



Pulmonary Function Tests Spirometry

Spirometry is a simple test to measure how much (volume) and how fast (flow) you can move air into and out of your lungs. A pulmonary function technologist will instruct you on how to perform the test and coach and encourage you to do your best. The steps in performing the test are as follows:

1. You will be asked to clean your hands with hand sanitizer before and after the test.
2. You will be asked to place a mouthpiece attached to the spirometer in your mouth. It is important to make a tight seal with your lips so all of the air will go into the spirometer to be measured. You will also wear a nose clip to keep air from leaking out of your nose.
3. After breathing normally, you will be asked to take a big deep breath, filling your lungs completely.
4. As soon as your lungs are full, you will then blow out as hard and as fast as you can until you are absolutely empty of air, and then fully inhale to complete the test.
5. You will be asked to repeat the test until there are three good efforts recorded.

This test allows us to measure the following:

- FORCED VITAL CAPACITY (FVC) – this is the amount of air you can force out of your lungs after a maximum inhalation
- FORCED EXPIRATORY VOLUME IN THE FIRST SECOND (FEV1) – This is the amount of air that can be exhaled during that first second of forced exhalation
- PEAK EXPIRATORY FLOW RATE (PEFR) – this is how fast you can blow the air out of your lungs
- FORCED INSPIRATORY VITAL CAPACITY (FIVC) – this is the amount of air you can take into your lung

After the age of 6 years old, your child will be asked to perform this test at every visit to our CF clinic. This value is very important in monitoring the lung health of your child. Maintaining good lung function is very important to a long and healthy life and we will strive to keep this at an optimal level.