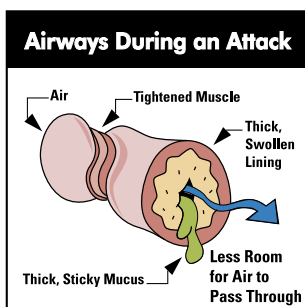
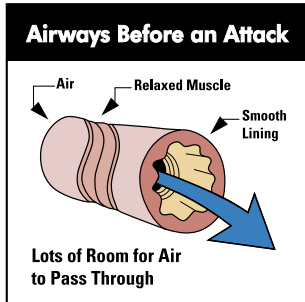


# Asthma Basics

Asthma is chronic, which means it can last a lifetime. Many children's asthma problems get better as they get older. Although there is no cure for asthma, it can be controlled.



## WHAT IS ASTHMA?

- Asthma is a common lung condition. Most of the time, children who have asthma feel OK. But during an asthma attack (also known as an asthma episode), it becomes harder to breathe.
- Three things happen in the airways of the lungs during an asthma attack:
  1. The airways get swollen. Doctors call this inflammation. People with asthma always have a little inflammation, even when they are not having an attack. Their airways are sensitive.
  2. Thick mucus fills up the airways.
  3. The muscles that wrap around the airways squeeze tightly.
- These three things may cause coughing, a tight feeling in the chest, shortness of breath and/or wheezing. Wheezing is the sound caused by trying to breathe through narrowed airways of the lungs.

## EARLY WARNING SIGNS

Most asthma attacks start slowly. You may notice small changes in your child beforehand. These changes are called early warning signs. You can often stop an attack or make it less severe if you start treatment when you see early warning signs. Talk with your child's doctor about what you should do when he has early warning signs. Some common early warning signs are:

- Mild coughing
- Itchy or sore throat
- Runny or stuffy nose
- Itchy or watery eyes
- Headache
- Tiredness or irritability
- Chest tightness

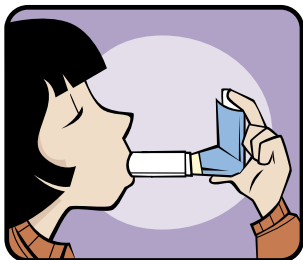
## WHAT CAUSES ASTHMA ATTACKS?

Asthma attacks usually start when the airways are bothered by something. These things are called **triggers**. Every child's triggers are different. Some common triggers and tips for avoiding them are:

- **Smoke** from cigarettes, pipes, cigars, grills, fireplaces and burning wood. Do not allow anyone to smoke near your child, or in your house or car even when the child is not present.
- **Colds, flu, and sinus and ear infections.** Make sure your child gets a yearly flu shot. Good handwashing also is helpful to prevent colds and infections.
- **Strong odors** from sprays, perfumes, cleaning products and other things. Do not spray these when your child is in the room.
- **Air pollution.** Spend less time outside when the smog level is high, especially on hot summer days.
- **Exercise or sports.** Your child may need to take asthma medicine before being active. Because physical activity is important, talk to your child's doctor about how to help him be active while avoiding asthma attacks.
- **Allergens** such as dust, pollen, mold, insect droppings and animals with fur or feathers. Keep your home clean and free of pests. Your child may or may not have allergies. Talk to your child's doctor about this.
- **Strong emotions** such as anger or excitement. Your child cannot avoid these emotions, but be aware that they can trigger an asthma attack.
- **Weather** such as rain, wind, cold temperatures or sudden changes. Have your child wear a scarf over his mouth and nose on cold, dry days.

## Using a Metered Dose Inhaler (MDI)

- Ask your child’s doctor to teach you and your child how to use the inhaler if one is prescribed. Ask when it should be used and when it needs to be refilled.
- Make sure the inhaler has medicine. Even if the MDI puffs when pressed or you shake it and feel something inside after all doses have been used, it may be out of medicine and have just the propellant left. Know how many puffs (doses) are in the inhaler. Ask your child daily if the medicine was used. Count puffs used and keep a log. Get a new inhaler when the doses are getting low. Check expiration dates and replace when needed.



