

Six-Minute-Walk Testing

The six-minute-walk test (6MWT) is a common exercise or stress test. This test measures how far you can walk in 6 minutes while reporting how you feel. You report how hard it is and if you feel short of breath. The test looks at your level of exertion and often your oxygen saturation level during exercise.



Why have I been asked to do this test?

The main reason this test is done is to determine how far you can go in the set time of 6 minutes. This will give your doctor information about your functional exercise capacity.

The 6MWT is common in part because it is simple to do and does not require exercise equipment. It is usually done in a long walkway free of obstacles. It can be done by children and adults. How far a person can walk in 6 minutes can help define how severe a lung or heart problem is and may help predict what to expect in the future. There are standards for how far a healthy person can walk in 6 minutes. The test is often repeated over time to monitor your heart or lung disease and whether you are getting better or worse. The change in how far you walk and your oxygen level while walking can help your healthcare provider see if a treatment is helping or not.

This test is used in many patients with different heart or lung problems. Chronic obstructive pulmonary disease (COPD), interstitial lung diseases (ILD), pulmonary arterial hypertension (PAH), lung transplant, and heart failure are common conditions in which the test is used.

Are there reasons why I may not be able to perform a 6MWT?

The test may not be performed or may be delayed if you have:

- had a heart attack within the last month
- concerns about a lack of blood flow to the heart (that could cause a heart attack)
- severe uncontrolled high blood pressure

Sometimes the test may be stopped early. Reasons for not completing the test can include chest pain,

lightheadedness, dizziness, or severe drops in oxygen saturation levels during the test.

What can I expect during a 6MWT?

Prior to the test you will be sitting and resting for about 10 minutes. The staff may ask some questions about your health conditions and will explain the details of how to perform the test before it begins. The staff will measure your blood pressure, heart rate, and in most cases, oxygen saturation. You need to wear clothing and footwear that are safe for testing. When you stand up right before the test starts, you will be asked to report your level of fatigue and shortness of breath on a rating scale which will be reviewed with you. Pick the description that best describes how you are feeling and report the number next to it.

Where is the 6MWT performed?

The test is often done in a long hallway but this may vary based on the hospital, clinic, or pulmonary lab where the test is being done. A staff person will work with you (often a pulmonary lab technician, physical or respiratory therapist). The walking surface will be hard and flat. Often, two cones are set up about 100 feet apart and you will walk back and forth between them.

The staff will be keeping time and measuring how far you walk. The staff will tell you when to begin from the starting line and alert you as each minute passes but generally will not be talking to you during the test. Often, testing is performed wearing a pulse oximeter (measuring the oxygen saturation of the blood) but not always. If you feel like you need to stop and rest during the test because you are too fatigued or short of breath, you may do so. Try to resume walking as soon as you are able. Remember, the goal is to walk as far as possible in 6 minutes.

At the end of the test, you will be asked to report your level of exertion and shortness of breath again. Sometimes the test is done twice on the first occasion you perform this. This is because people often walk farther on the second attempt because of lessons learned during the first try. If you are asked to repeat the walk test, be sure you are completely rested before you agree to start another walk test.

It is important the test is done in the same way each time you do it to best compare the results over time. For example, if you use a walking aid (cane or walker) for assistance, you should use this during the test each time it is performed.

I use oxygen, what happens with it during the test?

If you already use oxygen, you will use it during the test unless your healthcare provider orders otherwise. You will be asked to push an oxygen cylinder on a trolley or carry your liquid oxygen container using a shoulder strap. Your level of oxygen flow will not be changed during testing. Sometimes the test is stopped if oxygen levels drop too low, but otherwise you should continue to walk as you are able.

How do I prepare for testing?

Please wear clothing and shoes that are comfortable to walk in. You should take your daily medications, including any inhalers as usual, unless otherwise directed by your healthcare provider. Avoid vigorous exercise within 2 hours of your test. A light meal, generally 1-2 hours before your test, is okay. Do not forget your walking aid if you use one regularly.

When will I get my test results?

The test result will be reviewed by your healthcare provider or the pulmonologist overseeing the lab where the test is performed. Talk to your healthcare provider about what the test result means and how it may impact your care.

Are there other kinds of walking or exercise tests I may be asked to perform?

Yes, there are other walking tests or exercise tests that may be done to give valuable information about your condition to your healthcare provider. Your healthcare provider will decide if you need another test based on your specific condition and what added information the test may give. Some of the other exercise tests include:

Stair-Climb Test: There are many ways this test is done. Often you are asked to climb as many flights of stairs as possible until you feel that you must stop because of exhaustion, shortness of breath, leg fatigue, or chest pain.

Incremental Shuttle Walk Test: This walking test requires an increased walking speed given by a signal at 1-minute intervals. You are required to walk between cones about 30 feet apart. The test stops when you cannot increase your walking speed to go between the cones in time.

Endurance Shuttle Walk Test: This walking test requires you to walk at a predetermined speed between cones about 30 feet apart. The speed is determined based on the results from the incremental shuttle walk test.

Cardiopulmonary exercise test (CPET): This is also referred to as a VO₂ test and is a specialized type of test that requires equipment to collect detailed information about how your heart and lungs respond to exercise. For more information see the ATS Patient Information Series fact sheet on CPET.

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Rx Action Steps

- ✓ Let your healthcare provider know if you do not think you can walk for the test.
- ✓ Wear comfortable clothes and shoes you can walk in.
- ✓ Ask questions if you do not understand what to do during the test.
- ✓ Talk to your healthcare provider about the test results.

Healthcare Provider's Contact Number:

For More Information

American Thoracic Society

- www.thoracic.org/patients/
 - Pulse oximetry
 - Cardiopulmonary exercise testing

American Lung Association

- <https://www.lung.org/lung-health-diseases/lung-procedures-and-tests/six-minute-walk-test>

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