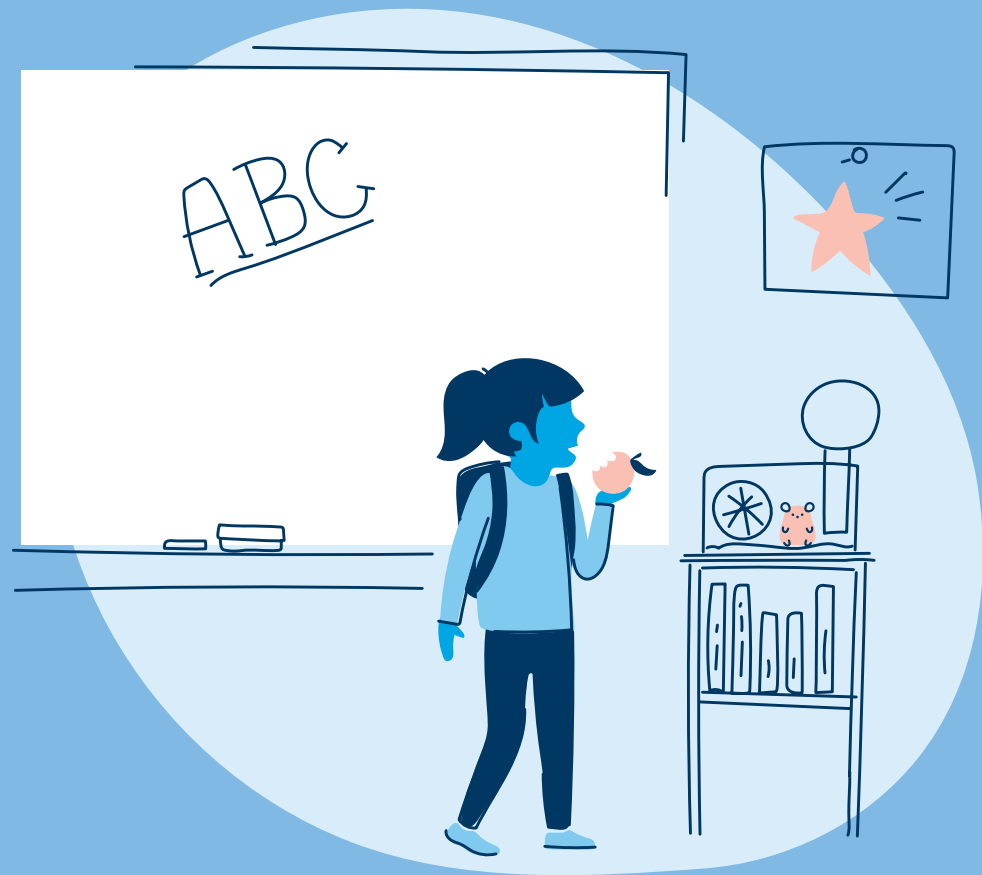


# Understanding and Managing Asthma

A complete guide for parents and guardians.





# Helping your child to breathe easy.

Asthma is one of the most common chronic disorders in children and teens. Although it doesn't go away, the good news is that it's manageable. That's where Highmark comes in. We'll teach you all about how to manage your child's asthma. Plus, we'll give you a list of resources you can turn to if you need a little extra help.

