



# What You Need to Know About Asthma

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## What is asthma?

Asthma is a disease of the lungs. The airways are always a little swollen. When you exercise or breathe something that irritates your lungs, the muscles in your lungs start to tighten. The insides of your airways get more swollen. Your airways make more mucous.

To view a video about asthma visit: <http://careguides.med.umich.edu/asthma> and click on the link to the video

## What are the symptoms?

- cough
- shortness of breath
- wheezing
- chest tightness

## What can cause an asthma attack?

Triggers are things that make you have an asthma attack. Ask your health-care provider for help in deciding what triggers you need to avoid. These triggers are different for everyone.

Triggers that can cause asthma attacks include:

- cold air
- dust mites
- smoke
- chemical fumes
- pollens
- pets
- molds
- air pollution
- exercise
- emotions
- respiratory infections.

If you have asthma it is extremely important to avoid, reduce or get rid of your asthma triggers.

## **How can asthma be treated?**

### **Asthma Medications**

There are two main kinds of asthma medications: rescue (fast-acting) medications and controller medications.

**Rescue medications** help stop symptoms of asthma attacks by opening up airways. These medicines can relieve symptoms within minutes but they do not reduce or prevent the inflammation (swelling) that causes the symptoms. You need to have a rescue medication on hand for when you have an asthma attack. Some commonly used rescue medications are:

- Albuterol (ProAir® Proventil®, Ventolin®)
- Lev-albuterol (Xopenex®)

**Controller medications** help prevent and reverse asthma attacks by decreasing the inflammation (swelling) in the airways. They actually treat the disease, not just the symptoms, but must be used every day for them to work effectively. You need to use a controller medication if you have persistent asthma. Persistent asthma is when your airways are swollen enough all the time that you have asthma symptoms (cough, wheeze, shortness of breath) twice a week or more, or twice a month during sleep. Tell your doctor if you use your rescue inhaler two or more days a week, or if you wake up during the night with asthma symptoms 2 or more nights a month.

**Asthma control medications include inhaled corticosteroids such as:**

- Budesonide (Pulmicort®)
- Fluticasone (Flovent®)

- Beclomethasone (Qvar®)

**and control medications that include inhaled corticosteroids and long-acting bronchodilators** like:

- Salmeterol with fluticasone (Advair®) inhaler
- Formoterol with budesonide (Symbicort®) inhaler
- Formoterol with mometasone (Dulera®) inhaler

Inhaled steroids and combination control medications are the first line of treatment because they work best. You may need a combination of medications, including oral (tablet) “**leukotriene modifiers**” like:

- Montelukast (Singulair)
- Zafirlukast (Accolate)

Or other medications that decrease allergic asthma like

- Tiotropium (Spiriva Respimate)

**Other medications used for asthma** include oral corticosteroids and long-acting bronchodilators (not included in a combination inhaler).

**Oral corticosteroids** include:

- Prednisone tablets
- Prednisolone liquid

**Long-acting bronchodilators**, which should not be used without an inhaled corticosteroid inhaler, include:

- Salmeterol (Serevent®) inhaler
- Formoterol (Foradil®) inhaler

**Inhaler use:**

Some of the medications listed above are prescribed in the form of a metered

dose inhaler (MDI) . Correct use of the inhaler is very important. Adults and older children should usually use an inhaler with a spacer and a mouthpiece (Valved Holding Chamber). Young children and babies or people that have difficulty with the chamber should use the chamber with a mask (Valved Holding Chamber Mask). Anyone with a very severe attack may need to use a nebulizer). To learn how to use your inhaler properly visit: <http://careguides.med.umich.edu/asthma> and click on the links under “How to Use Your Metered Dose Inhaler”. Here you will find handouts and videos for using specific types of asthma inhalers. To learn how to use a nebulizer click on the link: “How to Use a Nebulizer”

## **What are signs that my asthma is not well-controlled?**

### **Monitoring your Asthma**

Many people can tell when their asthma is not well-controlled by their symptoms, such as:

- Wheezing
- Shortness of breath
- Cough
- Waking from sleep
- Unable to do some of your usual activities

If you have trouble telling when you are having an asthma attack or your asthma is difficult to control, you should learn to monitor yourself with a peak flow meter.

## **What are Asthma Action Plans?**

No matter how severe your asthma is, our goal is for you to be able to have a normal active life, with good control of your asthma. You may need to increase your medication and learn more about your triggers if your asthma is not well-

controlled. You can learn to control your asthma with a written plan from your health care provider that tells you what to do when you are doing well (green zone, all clear). It will also help you decide what to do when you are not doing well (yellow and red zones). The Asthma Action Plan summarizes everything you need to know about your asthma on one sheet.

### **Where can I learn more about asthma?**

To learn more about Asthma visit: <http://careguides.med.umich.edu/asthma>. This site includes asthma materials that have been reviewed and approved by Michigan Medicine Asthma experts.

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