

VO₂ Test

What is a VO₂ test?

A **VO₂ test** measures your body's ability to use oxygen during exercise. **VO₂** is the amount of oxygen your muscles can use in one minute of vigorous exercise.

When is a VO₂ test used?

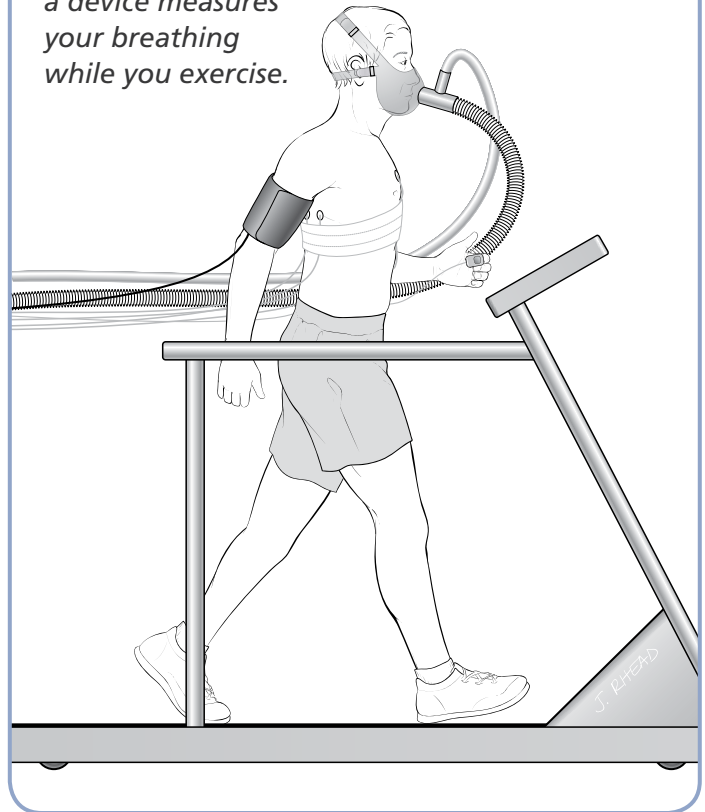
The VO₂ test gives you and your doctor information about the health of your heart and lungs.

- It can be used to evaluate heart failure, heart valve disease, or pulmonary hypertension (high blood pressure in the arteries that supply the lungs). It's also used to evaluate shortness of breath.
- It can also be used to measure your top exercise capacity if you are training as an athlete or are beginning a serious exercise program. In this case, the test is often called a **VO₂ max test**.

How do I prepare for a VO₂ test?

- **Tell your doctor** about all of the medicines you take, including over-the-counter medicines (like cough syrup or allergy pills), vitamins, and herbal remedies.
- **Follow your doctor's instructions** about what medicines to take (or not take) before the test.
- **Tell your doctor about any symptoms you have during exercise**, such as heart rhythm problems, nausea, chest pain, or breathing problems. You may be asked to complete a form that asks about your readiness for physical activity.
- **Don't exercise the day of the test, and drink plenty of water.** You should be well rested and hydrated when you take the test.
- **Dress for exercise.** Wear or bring loose, comfortable clothes and walking shoes to the test.

During a VO₂ test, a device measures your breathing while you exercise.



What happens during a VO₂ test?

The VO₂ test lasts about **30 to 60 minutes**, although the active exercise time is about **8 to 15 minutes**. Here's what happens during the test:

- **You will be monitored.** Electrodes (sticky patches) will be put on your chest to monitor the electrical activity of your heart. You'll also have a mouthpiece or mask to measure your breathing. You may have a cuff on your arm and a clip on your finger to monitor your blood pressure and blood oxygen.

- **You will walk on a treadmill or ride an exercise bike to make your heart work harder.** You will begin slowly, but the treadmill will go faster and get steeper every few minutes until you are exercising as hard as you can. The first few minutes of the test will be easy, but the last few minutes will be difficult.
 - **If you have chest pain, nausea, or just don't feel well,** tell the technician. The treadmill can be stopped at any time.
 - **Wait for the treadmill to stop** before you step off.
- **Healthcare providers will take measurements.** As you breathe into the mouthpiece or mask, your healthcare providers will measure the amount of air you breathe out. They will also measure the levels of oxygen and carbon dioxide in the air you breathe out.

When should I call my doctor?

Call your doctor if you have heart symptoms after the test, such as a racing or fluttering heartbeat, chest pain, or trouble breathing.

Questions for my doctor:

What happens after the test?

- All the devices will be taken off (the mouthpiece or mask, electrodes, arm cuff, and finger clip).
- You can go home the same day.
- You'll make a follow-up appointment with your doctor to go over the test results.

Talking with your doctor about the VO2 test

The table below lists the most common potential benefits, risks, and alternatives for the VO2 test. Other benefits and risks may apply in your unique medical situation. Talking with your doctor is the most important part of learning about these risks and benefits. If you have questions, be sure to ask.

Potential benefits	Risks and potential complications	Alternatives
The VO2 test can show: <ul style="list-style-type: none"> • Information about potential heart or lung problems • Information about your heart and lung capacity 	The risk of a serious complication is extremely low. Risks include symptoms caused by a faster heartbeat, such as chest pain, high blood pressure, irregular heartbeats, dizziness, nausea, heart attack, or sudden cardiac arrest. Your healthcare providers will watch you carefully during the test to prevent these symptoms or to react quickly if they occur.	There are no alternatives that record the specific information measured during a VO2 test.