

Inhalers

What is an inhaler?

An inhaler is a hand-held device that delivers a measured amount of medicine to be breathed into the lungs. There are many medicines, and they come in two types of inhalers:

- **metered dose inhaler (MDI)** - the medicine is a mist, which comes out when you press down on the inhaler
- **dry powder inhaler (DPI)** - the medicine is in a powder form, and activated when you breathe in (available in a Diskus[®] and a Flexhaler[®])

How should I use an inhaler?

You may have one or more types of inhalers. They need to be used correctly to do the most good. If you use them wrong, most or all of the medicine will not go into the lungs, but will end up in the back of your mouth.

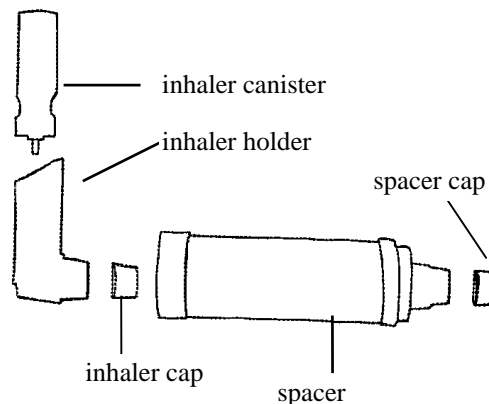
Follow the instructions below for the type of inhaler prescribed. Ask the nurse or respiratory care practitioner to watch you use it. Be sure to stand up or sit up straight, to help the medicine go deeply into the lungs.

If you use more than one kind of inhaled medicine at a time, the reliever medicine (such as albuterol) should be taken first to open the airways. This helps the other medicine(s) go deeper into the lungs, so they will work better.

Metered dose inhaler (MDI)

A metered dose inhaler is used with a spacing device, also called a spacer or holding chamber. It helps the mist reach deeply into the airways. The less medicine stays in the throat, the less likely your child will have such side effects as hoarseness or irritation of the throat or tongue. Younger children may need to use a spacer with a mask. Talk with your doctor or nurse practitioner about which spacer is right for you.

Inhaler and spacer parts

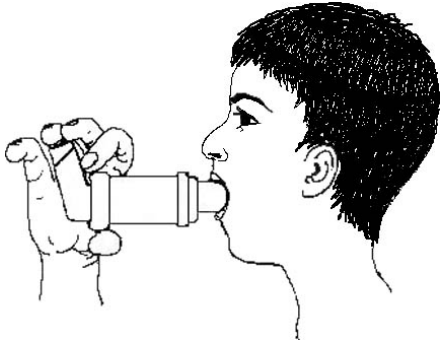


Prepare the inhaler:

1. Remove caps from the inhaler and the spacer and make sure nothing is there that could be accidentally inhaled.
2. Shake the inhaler well (about 5 seconds) to mix the medicine and propellant. The first time you use an MDI, do a test spray into the air, to see that it works.
3. Insert the inhaler into the spacer. Hold the inhaler upright or it will not spray.
4. Attach a mask, if using.

Using a spacer without a mask

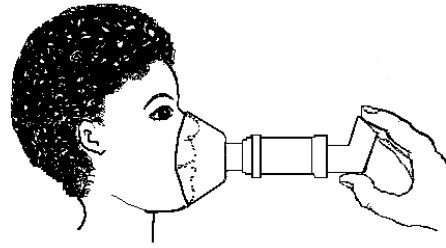
1. Put the mouthpiece into your mouth, over your tongue and between your teeth. Close your lips around it while tilting your head and the inhaler back slightly.



2. Thinking about your breaths, breathe normally. When ready, breathe out slowly all the way.
3. Press down on the inhaler at the start of a slow deep breath.
4. Breathe in **slowly and deeply** through your mouth, taking at least 3 to 5 seconds to fill your lungs completely. (Breathing too fast makes the medicine stick to the back of the mouth. Some spacers whistle if you breathe too fast.)
5. Hold your breath for 10 seconds to let the medicine stay in the lungs and airways. (If your child is too young to hold a breath, tell your doctor or nurse practitioner.)
6. Exhale slowly.

