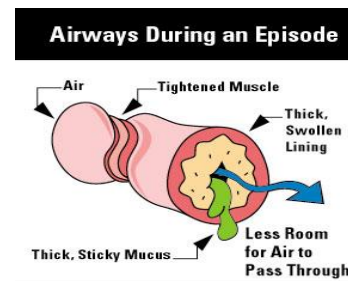
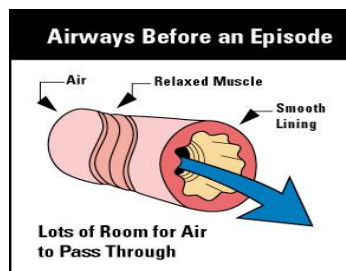


This teaching sheet contains general information only. Your child's doctor or a member of your child's health care team will talk with you about specific care for your child.

What Is Asthma?

- Asthma is a very 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're not having an attack. Their airways are sensitive.
 2. Thick, mucus fills up the airways.
 3. The muscles that wrap around the airways squeeze tight.
- 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.



* 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.

Early Warning Signs

Most asthma attacks start slowly, and 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 doctor about what you should do when your child 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
- Wheezing
- Shortness of breath

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

Asthma Basics, continued

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. Don’t allow anyone to smoke near your child or in your house or car even when your child is not present.
- **Colds, flu and sinus and ear infections.** Make sure your child gets a yearly flu shot. Good handwashing is also 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 doctor about how to help your child 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 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 the 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. Check the counter on the inhaler before each treatment. If the inhaler does not have a counter, ask your child daily if the medicine was used. Count puffs used and keep a log. Get a new inhaler when doses are getting low. Check expiration dates and replace when needed.

How to Use the Metered Dose Inhaler (MDI)

1. Stand up or sit up straight.
2. Take off cap and shake the inhaler. If it is a new inhaler or has not been used for several days refer to manufacturer instructions for priming the inhaler.
3. Hold the inhaler as instructed by your doctor in one of these ways:

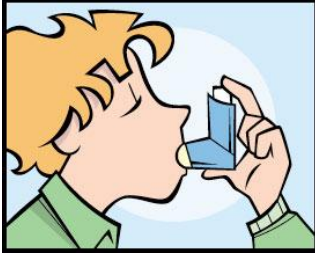


A. Spacer/Holding Chamber

This is the **preferred** way. It helps more medicine reach the airways where it is needed to work.

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

Asthma Basics, continued



B. In the Mouth

Method A is the best. If your child is unable to use A, your doctor may have your child use this method.

4. Breathe out all the way.
5. Slowly start to breathe in, and press down on the inhaler at the same time. Breathe in slowly and deeply to fill the lungs.
6. Hold breath for five to 10 seconds.
7. If your child is to take more than one puff, allow one minute between puffs and shake the MDI before each puff.
8. Rinse the mouth after using any inhaled steroid medicine.

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 up
- 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.
- The 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
 - **1 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! CALL 911 and 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, if you do not have one call your child's doctor.

Take Away Tips

- **Ask your child's doctor** for a written asthma action plan. A blank asthma action plan can be found at www.epa.gov/asthma/pdfs/asthmaactioncardstudent.pdf.
- **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.

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

Asthma Basics, continued

- **Do not panic** during an asthma attack. Remain calm, reassure your child, and follow the asthma plan.
- **Take a class** to learn more about asthma management.
- Ensure that your child always has fast, **easy access to his rescue medicine** at home, at school and at **all** times. No one knows when an asthma attack will happen, so be prepared. Rescue asthma medicine (such as 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 rescue 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 rescue 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

To Learn More

Go to www.choa.org/asthma to learn more about asthma. For additional information, visit the following:

- www.nhlbi.nih.gov
- www.schoolasthmaallergy.com
- www.asthmaandschools.org
- www.aanma.org
- www.aafa.org
- www.lungusa.org

In case of emergency, call 911 or go to the nearest emergency room right away.

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