

This resource is intended for senior athletes who exercise regularly and may not be appropriate for all older adults. Talk to your physician or physical therapist if you're interested in starting an exercise program.

Cardiovascular Training for Athletes Over 50

Cardiovascular fitness refers to the ability of the heart and lungs to deliver oxygenated blood to the muscles of the body so that they can perform exercise. Maintaining high levels of cardiovascular fitness increases life expectancy and reduces a person's risk for many chronic diseases and conditions including heart disease, high blood pressure, Type II diabetes, osteoporosis, obesity, and many forms of cancer. Staying fit will keep you competitive and 'in the game' longer.

How does cardiovascular fitness change with aging?

With age our heart's ability to pump blood gradually decreases because it cannot beat as forcefully or rapidly. Our lung function is challenged as our rib cage stiffens, posture changes, and our respiratory muscles weaken. Blood flow to the heart and muscles decreases as we age due to narrowing and stiffening of the arteries and can further decrease cardiovascular fitness. Performing regular cardiovascular exercise maintains or slows the rate of decline in the function of these critical body systems in order to support competitive sport.

What can I do to improve my cardiovascular fitness?

Improving your cardiovascular fitness comes down to four basic factors summarized by the acronym "F.I.T.T."

Frequency

- A good goal for cardio frequency is 3 to 5 days per week. Make it a regular part of your day.

Intensity

- Make sure you're exercising at a level that will make a difference! Check your target heart rate with the formula below or use the 'talk test'. If you can easily carry on a conversation while exercising you're probably not working hard enough.

Time

- Current guidelines are at least 30 minutes of moderate intensity exercise 5 days per week or 20 minutes of vigorous activity 3 days per week. Adding time beyond an hour is fine but likely won't make a big difference in your overall fitness. If cardio is new to you start with short sessions and build up slowly.

Type

- Variety is good for you! Try mixing up your cardio choices. Walk, run, swim, cycle – it all works. If you're choosing a new cardio exercise look for one that involves large muscle groups and allows for continuous movement.

FIND YOUR TARGET HEART RATE

Age predicted max heart rate: $208 - (0.7 \times \text{Age})$

Example for 60 yo: $(208 - (0.7 \times 60)) = 166$ beats/min

Target Heart Rate (HR): $\text{Resting HR} + ((\text{Max HR} - \text{Resting HR}) \times \% \text{ intensity})$

Example for 60 yo: $70 + ((166 - 70) \times .60) = 127.6$ beats/min

$70 + ((166 - 70) \times .80) = 146.8$ beats/min

A 60 year old person with a resting heart rate of 70 would train at a HR between 128-147 bpm to be at 60-80% intensity.

Boost your performance with interval training

High intensity interval training (HIIT) is a fun way to mix up your training sessions. Rather than holding the same pace for your cardio exercise try varying your intensity with intervals. After your warm up, ramp up to a sprint or very intense pace for 30-60 seconds. Then go easy for the same amount of time. Repeat this for approximately 15 minutes and you'll enjoy similar, or even superior, cardiovascular benefits to a longer workout. As a bonus, you'll train your body to move faster for sport

On Heart Medication?

Some heart medications are designed to keep your heart at a steady rhythm, so your heart rate won't change as much with exercise. In this case, try the talk test. When you're at your target heart rate you should be 'out of breath' but still able to speak.



Warm Up and Cool Down

Regardless of how you structure your exercise, it is important to include a 10-15 minute warm-up and cool-down in every workout. Let your heart have time to pump more blood out to your exercising muscles by easing in slowly. Don't push yourself until you've started to break a sweat. When your workout is over, cool down until your heart rate is well out of your target zone.

To receive an exercise program specifically for you, find a local physical therapist.

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Keeping you in the game!