**All right — let's get started.**

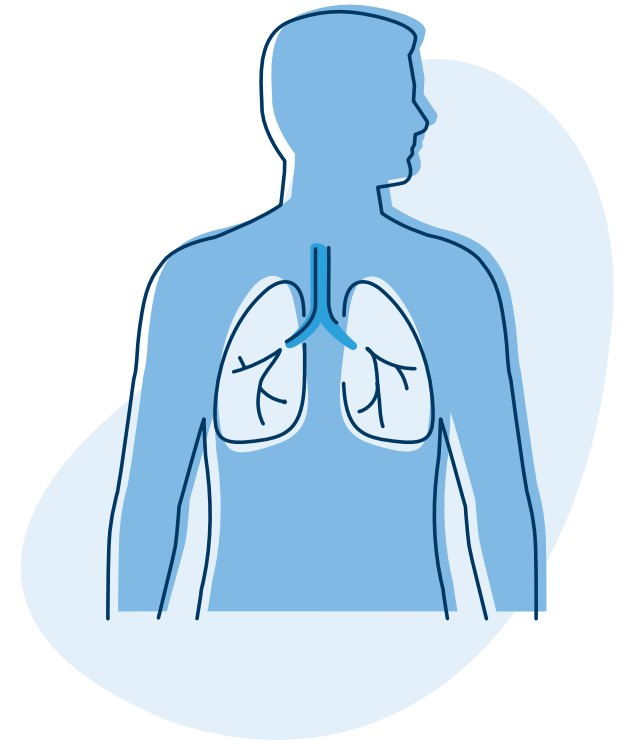
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# What is asthma?

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## **Asthma is a chronic (long-term) lung disease.**

It affects the airways, or the tubes that carry air in and out of your lungs. When your child has asthma, their airways can become tight, swollen, and narrowed, making it difficult to breathe.



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# Schedule regular doctor's visits.

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The best way to prevent severe attacks is to identify and treat asthma symptoms early. That's why it's important for you to take your child to see their doctor at least twice a year.

## Ask about a pulmonary function test.

At your next doctor's visit, you may want to discuss whether your child needs to have a pulmonary function test. This test determines:

- How much air your child's lungs can hold.
- How quickly your child moves air in and out of their lungs.
- How well your child's lungs exchange oxygen and carbon dioxide.
- How well your child's asthma medication is working.

Good asthma management includes avoiding triggers, recognizing the warning signs, using medications correctly, and developing an Asthma Action Plan.

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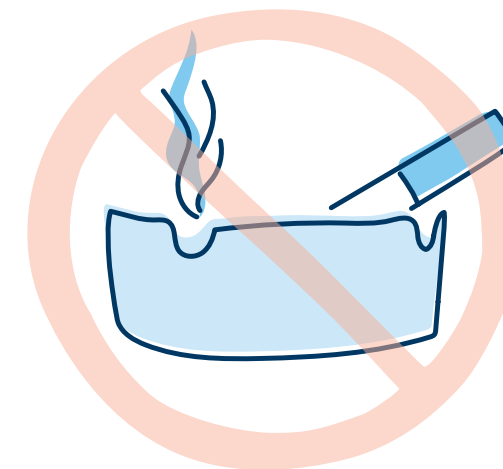
# Identifying your child's asthma triggers.

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Asthma can be triggered by certain allergens, illnesses, and environmental factors.

**Some of the most common asthma triggers include:**

- Allergens like pet dander, pollen, mold, dust, cockroach droppings, insect bites or stings, and certain foods, food additives, and medicines.
- Smoke or odors from cigarettes, burning wood, coal, gas, and diesel exhaust.
- Cold or dry air and days when air pollution is predicted to reach an unhealthy level.
- Strong fumes from things like perfumes, air fresheners or sprays, pesticides, cleaning products, and paints.
- Aerosol sprays.
- Colds, flu, sinusitis, and acid reflux disease.
- Exercise, anxiety, and stress.



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# Prevention is the best medicine.

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Here are some ways **you** can reduce asthma triggers in your child's environment:

- **Quit smoking** or smoke outside away from your child, and do not use wood fireplaces or burners in the house.
- **Wipe surfaces and sweep floors often** in the kitchen, bathroom, and child's bedroom and play areas, and choose flooring that's not carpeted.
- **Minimize mold and mildew** by closing windows, use air conditioners, set dehumidifiers between 35–50%, and maintain heating and cooling systems.
- **Eliminate sources of strong odors** like cleaners, perfumes, and other heavily scented products.
- **Avoid furry and feathered pets** and consider other types of pets, such as low-shed or shed-free dog breeds, hairless cats, or fish.
- **Stay inside** or avoid exercising outside on cold days.
- **Fix leaky pipes or pooling water** in your basement and clean up any mold with bleach.

