



What you need to know about...

Spirometry

What is Spirometry?

Spirometry is a noninvasive breathing test that determines how well a person's lungs are working. This test is done with a device called a spirometer. A spirometer measures both the amount of air and how fast a person can blow it out of their lungs. This test is able to detect very small changes in breathing, before a person would be able to. The test takes only a couple of minutes, no needles are involved, it is not painful and patients do not have to remove any clothing.

How does it work?

The person being tested is asked to breathe in fully, seal their lips around a mouthpiece then blow out as hard, fast and long as they can. Usually about six seconds. A nose clip may be applied to ensure no air escapes from the nose.



What does a Spirometry test measure?

A spirometry test measures airflow over time. The test provides two values which are helpful in determining the results, Forced Vital Capacity (FVC) and Forced Expiratory Volume measured over one second (FEV1). FVC, is the total amount of air that can be blown out and FEV1 is the flow of air during the first second of the test. FEV1 divided by FVC determines the proportion

of air in a person's lungs which can be blown out in one second.

What do the results tell us?

The results from a spirometry help determine if a person has any airflow problems that could be the result of COPD, asthma, or restrictive lung disease. The results from this test can also identify smokers who are developing COPD and evaluate the effects of workplace exposure to lung irritants.

Who should be tested?

- Current and former smokers
- People 40 years of age and older
- Anyone exposed to fumes, vapors, dusts or other lung irritants

Anyone who has:

- A chronic cough
- Pain, difficulty or wheezing while breathing
- Fatigue or shortness of breath at rest, during light exercise or everyday activities
- Restless sleep, snoring, or sleep apnea
- Weight loss, heart failure, fever, chills or osteoporosis

Are there any side effects?

Spirometry has very few side effects and is a very low risk test. When taking the test, a person may experience dizziness. Blowing out hard may cause an increase in pressure in the chest, abdomen, or eye. People with unstable angina or anyone who had a recent heart attack or stroke are advised not to have a spirometry test. It is also recommended that anyone who recently had air trapped beneath the chest wall (pneumothorax) or recent eye or abdominal surgery should not have a spirometry test.