
Section 7

Medicines

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Asthma is a life-long disease. The insides of your airways become swollen and the muscles around your airways tighten. These changes cause an asthma attack. Medicines that can help control your asthma come in two general categories. Medicines that open your airways are called rescue medicines. Medicines to reduce swelling are called controller medicines. These medicines are described below.

Be sure to ask your doctor, your nurse, or your pharmacist any questions you have about the your medicines. Remember that all asthma medicines must be used according to your instructions. This includes inhalers, pills, syrups, and solutions used in your nebulizer (machine).

Do not take non-prescription (over the counter) medicines for your asthma.

Always discuss home remedies or herbal treatments with you doctor before starting their use.

Take your medications as ordered and agreed upon by you and your doctor. Do not overmedicate or under medicate.

Rescue Medicines

Rescue medicines, also called Beta-agonists, come in small inhaler canisters. You can carry the canisters in your pocket to keep them available when you need them. These medicines relax the muscles around the airways. This makes it easier to breathe. However, they do nothing to reduce inflammation or swelling.

These medicines begin to work in minutes and last up to four hours. Rescue medicines are ideal for people with mild, occasional asthma. Rescue medicines are also used for people whose asthma is caused by exercise. Rescue medicine is the only medicines to quickly relax the muscles around the airways during an asthma episode or attack.

Rescue Medicines include:

- Albuterol (Proventil®, Ventolin®, or generic)
- Bitolterol (Tornalate®)
- Metaproterenol (Alupent®)
- Pirbuterol (Maxair®)
- Terbutaline (Brethaire®)

Some people with severe asthma also take Ipratropium bromide (Atrovent) either as an inhaler or in solution in the nebulizer. This medicine works to reduce muscle tightening around your airways.

Controller Medicines

These medicines are used every day to control asthma. Controller medicines may be anti-inflammatory (to reduce swelling) or long-acting bronchodilators (to open your airways).

Anti-Inflammatory Medicines

Anti-inflammatory inhalers are helpful in controlling asthma. They work to prevent asthma attacks by decreasing inflammation and swelling. This makes the airways less sensitive to triggers. These medicines come in spray inhalers or dry powder inhalers. These inhalers must be used every day. After four to six weeks of regular use, you will see the improvement they can make in your asthma. You will notice less nighttime waking, less wheezing and coughing, fewer asthma attacks, and better breathing. Use of these inhalers may keep your lungs in good shape and stop progression of lung changes in asthma. There are two types of anti-inflammatory medicines: corticosteroids and non-steroids. Both are helpful in treating asthma. The corticosteroids are NOT related to the “steroids” abused by some athletes!

Corticosteroid inhalers include:

- Fluticasone (Flovent®)
- Beclomethasone (Beclovent®, Vanceril®)
- Budesonide (Pulmicort Turbuhaler®)
- Flunisolide (AeroBid®, AeroBid M®)
- Triamcinolone Acetonide (Azmacort®)

A combination of a corticosteroid (Flovent®) and a long-acting bronchodilator (Serevent®) is available under the brand name of Advair.

Sometimes, steroid inhalers cause side effects such as oral thrush (a white rash in your mouth and on your tongue) and hoarseness. You can decrease these side effects by rinsing your mouth out with water. Rinse and spit every time you use your inhaler. Do not swallow after rinsing your mouth.

Non-steroid inhalers include:

- Cromolyn (Intal®)
- Nedocromil (Tilade®)

Long-acting Bronchodilator Medicines:

Several long-acting bronchodilators may be used in asthma treatment. These medicines relax the muscles around the airways to make it easier to breathe. They must be taken consistently as ordered. Taking long acting bronchodilators keeps your airways open. They also help prevent asthma attacks.

Salmeterol (Serevent®, Serevent Diskus) is the only approved long-acting beta-agonist inhaler. It works within a half-hour and lasts for up to twelve hours. It is NOT used for treating acute asthma attacks. For acute asthma attacks, use your short-acting beta-agonist inhaler (albuterol inhaler).

Oral Corticosteroids are another type of anti-inflammatory medicine. Oral corticosteroids are strong medicines. They fight the inflammation and swelling of your airways. They begin to work in four to six hours. **They are not related to the “steroids” abused by some athletes.** Doctors often prescribe oral corticosteroids for a few days after a bad asthma episode or attack. When used for a short time, they have few side effects. Diabetic patients should check their blood sugars more frequently since corticosteroids can cause the blood sugar to rise.

Some patients with severe asthma need to take corticosteroids every day. Although they work well, oral corticosteroids can have side effects when taken for a long time. You should work with your doctor to achieve the lowest dose that controls your asthma. You will also review any side effects that are caused by long-term steroid use. A plan for these effects will be put in place.

Oral corticosteroids include:

- Dexamethasone (Decadron®)
- Methylprednisolone (Medrol®)
- Prednisolone (Delta-Cortef®, Pediapred®, Prelone®)
- Prednisone (Deltasone®, Prednicen-M®, Sterapred®)

Sustained-release albuterol (Proventil®, Ventolin®, Volmax®) is a long-acting beta-agonist that comes in a pill form.

Leukotriene Modifiers are another medicine. These medicines come in pill form. They can help prevent constriction of airway muscles. They can help make airways less sensitive to triggers. They decrease the need for short-acting bronchodilator rescue medicines. These medicines must be taken on a regular basis as ordered. This medicine may affect other medicines you are taking. *Please let your doctor know ALL the medicines, as well as herbs and supplements you are taking.* This will help to prevent drug interactions.

Leukotriene Modifiers include:

- Montelukast (Singulair®)
- Zafirlukast (Accolate®)
- Zileuton (Zyflo®)

Theophylline (Elixophylline®, Quibron-T®, Slobid®, Slo-Phyllin®, Theo-Dur®, Uniphyl®, others) is a bronchodilator taken in pill form. It is important to take your theophylline exactly as your doctor orders it. Too little theophylline can cause an asthma attack. Too much theophylline can cause nausea, vomiting, headache, and other bad side effects. Report any side effects to your doctor right away. Your doctor may order a theophylline blood test to see if your dose is correct for you. Certain medicines (Cimetadine, Ciprofloxin, Inderal, and Erythromycin) may cause your theophylline blood level to rise. Smoking can cause theophylline levels to decrease.