

FIGURE 3-1 1. HOW TO USE YOUR 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 usually begin to narrow slowly. The peak flow meter may tell you if there is narrowing in the airways hours—sometimes even days—before you have any asthma symptoms.

By taking your medicine(s) early (before symptoms), you may be able to stop the episode quickly and avoid a severe asthma episode. 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:

- Learn what makes your asthma worse.
- Decide if your treatment plan is working well.
- Decide when to add or stop medicine.
- Decide when to seek emergency care.

A peak flow meter is most helpful for patients who must take asthma medicine daily. Patients age 5 and older are usually able to use a peak flow meter. Ask your doctor or nurse to show you how to use a peak flow meter.

How To Use Your Peak Flow Meter

- Do the following five steps with your peak flow meter:
 1. Move the indicator to the bottom of the numbered scale.
 2. Stand up.
 3. Take a deep breath, filling your lungs completely.

4. Place the mouthpiece in your mouth and close your lips around it. Do not put your tongue inside the hole.

5. Blow out as hard and fast as you can in a single blow.

- Write down the number you get. But if you cough or make a mistake, don't write down the number. Do it over again.
- Repeat steps 1 through 5 two more times, and write down the best of the three blows in your asthma 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-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 or lower than the peak flow of someone of your same height, weight, and sex. This means that it is important for you to find your own personal best peak flow number. Your treatment 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:

- At least twice a day for 2 to 3 weeks.
- When you wake up and in late afternoon or early evening.
- 15–20 minutes after you take your inhaled short-acting beta₂-agonist for quick relief.
- As instructed by your doctor.

**FIGURE 3-11. HOW TO USE YOUR PEAK FLOW METER
(CONTINUED)****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. For example:

Green Zone (more than ___ L/min [80 percent of your personal best number]) signals good control. No asthma symptoms are present. Take your medicines as usual.

Yellow Zone (between ___ L/min and ___ L/min [50 to less than 80 percent of your personal best number]) signals caution. If you remain in the yellow zone after several measures of peak flow, take an inhaled short-acting beta₂-agonist. If you continue to register peak flow readings in the yellow zone, your asthma may not be under good control. Ask your doctor if you need to change or increase your daily medicines.

Red Zone (below ___ L/min [less than 50 percent of your personal best number]) signals a medical alert. You must take an inhaled short-acting beta₂-agonist (quick-relief medicine) right away. Call your doctor or emergency room and ask what to do, or go directly to the hospital emergency room.

Record your personal best peak flow number and peak flow zones in your asthma diary.

Use the Diary To Keep Track of Your Peak Flow

Measure your peak flow when you wake up, *before* taking medicine. Write down your peak flow number in the diary every day, or as instructed by your doctor.

Actions To Take When Peak Flow Numbers Change

- PEF goes between ___ L/min and ___ L/min (50 to less than 80 percent of personal best, yellow zone).

ACTION: Take an inhaled short-acting beta₂-agonist (quick-relief medicine) as prescribed by your doctor.

- PEF increases 20 percent or more when measured before and after taking an inhaled short-acting beta₂-agonist (quick-relief medicine).

ACTION: Talk to your doctor about adding more medicine to control your asthma better (for example, an anti-inflammatory medication).

Source: Adapted from *Expert Panel Report 2: Guidelines for the Diagnosis and Management of Asthma*. National Asthma Education and Prevention Program, National Heart, Lung, and Blood Institute, 1997.