



# Asthma Basics: Need to Know Information

Helpful resources for those new to asthma



- Does My Child Have Asthma?
- Signs and Symptoms It Might be Asthma
- Why Should I Give My Child Asthma Medicine?
- The Experts Answer Your Questions About Inhaled Corticosteroids in Asthma

**Community Pediatric Asthma Service**  
Alberta Health Services,  
South Calgary Health Centre  
#3356, 31 Sunpark Plaza, SE  
Calgary, AB T2X 3T2  
Phone: 403-943-9139 Fax: 403-776-3806



# Does My Child Have Asthma?

“Does my child have asthma?” is a common question families ask. Asthma can make it hard to breathe and can cause coughing, wheezing, shortness of breath or tightness in your chest. These things we see and feel are called symptoms. Asthma symptoms can come and go, making it hard to know if a child has asthma.

It may take weeks, months or even years to confirm asthma, but there are ways to help us know if it is more likely or less likely that a child has asthma. The information you share with health professionals helps us understand if it is asthma. These are the 5 important things to think about:

## 1. SYMPTOMS

## 2. TRIGGERS

## 3. MEDICAL HISTORY

## 4. RESPONSE TO MEDICINE

## 5. BREATHING TESTS (when a child is about 6 years old)

The information below includes ideas to help you learn what to look for and what to write down to share with your doctor or asthma educator.

Visit our website at [www.ucalgary.ca/icancontrolasthma](http://www.ucalgary.ca/icancontrolasthma) for more information and other resources.

## 1. SYMPTOMS

Common asthma symptoms include:

- **Cough** – Cough may come and go. It can be worse during the middle of the night. Some children cough so hard they struggle to breathe or throw up
- **Wheeze** – This is a whistling sound you hear when your child takes a breath in or out. Visit our website to hear wheezing (see “Videos” tab → “A Little Asthma Story”)
- **Tight Chest** – Some children say asthma feels like being squeezed or having something heavy sitting on your chest. This can be hard for children to describe
- **Shortness of Breath** – Children often say they cannot get a full breath in. They may need to stop playing to catch their breath or they can’t keep up with their friends when running or playing

## 2. TRIGGERS

Triggers can cause **asthma symptoms** or may make the symptoms you already have worse. Triggers are different for everyone. Some common asthma triggers include:

- **Colds/Flu** – the most common trigger
- **Allergies** – animals, pollen, mold, dust
- **Emotions/Stress**
- **Environment** – strong smells, weather changes
- **Exercise/Play**

### 3. HISTORY

It is important to share your child's medical history with a healthcare professional:

- **Patient History** – Children who have asthma symptoms or hospital visits for breathing trouble are more likely to have asthma. Children who have allergies or eczema are also **more likely** to have asthma
- **Family History** – Children who come from families with asthma or allergic conditions (such as eczema, hay fever and even food allergies) are **more likely** to have asthma

### 4. RESPONSE TO MEDICINE

If your child has a pattern of symptoms that look like asthma, they may be given a trial of asthma medicine. Asthma medicine must be taken properly to work. Visit our website to watch videos on how to take your asthma medicines (Click “Devices” tab).

There are two different types of asthma medicine:

#### Relievers

- These puffers are blue and give temporary relief of asthma symptoms
- They should work quickly and relieve symptom for 3 or 4 hours
- Be sure to tell your child's doctor if this medicine is NOT helping

#### Controllers or Preventers

- These medicines are usually orange, red or brown. They control asthma and help prevent symptoms
- These medicines must be used every day for them to work and it often takes 2 weeks or more to have the best effect
- If your child was given a puffer at the hospital, it is important that you see your family doctor before stopping this medicine

### 5. BREATHING TESTS

- When children are about 6 years old, they can do a simple breathing test called spirometry. Spirometry is only one part of the overall picture we build to decide if a child has asthma
- Since asthma symptoms come and go, the breathing test only tells us about the lungs on the day the test is done. This means a normal breathing test **does not** rule out asthma

### OTHER THINGS TO THINK ABOUT

- Asthma can be diagnosed at any age. Watch for asthma symptoms and see if taking asthma medicine relieves those symptoms
- Children who regularly have asthma symptoms are treated with puffers to lessen the impact of colds. Research shows that half of these children will not have asthma by the time they reach school age
- Finally, don't be confused by words like **reactive airway disease**, **wheezy bronchitis**, **happy wheezer** and **bronchospasm**. These are just words some people use to describe asthma symptoms



*If your child does have asthma, the good news is that asthma can be well controlled and should not prevent children from doing **anything they want to do!***



*This document has been designed for information purposes only. It should not be used in place of medical advice, instruction and/or treatment. If you have specific questions, please consult your doctor or appropriate health care professional.*



## SIGNS AND SYMPTOMS IT MIGHT BE ASTHMA (CHECKLIST)

This checklist provides a list of common signs and symptoms of asthma. Print the list, review it and bring it with you to your next health care provider appointment to discuss.

