



York Teaching Hospital
NHS Foundation Trust

Lung Function Tests

General information and instructions for patients, relatives and carers

① For more information, please contact:

Cardio-Respiratory Department

The York Hospital
Wigginton Road, York, YO31 8HE

Tel: 01904 726525

Caring with pride

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Introduction

This leaflet is intended for patients, such as yourself, who have been asked by their doctor to undergo investigations into how well their lungs are working.

The tests will be carried out by a Respiratory Clinical Physiologist in the Cardio-Respiratory Department.

If you require further information or clarification of any of the following then you can contact the department during office hours on 01904 726525. At other times a voicemail facility is available if you wish to leave a message and we will ring you back as soon as possible.

What is a lung function test?

Lung function tests are used to assess how well your lungs are working. Doctors often request these tests to:

- See if you have any lung disease.
- Measure the severity of lung disease.
- To see if medication will make your breathing better.
- To test your lungs before an operation.

What are the benefits and alternatives?

Your doctor will use the information from the investigations to start, stop or modify your treatment.

The investigations are often very specific with no alternative methods available. However, as a patient you always have the right not to undergo them.

The procedure

You will be asked to breathe in and out of a machine through a sterile mouthpiece. Your nose will be sealed using a disposable nose clip. You will be seated during all the tests. There are three main tests:

1. Measurement of the maximum speed you can breathe out by asking you to blast the air out of your lungs as quickly and as long as you can.
2. The volume of air in your lungs when you take in a maximum breath.
3. Measurement of how well oxygen travels from your lungs to your blood. For this you will be asked to breathe in until you are full and then hold your breath for about ten seconds.

There are other, more specialised investigations your doctor may wish us to undertake with you. However, they are generally the same as described above and will be explained fully to you when you attend.

Please Allow 45 to 75 Minutes for your Appointment

Are the tests safe?

Generally, lung function tests are non-invasive and present very little risk to the patient. However, small risks may arise from pre-existing conditions that may be made worse by performing the required respiratory manoeuvres. These conditions are known as contra-indications and are as follows.

- Current or recent chest infection within two weeks of the investigation.
- Uncontrolled high blood pressure, pulmonary embolus or heart attack (MI) within the last month.
- Recent stroke or cerebro vascular event.
- Recent thoracic, abdominal or eye surgery.
- Coughing up blood (haemoptysis).
- Collapsed lung (pneumothorax).
- Nausea, vomiting or pain.

You will be asked about the above when you attend your appointment but if you are currently affected by any of these conditions it would be helpful if you contacted the department to check that your tests can go ahead at the present time.

What preparations are needed before the Tests?

To ensure that the investigations are carried out under the best possible conditions please observe the following prior to your appointment.

- Do not smoke for 24 hours.
- Do not eat a large meal within two hours
- Do not consume alcohol within four hours.
- Do not take vigorous exercise within 30 minutes.
- Do not wear tight clothing that may restrict your breathing.
- Wear shoes that are comfortable and easy to remove, as we will need to measure your height with them off.
- Bring a walking stick if you normally use one. It may be helpful if we need to perform any walking tests.

The ideal time to avoid using your inhalers and common medications are specified below:

Three days before the test

- Antihistamines such as Cetrizine, Fexofenadine and Loratadine.

24 hours before the test

- Longer acting bronchodilators such as Salmeterol Formoterol.
- Combined bronchodilator/corticosteroid inhalers such as Seretide and Symbicort.
- Oral bronchodilators such as Theophylline.

12 hours before the tests

- Inhaled corticosteroids such as Beclometasone, Budesonide and Fluticasone.
- Anti-cholinergic bronchodilators such as Ipratropium Bromide (Atrovent).

Eight hours before the tests

- Short acting bronchodilators such as Salbutamol, Ventolin and Bricanyl.
- Inhaled non-steroidal anti-inflammatory agents such as Sodium Cromoglycate and Sodium Nedocromil.

If you think you may find it difficult to stop using inhalers for the times specified, then please try and avoid long acting inhalers for at least 12 hours, and any short acting inhalers for at least four hours before your test.

You can discuss this with us at any time on 01904 726525.

You will be asked about your currently prescribed medication so please bring a list with you if possible.

Results

Unless you are seeing your doctor immediately after your appointment you will not be given the results on the day of your test. The results will be sent to your doctor who will explain them at your next clinic visit.

Please note that in some cases the results are sent to a specialist for reporting and consequently they may not reach your own doctor for up to six weeks.

Tell us what you think of this leaflet

We hope that you found this leaflet helpful. If you would like to tell us what you think, please contact: Muhammad Khan, Highly Specialist Clinical Respiratory Physiologist, The York Hospital, Wigginton Road, York, YO31 8HE, or telephone 01904 726525.

Teaching, training and research

Our Trust is committed to teaching, training and research to support the development of health and healthcare in our community. Healthcare students may observe consultations for this purpose. You can opt out if you do not want students to observe. We may also ask you if you would like to be involved in our research.

Patient Advice and Liaison Service (PALS)

PALS offers impartial advice and assistance to patients, their relatives, friends and carers. We can listen to feedback (positive or negative), answer questions and help resolve any concerns about Trust services.

PALS can be contacted on 01904 726262, or email pals@york.nhs.uk.

An answer phone is available out of hours.

Providing care together in York, Scarborough, Bridlington,
Malton, Selby and Easingwold communities

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