# Exercising with Heart Failure



Heart failure is the heart's inability to adequately deliver blood and oxygen to the body. About six million Americans (one to two percent) have heart failure. It causes fatigue, shortness of breath, and low exercise tolerance.



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For the most part, exercise programs are safe and effective for people with heart failure. Cardiac rehab programs work best for those patients who take their prescribed medications, have a low-sodium diet, and are physically active.

Evidence shows that regular exercise programs increase function and reduce symptoms. Overall, increased activity improves quality of life. However, the effects of training are lost within three weeks of inactivity. To have a major positive impact on your health, exercise must be a regular part of your life.

Being fit will help you better perform daily activities. Doing even low-level tasks can mean the difference between living and working on your own and becoming physically disabled. The key is to find and follow a program that meets your individual needs and concerns.

There is strong evidence that both aerobic and musclestrengthening exercise programs help. So try to do both. If you are just starting out, do more aerobic exercise. Over time, add resistance workouts. Doing both types will bring even more benefits for your symptoms, functional capacity, and overall health and fitness.

# **Getting Started**

- Talk with your doctor before you start an exercise program. Ask about any changes to your medications or any concerns in becoming more active.
- Take all medicines prescribed by your doctor.
- Follow any diet recommendations by your doctor.
- If you are overweight, your body requires more oxygen to do the same amount of exercise. A program of diet and exercise will help you lose weight. This will improve your symptoms and exercise tolerance.
- Keep your goals simple. Aim to improve mobility, make your daily activities easier, and increase your overall fitness.
- Choose low-impact activities such as walking, cycling, or water exercises. These involve large muscles groups and can be done continuously. Think low-intensity and longer duration over high-intensity workouts.
- Start with shorter sessions of 10 to 15 minutes. Gradually build up to 20 to 40 minutes, three or more days per week.
- Take as many breaks as you need. Use the Ratings of Perceived Exertion and Dyspnea scales rather than heart rate to measure your intensity.
- Add high-repetition, low-resistance circuit training two to three times per week. At the same time, add range-of-motion stretching exercises.
- Warm up at the beginning, and cool down at the end.
- Start by exercising on your own. Begin walking or another form of activity that you can integrate into your daily routine.
- Invite others to join you. Exercising together is more fun and increases the chance you will continue. Dogs also make great walking partners!
- Look for programs available in your community. Consider contacting an appropriately credentialed exercise professional\* to help you. All you really need, though, is a good pair of shoes to get started walking.
- Use a pedometer or other activity tracker to monitor your progress.

## Aerobic Exercise Programs

The American College of Sports Medicine and the Centers for Disease Control and Prevention recommend at least 150 minutes per week of moderate-intensity aerobic activity, 75 minutes of vigorous aerobic activity, or a combination of both for adults. They also suggest twice-a-week muscle strengthening. Begin your program with low- to moderate-intensity activities you can handle. However, if you are medically supervised, brief, high-intensity exercise is possible and effective. Follow the FITT principle to design and implement a safe, effective, and enjoyable program. F = frequency, I = intensity, T = time, and T = type (Pescatello et al., 2013).

- Frequency Be active on most days of the week but at least three to four days. Work up to five days a week.
- Intensity Exercise at a moderate level. Use the "talk test" to help you monitor. For example, even though you may notice a slight rise in your heart rate and breathing, you should be able to carry on a conversation while walking at a moderate pace. As you walk faster, you will begin to breathe faster and have difficulty talking. At that point, you've achieved moderate intensity or "somewhat hard." Vigorous exercise causes a large rise in heart rate and breathing. At this intensity it would become difficult to talk. Most people would rate this as "hard to very hard."
- Time Exercise 30-60 minutes per day. You can do it all at once or break it up into a few sessions of at least 10 minutes each.
- Type Do rhythmic exercises using the large muscle groups. Try brisk walking, cycling, and swimming. Choose activities you enjoy and will do regularly in your new, more active lifestyle. Add variety depending on the day or the season to keep your program more enjoyable.

### **Aerobic Exercise Cautions**

- Closely monitor your intensity level. Adjust your workout if you feel fatigued.
- Stop exercising right away if you feel chest pain or angina. Contact your physician if you have chest pain, labored breathing, or extreme fatigue.
- With some diagnoses, you should not exercise. These include obstruction to left ventricular outflow, decompensated heart failure, or unstable variable heart rate.

# Resistance Exercise Programs

Being inactive leads to muscle atrophy and strength loss. Health care providers used to be concerned about resistance training and its demands on the heart. However, further research shows that strength training is not harmful when proper precautions are

taken. There is good evidence that moderate-intensity resistance training improves your ability to function and promotes good health. Follow the FITT principal when creating a resistance exercise program, too.

- Frequency Do resistance training at least two days per week. Plan a day of rest between sessions.
- Intensity Exercise at a moderate level. If you can lift a weight 10 to 15 times, you've achieved moderate intensity. You get to high intensity when you can lift a weight only eight to ten times. Remember, you aren't training to be a weight lifter. Your goal is to improve your strength and muscle endurance so your daily activities will be less stressful.
- Time This will depend on the number of exercises you do.
- Type Exercise all major muscle groups using either free weights or a machine. There is no difference between the two methods. Don't belong to a gym or health club? No problem. You can do the same exercises at home using lighter weights, resistance bands, or your body weight as the resistance, like push-ups or sit-ups.

### **Resistance Exercise Cautions**

- Avoid high resistance, static position (or isometric) contractions.
- Avoid holding your breath when lifting. This can cause large changes in blood pressure. That change may increase the risk of passing out or developing abnormal heart rhythms. Be especially careful if you have high blood pressure.
- If you have joint problems or other health problems, do only one set for all major muscle groups. Start with 10 to 15 repetitions. Build up to 15 to 20 repetitions before you add another set.

Design your exercise program for maximum benefit and minimum risk to your health and physical condition. Consider reaching out to an appropriately credentialed exercise professional\* to work with you and your doctor. Together, you can establish realistic goals and design a safe, effective, and enjoyable program.

For more information, visit www.exerciseismedicine.org or e-mail eim@acsm.org.

\*A listing of exercise professionals can be found at www.usreps.org and EIM Credentialed professionals can be found through the ACSM ProFinder (http://bit.ly/1Mq6ldN).

### Referral Instructions