

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 in the airways 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 episode of asthma. 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 also can be used to help you and your doctor:

- Decide if your medicine plan is working well.
- Decide when to add or stop medicine.
- Decide when to seek emergency care.
- Identify triggers – that is, what causes your asthma symptoms to increase.
- Talk about your asthma with more knowledge.

All patients age 5 and older who have moderate or severe asthma should think about using a peak flow meter. Some children as young as age 3 also can use it. There are many different types of peak flow meters, but they all are used for the same purpose. Ask your doctor or nurse to show you how to use a peak flow meter.

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.
7. Repeat steps 1 through 6 two more times.
8. Record the highest of the three numbers achieved in your diary.

Find Your Personal Best Peak Flow Number

Your personal best peak flow number is the highest peak flow number you can achieve over a 2-3 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 number may be higher or lower 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 medicine 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:

- As instructed by your doctor
- Every day for 2 weeks
- Mornings and evenings (when you wake up and about 10-12 hours later)
- Before and after taking inhaled beta₂-agonist (if you take this medicine)

The Peak Flow Zone System

Once you know your personal best peak flow number, your doctor 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. The three zones are:

Green Zone (above 80 percent of your personal best number) signals all clear. No asthma symptoms are present, and you may take your medications as usual.

Yellow Zone (50 percent to 80 percent of your personal best number) signals caution. You may be having an episode of asthma that requires an increase in your medicines. Or, your overall asthma may not be under control, and the doctor may need to change your medicine plan.

Red Zone (below 50 percent of your personal best number) signals a medical alert. You must take an inhaled beta₂-agonist right away and call your doctor immediately if your peak flow number does not return to the Yellow or Green Zone and stay in that zone.

Use the Diary to Keep Track of Your Peak Flow

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

Discuss with Your Doctor What to Do When Peak Flow Numbers Change

The most important thing about peak flow is how much it changes from your personal best number and from one reading to another.

DON'T FORGET:

- A decrease in peak flow of 20 percent to 30 percent of your personal best may mean the start of an asthma episode.
- When this happens: Follow your asthma control plan for treating an asthma episode.

GREEN ZONE	YELLOW ZONE	RED ZONE
<p>All clear. (This is where you should be every day.)</p> <p>Peak expiratory flow above: _____ (Above 80% of personal best)</p> <ul style="list-style-type: none"> • No signs of asthma • Able to do normal activities • No problems while sleeping <p>If you are in the GREEN ZONE: Do your peak flow and record every day Take these medicines every day:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p>Caution! Be careful! (You have signs of asthma. Take action to get your asthma under control.)</p> <p>Peak expiratory flow: _____ (50%-80% of best)</p> <p>Early signs of asthma:</p> <ul style="list-style-type: none"> • Coughing • Wheezing • Tightness of chest • Unable to do normal activities • Cold symptoms • Unable to sleep • Shortness of breath <p>If you are in the YELLOW ZONE, take these actions to get your asthma under control:</p> <p>First, rest and take your rescue medicine(s); repeat your peak flow 15 minutes after each inhaled bronchodilator dose:</p> <p>Rescue medicine(s): _____</p> <p>_____</p> <p>Next, if you are not having any signs of asthma and your peak flow is in the GREEN ZONE, keep taking your GREEN ZONE medicines, as ordered by your doctor.</p> <p>If your signs of asthma return, you may use your inhaled bronchodilator up to every 4 hours, as needed.</p> <p>Call your doctor if:</p> <ul style="list-style-type: none"> • After the first hour you still have signs of asthma, or your peak flow is still in the YELLOW ZONE • You continue to need inhaled bronchodilator more often than every 4 hours • You need inhaled bronchodilator every 4 hours for more than 24 hours 	<p>DANGER! This is an emergency! You need help!</p> <p>Peak expiratory flow below: _____ (below 50% of best)</p> <p>Danger signs of asthma:</p> <ul style="list-style-type: none"> • Very hard time breathing • Trouble talking or walking • Constant coughing • Use of neck and stomach muscles to breathe • Ribs show when breathing • Breathing medicines don't help • Lips or nails turn blue <p>YOU MUST SEE A DOCTOR!!</p> <p>If you are in the RED ZONE, this is an EMERGENCY and you should take these actions:</p> <p>First – take your rescue medicine(s).</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>Next – repeat your peak flow in 5 minutes.</p> <p>If peak flow is over _____ and you feel better, you are now in the YELLOW ZONE. Call the doctor and ask what to do.</p> <p>If you are unable to blow your peak flow, or if your peak flow is less than _____, or you are still having late signs of asthma, you are still in the RED ZONE. GO TO THE NEAREST EMERGENCY ROOM, OR CALL 911.</p>