

# ALERT

Find out more... visit [www.GetAsthmaHelp.org](http://www.GetAsthmaHelp.org)

## **SPIROMETRY TESTING** Susan Blonshine, RRT, RPFT, FAARC, BS, AE-C

Pulmonary function tests, also known as lung function tests, are a series of different breathing tests that are usually done in a health care provider's office, clinic, asthma center or hospital. These tests help to determine the cause of shortness of breath, to detect and diagnose lung diseases or to monitor the progress of certain diseases such as asthma, bronchitis, and emphysema.

The most common lung function test is spirometry. Spirometry measures how much air you can inhale and exhale as well as how fast you can blow all of the air out of your lungs. In spirometry, a patient breathes into a tube attached to the spirometer machine. The patient then inhales as deeply as possible, and blows out as forcefully and rapidly as possible for about six seconds. With the help of a computer, the spirometer records and graphs key measurements during the test. Two important measurements are: 1) the forced vital capacity: the largest amount of air that can be exhaled after a really deep breath and 2) the forced expiratory volume: the amount of air that that can be exhaled in one second. The test is always repeated at least three times, and often more, to be sure that the test is reliable.

A bronchodilator may be given as part of spirometry. A bronchodilator is an inhaled medication that can dilate, or open up, the airways. Spirometry is often done before and after the bronchodilator to show any response to the medicine. In individuals with asthma, the post bronchodilator testing is an essential part of the evaluation. The response may help your doctor find out what kind and how much, if any, airway disease is present, and whether medication will help.

A doctor will look over the test compare them to the predicted values that are normal for a person's age, size, height, race and gender.

Spirometry is different from peak expiratory flow measurement. Spirometry is used to diagnose asthma and records how well a person is able to inhale and exhale. This test can only be administered by a health care professional trained in lung function testing. Peak flow can be measured using a portable hand-held device used to monitor changes in moderate to severe asthma. A peak flow device measures how fast the air comes out of the lungs after breathing in as deep as possible. It only measures a change in the large airways or at the very beginning of the breath out. Other

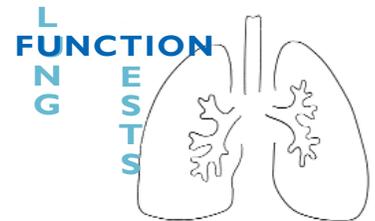
important changes in the airways may occur that are detected by spirometry but not by a peak flow meter.

Lung problems can be monitored by regular pulmonary tests. The NHLBI guidelines recommend lung function testing at different times for people with asthma. Check with a doctor or asthma educator to see when to schedule an appointment. To find out more information on lung function tests including spirometry, please visit:

[www.GetAsthmaHelp.org](http://www.GetAsthmaHelp.org). ☀

*Susan Blonshine is the President of TechEd Consultants, which provides services to improve disease management through education, testing, research, and development.*

Spirometry measures how much air you can inhale and exhale as well as how fast you can blow all of the air out of your lungs.



- ☀ Wear loose clothing which will not restrict your ability to breathe deeply.
- ☀ Avoid large meals prior to your test time which will make it more comfortable for you to breathe deeply.
- ☀ Don't use your inhalers on the day of the test, if possible.

Source: GetAsthmaHelp.org - Adapted from "Understanding PFTs" by the Alpha-1 Association



## ASTHMA COALITION COLUMN



### AIM Homecoming

June 14th, AIM held its second 'Homecoming'. The Homecoming is a day-long conference that brings together members of Michigan's local asthma coalitions, the Michigan Asthma Advisory Committee, AIM work groups and new partners. The purpose of the event is to celebrate the accomplishments of the past years and discuss the future of the initiative.

This year, the AIM Homecoming also hosted a press conference to unveil the new strategic plan, Asthma in Michigan 2010: A Blueprint for Action. AIM's new strategic plan is designed to meet the Healthy People 2010 asthma goals. It outlines the proactive steps that state and local health organizations will take over the next five years to reduce asthma throughout Michigan.

Michigan's asthma stakeholders have given countless hours of their valuable expertise to help revise the strategic plan, participate in work-groups and coalitions, and address asthma within the state of Michigan. "The true strength of AIM comes from its member partners, including 12 local asthma coalitions, the consortium of asthma coalitions, and the Michigan Asthma Advisory Committee and it's work groups," said Karen Meyerson of the Asthma Network of West Michigan. "The AIM Homecoming is a way of acknowledging all of the hard work by our partners."

If you would like to read the new strategic plan, Asthma in Michigan 2010, you can download a copy from [www.GetAsthmaHelp.org](http://www.GetAsthmaHelp.org).

Please direct questions and comments about this newsletter to:

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### SUMMER ASTHMA TIP: Peak Flow

A peak flow meter is a hand held device used to measure how well you can push air out of your lungs. It also helps you check how well your asthma is controlled. Peak flow meters are most helpful for people with moderate or severe asthma.

#### To help you get the most from your peak flow meter reading:

- \* Find your personal best peak flow number. You might have to check your peak flow a few times per day to get the most accurate number.
- \* Share your results with your doctor. Your doctor can use the information to help write an Asthma Action Plan for you.
- \* Use your peak flow meter every morning when you wake up, when you are having asthma symptoms or an asthma episode, and after you take medicine for the attack.
- \* Remember, measuring peak flow is only one step in a program to manage asthma. It is not a substitute for regular medical care.

Measuring your peak flow rate can be a useful part of your personal asthma management plan. If you have questions about your peak flow measurements or what they mean, ask your doctor or certified asthma educator.



### ADVOCACY UPDATE

On June 27th, 2006, U.S. Surgeon General, Richard H. Carmona, issued a scientific report which says that there is no risk-free level of exposure to secondhand smoke. His report, The Health Consequences of Involuntary Exposure to Tobacco Smoke, states that secondhand smoke exposure can cause heart disease and lung cancer in nonsmoking adults and is a known cause of sudden infant death syndrome (SIDS), respiratory problems, ear infections, and asthma attacks in infants and children.

If you would like to read the report and find out what you can do to help protect yourself and your children from the dangers of secondhand smoke, please visit <http://www.surgeongeneral.gov/library/secondhandsmoke/> for the entire report. Also, visit [www.makemiairsmokefree.com](http://www.makemiairsmokefree.com) to find out how to support a Smoke Free Michigan.

### MI ASTHMA CALENDAR

#### July

20, Asthma Education Series

27 Southfield Public Library Auditorium, Southfield, 7 p.m. to 7:30 p.m., free but must pre-register, for more info: 810-230-1470

#### August

7 "Indoor Environmental Asthma Triggers for the Nurse and Respiratory Therapists" Amway Grand Plaza Hotel, Grand Rapids, 8 a.m. to 12 p.m., free but must pre-register, for more info: 972-406-4658

15 Asthma Information Review Course

St. John Macomb Hospital, Warren, 7:45 a.m. to 5 p.m., \$85 for practitioners and \$45 for students, for more info: 734-677-6772

#### September

11 Summit of Michigan Asthma Coalitions

Henry Center, Lansing, 9 a.m. to 3 p.m., free but must pre-register, for more info: 517-484-7206

Visit [www.GetAsthmaHelp.org](http://www.GetAsthmaHelp.org) or call 866-395-8647 for more information about asthma events & trainings in your area.