BY COLLEEN MULLARKEY

Prepping for PFT

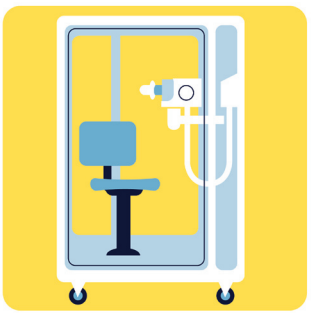
As your pulmonary function testing day approaches, you may feel the same anticipation you did back when you had final exams in school. What will be on the tests? How am I going to prepare? Are they going to be hard?

If these familiar questions pop into your head, there's no need to worry. Use this guide for a quick study session, and you'll be ready to go.

What's being tested?

Pulmonary function tests (PFTs) evaluate how well your lungs work. They measure the amount of air in your lungs, how well they move the air in and out, and how medications affect them. Your doctor may send you for PFTs to diagnose a lung disease, measure the severity of lung problems, or see if a treatment is working for your lung disease.

A respiratory therapist or technician will guide you through each test in a special exam room that has all of the lung function measuring devices. Most of the tests are quick, easy, and painless, but be sure to tell the technician if you feel light-headed, tired, or uncomfortable.



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What's on the test?

PFTs always include spirometry. It measures how much air you can inhale and exhale, and how fast you can blow the air out of your lungs. The technician may ask you to place a clip on your nose to prevent air from leaking out. Then you will breathe through a mouthpiece connected to a computer that will measure and record your results.

The technician also may measure the amounts of oxygen and carbon dioxide in your blood. A pulse oximeter can measure the oxygen in your blood without using a needle. If the technician needs more detailed information, he may perform an arterial blood gas. He will draw blood from an artery in your wrist for analysis.

Another important measure is total lung capacity — the total amount of air your lungs can hold. You will perform this test in a body plethysmograph, a clear Plexiglas™ booth like a telephone booth. You will sit inside and breathe into a tube similar to the one used for spirometry. Then the computer will measure your lung volume.

The technician may perform tests that measure how your lungs respond to outside factors such as medication, allergens, or exercise. After your initial testing, you may be asked to inhale a special medication called methacholine to see if your airways react. The test may be repeated at different doses. The technician also may measure how your lungs respond to small amounts of allergens that may be causing asthma or wheezing. These are called inhalation challenge tests.

For exercise challenge testing, you will undergo the baseline testing described above, and then you will be asked either to use an exercise bicycle or walk or jog on a treadmill. The purpose is to see what effect exercise has on your airflow.

These are the most common PFTs, but your doctor may request additional tests.

How can I prepare?

Tell your doctor if you have had recent chest pains or a heart attack, if you take medication for a lung problem, and if you are allergic to any medications. Bring a list of all the medications you are taking. You may be asked to refrain from using your inhaled bronchodilator four to six hours before the tests; check with your doctor if you have any questions about this.

Don't eat a heavy meal right before the test, and avoid caffeinated foods or drinks. Don't smoke or exercise strenuously for six hours before the test. On the day of the test, wear loose clothing that won't restrict your breathing, and wear dentures during the test if you have them.

Finally, just relax, breathe easy, and do your best — these grades won't go on your permanent school records. ■

Adapted from Children's Hospital Boston and "Lung Function Tests" by Maria Essig, MS, ELS.

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Your doctor or therapist has given you this patient education handout to further explain or remind you about an issue related to your health. This handout is a general guide only. If you have specific questions, discuss them with your doctor or therapist.