



## Peak Flow Meters and Management of Asthma

### **What is a Peak Flow Meter?**

A Peak Flow Meter is a simple tool that measures the forced expiration of air from the lungs. Asthma is a problem that affects the rate which air can be breathed through the airways in your lungs. The openness of the airways determines how well you can breathe. By measuring this airflow with a Peak Flow Meter, the openness of the airways and the degree to which the patient's breathing is impaired can be estimated and a response is planned accordingly.

The openness of the airways is affected by asthma in the following ways:

- \* constriction of the muscles which wrap around the airways
- \* inflammation of the lining of the airways
- \* swelling of tissue around the airways
- \* mucus plugging

Most people think that asthma "attacks" rapidly; however, many studies have shown that most asthma occurs gradually. Sometimes its onset is so subtle, the sufferer cannot perceive the changes in breathing until the symptoms are well advanced. That is where the Peak Flow Meter is so useful.

The Peak Flow Meter can detect changes in the airways at very early stages, offering people with asthma the opportunity to halt the progression of the attack before it interferes with their activities.

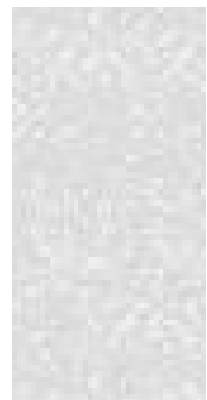
The Peak Flow Meter is the most dependable, objective means of monitoring asthma at home, work, or school. It measures the openness of the airways by defining the amount of air that can be blown out of the lungs in a fast blast. This objective measurement can then be used to establish a plan for resolving the current asthma crisis and to prevent the next one from happening. Your doctor can provide this plan for you.

The Peak Flow Meter removes much of the guesswork from asthma management. Parents who once struggled with decisions, such as when to administer medications, when to keep a child home from school, and when to take a child to the doctor, find they are able to make these decisions more easily based on objective data provided by the Meter.

Routine use of the Peak Flow Meter allows the patient to detect the earliest stages of airway obstruction and to take measures to reverse the obstruction before it becomes too serious. It gives the asthma patient a way to objectively evaluate his own condition, providing a basis for improved communication between doctor and patient.

Parents of children with asthma can use the Peak Flow Meter to demonstrate need for medication. This is particularly helpful when children are reluctant to comply with parental observations that medications are needed. Seeing improvements in the Meter readings, once the child takes his medication, will enhance compliance and make him realize the benefits of an asthma medication plan.

Also, the Peak Flow Meter can reinforce to the child, who is fearful of having an asthma episode while exercising, that, if the Meter readings are normal and medication is taken before exercising as prescribed by the physician, who **should** be able to participate as fully in physical activities as he would if he did not have asthma.



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### **Using the Peak Flow Meter**

The Peak Flow Meter is easy to use. Children as young as four years of age can master it. The patient needs to sit up or stand, take a deep breath, put the mouthpiece into the mouth, and **blow as hard and as quickly** as possible. The idea is to produce a "fast blast" rather than slow expulsion of air. The force of expiration causes the indicator to move up along the Peak Flow scale. The entire routine should be repeated two more times. After recording the highest of the three readings, the process is complete. The whole procedure takes less than one minute.

Some people prefer to record their peak flow readings in a table format while others find they are better able to visualize peak flow trends by plotting them on a graph. Either method is useful, and both are available with the **mini**-WRIGHT Peak Flow Meter. The important thing is to keep a record and discuss peak flow trends with your doctor.

### **A Successful Management Plan**

Prevention is the best strategy for asthma management. The Peak Flow Meter provides you with early indications that an episode is approaching. Students have shown that an impending asthma attack can compromise the lung's ability to move air effectively hours or even days in advance of the episode. Peak flow readings will drop long before the earliest outward physical symptoms are obvious.

Once an asthma management plan is established, many faithful Peak Flow Meter users rarely experience trouble with their asthma because they can ward off episodes before they develop into serious problems. This means they can live more comfortably, confidently, knowing they are in control and can lead a healthy, active life.

### **Does this mean you will use more medication more often?**

The answer is no. In fact, in many cases, less medication will be needed. Most asthma episodes, which are halted in the early stages, can be reversed with a minimum amount of intervention. It is when we wait too long before responding that more medications are needed.

### **Consult Your Physician**

Good care begins with a cooperative effort to communicate between the patient and physician. A doctor who understands Peak Flow monitoring and knows how to teach patients to use it will be the best guide to good asthma management. Peak Flow monitoring at home will help you and your doctor better determine the fluctuating severity of asthma. In this way, asthma medications can be custom tailored to deal with your individual needs.

