walking can be done in one bout each day or accumulated in shorter bouts. Walking could be done early in the day before beginning work or other responsibilities, during work breaks or lunchtime, or after work or dinner. Consider what time during the day works best for you to get in some walking and to establish a walking habit.

### 2. How far or long should I walk?

If you are walking at a brisk pace (approximately 3-4 mph for most people), you will cover 1-2 miles in 30 minutes. ACSM recommends participating in walking or other

moderate intensity exercise for 30 minutes or more, most days of the week for health benefits. For weight loss, 45-60 minutes of moderate intensity activity is recommended per day, and 60-90 minutes per day for weight maintenance. Start slowly and build up to maintain your motivation and avoid overuse injuries such as shin splints and plantar fasciitis in the arches of the feet. Warm-up with a slower pace for at least 5 minutes, then increase your pace for 10-30 minutes, then cool down by walking at a slower pace again for at least 5 minutes.

If you are not active now, start with short distances and/or short time periods of 10-15 minutes at a time. Slowly increase your time and distance, up to 20% every 2 weeks, until you reach your goal. For example, if you start with 15 minutes of walking per day, 6 days per week, for a total of 90 minutes and ~4-6 miles per week, you could increase your walking to 18 minutes of walking per day, 6 days per week, for a total of 1 hour 48 minutes and 5-7 miles per week.

### 3. How do I make and keep walking fun?

Try walking different routes in your neighborhood or mixing in a hill or two with flatter terrain. Vary your pace. Walk at a more casual or moderate pace for a couple of blocks, then increase your pace (power walk or speed walk) for a block. Walking with a friend is a good way to combine social time with exercise. By setting a “date” to exercise with a friend, you are more likely to engage in physical activity. Finally, some people enjoy walking while listening to music with ear or headphones. With the technology currently available, you can download a variety of music. Some of it is geared more for exercise with energizing tunes and a beat or tempo suitable for walking. Be sure to remain aware of traffic and your surroundings. Keep track of your time and/or distance walked each day. Keeping a daily log tracks your progress and keeps you motivated.

## Walking Technique to Increase Energy Expenditure

Maintain good posture and walk with a “purpose.” Keep your spinal column erect, chin slightly up, shoulders relaxed and back a little, and use a confident but comfortable stride length. Contact the heels lightly first with your feet pointed straight ahead. As your leg strength and endurance improve, begin using a slightly longer stride, push off the toes, and use a more vigorous arm swing to utilize the upper body muscles to help burn more calories. Use your breathing as an intensity indicator – easy breathing (casual pace), halting speech (brisk 3-4 mph pace), and can’t speak (too fast).

## Using a Pedometer with Your Walking Program

A pedometer is a motion-sensing device worn at the hip to count steps. Pedometers vary in sophistication, and some can be programmed with your average step length to more accurately estimate distance walked, calories expended, and total activity time. It is a useful self-monitoring tool to help you keep track of your total steps and distance walked. See the brochure on [Selectively and Effectively Using a Pedometer](#) by Patrick Schneider, Ph.D., and ACSM’s Consumer Information Committee.

You can use the following step index to classify your activity level based on steps per day. Keep in mind that if you regularly participate in non-ambulatory activity, your steps per day value will not accurately represent your activity level.

<u>Steps per day</u>	<u>Activity Level</u>
<5,000	Sedentary
5,000-7,499	Low Active
7,500-9,999	Somewhat Active
10,000-12,500	Active
>12,500	Highly Active

\*Developed by C. Tudor-Locke and D.R. Bassett, Jr. (2004)

A daily goal for most healthy adults is 10,000 steps per day, or approximately 5 miles. If your baseline is under this level, try to increase your steps by 1,000 per day every two weeks until you reach your 10,000 steps per day.

To increase your activity level and daily step counts, look for opportunities to be more active. Park farther away from your destination if it is safe to do so, take the stairs instead of the escalator or elevator, and/or walk on work breaks, for example. Even small amounts of additional activity increase total calorie expenditure and can make a difference in your fitness level and overall health over time.

### **A Complete Physical Activity Program**

A well rounded program of physical activity includes aerobic exercise and strength training exercise, but not necessarily in the same session. This blend helps to maintain or improve cardiorespiratory and muscular fitness and overall health and function. Regular physical activity will provide more health benefits than sporadic, high-intensity workouts, so choose exercises you are likely to enjoy and that you can incorporate into your schedule.

ACSM's physical activity recommendations for healthy adults, updated in 2007, recommend at least 30 minutes of moderate-intensity physical activity (working hard enough to break a sweat, but still able to carry on a conversation) five days per week, or 20 minutes of more vigorous activity three days per week. Combinations of moderate- and vigorous-intensity activity can be performed to meet this recommendation. Typical aerobic exercises include walking and running, stair climbing, cycling on a stationary or moving bike, rowing, cross-country skiing, and swimming.

In addition, strength training should be performed a minimum of two days each week, with 8-12 repetitions of 8-10 different exercises that target all major muscle groups. This type of training can be accomplished using body weight, resistance bands, free weights, medicine balls or weight machines.

Becoming and staying regularly active is one of the keys to good health and weight maintenance, and walking is an easy way to become and stay active for life.

American College of Sports Medicine. ACSM's Guidelines for Exercise Testing and Prescription. 7th ed., Baltimore, MD: Lippincott Williams & Wilkins, 2006.

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Prior to beginning any exercise program, including the activities depicted in this brochure, individuals should seek medical evaluation and clearance to engage in activity. Not all exercise programs are suitable for everyone and some programs may in fact result in injury. Activities should be carried out at a pace that is comfortable for the user. Users should discontinue participation in any exercise activity that causes pain or discomfort. In such event, medical consultation should be immediately obtained.