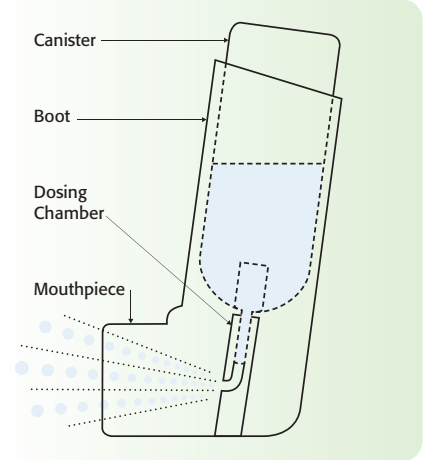


## Using Your New Inhaler With HFA Propellant

If you have a lung disease such as chronic obstructive pulmonary disease (COPD) or asthma, you are probably using an inhaler. There are several different types of inhalers, all of which deliver medicine into your lungs. However, if you have never been taught to use your inhaler correctly, then you may not be getting the full benefit of your inhaled medicine. At your next visit with your health care provider, bring your inhaler(s) and ask them to check that you are using them correctly.



### Using Your Metered Dose Medication Inhaler (MDI)

A metered dose inhaler (MDI) is a small device used to deliver medicine that you breathe into your lungs. A dose of medicine comes out with each spray (puff). It can be hard to coordinate taking a breath into your lungs and activating the spray at the same time. In fact, using the best technique, you may only get 15% of what comes out of the inhaler into your lungs. Your healthcare provider may recommend that you use a device called a spacer/chamber, which stores the puff in the chamber until you breathe it in, giving you a better chance of getting the medicine into your lungs. Some spacer/chambers can increase the amount of medicine that comes out of the inhaler into your lungs to 20-25%, but not all spacers can increase delivered dose to this percentage. When choosing a spacer/chamber, ask for one that has a one-way valve, which keeps the medicine in the chamber until you breathe it in. You should get fewer side effects from the medicine if it goes into your lungs and does not get sprayed into the back of your throat or on your tongue.

### What is an HFA inhaler?

There are several substances in the inhaler in addition to the medication. The substance that causes the medication to spray (the propellant) has been *chlorofluorocarbon* (CFC) until recently. Since CFC's have been found to damage the ozone layer, they are banned from production. The new propellant in your inhaler will be *hydrofluoroalkane* (HFA). HFA is not your medication but helps deliver your medication.

### Which inhalers will have HFA?

Any inhaler discharging a liquid such as *albuterol*, *levalbuterol*, *salmeterol* and *beclomethasone* (in liquid form) now use HFA. Devices that have medication in powdered form such as *formoterol*, *salmeterol*, *tiotropium*, and most combination inhalers, do not require a propellant.

### Will my inhaler work the same way with the HFA propellant?

MDI's using HFA will actually improve your chances of


getting a good dose of the medicine.

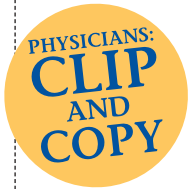
HFA propellant comes out of the inhaler in a softer manner and the medicine particles are smaller in size. The finer the spray, the smaller the particles in each puff and the better the chance of getting medication into your lungs. Although you may also not feel the same "kick" you received from your CFC inhaler and may wonder if you're getting enough medication, it's likely that you are. You should also note that if you can "see" the spray, the particles are too large to get into your lungs.

### Using a Spacer/Chamber Device

A spacer/chamber device should be used with all MDI's (inhalers that spray liquid, not inhalers with dry powder) to increase the amount of medication that gets into your lungs. If you are inhaling a steroid medication by MDI, it is even more important that you use a spacer/chamber. This will lessen the amount of drug that lands in your mouth. If you do not have a spacer/chamber, use the technique ("open" or "closed" mouth) that works best for you.

### How to use your MDI with and without a spacer/chamber.

		<p><b>Using Your Metered Dose Inhaler WITH a Spacer/Chamber</b></p>
1.	Put the metal canister of your MDI into the "boot" or holder (see drawing). Shake well.	
2.	Remove the cap from the mouthpiece of both the MDI and the spacer/chamber.	
3.	Insert the MDI mouthpiece in the soft opening of the spacer/chamber with the canister in an upright position.	
4.	Breathe out to the end of a regular breath.	
5.	Place the mouthpiece of the spacer/chamber into your mouth. Close your lips around the mouthpiece. Make sure your tongue is below the mouthpiece. (If you use a spacer/chamber with a mask, position the mask over your nose and mouth. Be sure the mask has a good seal against your cheeks and chin).	



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6.	Press down on the top of the metal canister one time to release the medicine into the spacer/chamber. Breathe in deeply and slowly through your mouth. If the spacer/ chamber whistles, you are breathing in too fast. You should not hear a whistle.
7.	Hold your breath for 5 to 10 seconds.
8.	Breathe out slowly.
9.	If you are instructed to take more than one spray (puff) each time you use your MDI, wait a minute or more before repeating steps 4-8.
10.	Replace the cap on the mouthpiece after you have finished.
11.	If you are inhaling a steroid, rinse your mouth out with water or a mouth-wash, and then swallow some water.
12.	You can use one spacer/chamber with all of your MDIs.



**Using Your Metered Dose Inhaler WITHOUT a Spacer/Chamber**

1.	Put the metal canister into the "boot". Shake well.
2.	Take the cap off of the mouthpiece.
3.	Breathe out to the end of a regular breath.
4.	Hold the inhaler in its upright position with the mouthpiece at the bottom. Place the mouthpiece between your teeth while keeping your lips open (see pictures).
5.	While breathing in deeply and slowly through your open mouth, fully press down on the top of the metal canister of your inhaler one time.
6.	Hold your breath for 5 to 10 seconds.
7.	Breathe out slowly.
8.	If you are instructed to take more than one spray (puff) each time you use your MDI, wait a minute or more before repeating steps 3-7.
9.	Replace the cap on the mouthpiece after you are finished.
10.	If you are inhaling a steroid, rinse your mouth out with water or a mouth-wash and then swallow some water.

### Priming Your Metered Dose Inhaler (MDI)

The first time you use a new MDI you will need to prime your inhaler. If you have not used your inhaler for several days or weeks, you may need to prime your inhaler again. To prime your MDI, remove the cap, shake the inhaler, and then spray it once away from you. The instructions that came with your inhaler will tell you when your MDI needs to be primed and how many times the MDI needs to be shaken and sprayed when being primed. Each inhaler may recommend a different number of times to shake and spray away from you and how often you need to do this.

### How to Tell When Your Metered Dose Inhaler (MDI) Is Running Out of Medicine

If you want to know how long your MDI should last, count how many puffs you take each day. Then look at the label on your MDI and see how many doses (puffs) are in the canister. Most canisters have 200 puffs (samples you get from your provider may be less than 200).

Divide the number of puffs you use in one day into the number of puffs in the canister. For example, if you use 8 puffs per day (2 puffs 4 times a day) and the inhaler has 200 puffs,

the inhaler will last 25 days. If you take a total of 4 puffs a day, your inhaler will last 50 days. Floating the metal canister in water or listening as you shake it are not the best ways to see how much medicine is left in your MDI. Be sure and check the expiration date on your MDI. The expiration date will be on the label of the metal canister or on the box it came in.

### Cleaning Your Metered Dose Inhaler (MDI) and Spacer/Chamber

Because the spray from the HFA inhaler is so fine, the hole where the medication comes out of may clog. Check the hole where the medication comes out and wash the "boot" regularly with soapy water, then rinse, and let air dry before you put the canister back in the holder.

Spacer/chambers should also be cleaned once a week. Check the directions that come with your spacer/chamber for cleaning instructions. Do not put the spacer/chamber in the dishwasher as the heat will cause the valve to become brittle and remain in the open position. Replace your spacer/chamber whenever the rubber valve stiffens or becomes brittle.

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*For more information contact the following websites:*

**American Thoracic Society**

<http://www.thoracic.org/clinical/copd-guidelines/index.php>

**American College of Chest Physicians**

<http://www.chestnet.org/patients/guides/inhaledDevices.php>

**UpToDate inc.**

[http://patients.uptodate.com/topic.asp?file=al\\_asthm/5100](http://patients.uptodate.com/topic.asp?file=al_asthm/5100)

## Rx Taking Action

- ✓ Bring your MDI and spacer/chamber with you each time you see your health care provider and show them how you use it.
- ✓ If you can, use a spacer/chamber each time you use your MDI.
- ✓ Breathe in through your mouth (and not your nose) when using your MDI.
- ✓ The new HFA propellant may feel different to you. This does not mean you are not getting the medication in your lungs
- ✓ Keep your MDI boot and spacer/chamber clean and dry
- ✓ If using more than one kind of inhaled medicine, usually the quick acting medication (*albuterol, levalbuterol, Combivent*) are used first.
- ✓ Get a new spacer/chamber whenever the valve stiffens or becomes brittle.
- ✓ Prime your MDI when new and as instructed in the package insert.

**Doctor's Office Telephone:**