

Asthma

Learning to control your symptoms

2014 rev.

What is asthma?

Asthma is an inflammatory disease of the lungs. The airways of people with asthma are extra sensitive to things that they're allergic to (allergens) and to other "triggers" or other irritating things in the air (irritants). Asthma is most common in children. Asthma symptoms start when allergens or other irritants cause the lining of the airways to swell (become inflamed) and narrow. The muscles around the airways can then spasm, causing the airways to narrow even more. When the lining of the airways is inflamed, it produces more mucus. The mucus clogs the airways and further blocks the flow of air. This leads to symptoms including wheezing, chest tightness, coughing, and breathing problems. This is called an "asthma attack."

What can I do about allergens and irritants?

Try to avoid any triggers. If outdoor pollen and mould cause you to have symptoms, try to stay in air-conditioned places with the windows closed during the midday and afternoon, when pollen is at its worst. Pets like cats and dogs can cause problems if you're allergic to them. If you have a pet in the house, it should be kept out of your bedroom. The heating and cooling vents in your bedroom should be shut.

To keep mould down, clean and air out bathrooms, kitchens, and basements often. Keep the level of humidity low in your home. You can do this with an air conditioner or a dehumidifier to keep the level of humidity less than 50%. If you use a humidifier in the winter, keep it clean so that mould doesn't grow in it. Don't allow smoking in your house or car. Tobacco smoke can make you have breathing problems more often.

Things that may trigger an asthma attack

- Air pollution
- Tobacco smoke
- High pollen counts

- Spray-on deodorants
- Perfume
- Allergies
- Changes in temperature
- Cold air
- High humidity
- ASA (some brand names: Aspirin, Entrophen), ibuprofen (brand names: Advil, Motrin)
- Sinus infection
- Mould
- Viruses such as colds
- Pets
- Some foods
- Sulfite (food preservative in red wine, beer, salad bars, dehydrated soups, and other foods)
- Strong emotions
- Exercise
- Heartburn

What about dust?

People who are allergic to dust are actually allergic to the dust mites that live in the dust. You can get rid of or reduce dust mites in your house by washing pillowcases and other bedding weekly in hot water, covering mattresses and pillows in airtight covers, and removing carpets and drapes.

If you do have carpet, treating it with chemicals can reduce dust mites for up to six months. You might also need to avoid using feather pillows. Avoid keeping stuffed animals, dried flowers, and other things that catch dust.

How do I use a peak flow meter?

A peak flow meter is a hand-held device that measures how fast you can blow air out of your lungs. To use a peak flow meter, take a deep breath and blow as hard as you can into the mouthpiece. Do the test three times and write down your best result. This is called your “peak flow.”

Measuring your peak flow regularly can help you notice early symptoms of asthma before more severe symptoms begin. **Make note of the best of at least three readings twice daily, once first thing in the morning and then again in the mid-afternoon.** If the meter tells you that your peak flow is down by 20% or more from your usual best effort, an asthma attack may be on the way. Talk to your doctor about what steps to take.

Warning signs of an asthma attack

- Peak flow 50% to 79% of your personal best¹
- Coughing or wheezing
- Shortness of breath
- Tightness in chest
- Nighttime symptoms
- Having to use a puffer more to get relief (ie, daily)

Will asthma limit what I can do?

You should be able to live an active and full life if you follow your treatment carefully. Talk to your family doctor about taking medicine to prevent asthma attacks before exercising, on cold days, or on days when pollution is bad or the pollen count is high.

What kind of medicines may my doctor suggest?

Your doctor may prescribe anti-inflammatory medicines for you to use regularly to help prevent attacks and bronchodilator medicines to treat symptoms during attacks.

Anti-inflammatory medicines (controller medicines) reduce the swelling in your airways. In many people with asthma, steroid anti-inflammatory medicines will be needed on a regular basis to make the airways less likely to react to allergens and irritants. Other anti-inflammatory medicines such as sodium cromoglycate, nedocromil sodium, and ketotifen fumarate are other options after steroids. Anti-inflammatory medicines take hours or days to start to help and usually don't work well unless you take them regularly.

Inhaled bronchodilators (rescue or quick-relief medicines) help the muscles around your airways relax. This allows your airways to open for several hours. Bronchodilators, such as salbutamol (brand name Ventolin) and terbutaline sulfate (brand name Bricanyl), are not used on a regular basis but mostly when needed to reduce symptoms (such as coughing and wheezing). They should not have to be used more frequently than every 4 hours. If you need it more than this, see your doctor urgently. If your bronchodilator doesn't relieve symptoms within 15 or 30 minutes, call your doctor. Some bronchodilators come in tablets or liquid forms.

