

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?

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.

This brochure was written by Hank Williford, Ed.D., FACSM, and Michele Olson, Ph.D., FACSM. ACSM grants permission to reproduce this brochure, if it is reproduced in its entirety without alteration. The text may be reproduced in another publication if it is used in its entirety without alteration and the following statement added: Reprinted with permission of the American College of Sports Medicine. Copyright © 2005 American College of Sports Medicine. This brochure is a product of ACSM's Consumer Products Committee.

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.

**AMERICAN COLLEGE
of SPORTS MEDICINE**
www.acsm.org

Selecting and Effectively Using

A Stair Stepper/Climber



ACSM... Advancing Health through
Science, Fitness and Medicine

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. What's more, regular exercise can 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, 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.

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 manufacturer's 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