

Lung function tests

Information and advice for patients

Respiratory Physiology

What is the test?

Lung function tests are a variety of breathing tests to see how well your lungs and airways are working. There are several different tests that can be requested dependent upon the clinical need, as assessed by the referring healthcare professional. Each test involves a series of different breathing exercises, some might involve big deep breaths, fast blows, breathe holds, but each exercise will be fully explained before performing and throughout each individual attempt. Each test usually takes many attempts to achieve accurate and valid results, but rest will be provided between each attempt.

What are the benefits?

These tests aid your healthcare professional, who have asked for these tests to be performed, to assess your lung and airway function.

What are the risks?

Lung function tests are safe for most people. We assess individual risk depending on your general health and other factors during our pre-test questions. Dependent upon the answer to these questions we may need to rearrange, modify or cancel the tests to ensure tests are safe and accurate.

When performing lung function tests you may feel:

- dizziness
- breathlessness
- experience coughing
- feeling faint
- palpitations or fast heart rate (when taking salbutamol for bronchodilator reversibility testing)

What are the risks of not having the test?

If you decide you do not want to perform these tests then that is okay, we can only perform tests if patients are happy to consent to performing them. If you decide you do not want to perform the tests we will not be able to pass important information to your referring health professional which may affect the medical treatment that you receive.

Are there any alternatives to this test?

There aren't any specific alternatives to lung function tests that we, as a department, can arrange. There are other tests that can assess your lungs and airways in different ways but this would be a decision made by your referring healthcare professional and may not measure direct function.

Preparing for the test

IMPORTANT: If you have had a chest infection or any surgery within 6 weeks please call the testing site on the numbers below to discuss further. We may have to rearrange your appointment dependent upon the circumstances.

We would please ask you:

- On the day of your test please avoid smoking/vaping prior to the test.
- Do not drink alcohol for at least 4 hours before your test.
- Avoid vigorous exercise for at least 30 minutes before your test.
- You can eat and drink before your appointment, but please avoid eating a large meal within 2 hours.
- Wear comfortable clothing which does not restrict full chest and abdominal expansion.
- If you use a GTN spray please bring this to your appointment.

Withholding Inhaled Medication

- If you currently take a short-acting bronchodilator inhaler please avoid taking this for at least 4 hours before your test. e.g, Ventolin (salbutamol, salamol), Trebutaline/ Trebutaline Suplphate (Bricanyl) Ipratropium Bromide (Atrovent).Ipratropium Bromide/ Fenoterol Hydrobromide (Duovent)
- If you currently take a long-acting bronchodilator inhaler please avoid taking this for at least 12 hours before your test e.g, Fostair, Serertide, Serevent, Symbicort, DuaResp, Foradil, Oxis. Spirivia Respimat, Dulkir Genuair, Flutiform, Onbrez, Relvar Ellipta, Seebri, Trimbow, Trelegy.

Continue to take any other medication as normal.

If you are feeling very breathless then please take your inhalers as normal and let the physiologist know when you last took them.

During the test

On arrival you should expect:

- Height and weight will be recorded to help us calculate reference ranges
- Risk factors assessed via pre-test questioning and contraindication assessment.
- An explanation of each individual test prior testing.
- Answer any questions you may have regarding the tests.

All breathing tests are performed via a mouthpiece connected to a testing piece of equipment to ensure accurate measurements are obtained. To ensure accurate testing you will also be wearing a nose peg during each test. You will be provided with clear, concise instructions while performing the tests to ensure valid tests are obtained.

After the test?

The testing physiologist will inform you of the follow up process and you are then able to continue with your day as normal.

Follow-up

Your test results will be sent to the referring healthcare professional who is responsible for discussing the result of these tests with yourself. Please note, none of your test results will be discussed on the day of testing.

Contact details

Respiratory Physiology Sandwell: 0121 507 3666

Respiratory Physiology City: 0121 507 4298

Respiratory Physiology MMUH: 0121 507 4650

Further information

<https://www.artp.org.uk/patients>

<https://www.asthmaandlung.org.uk/>

Sources used for the information in this leaflet

Association for Respiratory Technology & Physiology (2020). ARTP Statement on pulmonary function testing 2020. [Online]. Available at: <https://bmjopenrespres.bmj.com/content/7/1/e000575> [Accessed 16 June 2025].

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