

Lung function testing – Information for Patients

This leaflet tells you about the procedure known as Lung Function Testing. It explains what is involved with this procedure. It is not meant to replace discussion between you and your doctor, but as a guide to be used in connection to what is discussed with your doctor.

Why do lung function testing?

Lung function testing (spirometry) is performed in order to monitor your progress and to detect any change in your lung condition which may possibly require treatment. It is carried out using a spirometer machine. Spirometry is usually recorded twice a week as an inpatient on the ward and at every outpatient clinic visit. It may also be done in your home.

Technique

- It is best not to eat a large meal for at least 2 hours before or do any vigorous exercise for 30 minutes before.
- Always wash your hands with alcohol rub directly before doing spirometry.
- It is best to be seated in a well supported chair, although some patients prefer to stand.
- The person who carries out the test will encourage you to blow as hard and as long as possible, in order for you to produce your best results.
- Three tests need to be done as a minimum. You may continue until you achieve the best result possible for you on that day.

Spirometric measurements

Forced Expired Volume in 1 second (FEV1)

This is the maximum amount of air that can be breathed out in 1 second. It measures airflow obstruction in the large airways.

Forced vital capacity (FVC)

This is the maximum volume of air that can be contained in your lungs.

% Predicted

Lung function values are based upon your age, height and sex. Your actual spirometry will be compared to this and expressed as a % predicted.

Full Respiratory Function Tests

You may have more detailed lung function tests which will be carried out in the respiratory physiology laboratory. These will be done yearly as part of your annual review. This involves blowing into different machines and also holding your breath. These tests usually take about $\frac{3}{4}$ of an hour to 1 hour to perform.

Full Respiratory Function Measurements.

Total Lung Capacity (TLC)

This is the maximum volume of air that can be contained in your lung.

Residual Volume

This is the volume of air left in your lungs after you have blown out as much as you possibly can.

Gas Transfers

This is a measurement of how efficient your lungs are at transferring oxygen across into your blood.

Oxygen Saturations

This is recorded using a machine with a probe that is placed on your finger. It measures the oxygen levels as a percentage in your blood.

Contact us:

If you would like more information on this subject either speak to the nurse in clinic please do not hesitate to contact the C.F Clinical Nurse Specialists on 0121 424 2515.

Additional Information Sources:

For more information on all aspects of living with Cystic Fibrosis you can visit the Cystic Fibrosis Trust web site at : www.cftrust.org.uk.

For local news and events the West Midlands Regional Cystic Fibrosis Unit based at Heartland Hospital has its own website at: www.heartlandscf.org.uk .

Please use the space below to write down any questions you may want to ask: