

## Pulmonary Medicine, Allergy and Immunology

### OSCILLOMETRY TESTING

AT CHILDREN'S HOSPITAL OF PITTSBURGH OF UPMC, we believe parents and guardians can contribute to the success of this test and invite you to participate. Please read the following information to learn about the test and how you can help.

#### Fast Facts About Oscillometry Testing

- Oscillometry testing measures blockages to air flow in the lungs, and is used to check lung function or pulmonary function in very young children or other people who have difficulty following directions or breathing deeply.
- The test is done by having your child breathe normally through a tube connected to a computer.
- Your child will be asked to repeat the breaths several times to get an accurate measurement.
- Oscillometry takes a total of about 20 minutes.
- Your child may resume a normal diet and activities after the test.

#### What Is Oscillometry?

Oscillometry (*oss-a-LOM-a-tree*) is a simple way for the doctor to measure your child's lung function and to tell how well his or her treatments are working.

- Oscillometry is a simple way to find out if your child's lungs or airways are blocked in any way because of asthma or other conditions that affect breathing.
- The test is sometimes repeated a second time 15 minutes after your child has used a bronchodilator (*brank-o-DIE-late-er*) medication.
- The results of each test are measured on a computer screen that shows how fast air flows in your child's lungs.

#### Home Preparation

Very little preparation is required before oscillometry testing.

- Your child should not use his or her short-acting asthma medications for 4 hours before the test.
- You may bring along a "comfort" item—such as a favorite stuffed animal or "blankie"—for your child to hold during the test.
- Your child may wear normal clothes to the test.

#### Before the Oscillometry Test

Oscillometry is done through the Division of Pulmonary Medicine, Allergy and Immunology of Children's Hospital. This test also may be done while your child is a patient in the hospital.



After you have registered your child at the desk, you will be asked to sit in the waiting area.

- We invite one parent or guardian to stay with your child during the test. Other adults and siblings must stay in the waiting room during the test.
- You and your child will be called to the examining room and asked some screening questions by one of the doctor's assistants. The assistant will take your child's vital signs, weight and medical history.
- You may ask any questions or discuss concerns about the test at this time.
- Your wait time may vary, depending on how many children are being seen that day and the type of testing that has been ordered for your child. Since every child is different, the length of time needed to do each test will vary. Please be patient with the medical staff.

#### The Oscillometry Test

You will be joined in the examining room by a pulmonary function technician. The oscillometry test will be overseen by a doctor, but the actual test will be performed by the technician. The results will be reviewed by a doctor.

- Your child will be asked sit in a chair next to the oscillometry machine. He or she will not be asked to remove any clothing.

## OSCILLOMETRY TESTING cont'd

- The technician will place a padded nose clip on your child's nose to make sure he or she breathes only through his or her mouth.
- Your child will be asked to hold his or her cheeks so they don't move in or out.
- The technician will ask your child to place a sterile mouth-piece into his or her mouth.
- Your child will be asked to breathe normally.
- Gentle pulses of air will come through the tube. Your child may think these pulses feel something like "popping corn" because the pulses of air can be felt on the cheeks and in the chest.
- The technician will ask your child to repeat the breathing a few more times to get accurate results.
- The technician will then ask your child to use a bronchodilator medication (such as albuterol).
- Your child will be asked to wait 15 minutes. (Sometimes other tests will be performed during this waiting period.)
- After the 15-minute waiting period, your child will be asked to repeat the breathing test.
- The doctor will review the results of the oscillometry testing and discuss them with you.

### A Parent's/Guardian's Role During the Oscillometry Test

The most important role of a parent or guardian during the test is to help your child stay calm and relaxed. The best way to help your child stay calm is for you to stay calm.

- You may stay with your child during the testing.
- Feel free to ask any questions, but please ask them before or after the test.

### After the Oscillometry Test

Your child may resume normal activities immediately after the test, unless otherwise directed by the doctor. Oscillometry testing does not cause side effects.



## Special Needs

If your child has any special needs or health issues you feel the doctor or pulmonary function technician performing the test needs to know about, please call the Division of Pulmonary Medicine, Allergy and Immunology at Children's Hospital of Pittsburgh **before the test** and ask to speak with a pulmonary function technician. It is important to notify us in advance about any special needs.

Division of Pulmonary Medicine, Allergy and Immunology  
**Children's Hospital of Pittsburgh of UPMC**

One Children's Hospital Drive

4401 Penn Ave.

Pittsburgh, PA 15224

(412) 692-5630

**Children's North**

2599 Wexford Bayne Road

Sewickley, PA 15143

**Children's South**

1300 Oxford Drive

Bethel Park, PA 15102

**Children's East**

Corporate One Office Park

Building One

4055 Monroeville Blvd.

Monroeville, PA 15146

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To see the list of all available patient procedures descriptions, please visit [www.chp.edu/procedures](http://www.chp.edu/procedures).