

Exercise for Individuals with Cardiovascular Disease

Benefits of Exercise

While regular exercise is essential in preventing cardiovascular disease, engaging in physical activity after a diagnosis or experiencing a cardiac event can benefit your cardiovascular health. A 2019 study published in the *European Heart Journal* compared how leisure-time physical activity affected all-cause mortality in individuals with and without cardiovascular disease.¹ The researchers found that men and women with cardiovascular disease from the study cohort had a greater reduction in the risk of all-cause mortality compared to individuals without cardiovascular disease.¹

Exercise can also be beneficial in improving the levels and measurements that are critical to cardiovascular health by:

- Reducing LDL cholesterol
- Increasing HDL cholesterol
- Lowering blood pressure
- Reducing triglycerides
- Reducing blood sugar
- Losing weight or maintaining weight

Types of Physical Activity

Aerobic exercises, commonly called cardio, are exercises that condition the heart. These exercises raise your heart rate and require oxygen to generate energy. The intensity of aerobic exercises can be classified as light, moderate, or vigorous.

The three intensities can be differentiated based on the type of exercise and your ability to talk while exercising. Everyday activities that involve movement are usually considered light intensity. An exercise can be classified as moderate intensity if you can talk but cannot sing. When performing a vigorous-intensity exercise, you can only speak a few words before taking a breath.

Some examples of light-intensity exercises are light household chores, light yard work, office walking, or store walking. Examples of moderate-intensity and vigorous-intensity aerobic activities from the current *Physical Activity Guidelines for Americans* are listed below.²

In addition to aerobic exercises, there are also anaerobic exercises. These exercises require using stored energy in the muscles instead of oxygen to fuel the body. Unlike aerobic exercises, where activities are performed for an extended period, anaerobic exercises consist of activities performed at a high intensity for a short time. Some examples of anaerobic exercises are strength training and High-Intensity Interval Training (HIIT).



Moderate-Intensity Activities

- Walking briskly (2.5 miles per hour or faster)
- Recreational swimming
- Bicycling slower than 10 miles per hour on level terrain
- Tennis (doubles)
- Active forms of yoga (i.e., Vinyasa or power yoga)
- Ballroom or line dancing
- General yard work and home repair work
- Exercise classes like water aerobics

Vigorous-Intensity Activities

- Jogging or running
- Swimming laps
- Tennis (singles)
- Vigorous dancing
- Bicycling faster than 10 miles per hour
- Jumping rope
- Heavy yard work (digging or shoveling)
- Hiking uphill or with a heavy backpack
- High-intensity interval training (HIIT)
- Exercise classes like vigorous step aerobics or kickboxing



Precautions to Take When Exercising

Consult your doctor before exercising to determine the most appropriate type of exercise and the amount of time you should exercise. Additionally, make sure to take precautions³⁻⁴ when exercising, such as:

- Wearing the appropriate clothing and shoes
- Warming up and stretching before you exercise
- Staying hydrated
- Cooling down after you exercise
- Not exercising outdoors in extremely hot or cold weather
- Incorporating rest days into your exercise routine
- Balancing aerobic and anaerobic exercise if you are approved to participate in both
- Starting slowly and gradually increasing your exercise intensity and the amount of time you exercise to decrease your risk of injury
- Learning the correct form for exercises and learning how to use exercise equipment properly to reduce your risk of injury



References

1. Jeong SW, Kim SH, Kang SH, et al. Mortality reduction with physical activity in patients with and without cardiovascular disease. *Eur Heart J*. 2019;40(43)3547-3555. doi: 10.1093/eurheartj/ehz564.
2. U.S. Department of Health and Human Services. Physical Activity Guidelines for Americans, 2nd edition. Office of Disease Prevention and Health Promotion. Published November 2018. Accessed April 11, 2023. https://health.gov/sites/default/files/2019-09/Physical_Activity_Guidelines_2nd_edition.pdf.
3. Harvard Health Publishing. 10 tips for exercising safely. *Health.harvard.edu*. Published May 4, 2010. Accessed April 13, 2023. <https://www.health.harvard.edu/health-beat/10-tips-for-exercising-safely>.
4. OrthoInfo. Safe Exercise. *Orthoinfo.aaos.org*. Accessed April 13, 2023. <https://orthoinfo.aaos.org/en/staying-healthy/safe-exercise/>.

Additional Resources

#WALK30 Community Events on Saturdays Across Houston
The Texas Heart Institute

<https://www.texasheart.org/walk30-community-events-on-saturdays-across-houston/>

What Is Physical Activity?

National Heart Lung and Blood Institute

<https://www.nhlbi.nih.gov/health/heart/physical-activity>

Exercise

The Texas Heart Institute

<https://www.texasheart.org/heart-health/heart-information-center/topics/exercise/>

Aerobic vs. Anaerobic Exercise: Which Benefits You More?

GoodRx Health

<https://www.goodrx.com/well-being/movement-exercise/aerobic-vs-anaerobic-exercise>

A Little Strength Training Goes a Long Way

Straight Talk Newsletter, The Texas Heart Institute

<https://www.texasheart.org/heart-health/womens-heart-health/straight-talk-newsletter/a-little-strength-training-goes-a-long-way/>

Hot Weather Exercise Tips

The Texas Heart Institute

<https://www.texasheart.org/heart-health/heart-information-center/topics/hot-weather-exercise-tips/>

Cold-Weather Exercise

The Texas Heart Institute

<https://www.texasheart.org/heart-health/heart-information-center/topics/cold-weather-exercise/>



Disclaimer

The information in Exercise for Individuals with Cardiovascular Disease has been taken from many sources. It is meant to give you information about physical activity, but the article does not cover all the benefits and risks. This information should not be used as medical advice. Please talk to your physician for individualized exercise recommendations and instructions.