Memorial Sloan Kettering Cancer Center

PATIENT & CAREGIVER EDUCATION

Pulmonary Function Tests (PFTs)

This information will help you understand why you're having pulmonary function tests (PFTs) and what to expect before, during, and after your tests.

About PFTs

PFTs are breathing tests that measure how your lungs are working. The results will show how much air your lungs can take in and how the air flows into your lungs.

Before surgery, PFTs may be done to:

- See if there are issues with your lungs that could interfere with anesthesia (medication used to make you sleep during surgery).
- See how much air your lungs can hold.

PFTs may be done to help your healthcare provider:

- See if your lungs are working normally.
- Diagnose lung disease.
- Check why you're having trouble breathing.
- Monitor any side effects you have from cancer treatment.
- Check the status of chronic (long-term) lung disease. The 2 major patterns of lung disease are obstructive and restrictive.
    - In obstructive lung disease, there is a decrease in the flow of air (such as in emphysema or asthma).
    - In restrictive lung disease, the amount of air the lung can fill up with is limited. This could be because of fibrosis (the thickening and scarring of

tissue) or scarring.

Getting Ready for Your PFTs

Follow these instructions the day of your PFTs.

- Don’t eat a large meal before testing. If you’re hungry, eat a light meal (a small soup or sandwich) a few hours before the test.
- Take all your medications as usual, unless your healthcare provider gives you other instructions.
- Get to your appointment on time.
- Write any additional instructions from your healthcare provider here:

During Your PFTs

A pulmonary technologist will perform your PFTs. You will sit in a pulmonary analyzer, which is a machine that will measure the amount, force, and speed of your breathing. You will wear a nose clip to keep air from going through your nose while you blow into a mouthpiece. Your technologist will tell you to take deep, shallow, slow, or quick breaths at different periods during the test. Your healthcare provider may request a complete test or only parts of the test.

You will be asked to repeat sections of the test to get the most accurate results. You may be asked to inhale (breathe in) a medication called a bronchodilator to open your airways. Inhaling (breathing in) a bronchodilator will help your healthcare provider see if you need medication(s).

PFTs take about 45 minutes to 1 hour.

Arterial blood gas test

You may have some blood taken to measure the amount of oxygen and carbon dioxide in your blood. This is called an arterial blood gas test. It's the only part of the PFTs that may hurt.

If you have an arterial blood gas test, you may get a medication to numb your wrist and then your blood will be taken. Your technologist will place an elastic bandage on your wrist to stop the bleeding.

After Your PFTs

- If you had blood taken for the arterial blood gas test, keep the bandage on for at least 4 hours after your test. You may feel some tingling or numbness at the site. This should only last until the next morning.
- You may go back to your regular diet.
- There are no restrictions on your activities.
- Your healthcare provider will explain the results of your test and what it means for your overall care. If you have any questions or concerns, talk with your healthcare provider.

If you have questions or concerns, contact your healthcare provider. A member of your care team will answer Monday through Friday from 9 a.m. to 5 p.m. Outside those hours, you can leave a message or talk with another MSK provider. There is always a doctor or nurse on call. If you're not sure how to reach your healthcare provider, call 212-639-2000.

For more resources, visit www.mskcc.org/pe to search our virtual library.

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