

Asthma Inhalers

Brown Health Services Patient Education Series

Asthma Medicines and Devices

Asthma medications generally fall into two classes: **bronchodilators**, which stop asthma attacks after they've started, and can help prevent attacks from specific triggers, and **anti-inflammatories (steroids)**, which control the airway inflammation and prevent asthma attacks from starting. These medicines come in several brands and various forms such as sprays, pills, powders, liquids and injections. Your provider will determine the ones which are best for you then review use and possible side effects.

Metered-Dose Inhalers

The most common device used to deliver medicine to the lungs is the metered-dose inhaler.

Inhalers have two parts:

- canister consisting of a propellant and the medicine
- mouthpiece with a cap

Easy to use:

- Press down the top of the canister
- Inhale the medicine that is released.

Dry Powder Inhalers

As an alternative to the aerosol-based metered-dose inhalers, dry powder inhalers deliver medicine from a capsule in powder form.

- breath- activated
- requiring the patient to inhale forcefully to pull the powder from the device into the lungs
- Examples of this type of inhaler: Discus, Spinhalers or Twisthalers.

Nebulizers

Medication may also be administered using a nebulizer.

- Provides a larger, continuous dose

- Vaporize a dose of medication in a saline solution into a steady stream of foggy vapor inhaled by the patient.

Spacers

A spacer is a tube-shaped device that is attached to metered-dose inhalers, increasing the amount of medicine deposited onto the lung tissue, thus making the medicine more effective. Always use a spacer with any medicine in a metered dose inhaler.

- Goes between the patient's mouth and the mouthpiece of the inhaler
- Acts as a reservoir that briefly holds the medication
- Allows a patient to inhale the medicine without having to coordinate the breathing and mechanical actions needed to use the inhaler
- Delivers the medication directly to the lungs, where it works to open airways
- Some metered dose inhalers (MDIs) have built-in spacers.

The patient should follow instructions that come with the specific product.

How do I use my metered dose inhaler?

1. If it is the first time you have used the inhaler, or if it has been more than 2 weeks since your last use:

- Take the cap off the mouthpiece and shake the inhaler for 5 seconds.
- Press down on the canister to spray the medicine into the air (away from your face) 3 times.

2. Next hold the inhaler upright with your finger on the top of the canister and your thumb holding the bottom of the inhaler.

3. Breathe out a normal breath.

4. Close your lips around the spacer's mouthpiece.

5. Press down on the canister.

6. Inhale the medicine that is contained in the spacer device (over 5-10 seconds in one deep inhalation, or 5-10 normal breaths). Keep lips sealed around the mouthpiece while completing one long inhalation, or for the entire duration of 5-10 normal breaths.

7. Some spacers let you know if you breathe in too fast by making a whistle noise. If you hear a whistle noise when you breathe in, make sure to breathe in more slowly.

8. If you are inhaling the medicine in one deep, slow breath in: When your lungs are full, hold your breath for 5 to 10 more seconds to keep the medicine in your lungs, then exhale.

9. Wait 30-60 seconds before you take the next puff (if ordered). Repeat steps 2-5. Put the cap back on the mouthpiece.

10. If you do not have a spacer device, hold the inhaler in front of your open mouth and push the cartridge down as you take in a breath. Then follow steps 8-9. Timing the inhalation and medicine delivery without a spacer device is more difficult and less effective. Spacers optimize dosing and ease of use.

11. If your inhaler contains steroid medication, rinse your mouth and spit after use to help prevent the

uncommon side effect of a yeast infection in your mouth (thrush).

Other important instructions

To clean an inhaler:

- remove the canister and cap from the mouthpiece
- Do not wash the metal canister or put the canister under water.
- Run warm water through the mouthpiece for 30 to 60 seconds.
- Shake the water off of the mouthpiece and let it air-dry overnight.

Some inhalers come with a built-in dose counter to track how many doses are left in your inhaler.

- When the counter reads 0 (zero), it has no more medicine in it.
- Have another inhaler on hand before the counter reads 0.

Call EMS (401-863-4111) immediately if breathing does not improve after using medications.