### I notice that my child:

Yes No

- |  |                          |                          |
|--|--------------------------|--------------------------|
| 1. Coughs, wheezes, or has shortness of breath when running and playing or has to stop running or playing before other children just to catch their breath | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Coughs in the night for weeks after a cold  | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Has trouble sleeping because of coughing, mucus/("snot") or trouble breathing   | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Misses school because of breathing problems   | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Complains of a tight, heavy chest   | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Appears to have eczema or has a known allergy/allergies   | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Has family members that have asthma, allergies, hay fever or eczema   | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Has a blue puffer they use more than two times a week   | <input type="checkbox"/> | <input type="checkbox"/> |

**The likelihood of asthma is higher with more "yes" answers.**

As the parent of a child who might have asthma, my questions or concerns about my child are:



# WHY SHOULD I GIVE MY CHILD ASTHMA MEDICINE?

by Dr. Mary Noseworthy & the Community Pediatric Asthma Service

Parents worry about giving their children medicine

This information explains what asthma medicine is for and what can happen if you do not take it

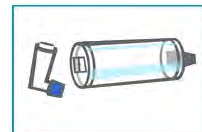
Asthma can make it hard to breathe. Sometimes it might seem like everything is normal, but this can change quickly. The doctor may try asthma medicine when a child has one or more of these breathing problems:

- + coughing that doesn't go away after a cold, especially during the night
- + coughing or getting tired easily when running
- + wheezing – a whistling sound when they breathe
- + finding it hard to take a breath

If your child's asthma is well controlled and they have no breathing problems, do not stop giving them their asthma medicine – this medicine is helping to keep them well. Talk to your doctor before you stop giving asthma medicine.

## WHAT DOES ASTHMA MEDICINE DO?

**Reliever Medicine** (usually a **blue** puffer): Reliever medicine works quickly to make breathing easier, but it only lasts for a few hours **and** does not get rid of swelling. Reliever medicine can cause shaky hands or a faster heart rate, but these things are not harmful and only last for a short time.



**Controller Medicine** (usually a **brown, red or orange** puffer): Controller medicine (inhaled **corticosteroids**) works on calming the lungs and getting rid of swelling so breathing problems get better. Controllers are safe to take every day because they go right into the lungs and are used in small amounts. Take a drink, rinse your mouth or brush your teeth after you take it and you should not have any trouble.

In an emergency, corticosteroids are given at a much higher dose than they usually are – often as a liquid or pill, to quickly improve breathing problems. Because this medicine travels through the whole body and not just the lungs, it may affect a child's mood. Your doctor will talk to you about any concerns they might have about your use of this medicine.

Using your corticosteroid puffers every day and following your [Asthma Action Plan](#) are the best ways we know to prevent breathing problems, emergency visits or hospital stays.

## WHAT IF I DON'T GIVE THE ASTHMA MEDICINE?

If children don't take their asthma medicine, you could notice:

- + Poor sleep because of coughing
- + Missing school because of breathing problems
- + Not being able to keep up with their friends at play or sports
- + Not growing as much as you expect because so much energy is spent trying to breathe
- + More emergency visits or hospital stays because of breathing problems
- + Increased use of oral corticosteroids to treat severe asthma attacks



**If you have any concerns about asthma medicine, talk to your doctor, pharmacist, nurse or certified asthma educator.**



Inhaled corticosteroids, sometimes referred to as inhaled steroids, are the best medication to manage asthma. Inhaled corticosteroids are strong anti-inflammatory (anti-swelling) medications. People with asthma have swelling in the airways of their lungs, causing the airways to become more sensitive to asthma triggers such as allergens, dry air, smoke and viruses. Inhaled steroids reduce swelling, which improves symptoms, lung function and airway hyper-reactivity ('twitchiness'). A recent Canadian study (1) has shown that regular use of inhaled corticosteroids lowers the risk of death from asthma. The following are examples of inhaled corticosteroids commonly used:

