



How to Use Asthma Medicines

Based on their broad experience in treating childhood asthma, the allergists at Riley at IU Health have developed a comprehensive educational approach to managing asthma. This approach helps patients take control of their asthma and educates the whole family about asthma, its triggers and its treatment.

We teach patients and families how to use asthma medicines correctly. Patients need clear instructions on how to take asthma medications. If not taken correctly, the medicines will not be effective. New medications and medication delivery devices are introduced frequently, so it is important to be aware of how to use them properly.

Aerosolized Medications

An aerosolized medication is a liquid medicine that has been changed into a fine mist. Your child breathes this fine mist into his or her lungs for asthma relief. Together, a small air compressor, tubing, mask and medication-holding chamber (called a nebulizer) are often referred to as a nebulizer machine. This machine is used to change a liquid medication into a mist that is delivered to the lungs with each breath. The home care company of your choice provides this machine for your child and teaches you how to use it and care for it.

General Steps for Aerosol Treatment

1. Plug in the machine.
2. Connect the tubing to the machine nozzle.
3. Place the medicine in the nebulizer cup.
4. Place the mask or mouthpiece on the nebulizer cup.
5. Connect the tubing to the bottom of the nebulizer cup.
6. Turn the compressor on.
7. Breathe in the mist until the nebulizer cup is empty. This may take up to 15 minutes.
8. Encourage slow, deep breathing to allow the medicine to go deeper into the lungs.

Helpful Hints

- Babies and young children breathe through a mask that directs the medicine to the nose and mouth. Older children use a mouthpiece to inhale the medicine.
- The masks and mouthpieces are available in many sizes. Be sure to obtain the correct size for your child.
- Young children may not want to sit quietly during treatments. It may be helpful to have them watch TV, read a book, sing a song or even offer some special indulgence that they can look forward to after treatment.
- It is best to finish an aerosol treatment even if your child is resisting the treatment. Your child needs to know that this medicine is important and that you will give it regardless of his or her actions. Your child should eventually become comfortable with the aerosol treatments.

Dry Powder Inhalers (DPIs)

Correct Use of the Diskus Inhaler

1. Place your thumb on the thumb grip and push away to uncover the mouthpiece. The thumb grip will snap into position.



2. Inspect the mouthpiece for foreign objects.
3. Hold the Diskus in a level position with the mouthpiece toward the face.
4. Slide the lever until it clicks. The medicine dose is now ready.
5. Breathe out slowly.
6. Place the mouthpiece to your lips and breathe in quickly and deeply.
7. Remove the Diskus from your mouth.
8. Hold your breath for 10 seconds to allow the medicine to reach deeply into the lungs.
9. Breathe out slowly.
10. Repeat puffs as directed, starting with step 3.

Correct Use of Rotadisk

1. Remove the mouthpiece cover.
2. Hold the corners of the mouthpiece tray and slide it out and back in to rotate the disk. The medicine dosage is set.
3. Place the device in a level position.
4. Lift the lid fully to pierce the medicine blister.
5. Breathe out slowly.
6. Place the mouthpiece in your mouth and breathe in steadily and deeply.
7. Remove the Rotadisk from your mouth.
8. Hold your breath for 10 seconds to allow the medicine to reach deeply into the lungs.
9. Repeat puffs as directed, starting with step 2.

Helpful Hints

- Each disk has four medicine blisters. The blisters are numbered starting with four. This will show you how many doses are left.
- Breathe in through your mouth.
- Use the provided brush to remove any powder left behind.

Correct Use of Aerolizer

1. Remove the Aerolizer inhaler cover.
2. Hold the Aerolizer base firmly and twist the mouthpiece in the direction of the arrow to open.
3. Remove the capsule from the foil and place it in the Aerolizer base. **Never place the capsule in the mouthpiece.**
4. Twist the mouthpiece back to the closed position. (You will hear it click.)
5. Hold the Aerolizer upright and press both blue buttons at the same time. Press only once and release.
6. Exhale fully. Place the mouthpiece in your mouth, closing your lips around the mouthpiece. Keep the blue buttons on the left and right of the Aerolizer (not up and down).
7. Breathe in rapidly and deeply. You will hear a whirring noise as the medicine empties. If you do not hear this, the capsule is stuck. Open the Aerolizer and loosen the capsule. **Do not** press the blue buttons again.
8. Hold your breath for 10 seconds and then breathe out.
9. Open the Aerolizer to check if there is any remaining powder. If you see powder, repeat steps 6-8.
10. Open the Aerolizer and remove the capsule. Do not leave an empty capsule in the chamber.
11. Close the mouthpiece and replace the cover.



