

What is a peak flow meter?

A peak flow meter is a portable, easy to use, device that measures how well air moves out of the lungs. By blowing hard through a mouthpiece on one end, the peak flow meter measures the force of air in liters per minute. It gives a result on a numbered scale. Regular use can help track asthma control.

A peak flow meter can find airway narrowing even before any symptoms are felt. This allows time to adjust medicine before symptoms get worse. A peak flow meter is useful for adults and children over age 5.

The peak flow meter measures day to day changes in breathing. It can help:

- Track asthma control over time.
- Show how well a treatment plan is working.
- Recognize signs of a flare before symptoms appear.
- Know when steps should be taken to treat a flare.
- Decide when to call the doctor or get emergency care.

When to use a peak flow meter?

1. Use it to find the best peak flow rate. The personal best peak flow is the highest peak flow rate reached in a 2 week period. It is done when asthma is under good control and may be different than the predicted peak flow rate. It could be higher or lower. A predicted rate is the normal or average rate based on a person's size and age.
2. Do it once a day so the peak flow rates can be compared. When first using the peak flow meter use it at the same time every day. The best time to check a peak flow is first thing in the morning and before bed in the evening. Always check the peak flow before using the daily (controller) inhaler.
3. If a rescue inhaler, albuterol or Xopenex, is taken, take a reading before the inhaler is used. Check for a response to the medicine by taking another peak flow reading 15-20 minutes after using the inhaler.
4. Use as taught by the clinic staff. If asthma is well controlled, a peak flow reading may be checked every few days. If asthma is not well-controlled, peak flow readings may need to be measured more than one time a day.
5. Other times to check a peak flow reading include:
 - Asthma symptoms causing awakening at night.
 - Increased asthma symptoms during the day.
 - A cold, flu or other illness is affecting breathing.



Track peak flow readings in an asthma diary and bring the diary to all clinic visits. At the next visit, the provider can use the personal best to set the peak flow zones. A colored coded system is used based on symptoms and the peak flow readings.

How to use a peak flow meter?

1. Move the marker to the bottom of the numbered scale and connect the mouthpiece if it is not already connected.
2. Stand up.
3. Take a deep breath filling the lungs completely.
4. Place the lips tightly around the mouthpiece.



5. Blow as hard and as fast as you can with a single breath.
6. The arrow or indicator will move up the peak flow meter scale. Note the final spot of the marker. This is the peak flow rate.
7. Repeat steps #2 through #6 two more times. Record the highest number of the three.

To get correct readings, make sure the peak flow meter is used properly.

Ask any questions about using a peak flow meter when at a clinic visit. The way to use the peak flow meter can also be reviewed.

Keep the peak flow meter clean by following the manufacturer's directions. Most peak flow meters require weekly cleaning with warm water and a mild detergent.

If peak flow numbers change

- Let the provider know when peak flow readings change
- The most important thing about peak flow readings is how much the personal best number changes from one reading to another
- A decrease in peak flow of 20-30% of the personal best peak flow may mean the start of an asthma attack. Follow the Asthma Management Plan if this happens.

ALERT: Call the doctor, nurse, or clinic if there are any questions or concerns, including:

- A personal best peak flow rate that falls in the red zone.
- Symptoms of an asthma attack.
- Special health care needs that were not covered by this information.

This sheet was created to help you care for your child or family member. It does not take the place of medical care. Talk with your healthcare provider for diagnosis, treatment and follow-up.