



# Understanding asthma medicines

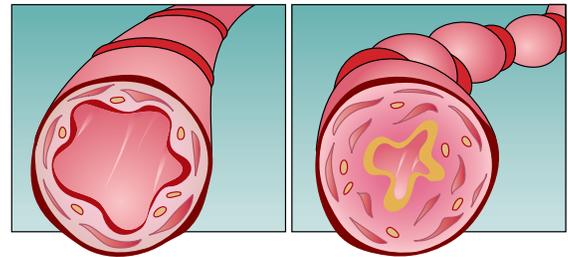
## Asthma affects the airways of your lungs

When you have asthma, two main things happen in the airways of your lungs:

- **Inflammation** (irritation)—the airways become swollen and fill with mucus
- **Constriction**—the muscles around the airways tighten, making the airways narrower

Both these things make it hard for you to breathe. The right medicine can treat the inflammation and constriction and help you control your asthma symptoms.

Airways in the Lungs



Normal airway

Airway during an asthma flare-up

## Two types of asthma medicines

### • **Controller medicines**

There are many controller medicines, including inhaled corticosteroids (ICS) and inhaled long-acting bronchodilators.

- Use these controller medicines every day as directed by your doctor, even if you feel fine, to prevent and reduce inflammation and constriction of the airways.
- By reducing inflammation and constriction, you may help control your symptoms, such as wheezing, cough, chest tightness, and shortness of breath.
- These medicines help control asthma symptoms, but if you are taking an ICS, it may take several weeks to get the full effect.

### • **Quick-relief (rescue) medicines\***

- These are short-acting bronchodilators such as albuterol.
- Use these during an asthma flare-up to relieve your symptoms or before exercise, as directed by your doctor.
- These medicines relax the muscles around your airways, opening them up and making it easier to breathe.

**\*Note:** If you use quick-relief (rescue) medicines more than twice a week, your asthma may not be controlled as well as it could be; talk to your doctor.

## Controller medicines

Controller medicines help keep your asthma under control by treating inflammation and constriction.

### **Inhaled corticosteroids (ICS)**

- Recommended by experts<sup>†</sup> for the treatment of persistent asthma
- Go to the airways to help reduce swelling and irritation
- May be taken along with a long-acting bronchodilator to help control symptoms

Do not stop taking your ICS without talking with your doctor, even if you feel better.

<sup>†</sup>National Institutes of Health (NIH).



## Controller medicines (continued)

### **Long-acting bronchodilators**

- Relax the muscles around the airways, keeping them open so you can breathe more easily
- Available as inhalers or pills
- Can help lower the risk of symptoms and improve lung function with regular use
- Usually taken once in the morning and once in the evening, about 12 hours apart
- Often taken in combination with an inhaled corticosteroid to control symptoms

### **Methylxanthines (theophylline)**

- Available as pills
- Help to open the airways by relaxing the muscles around the airways
- Periodic blood testing may be needed

### **Leukotriene modifiers**

- Available as pills
- Work against leukotrienes, one of the factors of asthma that cause airway constriction and swelling

### **Cromolyn sodium/nedocromil sodium**

- Are usually inhaled
- Used to reduce swelling and irritation
- Generally given to children
- May be used to prevent asthma symptoms before exercise or unavoidable contact with asthma triggers

## Quick-relief (rescue) medicines

Take at the FIRST sign of asthma symptoms to help provide short-term relief.

### **Short-acting bronchodilators**

- Relax the muscles around the airways
- Are usually inhaled
- Work quickly to stop symptoms that are caused by asthma triggers; the peak of relief is within 1 to 2 hours after inhaling the medicine

## Oral corticosteroids

- Usually used for short periods during a flare-up to treat swelling and irritation and get you to feel better faster
- Used for moderate to severe asthma flare-ups
- Help decrease the chance of a flare-up happening again so soon
- Sometimes used as a controller medicine in people with severe asthma

**REMEMBER:** Your responsibility is to take your medicines as directed by your doctor to help control your asthma symptoms.

*Inhaled medicines are taken through either a metered-dose inhaler, a dry powder inhaler, or a nebulizer.*