



Your partners  
in asthma management

# SO, YOU'VE GOT ASTHMA?

## What is Asthma?

Asthma is the most common childhood chronic illness, affecting nearly five million children in the U.S. It is a chronic, obstructive lung disease that causes swelling (inflammation), narrowing (bronchoconstriction) and fluid (mucous) production, reducing airflow.

For people with asthma, there is underlying swelling of the airway. When exposed to certain triggers (allergens and irritants), the airway reacts strongly, causing muscles to tighten and narrow the airway. In addition, lung cells begin to make more mucus than usual. This mucus is thick and sticky, narrowing the airway even more. These changes in the lungs make it difficult to breathe and result in asthma symptoms including: coughing, wheezing, chest tightness and shortness of breath.

A key component of asthma is that the obstruction is reversible with proper management. Depending on the frequency and severity of asthma symptoms, the provider will determine how to best manage your child's asthma through medication therapy and environmental control. When asthma is well controlled, children with asthma can do almost everything that children without asthma can do. Sometimes asthma symptoms may be mild and resolve on their own or require minimal medication. Other times symptoms of asthma may flare-up (exacerbate) and their symptoms may be more intense, requiring additional medication therapy. To help guide therapy, the asthma education team will use a combination of medication therapy, environmental control, spirometry, peak flows and asthma action plans.

## What are asthma symptoms?

- Wheezing is a high-pitched, whistling sound that can be heard as your child breathes. This sound is created due to the narrowing of the airways. Not all people who wheeze have asthma, and not all those who have asthma wheeze. If you hear these sounds, make sure to contact your provider.
- Coughing occurs most often at night, after activity or after exposure to cold air (an irritant).
- Shortness of breath can occur during an asthma attack or during exercise. While most people become short of breath, with exercise this should be temporary and resume to normal breathing quickly after. If your child remains short of breath with activity, please speak with your provider.
- Chest tightness is an uncomfortable feeling that occurs with an asthma attack. If you notice that your child is wheezing, has a persistent cough or is short of breath, it is a good idea to ask your child about chest tightness.



## Treatment for Asthma

- **Quick relief medications** (albuterol): Used to relieve immediate asthma symptoms and work by relaxing and opening (dilating) the airway.
- **Long-term controller medications** (inhaled corticosteroids and long-acting beta agonists): Build up in the system over time and are used to control and prevent asthma symptoms by keeping inflammation down. Inhaled corticosteroids are the preferred and most effective treatment for long-term therapy. It is important that these medications are taken every day.
- **Oral steroids** (prednisolone): Short-bursts used during asthma exacerbations that are not well controlled with quick relief medications and work by decreasing inflammation in the airway.
- **Environmental therapy**: Decrease exposure to allergens (dust mites, pollen, mold, etc.) and irritants (tobacco smoke, cold air).

## Asthma Monitoring

- **Spirometry**: Test that measures the volume of air your child can rapidly and forcefully blow out after taking in the deepest breath possible. This test is performed in the office during asthma control visits. A spirometry measurement allows the provider to make an accurate diagnosis of asthma, provides a better picture of obstruction/inflammation in the lungs and will help guide treatment.
- **Peak Flows**: Like spirometry, this test measures the amount of air that is forcefully blown out after taking in a deep breath. This measurement, however, is taken at the same time daily at home with a small handheld device. This is used for monitoring asthma rather than for diagnosing.
- **Asthma Action Plan**: An asthma action plan is a written plan that you develop with your provider to help control your child's asthma. The asthma action plan shows daily treatment, such as what kind of medicines to take and when to take them. Your plan describes how to control asthma long term AND how to handle worsening asthma or attacks. The plan explains when to call the doctor or go to the emergency room.