Additional measures **your child** can take include:

- **Bathe before bedtime** to wash pollen off their skin and hair.
- **Use anti-allergy pillows**, pillow covers, and mattress cases and wash bedding weekly in hot water.
- **Place clothing worn during the day in a hamper** outside of the bedroom.
- **Take an asthma treatment before exercise** to prevent exercise-induced breathing problems.
- **Warm up before exercising** by walking for five minutes.
- **Wear a scarf over their mouth** when the weather is cold to prevent cold weather-induced asthma attacks.
- **Get an annual flu and pneumonia vaccine.**
- **Use a high-efficiency particulate air (HEPA) vacuum cleaner** in the home.

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# Recognizing the warning signs.

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You should call your child's doctor to learn how to control these symptoms before they become serious. The doctor can work with you and your child to determine the best tools needed to manage their asthma.

- Episodes of coughing or wheezing
- Frequent throat clearing
- Difficulty taking a deep breath
- Restlessness during sleep
- Waking up unable to breathe
- Allergies
- Cold symptoms more than three months a year
- Missing school because of coughing or wheezing
- Wheezing or difficulty breathing when exercising
- Using inhalers more than twice a week for flare-ups

## Call 911 or go immediately to the emergency room if your child:

- Is unable to speak full sentences due to shortness of breath.
- Has blue- or gray-tinged lips or nails.
- Has strained neck and chest muscles with labored breathing.
- Is breathing or panting rapidly.
- Is extremely short of breath.
- Is unable to walk, listless and confused, or lacks energy.

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# Managing your child's medications.

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It's important to learn about the different medication that can help control their asthma. Here are some of the medications your child might take and what they do:

- **Long-term controller medications** – taken daily to prevent asthma attacks (e.g., Singulair, Flovent).
- **Rescue medications** – taken as needed for quick relief from asthma attacks (e.g., Albuterol, Levalbuterol).
- **Inhalers** – used to breathe medications by mouth and can treat both long-term and sudden asthma symptoms.
- **Nebulizers** – used to change medication to a vapor or a mist and can be taken three or four times a day as needed.

Make sure your child uses their medications exactly as prescribed, and talk to their doctor if you have any questions or concerns.

## Using a peak flow meter

A peak flow meter is a portable, easy-to-use tool that:

- Measures how much air your child can exhale.
- Shows whether your child's airways are narrowed.
- Warns of airway changes before symptoms occur, so your child can prevent an attack.
- Helps determine what asthma medication is best for your child.



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# Have an Asthma Action Plan.

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My name	Doctor's name	Doctor's phone	Emergency contact

Controller medicine	How much?	How often?	Other instructions

Quick-relief medicine	How much?	How often?	Other instructions

	Green zone	Yellow zone	Red zone
<b>Symptoms</b>	<ul style="list-style-type: none"> <li>I have no shortness of breath, cough, wheezing, or chest tightness.</li> <li>I can do all of my usual activities.</li> <li>I sleep well at night.</li> </ul>	<ul style="list-style-type: none"> <li>I'm coughing or wheezing, or have chest tightness or shortness of breath.</li> <li>I can do some but not all of my usual activities.</li> <li>My symptoms keep me up at night.</li> </ul>	<ul style="list-style-type: none"> <li>I'm very short of breath.</li> <li>I can't do my usual activities.</li> <li>Quick-relief medicine doesn't help, or my symptoms don't get better after 24 hours in the yellow zone.</li> </ul>
<b>Peak flow</b>	_____ or more (80% or more of my personal best)	_____ to _____ (50% to 79% of my personal best)	_____ or lower (less than 55% of my personal best)
<b>Actions</b>	<ul style="list-style-type: none"> <li>Take controller medicine(s) every day.</li> <li>Avoid asthma triggers.</li> <li>_____ minutes before exercise, take quick-relief medicine called _____.</li> </ul>	<ul style="list-style-type: none"> <li>Take ____ puff(s) of my quick-relief medicine called _____.</li> <li>Repeat ____ times.</li> </ul> <p><b>If my symptoms don't get better:</b></p> <ul style="list-style-type: none"> <li>Take _____ puff(s) of medicine called _____.</li> <li>Take it _____ times a day.</li> <li>Begin or increase treatment with corticosteroid pills. Take _____ mg of _____ every _____.</li> <li>Call my doctor at _____.</li> </ul>	<ul style="list-style-type: none"> <li>Take ____ puff(s) of quick-relief medicine called _____.</li> <li>Repeat _____ times.</li> <li>Begin or increase treatment with corticosteroid pills. Take _____ mg now.</li> <li>Call my doctor at _____.</li> <li>If I cannot contact my doctor, I need to go to the emergency department. <b>CALL 911</b> or _____.</li> </ul> <p><b>EMERGENCY:</b> If it's hard to walk or talk or if my lips or fingertips are blue, I need to <b>CALL 911</b> or go to the hospital for help right away.</p>