**A. Spacer/holding chamber with mouthpiece**



**B. Spacer/holding chamber with mask**

## HOW TO USE THE MDI

1. Prime the inhaler before use according to manufacturer’s instructions.
2. Stand or sit up straight.
3. Take off cap and shake the inhaler.
4. Insert inhaler in end of spacer. Use a spacer/holding chamber with the inhaler. It helps the medicine reach the lungs where it is needed to work.
5. Breathe out all the way.
6. Place spacer mouthpiece in mouth. Press down on the inhaler and take a slow, deep breath. Hold your breath for 10 seconds, and then breathe out. If using a spacer with a mask, place mask firmly on face, covering nose and mouth. Press down on inhaler and breathe in and out slowly six times.
7. If the child is to take more than one puff, allow one minute between puffs. Shake the MDI before each puff.
8. Rinse the mouth after using any inhaled steroid medicine. If using a spacer with a mask, wipe face after use.

## HOW DO I TELL WHEN MY CHILD IS HAVING TROUBLE BREATHING?

If your child has one or more of these symptoms, prompt action is needed:

- Coughing or wheezing
- Chest tightness
- Less playful or hard to wake
- Trouble catching his breath (An older child may sit hunched over or be unable to speak a full sentence without stopping to take a breath. A baby may have a softer cry than usual and may not be able to suck on a pacifier or bottle well.)
- Skin between his ribs and around his collarbones pulls in every time he breathes (These are called retractions.)
- Breathing at a faster rate than normal (To find out if your child has a normal breathing rate, count when he is calm or sleeping.)
- Normal breathing rates are:
  - **Birth to 1 year:** 30 to 40 breaths per minute
  - **2 to 8 years:** 24 to 30 breaths per minute
  - **9 years and older:** 16 to 24 breaths per minute
- A blue or pale gray color to the lips, gums or fingernails (**This is a danger sign. Get emergency help at once.**)

**If you notice any of the above symptoms, it means your child is having an asthma attack. Follow your asthma action plan, talk to your child’s doctor, get emergency help or call 911.**

## TAKE AWAY TIPS

- **Ask your child’s doctor** for a written asthma action plan.
- **Share the plan** with your child’s school, childcare center and others who may care for your child.
- **Reduce your child’s exposure** to asthma triggers.
- **Do not panic** during an asthma attack. Remain calm, reassure your child and follow the asthma action plan.
- **Take a class** to learn more about asthma management.
- Ensure that your child always has fast, **easy access to his quick-relief medicine** at home, at school and at **all** times. No one knows when an asthma attack will happen, so be prepared. Quick-relief asthma medicine (e.g., albuterol) helps open the airways. It provides fast relief of asthma symptoms such as coughing, wheezing and breathing problems.
- Make sure the inhaler **always** has medicine in it. Replace as needed.
- Talk to your child’s doctor about **controlling asthma**. Asthma may not be well controlled if your child:
  - Needs to use quick-relief medicine for asthma symptoms more than two times a week.
  - Wakes at night with asthma symptoms more than two times a month.
  - Needs a refill of his quick-relief inhaler more than two times a year.
- Learning how to help **prevent and treat** asthma attacks can help your child:
  - Think of himself as healthy rather than sick.
  - Take part in school, play and physical activities.

## LEARN MORE

Go to [www.choa.org/asthma](http://www.choa.org/asthma) to learn more about asthma. Visit other asthma Web resources include:

- [www.nhlbi.nih.gov](http://www.nhlbi.nih.gov)
- [www.aanma.org](http://www.aanma.org)
- [www.aafa.org](http://www.aafa.org)
- [www.lungusa.org](http://www.lungusa.org)

*In case of an urgent concern or emergency, call 911 or go to nearest emergency department right away.*

*This general information is not intended to serve as medical advice. Always consult with a doctor or other appropriate healthcare provider regarding the diagnosis and treatment of your child.*