



Physical Activity and Exercise

Exercise Is for Everyone

Physical exercise has many benefits and should be a regular part of almost anyone's life. That includes most people with congenital heart disease. Research on patients with congenital heart disease, even complex disease, has shown that routine moderate exercise is safe and can be beneficial. That's why we recommend that almost all patients do some form of regular physical activity.

There are a few exceptions, so it's good to talk to your physician about your specific situation. Most physicians will advise caution to a patient with an enlarged aorta (the major artery in the body). (An enlarged aorta can occur in people with Marfan syndrome, Turner syndrome, coarctation of the aorta, or a bicuspid aortic valve.) There is no proven link between exercise and harmful outcome from an enlarged aorta. Nonetheless, many physicians feel that such patients shouldn't engage in strenuous exercise, particularly activity that involves straining or grunting (like heavy weight lifting, see below).

It's likely that for most patients, the benefits of exercise outweigh the perceived risks. Low-intensity activity is still preferred. If you have any questions about the appropriateness of exercise for you, talk to your doctor.

If you've been inactive for a long time and want to start a regular exercise routine, it's often wise to talk with your doctor about how to best get started safely. Your doctor may recommend an exercise test which can provide you with guidelines for exercise.

What types and how much?

The best and safest types of exercise are "aerobic" activities. These increase the heart rate and make you breath heavily. Examples include brisk walking, swimming, biking, jogging, rowing, cross-country skiing, hiking or stair climbing. Team or court sports such as basketball, soccer, football, tennis, squash and volleyball are also aerobic activities.

Activities such as golf, light walking, bowling and billiards don't require much extra effort, so they don't provide as much cardiovascular benefit. Still, they can be fun, social and worthwhile. Congenital heart patients may be able participate in adventure sports such as scuba diving, windsurfing, hang gliding or skydiving, but they should talk with their physicians about these activities.

A good rule of thumb is to increase your activity so you breathe hard and fast but can still carry on a conversation with someone. If you can speak in full sentences but still feel your heart pounding, you're likely benefiting from a safe level of activity.

Often patients are trained to check their heart rate during or immediately after activity. Their target heart rate is 70–80 percent of their predicted maximal heart rate (defined as 220 minus age).

It's best to avoid activities that cause grunting or straining (medically referred to as a "Valsalva maneuver"). This happens when a person bears down against a closed throat to increase the strength of arm or abdominal muscles. There's often a tendency to do this when lifting heavy weights, doing sit-ups, push-ups or chin-ups, etc., but it may be harmful.

There are three reasons to avoid straining. First, it causes a sudden rise in blood pressure, which adds strain on the heart. Second, it increases the pressure in the lungs, which can affect blood flow from the body into the lungs. Third, it often means there's more force on the chest wall, and many congenital heart patients have surgical scars in the chest that can be damaged, particularly in the first year after surgery.

Intensely physical sports such as football, boxing or hockey may increase the chance for injury and unnecessary strain on the cardiovascular system.

Any amount of activity is better than none, and the more physically active a person is, the greater the anticipated cardiovascular benefit. Guidelines for the general population suggest at least 30 minutes of dedicated aerobic activity a day for five or more days a week. This is a good target for congenital heart patients too. If it seems like too much, start with a more modest goal and build from there.

Keep it Safe, Affordable and Enjoyable

Exercise should be something you look forward to, not a chore. Choose an activity that's fun and rewarding, and try to stick with it. Use music to keep you going. Have a companion and motivate each other to keep on schedule. Social, engaging activities are often easier to maintain over time.

Be prudent and cautious to make exercise safe. Use a helmet if biking. Invest in good shoes if you jog or walk regularly. Stretch and warm up as appropriate. Keep your equipment in good working order. These precautions will help you avoid injuries, which are common when people aren't careful or exercise irregularly. Injuries in turn can lead to further inactivity, and the process repeats.

Lack of money is no reason to avoid exercise. There are many free or low-cost activities, such as walking, jogging or stair climbing. You can also challenge yourself during routine tasks. Take the stairs instead of the elevator. Walk the golf course instead of renting a cart. Park a bit farther from the store.

Making time for safe, enjoyable physical activity will benefit you for years to come.

Physical Activity at Work

Gainful employment is just as important for people with a heart defect as anyone else. Beyond the obvious financial advantages, those who work enjoy social interaction, a sense of personal

worth, and, importantly, the potential for health insurance benefits. Almost all patients should be able to contribute to the workforce in some fashion. Some jobs can be physically demanding, so follow the advice on physical activity when you're considering jobs.

Few, if any occupations involve intensely aerobic activities. More likely a job may require some physical demands such as lifting (including files, books or retail items). Many jobs or work environments can also be mentally stressful. Your employer has a legal obligation to make your workplace safe for you. If you have concerns, work with your physician and employer to ensure your job doesn't negatively impact your health and lets you make a meaningful contribution.