

Asthma is a chronic, remitting and relapsing airway disease commonly inflicting both adults and children alike. Airways in asthma patients are very sensitive to environmental irritants, such as tobacco smoke, dust mites, pet dander, and even cold air. When triggered by these unfriendly irritants, the fragile small airways in asthma patients can become inflamed and narrow, which manifest as wheezing, coughing, chest tightness, or as severe as respiratory failure. Currently, there is no cure for asthma. However, the symptoms of asthma may be prevented or managed very effectively if there is a consistent management strategy or “action plan.” This strategy relies heavily on patient’s strict compliance to medication regimen, trigger awareness as well as symptom awareness.

What is asthma action plan?

Asthma action plan is a written worksheet that shows you the steps to take at home based on the severity of your asthma symptoms. It tells you the followings:

1. What medication to take at home every day;
2. What medication to take if you symptom gets worse;
3. When to seek urgent care or call the ambulance.

Simply put, it is an algorithm which tells you step-by-step when and what medications to take based on your symptoms. It is an individualized self-management guide that is written in simple words and easy to use. The action plan describes how to control asthma in the long term and how to handle worsening asthma symptoms, or attacks. Learning to “feel” the early warnings of a pending asthma attack is very important and is not as easy as it seems, especially when anxiety may become a confounding factor. Fortunately, we have a device called “peak flow meter” that enables you to recognize early warning symptoms in a relatively objective manner. Immediate action may be taken based on the severity, such as taking extra doses of quick-acting medications or seeking urgent care, to abort a devastating asthma attack.

What is “peak flow meter” and how to use it?

Peak flow meter for asthma is analogous to thermometer for fever. By blowing hard into a mouthpiece, you will get a reading on the meter, which measures your ability to exhale air out of your lungs, as known as peak expiratory flow rate (PEFR). In a pending asthma attack or during an attack, this flow rate decreases due to narrowing of the small airways, depending on the severity. Thus, this can be used to measure the severity of your asthma, your response to treatment and to detect an impending asthma attack even before you develop any symptoms. By comparing the numbers with your ‘personal best’ reading in the past 2-3 weeks, your allergist will know how well your asthma is controlled, and adjust the treatment accordingly. The following traffic light system in Asthma Action Plan serves as an easy guide to interpret the readings.



Peak flow meter: A portable device used to measure how fast you can blow air out of the lungs. To get a reading, you simply inhale fully and blow as fast and hard as you can through the mouthpiece. This process should be repeated three times and your best reading should be recorded. You should keep a chart of these readings and bring it to your allergist.

How are asthma action plans designed?

For convenience, asthma action plans are often broken down into three zones: green, yellow and red. It will give you instruction on how to handle each situation in each zone. For example:

1) Green zone: You are symptom-free. PEFR is 80-100% of your personal best. You should continue to take your controller medications.

2) Yellow zone: You are experiencing mild to moderate asthma symptoms. PEFR is 50-80% of your personal best. You should follow the steps on the action plan to use quick-relief medications.

3) Red zone: You are experiencing severe asthma symptoms or an asthma flare-up. PEFR is below 50% of your personal best. Urgent medical care is needed if your symptoms do not improve.

Who needs asthma action plan?

Every individual with asthma should have an asthma action plan, especially if asthma symptoms are frequent and severe that require prior ER visits or hospitalizations. Your doctor will discuss with you about the medication regimen, treatment goal, how to use the action plan to reach your goal, and make an individualized plan that works best for you. If your child has asthma that needs closer home monitoring and better symptom control, then the Asthma Action Plan is a must for you to follow. All child caregivers (for example, babysitters, daycare center workers, etc.) should know about every child's asthma action plan. During follow-up visits, your doctor will go over the action plan with you and may refine the plan if any part of it is confusing or unhelpful.

Find a template of asthma action plan and more information from the link below:

<http://www.nhlbi.nih.gov/health/resources/lung/asthma-action-plan>

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