Correct Use of the Flexhaler and Other Dry Powder Inhalers

1. Remove the cap.
2. Inspect the mouthpiece for foreign objects.
3. While holding the inhaler upright, twist the grip fully to the right or left and then back again. You will hear a click.
4. Breathe out slowly.
5. Close your mouth tightly around the mouthpiece.
6. Breathe in rapidly and deeply.
7. Remove the mouthpiece from your mouth.
8. Hold your breath for 10 seconds to allow the medicine to reach deeply into your lungs.
9. Exhale.
10. If repeat inhalation is needed, start with step 3.

Metered-Dose Inhalers

Correct Use of Metered-Dose Inhalers

1. Remove the cap and hold the inhaler upright.
2. Shake the inhaler.
3. Tilt your head back slightly and breathe out slowly.
4. Position the inhaler 1 to 2 inches away from your mouth with your mouth open.
5. Press down on the inhaler to release a puff of medicine as you start to breathe in slowly.
6. Breathe in slowly (three to five seconds).
7. Hold your breath for 10 seconds to allow the medicine to reach deeply into the lungs.
8. Repeat puffs as directed. Waiting one minute between puffs helps the second puff to get farther into the lungs.

Helpful Hints

- Breathe out before pressing the inhaler.
- Inhale slowly.
- Breathe in through your mouth, not your nose.
- Press down on the inhaler at the start of inhalation (or within the first second of inhalation).
- Keep inhaling as you press down on the inhaler.
- Press the inhaler only once while you are inhaling (one breath for each puff).
- Make sure you breathe in evenly and deeply.

Correct Use of Breath Actuated Inhalers

1. Remove the cap and hold the inhaler upright.
2. Inspect the mouthpiece for foreign objects.
3. Shake the inhaler.
4. Push the tab up to set the dosage.
5. Tilt your head back slightly and breathe out slowly.
6. Place the mouthpiece in your mouth.
7. Breathe in deeply and the medicine will automatically be discharged.
8. Hold your breath for 10 seconds to allow the medicine to reach deeply into the lungs.
9. Remove the mouthpiece and exhale.



10. Repeat puffs as directed starting with step 4. Wait one minute between puffs to help the medicine get farther into the lungs.

Correct Use of Metered-Dose Inhaler With Spacer and Mask

1. Remove the cap and hold the inhaler upright.
2. Inspect the mouthpiece for foreign objects.
3. Shake the inhaler.
4. Push the inhaler into the rubber end of the spacer.
5. Place the soft mask on the face, covering the mouth and nose.
6. Keep the mask firmly against the face so that no air escapes around it. (Your child is able to easily breathe through the mask.)
7. Press down on the inhaler to release a puff of medicine.
8. Continue to hold the mask firmly against your child's face while he or she breathes at least six times.
9. Wait one minute and repeat a puff if directed. The waiting time helps the second puff get farther into the lungs.

Helpful Hints

- If your child is scared of the mask, let your child hold it or rub it on his or her cheek.
- If your child cries during the treatment, he or she will still receive the medicine as long as the mask is firmly against his or her face with no air escaping.
- It may be necessary to hold your child's arms down to keep him or her from pulling the mask away from the face.
- Many inhalers have a counter that indicates the number of doses left. Look at the counter frequently to be sure that doses are available for use. The counter will help you know when to refill the prescription.

Warning Signs of Difficult Breathing

If your child has any of the symptoms below, follow your emergency medicine plan. **If these symptoms are not relieved within 30 minutes or your child's symptoms worsen, take your child to the hospital:**

- Chest is pulling in with each breath (may be seen between and below the ribs or at the throat or shoulder blades)
- Nose flares with each breath
- Child cannot finish sentence without extra breath
- Child is hunching shoulders upward with each breath
- Infant is unable to nurse or take a bottle
- Breathing is fast or shallow
- Your child appears unusually scared because of difficulty breathing

If your child has any of the symptoms below, call 911:

- Lips or nail beds are gray or blue
- Difficult to walk or talk
- Cannot stop coughing
- Extreme difficulty breathing