



## ACSM Information On...

# Selecting and Effectively Using a Home Treadmill

Treadmills are a popular choice for those who want to engage in physical activity at home. Treadmills may be powered manually or electronically, and you should be sure to try out several treadmills before you buy one. Doing so will allow you to find the treadmill that meets your specific needs.

### A COMPLETE PHYSICAL ACTIVITY PROGRAM

A well-rounded physical activity program includes aerobic exercise and strength training exercise, but not necessarily in the same session. This blend helps 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 2011, 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.

Examples of typical aerobic exercises are:

- Walking
- Running
- Stair climbing
- Cycling
- Rowing
- Cross country skiing
- 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.

Manual treadmills are lighter, smaller, less expensive and safer because the running belt stops moving when you do. However, they usually have smaller running belts. The belt is difficult to get moving and exercise must stop when the incline is changed. The difficulty in getting the belt to move smoothly on a non-motorized treadmill can increase the likelihood of holding on to the handrail to generate power, creating an inconsistent pace. This may cause muscle strain or difficulty elevating your heart rate. Additionally, holding on may elevate blood pressure if the user holds his or her breath. If it is difficult to get the machine to work, you are less likely to exercise. For these reasons, you may want to consider a motorized treadmill.

In motorized treadmills, the belt is activated by a motor, and the incline may be controlled manually or electronically. The speed and incline on most motorized treadmills can be adjusted while the exercise is in progress. Once the speed is set, the speed remains constant. Many treadmills come with sophisticated electronic displays that allow you to design workouts to suit your needs. For some, this programming is a motivation and selling point. Newer models are equipped with cushioning systems to reduce pressure in the joints. Motorized treadmills

may also fold for ease of storage. Non-folding models are sturdier than folding models.

### SAFETY CONSIDERATIONS

- Stability of platform when level and with elevation. Feels solid, not wobbly.
- Doesn't have parts that impede your natural movements.
- Side rails or safety bars for balance that are accessible and sturdy but out of the way of swinging arms.
- Width and length. Narrow, short belts can cause safety issues and may hinder natural movements. The chances of tripping or falling increase.
- Automatic emergency shut-off key with a clip or tether. The tether is preferred, since an automatic stop button may not be in reach as you fall.
- Stated user weight capacity. Do not exceed the stated limit.

### MAINTENANCE AND DURABILITY CONSIDERATIONS

- Is the company reliable and reputable?
- Can the treadmill be easily assembled and maintained?
- What is the cost of maintenance?
- Does the treadmill come with a warranty? What does the warranty cover and for how long?
- Are local technicians available for service?

## POWER AND PERFORMANCE CONSIDERATIONS

- The treadmill motor should have a minimum continuous duty rating of 1.5 H.P. motor (2.5 to 3.0 H.P. is preferred). To test the motor, plant your feet firmly on the belt while the machine is running at its lowest speed, checking for any hesitation, groaning or grinding.
- Does the treadmill require 110 or 220v? 220v may require circuit alterations in its room.
- Speed range should be 0.1 to eight mph. This speed range should satisfy most walkers and runners. Some units have a maximum speed of 12 mph. A safe starting speed of 0.1 mph with a slow incremental increase in belt speed is recommended. Stopping should be smooth, not sudden. The motor should be able to maintain speed regardless of treadmill elevation and weight of user.
- Incline should range from zero to at least ten percent. Some units have an incline of 15 to 40 percent. Incline mechanisms can be either electric or manual. Manual cranks are found generally on lower end treadmills to keep the price down. The treadmill should not wobble at high elevations.

## OPERATION CONSIDERATIONS

- 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?
- Is the noise level acceptable?
- Is the belt heavy-duty, so it will not stretch with extended use?

## CONTROL PANEL CONSIDERATIONS

- The bare minimum display and programming features should include distance, speed, time, incline and possibly calories expended.
- How accurate is the calibration?
- Can you use the treadmill in the manual mode?
- Newer treadmills include cool down controls, web browsers, iPod/MP3 ports, built-in speaker systems, WiFi Internet connections, workout programs, console fans and drink holders.

## OTHER CONSIDERATIONS

- Weight of treadmill
- Space available and height of ceiling
- Aesthetics
- Storage potential
- How accurate is the calibration?

## USING A HOME TREADMILL

Treadmills should be positioned away from walls to avoid injuries due to falls. Be sure that the back of the treadmill has at least six to eight feet of clearance from a ledge, wall or window. The power supply and wiring should be located away from walking paths or taped to prevent tripping when stepping on or off the running belt. Make sure the running belt is properly adjusted before use. Belts that are too loose or too tight will cause wear and tear on the treadmill, which can result in expensive repair or replacement costs. The deck beneath the belt should be laminated to protect it from friction wear and tear. This deck absorbs the hundreds of pounds of force from each step.

Make sure that you follow the directions included with purchase for maintaining the belt deck connection. Increased friction and heat will cause “amp draw,” which pulls power away from the electrical components of your machine. Discuss appropriate lubrication and maintenance with the staff at the store where the treadmill was purchased.

When mounting or dismounting the treadmill, the belt should move no faster than 0.5 mph for the beginner. Use the hand rails for safety. This is a good time to review all of the features on the control panel and to tether the safety switch. After completing the review, the belt speed should be increased to the desired level. A specific workout program may be selected. Before dismounting, decrease the belt speed. Use the hand rails for safety as you dismount.

## IMPORTANT POINTS TO REMEMBER:

- **Before you get on:** Experiment with the controls by varying the speed and incline. Test the emergency off button.
- **Posture when walking or running:** Shoulders should be back, head up and slightly forward, chin up and abdominals tight. Look forward, not down at your feet.
- **Stride length:** Relax and maintain the normal stride when walking on the ground. Don't chop your steps.
- **Where you are:** be aware of your position on the treadmill. Don't drift sideways or allow yourself to go to the back of the belt.
- **Make it a habit:** A treadmill is only as good for your health as the frequency with which you use it.

## STAYING ACTIVE PAYS OFF!

Those who are physically active tend to live longer, healthier lives. Research shows that moderate physical activity – such as 30 minutes a day of brisk walking – significantly contributes to longevity. Even a person with risk factors like high blood pressure, diabetes or even a smoking habit can gain real benefits from incorporating regular physical activity into their 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 if you're ready to begin 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 from 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 recently 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 exercising.

## PRIOR TO EXERCISE

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 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.



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