



Pediatric Clinic
ASTHMA EDUCATION HANDOUTS

How to Use a Peak Flow Meter

A peak flow meter is a device that measures how well air moves out of your lungs. During an asthma episode the airways of the lungs begin to narrow slowly. The peak flow meter can be used to find out if there is narrowing of the airway hours--even days--before you have any symptoms of asthma. By taking your medicine early (before symptoms), you may be able to stop the episode quickly and avoid a serious asthma attack. Peak flow meters are used to check your asthma the way that blood pressure cuffs are used to check high blood pressure.

The peak flow meter can also be used to help you and your physician:

- Decide if your asthma management plan is working well.
- Decide when to add or stop taking medication.
- Decide when to seek emergency care.
- Identify triggers--that is, what causes your asthma symptoms to worsen.
- Discuss your asthma more knowledgeably.

Who Should Have a Peak Flow Meter

- Patients aged 5 and older who have moderate or severe persistent asthma are usually advised by their physician to use a peak flow meter. Some children as young as age 3 can also use it. Ask your physician to show you how to use a peak flow meter.
- Everyone with asthma should have a peak flow meter, know how to use it, and know their personal best. Most people with persistent asthma should use the peak flow meter daily.

How to Use a Peak Flow Meter

1. Place the indicator at the base of the numbered scale.
2. Stand up.
3. Take a deep breath.
4. Place the meter in your mouth and close your lips around the mouthpiece. Do not put your tongue inside the hole.
5. Blow out as hard and fast as you can.
6. Write down the number you get.

Repeat steps 1 through 6 two more times. Write down the highest of the three numbers achieved.

Find Your Personal Best Peak Flow Number

Your *personal best* peak flow number is the highest peak flow number you can achieve over a 2-week period when your asthma is under good control. Good control is when you feel good and do not have any asthma symptoms.

Each patient's asthma is different and your best peak flow may be higher than the average *usual* number for someone of your height, weight, and sex. This means that it is important for you to find your own personal best peak flow number. Your own asthma management plan needs to be based on your own personal best peak flow number.

To find out your personal best peak flow number, take peak flow readings and record them in your weekly symptoms and peak flow diary:

- Every day for 2 weeks

- Mornings and evenings (when you wake up and about 10 to 12 hours later)
- Before and 15 minutes after taking inhaled beta agonist, such as Albuterol or Proventil (*if* you take this medication)
- As instructed by your physician
- Your physician may want to give you a short course of oral steroid medication to determine your personal best.

The Peak Flow Zone System

Once you know your personal best peak flow number, your physician will give you the numbers that tell you what to do. The peak flow numbers are put into zones that are set up like a traffic light. This will help you know what to do when your peak flow number changes. For example:

Green Zone (usually 80% to 100% of your personal best number) signals **all clear**. No asthma symptoms are present, and you may take your medications as usual.

Yellow Zone (usually 60% to 80% percent of your personal best) signals **caution**. You may be having an episode of asthma that requires an increase in your medications. Or your overall asthma may not be under control, and the physician may need to change your asthma management plan.

Red Zone (usually below 60% of your personal best number) signals a **medical alert**. You must take an inhaled beta agonist right away and call your physician immediately if your peak flow number does not return to the Yellow or Green Zone and stay in that zone.

Record your personal best peak flow number and peak flow zones in your **Weekly Asthma Symptom and Peak Flow Diary**.

Use the diary to keep track of your peak flow rate.

Write down your peak flow number on the diary every day, or as instructed by your physician.

Discuss with your physician what to do when peak flow numbers change.

Don't Forget:

- A decrease in peak flow of 20% to 30% percent of your personal best may mean the start of an asthma episode.
- When this happens:
 - Follow your asthma action plan for treating an asthma episode.
- Peak flows are effort dependent that means if a person does not try his or her best, the peak flow readings may not be reliable. This is especially important in children.