

Using the Zone System

What is a peak flow meter?

A peak flow meter is a hand-held device that measures how much air your child can quickly blow out of his/her lungs. Performing peak flow monitoring requires technical skill. Most children are coordinated enough to perform accurate peak flow readings by 5-6 years of age.

What is the zone system?

The zone system is an easy way to check if your child's asthma is in good control, if your child needs to take medicine or if you need to get help right away. The peak flow meter can be marked with three colored zones (green, yellow, and red). The zones are different for each person and are based on your child's personal best peak flow reading. Your child's personal best is determined by checking and recording the peak flow twice a day for 2 weeks while your child is healthy. Your healthcare provider will help you figure out the right number range for each zone. Many peak flow meters come with a sticker to mark the zones. You should update your child's personal best reading every 6 months or when he/she gets a new peak flow meter.

What do the zones mean?

The colored zones on the peak flow meter are modeled after the traffic light.

GREEN means **good control**, YELLOW means **caution** and RED means **danger**.

What is the Green Zone and what should you do if your child is within it?

If your child's reading is in the green zone (80 to 100% of his/her personal best), it means your child's asthma is under control and your child is not having asthma symptoms.

Your child should:

- ✓ Continue to take his/her preventive medicine as prescribed and
- ✓ Continue with everyday activities (school, play, sports).

If your child has stayed in the green zone for at least 3 months, talk to your healthcare provider about possibly reducing your child's medicines.

What is the Yellow Zone and what should you do if your child is within it?

If your child's reading is in the yellow zone (50% to 80% of his/her personal best), it means your child is probably having asthma symptoms or may soon be having symptoms (an asthma attack). Your child may be having difficulty with normal activities or having symptoms at night.

Your child should:

- ✓ Take his/her quick-relief (rescue) medicine as prescribed and
- ✓ Take note of anything that may have caused the asthma to get worse (for example, forgetting to take medicine or being exposed to a trigger).

If your child is often in the yellow zone, it means his/her asthma is not under good control. Talk to your healthcare provider about adjusting your child's medicine.

What is the Red Zone and what should you do if your child is within it?

If your child's reading is in the red zone (less than 50% of his/her personal best), it means your child's asthma is seriously out of control. He/she is probably having serious asthma symptoms such as extreme shortness of breath (even at rest), chest tightness, wheezing, and trouble talking.

You should:

- ✓ Give your child his/her quick-relief medicine as prescribed. Check with your healthcare provider about how long you should wait to seek help if the quick-relief medicine does not return your child to the yellow or green zones.
 - ✓ Call 911 if your child is having significant difficulty breathing or talking. Seek medical advice (call your healthcare provider or go to the emergency room).
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When should my child use a peak flow meter?

Your healthcare provider will recommend how often to check your child's peak flow values based upon the severity of your child's asthma and how rapidly your child develops asthma related symptoms. Some children benefit from checking daily peak flows. Others need only to check them when exposed to a trigger or when experiencing asthma related symptoms.

- ✓ **Symptom use:** You should also measure your child's peak flow readings during an asthma attack and both before and after using a quick relief medicine to check how well the medicine is working.
 - ✓ **Daily use:** If your child needs to record his/her peak flow readings every day, the first should be a morning reading (before taking any medicine). If the reading is less than 80% of the personal best, have your child take his/her quick-relief medicine, then wait 10 minutes and test again. Take a peak flow reading in the early afternoon if your child's morning peak flow reading is less than 80% of his personal best. Your healthcare provider may recommend taking another measurement before taking medicines in the evening.
 - ✓ **Weekly use:** If your child needs to take peak flow readings a few times a week, take one in the morning and again in the evening each day that you take a measurement. Measure the peak flow before taking inhaled medicine. If a quick relief (bronchodilator) medicine is used, repeat the peak flow after 15 minutes and record any change. If there is more than a 20% variation between the morning and afternoon readings, talk to your healthcare provider about how to better manage your child's asthma.
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When and how should the peak flow meter be cleaned?

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

Where should I record my child's peak flow values?

Your child's peak flow values should be recorded in an asthma diary. An asthma diary is a record that helps you keep track of your child's asthma symptoms, how often your child is using medicines, peak flow values and contact with triggers.