

Xopenex (Levalbuterol HCl) Inhalation Solution

<http://www.nlm.nih.gov/medlineplus/druginfo/meds/a603025.html#precautions>

Why is this medication prescribed?

Levalbuterol is used to prevent or relieve the wheezing, difficulty breathing, and chest tightness caused by lung disease such as asthma and chronic obstructive pulmonary disease (COPD; a group of diseases that affect the lungs and airways). Levalbuterol is in a class of medications called beta agonists. It works by relaxing and opening air passages to the lungs to make breathing easier.

How should this medicine be used?

Levalbuterol comes as a solution (liquid) to inhale by mouth using a nebulizer (machine that turns medication into a mist that can be inhaled), a concentrated solution to be mixed with normal saline and inhaled by mouth using a nebulizer, and as an aerosol to inhale by mouth using an inhaler. The solution for oral inhalation is usually used three times a day, once every 6-8 hours. The inhaler is usually used every 4-6 hours. Follow the directions on your prescription label carefully, and ask your doctor or pharmacist to explain any part you do not understand. Use levalbuterol exactly as directed. Do not use more or less of it or use it more often than prescribed by your doctor.

If your asthma symptoms become worse, if levalbuterol inhalation becomes less effective, or if you need more doses than usual of the asthma medications you use as needed, your condition may be getting worse. Do not use extra doses of levalbuterol. Call your doctor right away.

Levalbuterol controls symptoms of asthma and other lung diseases but does not cure these conditions. Continue to use levalbuterol even if you feel well. Do not stop using levalbuterol without talking to your doctor.

If you are using the inhaler, your medication will come in canisters. Each canister of levalbuterol aerosol is designed to provide 200 inhalations. After the labeled number of inhalations has been used, later inhalations may not contain the correct amount of medication. Throw away the canister after you have used the labeled number of inhalations even if it still contains some liquid and continues to release a spray when it is pressed.

You will need to keep track of the number of inhalations you have used. You can divide the number of inhalations in your inhaler by the number of inhalations you use each day to find out how many days your inhaler will last. Do not float the canister in water to see if it still contains medication.

The inhaler that comes with levalbuterol aerosol is designed for use only with a canister of albuterol. Never use it to inhale any other medication, and do not use any other inhaler to inhale levalbuterol.

Be careful not to get levalbuterol inhalation into your eyes.

Do not use your levalbuterol inhaler when you are near a flame or source of heat. The inhaler may explode if it is exposed to very high temperatures.

Before you use levalbuterol for the first time, **read the written instructions** that come with the inhaler or nebulizer. Ask your doctor, pharmacist, or respiratory therapist to show you how to use it. Practice using the inhaler or nebulizer while he or she watches.

If your child will be using the inhaler, be sure that he or she knows how to use it. Watch your child each time he or she uses the inhaler to be sure that he or she is using it correctly.

To use the aerosol inhaler, follow these steps:

- Remove the protective dust cap from the end of the mouthpiece. Check the mouthpiece for dirt or other objects. Be sure that the canister is fully and firmly inserted in the mouthpiece.

- Shake the inhaler well.
- If you are using the inhaler for the first time or if you have not used the inhaler in more than 3 days, you will need to prime it. To prime the inhaler, press down on the canister four times to release four sprays into the air, away from your face. Be careful not to get albuterol in your eyes.
- Breathe out as completely as possible through your mouth.
- Hold the canister with the mouthpiece on the bottom, facing you, and the canister pointing upward. Place the open end of the mouthpiece into your mouth. Close your lips tightly around the mouthpiece.
- Breathe in slowly and deeply through the mouthpiece. At the same time, press down once on the container with your middle finger to spray the medication into your mouth.
- As soon as the medication is released, remove your finger from the canister and remove the mouthpiece from your mouth.
- Try to hold your breath for 10 seconds.
- If you were told to use two puffs, wait 1 minute and then repeat steps 4-8.
- Replace the protective cap on the inhaler.

