

THE "INFO"-HALER



TAKE IN THE INFORMATION

An easy to understand, informative newsletter for our patients of all ages from the
Allergy & Asthma Associates of Michigan, P.C.

KNOW YOUR PEAK FLOW!

A peak flow meter is a device designed to measure your breathing capacity at home. It is a small, inexpensive, portable pulmonary function device that measures how fast you can blow air out of your lungs. Asthma patients have trouble blowing air out of their lungs due to air flow obstruction. It is not only difficult for them to blow air out, but it also takes much longer. Most people can blow all their air out in three seconds. At least seventy-five percent of that air is exhaled in the first second. The point of maximum expiration is called the "peak flow." Peak flow meters measure your peak flow rate and give you and your health care providers an objective determination of the degree of airway patency (rather than a subjective description of symptoms). A peak flow meter for an asthma patient would be comparable to a home glucose test for a diabetic in that they both give the patient and the Doctor a number to which they can attach a plan of action.

Peak flow meters are very valuable because they can help assess the severity of your asthma symptoms at any time. They can detect early stages of airway obstruction hours, even days, before you experience chest tightness, wheezing, or coughing. Treatment can be started early to prevent a serious attack. Additionally, peak flow meters can assess your response to current medications and help you determine whether to add, reduce, or stop these medications. Peak flow results can be used as guidelines as to whether or not you should seek emergency care during an asthma attack. Finally, peak flow meters can assist you in identifying situations that make your asthma symptoms worse (i.e. exercise, exposure to allergens, environmental factors, etc.).

Peak flow measurements are easy to obtain. Children as young as four to five years old can be successfully taught to do peak flow readings. To perform a peak flow test you simply:

1. Make sure the indicator meter is set at 0.
2. Stand tall.
3. Take in the deepest breath possible.
4. Seal your lips firmly around the mouthpiece.
5. Blow a hard and fast burst of air into the meter.
6. Read the number next to the indicator on the meter. This is your peak flow rate.
7. Repeat the above process two more times, waiting thirty seconds between each performance.
8. Record the highest of the three readings along with the date and time, in a daily record chart.
(copies available in the office upon your request).

Initially peak flow readings should be obtained twice a day for two weeks, once in the AM and once in the PM, preferably at the same time each day and preferably when your asthma is under good control and you feel good. After this two week collection, find your highest peak flow value. This number will become your "personal best" and will be the number you compare all subsequent peak flow readings to.

There are standardized average peak flow rate charts (copies available in the office upon request) which indicate a predicted value based on a person's height, age, and sex. These results were obtained by sampling a large group of people. Your peak flow rate may vary widely from these norms and therefore it is recommended that you compare your peak flow rate to your own personal best rather than a standardized norm. Remember, accurate peak flow rates

require maximum participation on your part. Peak flow measurements are effort dependant and require your willingness to blow as hard and as fast as you possibly can each time.

Once you have obtained your personal best score, you are ready to devise your own personalized asthma control plan. Through the use of a zoning system, you can determine what actions to take when your peak flow rate changes. The zoning concept is similar to a traffic light. When your peak flow results are 80-100% of your personal best, you have the green light to proceed as normal and no actions are necessary. When your peak flow reading is between 50-80% of your personal best, it is time to move with caution. In this zone you may want to check with your Doctor about starting new medications or changing existing ones to improve your respiratory status. Lastly, if your peak flow rate is below 50% of your personal best, it is a medical alert. In this situation you should take an inhaled bronchodilator immediately, then repeat your peak flow rate. If the rate does not rise to the yellow or green zone, it is time to call your Doctor for advice.

Asthma patients should take an active role in managing their asthma symptoms. All asthma patients, and particularly those with moderate to severe asthma who require frequent or multiple medications to control their asthma symptoms, should have a peak flow meter. Peak flow meters are available at most drug stores and hospital supply companies. They range in price from \$20 to \$40. They are easily cleaned, and can be re-used indefinitely.

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