

The Importance and Benefits of Physical Activity

It has been firmly established that individuals who engage in some form of physical activity, either by lifestyle or occupation, are likely to live longer and healthier lives. Research shows that even moderate caloric expenditure from physical activity has a significant impact on the longevity of life. A physically active person who possesses risk factors like hypertension, diabetes and even a smoking habit can derive significant gains from incorporating regular physical activity into his/her daily activities. Regular exercise is associated with reductions in blood pressure, improved glucose regulation, promotion of better lipid profiles and stronger/denser bones.

The First Step!

Before you begin an exercise program, take a fitness test, or substantially increase your level of activity, answer the questions below. 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 and that you should only participate in physical activity 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 involved in physical activity?
- Do you lose your balance because of dizziness, or 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 heart condition?
- Do you know of any other 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, you have reasonable assurance of your suitability for fitness testing and training.

A Complete Physical Activity Program

There are three principal components to a well-rounded program of physical activity: aerobic exercise, strength training exercise, and flexibility training. It is not essential that all three components be performed during the same workout session. Try to create a pattern that fits into your schedule and one to which you can adhere. Commitment to a regular physical activity program is more important than the intensity of the workouts. Therefore, choose exercises you believe you are likely to pursue and enjoy.

ACSM's Position Stand "The Recommended Quantity and Quality of Exercise for ... Healthy Adults" ©1998 states that aerobic training should be performed three to five days per week for a minimum of 20 minutes per day. Remember, if your schedule is tight, it is better to exercise for a shorter period of time than not at all. Typical forms of aerobic exercise are walking and running (treadmills), stair climbing, bicycling (bicycle ergometers), rowing, cross-country skiing, and swimming. Many devices require a combination of these motions. For general purposes, strength training should be done two to three times per week. Strength training is performed with free weights or weight machines. For the purposes of general training, two to three upper-body and lower-body exercises should be done. Additionally, abdominal exercises are an important part of strength training. Flexibility training is important and frequently neglected, resulting in increased tightness as we age and become less active. Stretching is most safely done with sustained gradual movements lasting a minimum of 15 seconds per stretch. At a minimum, strive to stretch every day.

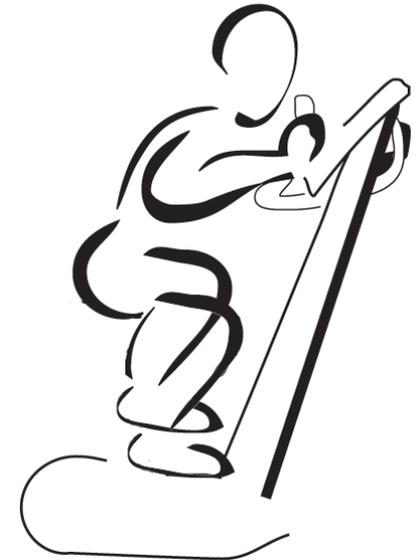
AMERICAN COLLEGE of SPORTS MEDICINE®

Permission to reproduce this brochure is granted by ACSM contingent upon the brochure being reproduced in its entirety without alteration. Permission to reprint the text of this brochure in another publication is granted by ACSM contingent upon the text being reprinted in its entirety without alteration and the following statement added: Reprinted with permission of the American College of Sports Medicine, *Selecting and Effectively Using a Stair Stepper/Stair Climber* brochure, 2002.

This brochure is a product of
ACSM's *ad hoc* Development of Product Recommendations Committee

0280GNBR-2- Stair Stepper Broch

Selecting and Effectively Using a Stair Stepper/Stair Climber



Selecting a Stair Stepper/Climber

Stair steppers, elliptical trainers, and climbers are often thought of as similar pieces of equipment, but they are very different. The stair stepper provides only lower body strength training and aerobic exercise. The elliptical trainer has an orbital motion that encompasses walking, running, climbing, and related cardiovascular workouts. Additionally, some elliptical trainer models incorporate upper-body workouts, providing a total-body workout. The climber allows for upper body and lower body strength training as well as aerobic training. These machines provide the ability to tone thigh and gluteal muscles equally well when compared to other exercise programs or machines.

