What will the test result mean?

Normal

Test results are within the normal ranges for a person with healthy lungs.

Abnormal

Test results are outside of the normal range for a person with healthy lungs. This may mean that some kind of lung disease is present. There are two main types of lung diseases that can be found with lung function tests: obstructive and restrictive.

Obstructive

In obstructive lung conditions, the airways are narrowed, usually causing an increase in the time it takes to empty the lungs.

Obstructive lung disease can be caused by conditions such as emphysema, bronchitis, infection (which produces inflammation), and asthma.

Restrictive

In restrictive lung conditions, there is a loss of lung tissue, a decrease in the lungs' ability to expand, or a decrease in the lungs' ability to transfer oxygen to the blood (or carbon dioxide out of the blood).

Restrictive lung disease can be caused by conditions such as pneumonia, lung cancer, scleroderma, pulmonary fibrosis, sarcoidosis, or multiple sclerosis.

Other restrictive conditions include some chest injuries, being very overweight (obesity), pregnancy, and loss of lung tissue due to surgery.

Contact information

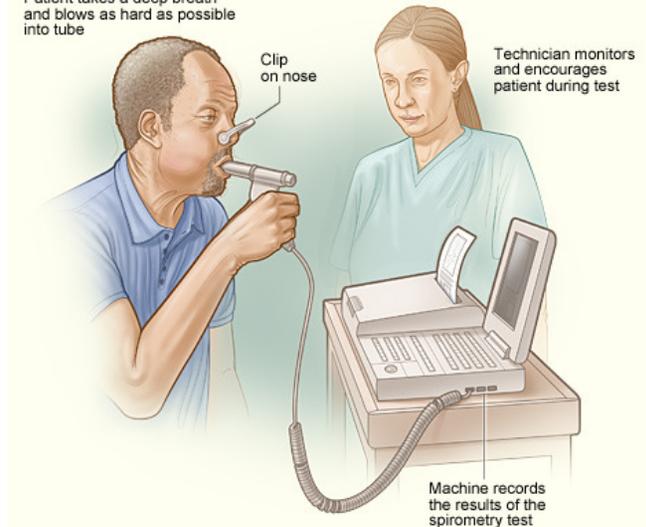**St. Maarten Medical Center**

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Our goal is to be clear and understandable to you regarding your care. We hope that you never hesitate to ask questions during or about your treatment, even after you have returned to your home. If you still have questions, concerns or need any extra information, please feel free to address your question to any of our staff in the Diagnostic Department

Spirometry

Patient takes a deep breath and blows as hard as possible into tube

Clip on nose

Technician monitors and encourages patient during test

Machine records the results of the spirometry test

SAFETY
HEALTH
SATISFACTION
The pillars defining our quality care

We Care Together!

S|M|M|C *St. Maarten Medical Center*

What is a lung function test?

Lung Function Tests (also called pulmonary function tests or PFTs) evaluate how well your lungs work.

The tests determine how much air your lungs can hold, how quickly you can move air in and out of your lungs, and how well your lungs put oxygen into and remove carbon dioxide from your blood.

This breathing test is a non-invasive procedure that does not require the use of needles.
The tests can diagnose lung disorders; measure the severity of lung problems, and check to see how well the treatment for a lung disorder is working.

The normal value ranges for lung function tests will be adjusted for your age, height, sex and sometimes weight and race. Results are often expressed in terms of a percentage of the expected value.

How does a lung function test work?

Spirometry is the first and most commonly done lung function test. It measures how much and how quickly you can move air out of your lungs (the exhaled value).

For this test, you breathe into a mouthpiece attached to a recording device (spirometer).

You will have your mouth wrapped around the mouthpiece that fits tightly between your lips and teeth. You will be asked to wear a nose clip or pinch your nose so that no air escapes through your nose.

Often the spirometry test is repeated three times or more to be sure the measurements are reliable and reproducible.

On doctors request, the test may be repeated after using an inhaler.

How do I prepare for the test?

Before your appointment you may receive specific instructions about how to prepare for the test, such as:

♦ Wear loose clothing, which will not restrict your ability to breathe deeply.

♦ Avoid large meals prior to your test time, this will make it more comfortable to breathe deeply.

♦ Do not use your inhaled medicines on the morning of your testing.

♦ Come to the test with your inhaler medication (if any are taken).

♦ You should also avoid food or drinks that have caffeine because it can cause your airways to relax and allow more air than usual to pass through.

♦ If you have dentures, wear them during the test to help you form a tight seal around the mouthpiece.
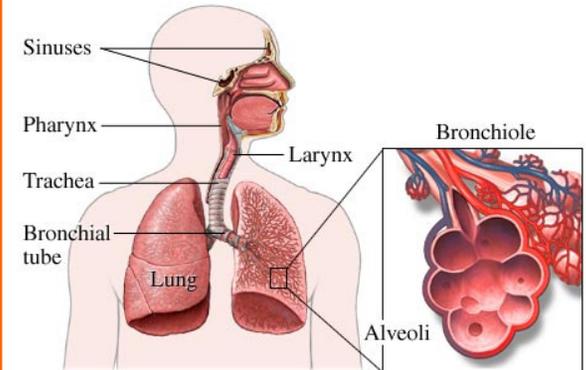
How long will it take?

The test generally takes less than 15 minutes. The accuracy of the tests depends on your ability to follow all of the instructions. The therapist may strongly encourage you to breathe deeply during some of the tests to get the best results.
Depending on the ability to follow instructions, it may take longer.

How safe is a lung function test?

Lung function tests present little or no risk to a healthy person. If you have a serious heart or lung condition, discuss possible risks with your doctor.

Schematic view of the respiratory system

Pharynx-Throat   Bronchiole-airway
Larynx– Voice box   Alveoli-air sacs
Trachea-Windpipe

How quickly will I get the results?

Two days after the test, you may return to your requesting physician to collect your results.

The results of the test may help confirm or rule out a diagnosis of lung problems and may influence your physician's decision to change your treatment, if you are already using inhaled medication.