What is spirometry?

FACT SHEET prepared by The Asthma Foundation

Spirometry is a simple test that measures how much air you can blow out and how fast. Spirometry is useful in diagnosing and managing lung disease. Spirometry is especially useful for measuring and monitoring responses to therapy for asthma and chronic obstructive pulmonary disease (COPD). Spirometry is also useful for monitoring other lung diseases. Spirometry can be thought of as a warrant of fitness for your lungs – regular testing is important if you have a respiratory illness.

Why should I have a spirometry test?

Spirometry tests are useful for:

- showing how much air you breathe in and blow out of your lungs, and how fast you can blow out
- diagnosing obstructive lung disease — such as COPD and asthma
- diagnosing restrictive lung disease (decrease in the ability to expand the lung — the lungs are “stiff”, conditions such as interstitial lung disease, sarcoidosis)
- monitoring a lung disease
- monitoring the effectiveness of treatment
- determining the severity of a lung disease

What happens when I have a Spirometry test?

Having a spirometry test is straightforward. It may occasionally be tiring and make you feel a bit puffed, but is not painful — it may just be a little bit uncomfortable.

The test involves taking a full breath in and blowing out as hard and as fast as you can into a tube attached to the spirometer machine. The machine takes various measurements which indicate how your lungs are working. The test is usually performed when you are sitting down, and takes 10 to 20 minutes. It is sometimes carried out before and after inhaling a reliever drug such as Salbutamol (Respigen, Salamol or Ventolin) or Terbutaline (Bricanyl) to measure the effect of these drugs. In this case, you may be asked not to take your usual reliever medication for a few hours prior to the test.

You will be asked to do the following to ensure the test is done accurately:

1. Take a deep breath in to fill your lungs to the top
2. Seal your lips around the mouthpiece
3. Blow out as hard and fast as you can, for as long as you can, and keep going as long as possible
4. Let the technician know if you feel any distress during the procedure
5. The test will be repeated at least three times
6. Tight clothing such as belts and bras can restrict your breathing and impact upon the accuracy of the test
7. If your bladder is full you may feel that you cannot blow out as hard as possible. This will also impact upon the accuracy of the test

The Asthma Foundation can help you

The Asthma Foundation is New Zealand's not-for-profit sector authority on asthma and other respiratory illnesses. We advocate to government and raise awareness of respiratory illnesses, fund research for better treatments and educate on best practice.

Check out our comprehensive website at www.asthmafoundation.org.nz