Leukotriene receptor antagonists are a pill treatment for asthma and include zafirlukast (brand name Accolate) and montelukast (brand name Singulair). They help reduce inflammation and prevent bronchoconstriction. Your doctor can help you see if taking this type of asthma medicine will help you.

In a few people, corticosteroid pills and other medicines may be needed for the worst times.

If you need your bronchodilator regularly, for example, more than 3 times per week, you should ask your doctor about being on an anti-inflammatory too.

Won't steroids be bad for me?

No. Inhaled corticosteroids are the first-line anti-inflammatory treatment for all ages. The inhaled corticosteroids used to treat asthma go right where they're needed—into your lungs—so very little gets into the rest of your body to cause side effects. Your doctor may prescribe steroid pills for you if inhaled corticosteroids aren't working well enough. These steroids usually don't cause side effects if they're only taken for short periods but they do have some concerns you should go over with your doctor. The risks are usually outweighed by the benefits because steroids such as prednisone are only used when asthma is worse despite other treatments. Asthma can be serious and should not be allowed to get out of control.

Metered-dose inhalers, or MDIs, are the best way to get medicines to the lungs. Have your doctor or pharmacist review your technique.

How do I use a metered-dose inhaler?

First, make sure your inhaler has medicine in it. Keep your refills up to date and do not run out. Always keep your inhaler handy.

Here are the steps for using an inhaler. It is very important to follow each step:

1. Remove the cap and hold the inhaler upright.
2. Shake the inhaler.
3. Tilt your head back slightly. Open your mouth wide and breathe out, to the end of a normal breath. Don't force breath out. Hold the inhaler with your index finger on the top and your thumb on the bottom.
4. Hold the inhaler 2.5 to 5 centimetres (1 to 2 inches) away from your mouth or, if you're using a spacer, put the end of it in your mouth and seal your lips around it. A spacer is a tube that you attach to your inhaler. It makes using an inhaler easier and more efficient.
5. Press down on the inhaler to release the medicine as you slowly breathe in for 3 to 5 seconds. If you use inhaled dry powder capsules, close your mouth tightly around the mouthpiece of the inhaler and inhale rapidly. In this case, it is normal not to feel powder go in.
6. Hold your breath for 10 seconds so the medicine can get deep into your lungs. Then breathe out slowly through your nose.
7. Repeat as many times as your doctor suggests. Wait one minute between puffs so each puff can get deeper into your lungs.
8. Rinse, gargle, and spit (or eat) after steroid use to avoid thrush. Thrush is a yeast infection of the mouth.
9. If your chest feels tight, you may use your bronchodilator 10 to 20 minutes before you use your anti-inflammatory inhaler. This helps open your airways and allows more medicine to go deeper into your lungs.

NOTE: These instructions are for a metered-dose inhaler only. Inhaled dry powder capsules are used differently. To use a dry powder inhaler, close your mouth tightly around the mouthpiece of the inhaler and breathe in quickly. Talk to your doctor if you have any questions about how to take your medicine.

You can [learn more about inhalers](#) by visiting the Ontario Lung Association website.²

Personalized asthma action plan

This plan is prepared in consultation with your doctor. It details the appropriate use of medicines, lists potential environmental irritants, and outlines steps to be taken if breathing problems arise. It is colour coded and easy to follow. You can [see an example of an asthma action plan](#) at the website of the Children's Hospital of Eastern Ontario.³

Get help if any of these things occur:

- Your medicine doesn't control symptoms
- Your peak flow keeps dropping after treatment or falls below 50% of your best
- Your fingernails or lips turn gray or blue
- You have trouble walking or talking
- You have extreme difficulty breathing
- Your neck, chest, or ribs are pulled in with each breath
- Your nostrils flare when you breathe
- You need your medicine more than two times weekly—you may need an anti-inflammatory medicine
- Your heartbeat or pulse is very fast

How can I tell if my asthma is getting worse?

Signs that your asthma is getting worse include having symptoms at night, a drop in your peak flow meter readings, and the need to use your bronchodilator more often. Talk to your doctor if you think that your asthma is getting worse. You may need to change the amount of medicine you're taking or the way you're taking it.

Will my child outgrow asthma?

Some children may not need medicine for asthma when they are older. Only your child's doctor can decide that it's okay to stop the medicine. If you stop the medicine too soon, your child could have a serious attack. This can damage your child's lungs and it can be deadly.

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