Using a spacer with a mask

1. Put the mask over nose and mouth.



2. Press down on the inhaler.
3. Keep the mask sealed around the nose and mouth and breathe in for 3 to 5 breaths.

Follow your doctor's or nurse practitioner's instructions about the number of puffs to take. When inhaling a reliever medicine, wait 1 minute between puffs. This will open the larger airways so that the second puff will reach the smaller airways.

After using a corticosteroid (controller) inhaler, rinse your mouth and spit without swallowing.

How do I know when an MDI is empty?

On a calendar, keep track of the number of puffs you use in a day. Each inhaler's label lists the number of puffs/doses that are in it. When you reach the number of puffs in the inhaler, throw it away and get a new one. Ask your doctor, nurse, or pharmacist for help if you are not sure. Some inhalers have counter windows so you know how many doses are left. Floating an inhaler in water to check it is **not** recommended, as this may contaminate the medicine.

How do I care for an MDI?

Clean your inhaler holder and spacer once a week. Put them in a dishwasher, or wash them by hand with mild dish soap, rinse, and let air-dry. After cleaning, make sure the valves are working properly.

Store at room temperature in a dry place away from direct heat or sunlight.

Dry powder inhaler: Diskus

1. Hold the Diskus in one hand. Push the thumbgrip back as far as it will go, until the mouthpiece appears and snaps into place.
2. Hold the Diskus level, with the mouthpiece towards you. Slide the lever all the way until it clicks. Keep the Diskus still to avoid wasting a dose.
3. Turn your head away from the Diskus and breathe out completely.
4. Put the mouthpiece between your lips. Breathe in **steadily and deeply**.
5. Remove the Diskus from your mouth.
6. Hold your breath for 10 seconds. Then breathe out slowly.
7. Close the Diskus by sliding the thumbgrip back as far as it will go. The Diskus will click shut and the lever will be reset.
8. Rinse your mouth and spit without swallowing.

How do I care for a Diskus?

- Never exhale into the Diskus.
- Never try to take it apart.
- Keep it level when using it.
- Never wash the mouthpiece or any part of it.
- Store at room temperature in a dry place away from direct heat or sunlight.
- Throw it away 2 months after removing it from the foil wrap, or when it is empty, whichever comes first.

How do I know when the Diskus is empty?

The dose indicator on top tells how many doses are left. The number will go down each time you use the Diskus. After 55 doses, the numbers 5 to 0 will be red to show that it's almost empty. This is when to get your next Diskus. When the number is 0, throw the Diskus away and use a new one.

Dry powder inhaler: Flexhaler

Priming the Flexhaler

A new Flexhaler should be primed once before its first use. No further priming is needed, even if it is unused for a long time. Follow these steps.

1. Turn the cover and lift it off.
2. Hold the Flexhaler upright, with mouthpiece up.
3. Twist the brown grip fully to the right and back again to the left.
4. Repeat step 3. Now it is ready for use.

Using the Flexhaler

1. Twist the cover and lift it off. Hold the Flexhaler upright (mouthpiece up).
2. Twist the brown grip to the right as far as it will go, then back to the left until it clicks.
3. Turn your head away from the Flexhaler and breathe out completely. (Note: Do not shake or exhale into it.)
4. Put the mouthpiece between your lips and inhale **deeply and forcefully** to fill your lungs.
5. Remove the Flexhaler from your mouth.
6. Hold your breath for 10 seconds. Then breathe out slowly.
7. Repeat steps 2 through 6, if a second puff is prescribed.
8. When finished, replace the cover and twist shut.

9. Rinse your mouth and spit without swallowing.

How do I care for a Flexhaler?

- Store at room temperature in a dry place away from direct heat or sunlight.
- Throw it out by the date shown on the inhaler, or when it is empty, whichever comes first.

How do I know if a Flexhaler is empty?

The dose indicator window shows how many doses are left in the inhaler. The inhaler is empty when the “0” on the red background reaches the middle of the window. Throw the inhaler away and start a new one.

Questions?

This sheet is not specific to your child, but provides general information. If you do not understand how your medicines work in your lungs, or have any other questions, please call the clinic. If difficult breathing is not relieved by your quick-acting bronchodilator, **call 911**.

For more reading material about this and other health topics, please call or visit the Family Resource Center library, or visit our Web site: www.childrensmn.org.

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