

PATIENT INFORMATION

This leaflet gives you general information about the lung function (breathing) tests. However, it does not replace the need for personal advice from the health care professional. Please contact us if you require more information.

Respiratory Medicine

What are Lung Function (Breathing) Tests?

Lung function tests are breathing tests that provide the doctor or nurse with detailed information of how well your lungs are working. The lung function tests measure your lung size, airflow and how well your lungs are working. Generally, full lung function tests usually take about 45 minutes to complete and it includes a few different tests: **Spirometry, Lung Volume (helium dilution) and Diffusion or Gas Transfer** which are explained below.

Why are Lung Function Tests performed?

There are several reasons for performing these tests, which include the following:

- To see if the lungs are working properly
- To monitor your condition by comparing these tests with previous results.
- To see how your breathing condition improves with different treatments.
- To measure fitness before surgery.

What is Spirometry?

Spirometry is a test that measures the size of your lungs and it also measures airflow in your lungs.

What does the Spirometry test involve?

In this test you will be asked to breathe through the mouthpiece into the machine. And you will be asked to take a deep breath-in and deep breath-out. You will also be asked to blow out as hard and as fast as you can.

We will ask to peg your nose with a nose clip to ensure you breathe through your mouth and stop air from escaping through your nose.

How long is the Spirometry test?

This test normally takes around 15 minutes to complete.

What is Reversibility Testing?

A reversibility test is the same as the spirometry test but taken before and 10-20 minutes after using your inhaler. This test will tell the doctor if the inhaler has made any difference.

When do I need to do the reversibility test?

If you are doing the lung function test for the first time, then the doctor may ask for the reversibility test to be carried out. This will add an extra 15 minutes to your testing time.

What is Lung Volumes (helium dilution) test?

The Lung Volume test measures the total size of your lungs and it also measures the amount of air remaining in the lungs after a complete breath out. This test will provide more detailed information about your lungs to the doctors.

What does the Lung Volumes (helium dilution) involve?

In this test you will breathe a harmless gas from the machine and we will measure this gas to work out the lung volumes. You will be asked to breathe normally for about 2-10 minutes into a mouthpiece with a clip on your nose (as in the spirometry test). At the end of the test you will also be asked to take a full breath out and a full breath back in.

How long is the Lung Volumes (helium dilution) test?

This test takes about 5-10 minutes to perform, however, the whole test: preparation, test and measurement takes about 15 minutes.

What is Diffusion or Gas Transfer test?

This test measures how well the gases, especially oxygen and carbon dioxide, move to and from your lungs into the blood. This test will provide more detailed information about your lungs to the doctors.

What does Diffusion or Gas Transfer test involve?

Like the lung volume test you will be asked to breathe a harmless gas mix from the machine and we will measure this gas to see how well your lungs are working. For this test you are required to breathe out as far as possible and take a full breath in. Then hold the breath for about 9 seconds and breathe out steadily.

How long is the Diffusion or Gas Transfer test?

This test takes less than a minute to perform, however, the whole test: preparation, test and measurement takes about 5 minutes. Depending on the results, you may be asked to repeat the test up to five times.

Dos and Don'ts before the Test

- Eat and drink as normal before your test.
- Take all your regular medicine.

ON THE DAY OF THE TEST PLEASE DO NOT TAKE ANY INHALERS. THE LIST OF INHALERS (MEDICINES) TO BE STOPPED IS GIVEN BELOW.

Ventolin / Salbutamol / Salamol / Bricanyl	4 hours before test
Atrovent	6 hours before test
Serevent, Seretide, Symbicort, Fostair, Oxis, Flutiform	12 hours before test
Spiriva (Tiotropium), Glycopyrronium bromide (Seebri®), Aclidinium bromide (Eklira® Genuair)	24 hours before test
Theophylline, Phyllocontin, Uniphyllin (tablets)	24 hours before test

If you become breathless and have to take any of the above medications, please note the time when you took them and inform the Physiologist when you arrive. If unsure please do not hesitate to contact us.

On the day of the test in order to achieve most accurate results if you could stop:

- Smoking for at least 24 hours (if possible) before your lung function test
- Alcohol for 4 hours before your lung function test
- Vigorous exercise 30 minutes before your lung function test
- Wearing tight clothing and
- Eating a substantial meal for at least 2 hours before the lung function test (a light meal is fine)

What are the risks?

There are no direct risks associated with these procedures. But some of the tests are tiring, and you will be given time to recover between tests. However if you find the tests too difficult or uncomfortable they can be stopped at any time.

Test Results

You should have an appointment booked with the consultant for your test results. If you have a clinic appointment on the same day as your lung function test you might be given the results to take with you to your appointment.

Further Important Information

Please inform the respiratory physiology/lung function department on 02089342307 if any of the following apply to you;

- If you have had any chest, abdominal or eye surgery in the last month.
- If you have had a heart attack or stroke in the last month.
- If you have been told by a Doctor that you have a collapsed lung.
- If you have a current chest infection requiring antibiotic treatment and if you are coughing up bloods.
- If you are suffering from illness like diarrhoea and vomiting.

Cancellations:

If you are unable to attend your lung function appointment, please contact us at the following numbers as soon as possible. Early notice of cancellation is appreciated

Tel: 02089342321 and Option 3

Who can I contact for more information?

If you are unsure why you have been asked to attend for the tests then please do not hesitate to contact lung function or respiratory physiology department on the numbers below, and the testing physiologist will try to explain or guide you who to contact for further information. .

Contact Numbers

Tel: 02089342307 (Direct line) Tel: 02084567711, extension 2307.

Department opening time: Weekdays only 9:00am - 5:00 pm