Spend some time analyzing your needs and interests to decide on the type of stepper or climber you want. For example, is this to be used as a basic daily exercise program, or are you training for a specific event? Many of these machines feature a console with programs that can range from basic to sophisticated. Training for a specific event may indicate a need for a wider range of options and programs, including the ability to customize programs to meet your specific needs. The more features, options, and programs, the more costly the stepper/climber.

Basic consoles should display calories burned, distance climbed, rate of speed, and intensity level. Intensity may be controlled manually, and some basic models may have a few programs from which to choose. The best way to select the right stair stepper is to try out a number of different models.

Safety

It is essential that your machine have solid construction and a stable frame. In steppers, the stepping action should be smooth and independent (pushing one step down should not push the other step up). Self-leveling pedals will allow the user to keep the step flat throughout the workout. It is important that these machines be ergonomically sound and that you position yourself to maximize the safety and effectiveness of your workout. This means that the handrails should be positioned so that your workout posture is upright with the knees behind the toes. Bending forward places a great amount of stress on the back. Using the handrails to support part of the body weight reduces the total caloric expenditure and may result in a posture that is biomechanically unsound. Last, but not least, read all of the manufacturer's instructions to get the most out of your machine!

Using a Stair Stepper/Climber

Steppers should be positioned so that there is easy access onto and off of the steps. The path immediately behind the steps should be free of power cords and other tripping hazards. The area immediately above the stepper should be open and allow plenty of room to stand tall, even when the steps are at the top of the stepping range.

Make sure the stepper responds according to the manufacturers directions. Test all of the arrows or buttons that control the intensity, and make sure the display screen is working properly.

The stepper should have side rails, a rail in the front, and/or moving posts on the side. When using the stationary rails, your hands should rest lightly to assist with balance. Posture should be upright. *Make the legs do the work!* If using the moving posts, again, use a light grip to assist with balance and to add upper body movement to the workout.

Unlike the treadmill, there is no emergency shut-off key. You simply need to stop the motion of the pedals by riding the pedals to the floor. Step off, one foot at a time, and release the pedals gently.

Make sure you understand all of the machine's characteristics before engaging in a workout. Thoroughly understanding the instructions will result in a safer and more effective workout for you!

Important Points to Remember:

- Before you get on: *Read the instructions.*
- Understand how to increase and decrease the intensity of the workout. Have your water bottle, reading material, and other necessary items prepared and safely stowed in an accessible place.
- Just because you are not running does not mean you should step with any old shoe. Wear athletic shoes that support the foot, heel, and ankle. Dress comfortably by avoiding restrictive clothing.
- Be sure your posture is upright! Stand tall and look forward. If you're looking down to read, rest your neck every few minutes by changing the head position.
- Stepping rate: Choose an initial stepping rate that slightly raises the pulse rate. Remember, the faster the pedals move, the faster you must move to keep up! More pedal resistance allows you to slow your stepping rate. The height of each step should approximate the stepping action for climbing a normal step. The stepping height should feel comfortable on the knees and ankles.

Maintenance and Durability

- Is the manufacturing company reliable and reputable?
- Does the stepper require assembly? Can this be completed by the consumer?
- What costs are associated with lubrication and replacement of parts? Which parts are most likely to wear and where can those parts be purchased?
- Does the stepper come with a warranty? What does it cover and for how long?
- Are local technicians available for service?

Power and Performance

- Check on the weight limit of the machine. Is it safe for all users?
- Most home models require 110-220 volts — however, read the manufacturers guidelines to be sure.
- Are you able to increase the difficulty of your workout as you increase your level of fitness? Check the range of stepping difficulty available on manual mode as well as the range of programs available on the machine.
- Be certain the machine is placed on a level floor.

Operation

- Is the control panel accessible and easy to read?
- Does the control panel have the capacity for manual use separate from software used for automated programming?
- Can you customize programs for yourself?

Other Considerations

- Do you have appropriate floor support for the weight of the machine? Are there rollers that allow you to move the stepper with reasonable ease?
- Does the ceiling height allow all users to use the machine safely?
- Determine your space considerations. Will you need to store the stepper periodically?