

What is spirometry?

Spirometry is a **common** and **simple** test that measures how much, how fast, and how long you can breathe air in and out from your lungs. It is used to diagnose and monitor different **lung** conditions. The test can be done in a testing lab or doctor's clinic, and involves blowing forcefully into a device called a **spirometer**.



Why is it important to take this test?

Your doctor may recommend spirometry if you have symptoms such as a **cough** that does not go away, **shortness of breath**, or if you're at risk of lung conditions due to **smoking, exposure to hazards, or ageing**. It helps doctors:



Diagnose lung conditions accurately



Assess the severity of lung conditions



Track how well you respond to treatment

Which conditions can be diagnosed with spirometry?

Many lung conditions have **similar** symptoms. Spirometry can help your doctor find out what **type** of lung condition you have so they can prescribe the **appropriate** treatment.

The results can help your doctor **diagnose** or **monitor** lung conditions such as:

- ✓ **asthma**
- ✓ **chronic obstructive pulmonary disease (COPD)**¹
- ✓ **pulmonary fibrosis**

What happens during spirometry?

Before the test begins, a **clip** may be placed on your **nose** to stop air escaping from it. You will then take a **deep** breath in and wrap your lips tightly around a special mouthpiece, before breathing out as **hard and fast** as possible.

With the mouthpiece still in your mouth you will take another big breath in before having a rest and breathing normally. You may be asked to repeat the test to make sure the measurements are accurate and consistent. The test usually takes less than 15 minutes and you can **ask** your doctor or nurse at any point during testing if you are **unsure** of what to do.



Your doctor may also ask you to use an **inhaler** to relax and open your airways and then **repeat** the test after 10 to 15 minutes to see if there is any improvement in how your lungs work.

What are the risks of this test?

While spirometry is generally **safe**, some people may feel **dizzy** or **tired** for a short period of time. Ask your doctor for a break if you need rest.

Blowing forcefully into the mouthpiece during the test can put pressure on your chest, ears, eyes, and stomach, so your doctor may advise you to avoid or postpone spirometry if you have certain health conditions or had recent surgeries on your eyes, abdomen or chest.



What do the results mean?

Spirometry will produce a **range** of test results, which your **doctor** will interpret to help you understand how well your lungs are functioning. Your doctor may **compare** your spirometry results with normal values of someone your age, ethnicity, height, and gender.

Results **outside** of normal ranges may point towards a lung problem, and you may need more tests or an adjustment to your treatment. You may also need to **repeat** the test in the future to monitor how well your lungs are working.



Sources

1. ACE Clinical Guidance on *Chronic obstructive pulmonary disease – diagnosis and management*, 3 June 2024