To use the solution or the concentrated solution for oral inhalation, follow these steps:

- Open the foil pouch by tearing through the rough edge along the side of the pouch and remove one vial. Leave the rest of the vials inside the foil pouch to protect them from light. Look at the solution in the vial to be sure it is colorless. If it is not colorless, call your doctor or pharmacist and do not use the solution.
- Twist off the top of the vial and squeeze all of the liquid into the reservoir of your nebulizer. Do not add any other medications to the nebulizer because it may not be safe to mix them with levalbuterol. Use all nebulized medications separately unless your doctor specifically tells you to mix them.
- If you are using the concentrated solution, add the amount of normal saline that your doctor told you to use to the reservoir. Gently swirl the nebulizer to mix the normal saline and the concentrated solution.
- Connect the nebulizer reservoir to your mouthpiece or facemask.
- Connect the nebulizer to the compressor.
- Sit upright and place the mouthpiece in your mouth or put on the facemask.
- Turn on the compressor.
- Breathe calmly, deeply, and evenly until mist stops forming in the nebulizer. This should take between 5 and 15 minutes.
- Clean the nebulizer according to the manufacturer's instructions.

Clean your inhaler or nebulizer regularly. Follow the manufacturer's directions carefully and ask your doctor or pharmacist if you have any questions about cleaning your inhaler or nebulizer. If you do not clean your inhaler properly, the inhaler may become blocked and may not spray medication. If this happens, follow the manufacturer's directions for cleaning the inhaler and removing the blockage.

Other uses for this medicine

This medication may be prescribed for other uses; ask your doctor or pharmacist for more information.

What special precautions should I follow?

Before using levalbuterol,

- tell your doctor and pharmacist if you are allergic to levalbuterol, **albuterol** (Proventil, Ventolin, others), or any other medications.
- tell your doctor and pharmacist what other prescription and nonprescription medications, vitamins, nutritional supplements, and herbal products you are taking or plan to take. Be sure to mention any of the following: beta blockers such as atenolol (Tenormin), labetalol (Normodyne), metoprolol (Lopressor, Toprol XL), nadolol (Corgard), and propranolol (Inderal); digoxin (Digitek, Lanoxin); diuretics ('water pills'); epinephrine (Epipen, Primatene Mist); medications for colds; and other inhaled medications to relax the air passages such as metaproterenol (Alupent) and pirbuterol (Maxair). Also tell your doctor or pharmacist if you are taking the following medications or if you have stopped taking them within the past 2 weeks: antidepressants such as amitriptyline (Elavil), amoxapine (Asendin), clomipramine (Anafranil),

desipramine (Norpramin), doxepin (Sinequan), imipramine (Tofranil), nortriptyline (Aventyl, Pamelor), protriptyline (Vivactil), and trimipramine (Surmontil); and monoamine oxidase inhibitors such as isocarboxazid (Marplan), phenelzine (Nardil), tranylcypromine (Parnate), and selegiline (Eldepryl, Emsam, Zelapar). Your doctor may need to change the doses of your medications or monitor you carefully for side effects.

- tell your doctor if you have or have ever had **high blood pressure, irregular heartbeat**, any other type of heart disease, seizures, diabetes, hyperthyroidism (condition in which there is too much thyroid hormone in the body), or kidney disease.
- tell your doctor if you are pregnant, plan to become pregnant, or are breast-feeding. If you become pregnant while using levalbuterol, call your doctor.
- you should know that **levalbuterol inhalation sometimes causes** wheezing and **difficulty breathing immediately after it is inhaled**, especially the first time you use a new canister of albuterol aerosol. If this happens, call your doctor right away. Do not use levalbuterol inhalation again unless your doctor tells you that you should.

What special dietary instructions should I follow?

Unless your doctor tells you otherwise, continue your normal diet.

What should I do if I forget a dose?

Use the missed dose as soon as you remember it. However, if it is almost time for the next dose, skip the missed dose and continue your regular dosing schedule. Do not use a double dose to make up for a missed one.

What side effects can this medication cause?

Levalbuterol may cause side effects. Tell your doctor if any of these symptoms are severe or do not go away:

- headache
- **dizziness**
- **nervousness**
- **uncontrollable shaking of a part of the body**
- **heartburn**
- vomiting
- **cough**
- **weakness**
- **fever**
- diarrhea
- muscle pain
- **leg cramps**

Some side effects can be serious. If you experience any of these symptoms, call your doctor immediately:

- chest pain
- **fast or pounding heartbeat**
- hives
- skin rash
- itching
- **increased difficulty breathing or difficulty swallowing**
- **hoarseness**
- **swelling of** the face, throat, tongue, lips, eyes, hands, **feet, ankles, or lower legs**

Levalbuterol may cause other side effects. Call your doctor if you have any unusual problems while taking this medication.