

## WHAT YOU NEED TO KNOW: ASTHMA



Asthma is a chronic (life-long) disease that inflames and narrows airways in the lungs, making it hard to breathe. It's normal for airways to get inflamed and narrow when exposed to smoke, pollution and other irritants. However, children and youth with asthma are sensitive to things that shouldn't irritate the lungs, like pollen or even the common cold.

**Did you know:** asthma is the most common chronic disease in children. More than 1 out of 10 children will have asthma at some point in their life.

### Types of asthma

There are two types of asthma.

#### 1. Asthma related to small airways

Some children are born with smaller airways. When they catch a cold, the airways get swollen and inflamed making it much harder to breathe. These children will often outgrow their asthma.

#### 2. Allergic asthma

Children with allergies sometimes develop allergic asthma. They have asthma symptoms when they are exposed to allergens such as dust, pollen and animal fur. They also have asthma symptoms when they catch a cold, and often when they exercise. These children are less likely to outgrow their asthma.

### Asthma symptoms

Asthma symptoms range from mild to severe. Children and youth with either type of asthma may have only one, or all three of these symptoms at different times:

- cough that's excessive compared to other people
- wheezing (high pitched whistling noise when breathing out)
- difficulty breathing or chest tightness

Sometimes, children and youth can't tell us how they are feeling. If you think your child or youth might have asthma, ask yourself:

- Can my child keep up with others while running around?
- Do they have a hard time catching their breath?
- Do they cough more at night or perhaps even cough so hard they vomit?

### Taking care of your child or youth with asthma

Although there is no cure for asthma, with proper treatment your child or youth can enjoy normal active lives.

## Triggers

The first step of asthma therapy is avoiding triggers. These are things that make your child's asthma worse. In children, the most common asthma trigger is the common cold. Other triggers include smoke, pollution, and allergens like dust mites, pollen and animal dander.

### 1. Avoid smoking

People should not smoke near a child with asthma. This includes smoking in a different room of the house or in the car. Even if your child isn't present while the smoking takes place, they can still be triggered by lingering smoke.



### 2. Get your family vaccinated against the flu

Since the most common asthma trigger in children is the common cold, it's important to get your annual flu shot.

### 3. Check air quality

Visit [Air Quality Ontario's](https://www.airqualityontario.ca) website to check the Air Quality Health Index in your area. This index pays particular attention to people who are sensitive to air pollution, like children and youth, and provides advice on how to adjust their daily activities.

### 4. Reduce allergens in the home.

Children and youth with allergic asthma can be triggered by anything they are allergic to.

- For dust mites, buy dust-mite proof pillow and mattress covers, reduce clutter in the bedrooms, dust and vacuum regularly and remove carpets where possible.
- For tree and grass pollens, keep the doors and windows closed. If you need a cool breeze, use an air-conditioner instead.
- For animal dander, minimize contact, wash the pet regularly, keep the pet out of the bedroom and consider an air purifier.
- For molds, clean any areas of mold in the home with soap and water. Use fans to reduce humidity in these areas. You will need professional help to manage large areas of mold.
- For cockroaches, hire a professional exterminator and keep your child somewhere else while chemicals are being used.

## Medications

There are two types of inhaler medications that are used to control asthma symptoms: relievers and controllers. Your doctor will help you select the right medication(s) depending on your child's symptoms. Always follow their dosing instructions carefully and consult your pharmacist if you have any questions.

### Reliever (rescue) medications:

- work quickly to relax the muscles around the airways when they spasm and tighten
- are most useful in the moment when your child or youth is having a tough time to breathe

Ventolin® is the most common type of reliever inhaler. It starts working within five minutes and lasts for four hours. Children who use this may use it four times a day during cold/flu season, during an active asthma attack, or 15 minutes before exercise if their asthma is exercise-induced. Oxeze® or Foradil® are long-acting reliever medications. They take longer to start working (30 minutes) but last for 12 hours.

## Controller medications

Most controller medications are inhaled steroids. They contain very small amounts of steroid. Common controller medications include Flovent®, Alvesco®, Pulmicort® and Asmanex®. When these medications are given by puffer, they should be used with a spacer device to prevent thrush and ensure your child gets the maximum dose. They:

- reduce the inflammation of the airways
- take 1-6 weeks to start working
- must be given every day (even when your child is well) all year long or at least during the season(s) when your child is at risk of asthma symptoms or asthma attacks
- are not effective for treating an active asthma attack
- may cause a short-term decrease in growth (1cm during first year of treatment) so your doctor should monitor your child's growth chart
- can interfere with the body's production of natural steroids, so if your child is on a high dose, your doctor may want to monitor their morning cortisol level once or twice a year
- can cause oral yeast infections called thrush so use a spacer device when using a puffer, or rinse the mouth with water if given a dry powder inhaler



It's very important that you learn proper inhaler technique to maximize the dose your child receives. Inhaler medications will only work if they reach your child's lungs. Visit [cheo.on.ca](http://cheo.on.ca) for further information and resources.

Singulair® is another controller medication that reduces inflammation of the airways, but it doesn't contain any steroids. It's given in pill (or sprinkle) form and takes up to three weeks to start working. Side effects include headache, stomach aches, and behavior changes.

## Asthma attacks

Symptoms of an asthma attack include:

- severe shortness of breath
- rapid, shallow breathing
- sucking in the skin at the base of the neck, or just below the ribs

### If your child is having an asthma attack:

1. Stay calm.
2. Give your child their rescue inhaler.
3. Monitor their symptoms. If they persist more than 10 minutes seek emergency attention.

## When to go to the Emergency Department

Sometimes, mild asthma attacks can become more severe.



Give your child their rescue inhaler and go to the ED or call 911 if you notice:

- blue skin
- severe cough or wheezing that returns within four hours of using the child's reliever medication (salbutamol or Ventolin)
- inability to speak in full sentences because of difficulty breathing
- becoming tired or sleepy because of difficulty breathing
- fainting because of an asthma attack