



Breathing and lung function tests

Tests to measure your exercise capacity

Lung problems can make it harder to do day-to-day activities. Exercise capacity tests can be used to measure what people are able to do. If someone's exercise capacity is reduced, the tests may also help to explain why. Exercise capacity tests are also sometimes used to tell anaesthetic teams how fit a person is. This is important when assessing people for major surgery.

Walking tests can measure how effective **pulmonary rehabilitation** ([blf.org.uk/support-for-you/keep-active/pulmonary-rehabilitation](https://www.blf.org.uk/support-for-you/keep-active/pulmonary-rehabilitation)) has been and whether you need oxygen when you are walking. This is called an ambulatory **oxygen assessment** ([blf.org.uk/support-for-you/breathing-tests/tests-measure-oxygen-levels](https://www.blf.org.uk/support-for-you/breathing-tests/tests-measure-oxygen-levels)).

Your tester will ask you to do some form of exercise. This is usually walking or cycling. And they look at what level of exercise you can do. They will usually take some measurements while you do it. These measurements might include:

- symptoms - usually breathlessness and leg fatigue
- heart rate and rhythm
- breathing pattern
- oxygen and carbon dioxide levels in each breath
- how hard you are exercising, known as the work rate
- blood pressure

Tests to see how you respond to exercise include:

- corridor walking tests
- treadmill tests and cycle tests, known as cardiopulmonary exercise tests (CPET)

Corridor walking tests

There are 2 main types of corridor walking test: the 6-minute walk test and the shuttle walking test. With these kinds of walking tests, you should do the test twice with a rest between each one. The results from the best one (where you go furthest or fastest) are used.

Six-minute walk test

This test can give the physician information about how much exercise you can do, known as your functional exercise capacity.

The aim of the test is to walk as far as you possibly can in 6 minutes. You can stop and rest if you need to. You'll walk up and down a corridor, usually at least 30 metres long. Your oxygen levels and heart rate may

be monitored during the test using a **pulse oximeter** ([blf.org.uk/support-for-you/breathing-tests/tests-measure-oxygen-levels](https://www.blf.org.uk/support-for-you/breathing-tests/tests-measure-oxygen-levels)), which clips onto one of your fingers and is sometimes worn like a wristwatch.

Shuttle walking test

In a shuttle walking test, you walk between 2 cones placed 10 metres apart. You have to get to the other end before a bleep sounds. The time before the next bleep gets shorter as the test goes on, so you'll have less time to get to the next point and will need to walk faster and faster. When you can't keep up with the bleeps, the test ends. This is called an **incremental shuttle walk test**.

Sometimes people also do an **endurance shuttle walk test**. This requires you to keep going at the same speed between cones. The speed is set at 75% of the maximum speed you manage on the incremental test. The tests measure how long you can keep going at this level. It is sometimes used to assess people's response to treatment.

Cardiopulmonary exercise test (CPET)

The cardiopulmonary exercise test (CPET) involves making more detailed measurements of breathing and heart rate during exercise. It can help to work out why people are breathless. It also provides more accurate information about fitness levels which can be useful for planning people's care.

Before the CPET, your height and weight will be measured, and you will have a spirometry test. You'll be fitted with ECG stickers, a blood pressure cuff and a finger probe to measure your oxygen saturation. These will take measurements during the test. You will also wear a face mask that will record your breathing as you exercise.

A CPET can be performed on a treadmill or an exercise bike. The tests are supervised by experienced health care professionals. And don't worry, the tests are very safe.

Treadmill test

This test is done on a treadmill – a running machine often seen in gyms. The treadmill will get gradually quicker and a gradient or slope may be added. You can stop when you want to.

Cycle test

Sometimes you might be asked to use a type of exercise bike, called an ergometer. It gets harder to pedal with each minute of the test.

Get in touch with us to find support near you.

Helpline: **03000 030 555**

Monday to Friday, 9am-5pm

Ringing our helpline will cost the same as a local call.

helpline@blf.org.uk

[blf.org.uk](https://www.blf.org.uk)

Code: BK17 **Version:** 3

[blf.org.uk/breathing-tests](https://www.blf.org.uk/breathing-tests)

Last medically reviewed: January 2020

Due for medical review: January 2023

We value feedback on our information. To let us know your views, and for the most up to date version of this information and references, call the helpline or visit **blf.org.uk**