



Metered Dose Inhaler with Holding Chamber (Spacer) and Mask

Patient and Family Education

This teaching sheet contains general information only. Your child's doctor or a member of your child's health care team will talk with you about specific care for your child.

What is a metered dose inhaler (MDI)?

A MDI (or inhaler) is a device that contains asthma medicine. It delivers the medicine into the lungs. The MDI needs to be used in a certain way, or it will not work.

What is a spacer?

A spacer is a plastic tube with a mask that connects to the MDI. The spacer helps more of the medicine get into the lungs where it can help your child. If your child uses the MDI without a spacer, a lot of the asthma medicine can stick to the tongue and throat instead of going to the lungs. This "wastes" the medicine and decreases its usefulness.

How should my child use an MDI with spacer?

Follow the directions from your child's therapist, nurse or doctor closely. Read the directions on the medicine, MDI and spacer labels carefully before use. Your child's doctor will give you specific instructions for your child. Some general guidelines for you to follow include:

1. Wash your hands well.
2. Have your child sit up straight or stand to use the MDI.
3. Remove the cap from the inhaler.
4. Shake the inhaler well before using it each time. If it is a new inhaler or has not been used in several days, follow the manufacturer instructions for priming the inhaler.
5. Attach the inhaler to the spacer.
6. Cover your child's mouth and nose with the mask. If your child fights the mask, have another person gently hold his arms.
7. Press the inhaler to spray the medicine into the spacer.
8. Keep the mask in place until your child takes 6 or 7 deep breaths. If counting breaths is a problem, slowly count to 10. The number of breaths needed to remove all the medicine can vary based on the size of the child. Small babies may need to take 6 – 10 breaths to empty the spacer.
9. Remove the mask.
10. If your child's doctor has told you to give two puffs, wait at least one minute, shake the MDI and repeat steps 6 – 9.

How should I use the mask with my child?

Giving asthma medicine should be a positive time for you and your child. Here are some ideas you can use to help get your child used to the mask:

- Explain the purpose of the mask and spacer to your child.
- Make a game out of its use. One idea is to have your child pretend he is an astronaut on a space ship.
- Give your child lots of praise when he does use the mask, even for a short time.

In case of an urgent concern or emergency, call 911 or go to the nearest emergency department right away.

MDI with Holding Chamber and Mask, continued

- Almost all children, even toddlers can learn to use a spacer and mask. However, if you find your child consistently fights the mask as it is placed over the nose and mouth – **stop** and do not force the treatment.

If your child still cannot use the mask, let your doctor know **right away**. Your child may be able to use a nebulizer instead to give the asthma medicines.

How can I keep track of how much medicine I've used?

Many inhalers come with a dose counter. If it does not have one, it is important that you keep track of how much you use. Here are a few ways that may help:

- The most accurate way is to count the number of doses your child uses each day and mark it on the calendar. Compare the number of doses used with the number of doses on the canister – most canisters tell you how many doses it contains. (For example, if your child uses 3 puffs each day from a 200-puff canister, get it refilled in 60-65 days). Be sure to mark what day that you start using a new inhaler on the calendar so you can keep track of the number of doses left.
- Place a blank label on the inhaler. Place a “✓” on the label after each puff until you reach the number of puffs listed on the canister label.
- Write a refill date on the canister each time you get a new MDI at the drug store. If your child uses about the same number of doses each day, you'll know to get a refill at the same time each month. This only works if your child does not use the inhaler for extra rescue doses.
- Do **NOT** float your canister in water to see if it sinks or floats – this is **NOT** accurate and may lead to not having medicine when your child needs it.
- Be sure to refill your prescription before the canister runs out. An inhaler never feels like it is getting empty. You must keep up with the number of puffs used, including puffs used to prime the inhaler.

How should the spacer and mask be cleaned?

Rinse the spacer and mask as needed with warm, running water. Clean them once a week with warm water and soap. Allow the spacer and mask to air dry between uses.

Do not clean or dry the inside of the spacer with a cloth or fabric. This can create an electric charge on the inside of the spacer. The charge will decrease the amount of medicine that goes to your child's lungs.

The mouthpiece (boot) holding the canister must be rinsed with warm running water once a week, do not soak it. When placing the canister back into the dried boot, it must be primed with one puff (refer to manufacturer's instructions).

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