- ✚ **Inhaled Corticosteroids:** Alvesco (ciclesonide), Arnuity (fluticasone furoate), Asmanex (mometasone), Flovent (fluticasone), Pulmicort (budesonide), Qvar (beclomethasone)
- ✚ **Combination Inhaled Corticosteroid/long-acting beta agonists:** Advair (fluticasone and salmeterol), Breo (fluticasone and vilanterol), (Symbicort (budesonide and formoterol), Zenhale (mometasone and formoterol)

## HOW SHOULD I USE MY INHALED CORTICOSTEROID MEDICATION?

Good asthma management includes proper use of medications. The main purpose of inhaled corticosteroids is to reduce or prevent airway swelling and asthma flare-ups, and these medications are known as *preventers* for this reason. They should be used on a regular, daily basis as instructed by your physician, even if you are feeling well. **To get the maximum benefit, inhaled corticosteroids should be used as directed by your doctor, and with good inhaler technique.** The anti-swelling action happens gradually over days or weeks, when the medication is used regularly. Inhaled corticosteroids do not work for **quick** relief of asthma symptoms like cough, wheeze, chest tightness or shortness of breath, and instead a *reliever or bronchodilator medication* should be used.

## WHAT ARE THE SIDE EFFECTS OF INHALED CORTICOSTEROIDS?

Inhaled corticosteroids have been the best treatment for asthma for more than 30 years. They are among the safest and most effective means to treat asthma. Although few side effects occur at standard doses (one to two puffs twice a day for most inhalers), some people may experience minor side effects such as hoarseness of the voice, and thrush (a yeast infection of the mouth and throat). Rinsing your mouth, or brushing your teeth after taking your medication, and using a spacer device with the aerosol puffer will decrease the chance of side effects. Children who have asthma can use inhaled corticosteroids safely over the long term. A recent review of many studies has shown that rarely children may grow up to half a centimeter less during their first year of treatment, but that this effect on height is smaller over time, and is minor compared to the benefits of well controlled asthma<sup>2</sup>. In rare instances inhaled corticosteroids at high doses have caused low cortisol levels ("adrenal insufficiency"), which can cause symptoms of fatigue, nausea and vomiting, and requires medical attention if suspected<sup>3</sup>.

## WHAT ABOUT ATHLETES WHO ARE BANNED FOR USING STEROIDS?

Inhaled corticosteroids are not related to anabolic steroids that are used by some athletes to enhance their performance. The regular use of inhaled corticosteroids does not increase muscle mass or cause any of the other side effects associated with anabolic steroids. None of the inhaled corticosteroids commonly used to treat asthma are banned by the International Olympic Committee, and they can be safely used in all forms of competitive sport.

## WOULDN'T IT BE EASIER TO TAKE CORTICOSTEROID TABLETS?

Some patients with more severe asthma may need treatment with oral corticosteroid tablets (Prednisone, Dexamethasone), but most people can manage their asthma very well with inhaled corticosteroids. Inhaled corticosteroids have a great advantage over prednisone tablets because the medication is inhaled directly into the lungs, with less absorption by the rest of the body. This helps to lower the chance of any potential side effects, making inhaled corticosteroids among the safest and most effective way to manage asthma.

## CONCLUSION

Inhaled corticosteroids used with proper inhaler technique are very effective for treating asthma. They are safe and should be considered the first choice in asthma management for most cases of asthma.

## REFERENCES

1. Suissa S, Ernst P, Benayoun S, Baltzan M, Cai B. Low-dose inhaled corticosteroids and the prevention of death from asthma. *N Engl J Med* 2000;343:332-6.
2. Pruteanu AI, Chauhan BF, Zhang L, Prietsch SO, and Ducharme FM. Inhaled corticosteroids in children with persistent asthma: dose-response effects of growth. *Cochrane Database Syst Rev.* 2014 Jul 17;7.
3. Lapi F, Kezouh A, Suissa S, and Ernst P. The use of inhaled corticosteroids and the risk of adrenal insufficiency. *ERJ* July 1, 2013 vol 42 no 1.

*This material is designed for information purposes only. It should not be used in place of medical advice, instruction and/or treatment. If you have specific questions, please consult your doctor or appropriate health care professional.*