



Education

Peak Flow Meter: How to Monitor Asthma Teen Version

What is a peak flow meter?

A peak flow meter is a small hand-held device that measures how well air moves out of your lungs--that is, how well you are breathing. Peak flow readings will tell you if your asthma is in good control, if you need to take medicine, or if you need to get help right away.

The peak flow meter has a sliding marker that moves as air is quickly blown into the device. The marker stops at a place on a numbered scale that measures the fastest speed air was breathed out. The numbered scale usually ranges from 0 to 750. There are several different types of peak flow meters, so for accurate readings, it is very important to follow the instructions carefully.

When should I use a peak flow meter?

The first thing you will need to do is to figure out your "personal best" peak flow reading. This is done by taking peak flow measurements twice a day for a couple of weeks when you are both feeling well and your asthma is under good control. The personal best reading will help you and your health care provider have a measure to judge all your future peak flow measurements by. You should update your personal best reading every year or when you get a new meter.

Your health care provider may recommend that you keep a daily record of the peak flow readings or suggest that you take readings 2 or 3 times a week. Use a chart to record your peak flow readings along with the date and time of day you measured your peak flow. Also record if you used a rescue inhaler.

- **Daily use:** If you need to record your peak flow every day, the first reading should be a morning reading (before taking any medicine). If the reading is less than 80% of the personal best, take your quick-relief medicine, then wait 15 minutes and measure your peak flow again. If your peak flow readings in the morning are low, another reading should be done in the early afternoon. Your provider may recommend that you also take another reading in the evening before taking your medicine.
- **Weekly use:** If you need to take peak flow readings just a 2 or 3 times a week, take a reading in the morning and again in the evening each day that you take a measurement. If you are using an inhaler, make sure you take consistent readings. That is, both the morning and evening readings should be done before using the inhaler, or both readings should be done after using the inhaler. If there is more than a 20% variation between the morning and afternoon readings, talk to your health care provider about how to manage your asthma better.

You should also take a peak flow reading when an asthma attack occurs. You should take a reading both before and after using your quick-relief medicine to check how well the medicine is working.

What do the peak flow numbers mean?

Because everyone has a different lung capacity, everyone has a different "personal best" peak flow reading. Your health care provider will give you guidelines to follow based on your personal best reading. In general, if you have a peak flow that is 80% (or better) of your personal best, it means that your asthma is under control. A number between 50% and 80% of the personal best means that you need to take a quick-relief medicine. Lower than 50% means that you are having serious asthma symptoms and need to take your quick relief medicine immediately and seek additional help from your health care provider.

How is the peak flow meter used?

Each brand of peak flow meter works a little differently. Ask your provider for instructions and carefully read and follow the instructions included with your meter.

General instructions are:

1. Place the mouthpiece on the peak flow meter. (Some meters have different sizes of mouthpieces for younger and older children and some do not have mouthpieces at all.)
2. Place the marker at the bottom of the numbered scale (zero or the lowest number on the scale).
3. Hold the peak flow meter upright, being careful that your fingers do not block the opening.
4. Stand up straight and take the biggest, deepest breath you can with your mouth open. Hold the meter in one hand and keep your fingers away from the numbers. Quickly place the mouthpiece into your mouth beyond your teeth and make a tight seal around the mouthpiece with your lips. Make sure that your tongue does not block the opening of the mouthpiece.
5. Blow out as hard and fast as you can. If you cough or make a mistake, do not record the number. Do it over again.
6. Remove the meter tube from your mouth. The marker will have moved up the numbered scale. Do not touch the marker. Find the number where the marker stopped. Write down the number on a chart. If you coughed or made a mistake, do not record the number. Do it over again.
7. Repeat the whole procedure 2 more times. Write down each number and circle the highest reading from the three tries. Record the date and time of day with this number.

When and how should my peak flow meter be cleaned?

The mouthpiece of the meter should be cleaned weekly with warm, soapy water. Rinse and dry well.

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The form is titled "Asthma Medicine Action Plan" and includes a "Peak Flow Record" section on the left. The record section consists of a grid with columns for "Date", "Time", and "Peak Flow". The grid is divided into three horizontal sections corresponding to the Green, Yellow, and Red zones. To the right of the grid, there are three sections for each zone, each with a traffic light icon and specific instructions:

- Green Zone:** Includes instructions like "Continue to take your asthma medicine as prescribed" and "Take the quick-relief medicine every day".
- Yellow Zone:** Includes instructions like "Continue to take your asthma medicine as prescribed" and "Take the quick-relief medicine".
- Red Zone:** Includes instructions like "Call your health care provider immediately" and "Call 911 if asthma symptoms are severe or if you are in danger".

At the top right, there are fields for "Name", "Date", and "Personal Best Peak Flow".