

Using Your Inhaler

How to use Inhaled Asthma Medicines

◆ Steps for using a metered-dose inhaler (MDI) - such as Proventil[®], Ventolin[®] and Albuterol or Flovent MDI

Priming the MDI Inhaler: When the MDI is new, hasn't been used for a while or has been dropped, it needs to be "primed" before using. Priming means discarding the first few doses or puffs before using the inhaler to ensure the dose you take contains the expected amount of medication. Check the patient instructions that came with the inhaler to determine how many doses to prime and how often to prime as each MDI is different. Shake the MDI before each primed dose.

1. Remove the cap and hold the inhaler upright.
2. Shake the inhaler.
3. Breathe out all the way.
4. Put the mouthpiece one to two inches from your open mouth.
5. Press down on the inhaler to release the medicine, while you start to breathe in slowly.
6. Continue to breathe in slowly (for 3 to 5 seconds).
7. Hold your breath for about 10 seconds. Then breath out.

THIS IS ONE PUFF!

8. Repeat steps 2-7 for more puffs as directed by your health care provider.
9. If you are on a bronchodilator inhaler wait 1 minute between puffs. You do not need to wait between puffs of inhaled steroids. Be sure to rinse your mouth with water after inhaler use.



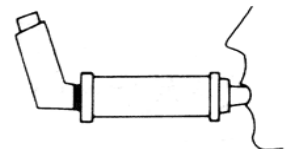
To space the inhaler about two inches from your mouth, measure the distance with two fingers as shown.

◆ A spacer (or holding chamber) makes it easier for you to use the MDI.

1. Remove the cap of the MDI and attach the MDI to the spacer.
2. Shake well.
3. Put the mouthpiece of the spacer into your mouth, exhale, and close your lips and teeth around it.
4. Press down on the inhaler to release the medicine. This puts one puff of medicine into the spacer.
5. Breathe in slowly (for 3 to 5 seconds), and then hold your breath for about 10 seconds.
6. Breathe out.
7. Take in another slow breath through the mouthpiece of the spacer (but do not spray the medicine).

THIS IS ONE PUFF!

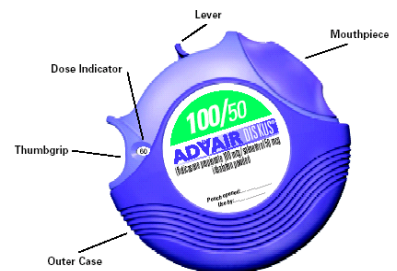
8. Repeat steps 2-7 for more puffs as directed by your health care provider.
9. If you are on a bronchodilator inhaler wait 1 minute between puffs. You do not need to wait between puffs of inhaled steroids. Be sure to rinse your mouth with water after inhaler use.



◆ The new dry powder inhalers - such as Serevent Diskus[®], Pulmicort Turbuhaler[®], Flovent Rotadisk[®], and Advair Diskus[®]:

- Do not require spacers.
- Do not require shaking before use.
- Usually have built-in "counters" that show how many inhalations are left.
- Do not give a "blast" at the back of your throat. You will feel like you are breathing air.

| Steps for using a dry powder inhaler: | Steps for using diskus: |
|--|---|
| <ol style="list-style-type: none"> 1. Exhale. 2. Close your mouth tightly around the mouthpiece. 3. Inhale RAPIDLY. 4. Hold your breath for 10 seconds, just as you would with an MDI. 5. Do not blow into the inhaler. <p>THIS IS ONE INHALATION (rapid puff)</p> | <ol style="list-style-type: none"> 1. Open: push thumb in thumbgrip until it snaps. 2. Click (Steadily slide lever away from you until it clicks. Don't slide it more than once.) 3. Inhale: hold horizontally. |



There are various types of spacers available. Yours may look different from these examples.

Check our website: www.uhs.berkeley.edu to learn more about this medical concern or others.

For an appointment www.uhs.berkeley.edu or call **510-642-2000** Clinic Nurse **510-643-7197** for advice

Asthma Medications

Your clinician may prescribe asthma medications for you. They may include **quick-relief medications** and **long term control medications**. Know the names of your medications. Also know how each one works and when to use it. Use your asthma medications as directed in your treatment plan.

*This table is not a complete list of asthma medications and does not include endorsement of any type or brand. It also does not include all actions, adverse reactions, precautions, side effects, or interactions for these medications. Only your clinician can prescribe these medications. **Talk to your health care provider or pharmacist about the possible side effects and drug or food interactions of any medication you use.**

| | Types of Medications | Examples of Medications | Possible Side Effects |
|--|--|--|---|
| Quick Relief These medications work quickly to open the airways, making it easier to breathe right away. | Short-acting Bronchodilators <ul style="list-style-type: none"> Relax muscles that tighten around the airways Help stop flare-ups once they've started Help prevent flare-ups caused by exercise | Inhaled: albuterol (Ventolin®, ProAir®, Proventil®); pirbuterol (Maxair®); Xopenex® | Inhaled: Shakiness; nervousness; dizziness; headache; faster heartbeat. |
| | Anticholinergics (not to be used alone for quick relief) <ul style="list-style-type: none"> A type of bronchodilator that may be used along with a short-acting bronchodilator to stop a flare-up Relax muscles that tighten around the airways Take longer to work than short-acting bronchodilators | Inhaled: ipratropium (Atrovent®) | Inhaled: May cause dry mouth, cough, nervousness, headache. If sprayed in your eyes, can cause temporary blurred vision. |
| Long-term Control These medications help keep your asthma under control and reduce your chances of having a flare-up. They work by preventing or reducing airway inflammation (swelling). In order to be effective, these medications must be used consistently. | Corticosteroids <ul style="list-style-type: none"> A type of anti-inflammatory used on a regular basis (and at higher doses during a flare) Protect airways from irritants and allergens Are not the same as anabolic steroids that bodybuilders may use <u>Are not</u> to be used as a quick relief medicine Help prevent flare-ups | Inhaled: beclomethasone (Qvar®, Beclovent®, Vancril®); triamcinolone (Azmacort®); flunisolide (AeroBid®); fluticasone (Flovent®); budesonide (Pulmicort®); Mometasone (Asmanex®) Oral: prednisone (Deltasone®); methylprednisolone (Medrol®); prednisolone (Prelone®, Pediapred®) | Inhaled: Hoarseness; dry mouth; fungal mouth infections; headache. Decreased bone density, cataracts and glaucoma have been reported with high doses and/or long term use. Unless you're using a dry powder inhaler, use a spacer and rinse your mouth with water after inhaling to help reduce side effects. Oral: Acne; weight gain; mood changes; high blood pressure; stomach, eye or bone problems. If used for a long time and stopped too quickly, serious side effects may occur. |
| | Long-acting Bronchodilators <ul style="list-style-type: none"> Work longer, but more slowly, than short-acting bronchodilators Can help reduce nighttime symptoms or flare-ups caused by exercise Help prevent a flare-up, but cannot stop a flare-up in progress | Inhaled: salmeterol (Serevent®) Are no longer recommended to be used by themselves since they can rarely be associated with increases in severe asthma flares. | Inhaled: Headache; dizziness; insomnia; nervousness; muscle twitching; faster heartbeat; nausea. |
| | Combination Drugs <ul style="list-style-type: none"> combined corticosteroids and long acting bronchodilators Don't replace fast-acting inhalers for sudden symptoms Should not be taken more than twice daily | Inhaled: fluticasone and salmeterol (Advair®), Budesonide and Formoterol (Symbicort®) | Inhaled: Possible side effects same as corticosteroids and long acting bronchodilators. No spacer needed. |
| | Other Anti-Inflammatories <ul style="list-style-type: none"> Prevent airway inflammation (swelling) triggered by irritants and allergens Help prevent flare-ups caused by exercise | Inhaled: cromolyn (Intal®); nedocromil (Tilade®) | Inhaled: Side effects are rare. Dry throat; nausea. |
| | Leukotriene Modifiers <ul style="list-style-type: none"> Block the asthma inflammatory response to some triggers Can be helpful in exercise induced asthma | Oral: zafirlukast (Accolate®); montelukast (Singulair®) | Oral: Side effects are rare. Headache; dizziness; nausea. Be sure to tell your clinician if you are taking any other medications. |