

Let's Talk About...

Asthma in Children

Asthma [AZZ-muh] is a chronic (ongoing) irritation of the lungs. When your child has asthma, they will experience times when it is hard to breathe, called asthma attacks. Asthma is a serious condition.

What happens during asthma?

When your child has asthma:

- **The inside lining of the airways swells inward.** This narrows the space inside your airways.
- **The muscles around the airways tighten**, which is called a bronchospasm [BRON-co-spazz-em].
- **The airways produce more mucus**, and excess mucus clogs the airways.

Because the airways are narrowed, air doesn't move as easily in and out of the lungs. It can be like breathing through a narrow straw. Your child must work harder to get air in and out.

What are the symptoms of asthma?

If your child has asthma, they may:

- Cough a lot, especially at night or after exercise
- Wheeze (make a whistling sound when they breathe)
- Have chest tightness
- Have trouble breathing

Severe asthma symptoms include very shallow, fast breathing, **retractions** (skin between the ribs pulling in while they breathe), and lips and face turning slightly blue. If your child has any of these symptoms, take them to the emergency room immediately.



Who can get asthma?

Anyone can get asthma, but your child is more likely to get it if:

- Other family members have asthma
- They smoke or are around secondhand smoke
- They have allergies or family members who do

Boys are also more likely than girls to have asthma.

What causes asthma?

No one knows exactly what causes asthma, but it is probably caused by both genetics (what you inherit from your family) and environment (the places you live and visit). However, an asthma attack is caused by irritants in the environment, called **triggers**. While each child has a different trigger, common ones include allergies, head colds, pollution, and exercise.

How is asthma diagnosed?

To diagnose asthma, a healthcare provider may:

- Ask about your child's symptoms and what seems to trigger them
- Listen to your child's breathing and heartbeat and check for signs of allergies
- Do a spirometry [spih-ROM-et-ree] test to measure the speed and amount of air your child breathes in and out (in children older than 5 years)
- Test your child's blood or do skin prick tests to check for allergies that may cause asthma symptoms
- Do a chest x-ray to check for other lung problems that could be causing symptoms

How is asthma treated?

Your child's doctor may recommend two kinds of asthma medicine: quick-relief and controller medicines.

- **Quick-relief medicines** (also called rescue medicines) work immediately (usually within 5 to 10 minutes) to help open airways during an asthma attack but **don't prevent future symptoms**. They include beta2 agonists (lung relaxers) like inhaled albuterol [al-BYOO-ter-ahl] and levalbuterol [LEV-al-BYOO-ter-ahl].
- **Controller medicines** (also called maintenance medicines) prevent asthma attacks when your child takes them daily but **don't stop an asthma attack**. They include:
 - Inhaled corticosteroids [COR-tick-oh-STEh-royds], like budesonide [byoo-DES-oh-NIDE] or beclomethasone [bec-lo-METH-uh-zone]
 - Leukotriene [LOO-co-treen] modifiers (pills taken by mouth), like montelukast [mon-teh-LOO-cast]
 - Inhaled combination medicines (steroid and beta2 agonists) like budesonide or formoterol [for-MOH-ter-ahl]
 - Inhaled long-acting muscarinic [mus-cuh-RIN-ik] antagonists (LAMAs), also called bronchodilators [bron-co-DY-uh-LAY-tors], that open the airways

How does my child take medicine?

Your child must inhale most asthma medicine directly into their lungs. They can use a:

- **Metered-dose inhaler (MDI):** Device that delivers medicine in small set amounts
- **Dry-powder inhaler:** Device that releases powder when your child breathes through a mouthpiece
- **Spacer:** Tube that attaches to an MDI to help your child get more medicine deep into their lungs
- **Nebulizer:** Small machine that turns medicine into a mist so your child can breathe it in

How does my child manage their asthma triggers?

Treating asthma includes having your child avoid their asthma triggers. This may include:

- **Preventing colds and the flu**
 - Washing their hands often and avoiding people who are sick
 - Getting a flu shot once a year in the fall
 - Eating a healthy diet and getting enough rest
- **Avoiding air irritants**
 - Stopping smoking (if they smoke) and asking others not to smoke around them
 - Not using perfumes and fragrance items, like candles, room sprays, and scented hair products
 - Staying inside on days with poor air quality
 - Avoiding fireplaces and campfires
- **Limiting allergens**
 - Staying inside on windy days when pollen and other allergens can easily spread
 - Avoiding pets or at least keeping them out of the bedroom
 - Washing bed linens weekly in hot water and cleaning furniture often to get rid of dust
 - Using a vacuum with a high-efficiency particulate air (HEPA) filter to trap allergens