An Asthma Action Plan is an important written summary of your child's asthma symptoms, medications, and plans for an emergency. Make sure to share this information with family members, caregivers, neighbors, and your child's school or daycare.

**After completing your child's Asthma Action Plan, it's a good idea to visit your child's school or daycare in advance to:**

- Talk to the teachers, school nurse, coaches, and caregivers about your child's Asthma Action Plan.
- Give them copies of the plan and review it with them.
- Learn about the policy regarding taking medications during the day.
- Ask if your child can carry an inhaler.
- See what can be done to remove asthma triggers, such as dust and strong odors.
- Discuss how your child can take part in physical education class, recess, and field trips.
- Create a plan for your child when outdoor air quality is unsafe.
- Find out how your child can make up missed school work due to asthma absences.

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# Green, yellow, and red zones.

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The information that you enter in your child's Asthma Action Plan is divided into three zones — **green, yellow, and red.**

## Green zone

This means your child is symptom-free and can go to school, play, breathe easily, sleep normally, and have peak flow rates in the green range. **To maintain control and stay in the green zone, your child should:**

- Take daily control medications as directed.
- Avoid asthma triggers.
- Monitor peak flow and have air flow in the green range.

## Yellow zone

This means your child is exhibiting asthma symptoms during the day or waking with symptoms during the night. Symptoms can include coughing or wheezing, chest tightness, difficulty breathing, being too tired to play, or having a drop in peak flow rates. **To take precautions in the yellow zone, your child should:**

- Take the quick-relief medication listed in the yellow zone of the plan.
- Avoid asthma triggers.
- Continue with medications listed in the green zone as prescribed by the doctor.
- Monitor peak flow.

## Red zone

This is an emergency alert that your child needs immediate help. Your child may be short of breath, have trouble walking and talking, have blue fingernails and lips, or not be responding to quick-relief medications. **If your child is in the red zone, get help immediately by:**

- Calling 911.
- Going to a hospital emergency room.
- Calling your doctor.

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# Your child doesn't have to be sidelined by asthma.

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Remember, asthma affects different people in different ways, so it's important that you talk to your doctor about the treatment plan that may be right for your child. Or you can check out some of the helpful resources below.

**For more information about asthma,  
contact one of the following organizations:**

**Highmark Special Needs and  
Case Management Unit**  
1-866-823-0892

**American Lung Association**  
1-800-LUNGUSA  
[www.lung.org](http://www.lung.org)

**Asthma and Allergy Foundation of America**  
1-800-7-ASTHMA  
[www.aafa.org](http://www.aafa.org)

**National Heart, Lung and Blood Institute**  
1-301-592-8573  
[www.nhlbi.nih.gov](http://www.nhlbi.nih.gov)

**Centers for Disease Control and Prevention**  
[www.cdc.gov/asthma/children.htm](http://www.cdc.gov/asthma/children.htm)

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