



NATIONWIDE CHILDREN'S
When your child needs a hospital, everything matters.

Helping Hand™

Health Education for Patients and Families

Aerosol Therapy

An aerosol (AIR o sol) is a mist that has medicine in it. Aerosols help make breathing problems better. Your child breathes it into the lungs through a mask or mouthpiece (Picture 1). The effect of the aerosol depends on the type of medicine used.

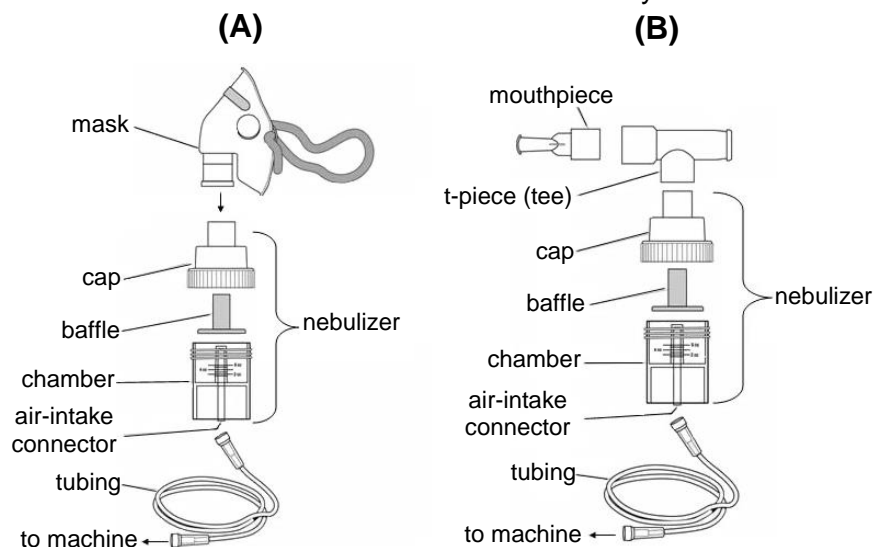
Find a quiet activity for your child to do while they sit up for the treatment. Some examples are reading a book, drawing, or playing a quiet game. To get familiar with the mask, let your child hold it, look at it, and try it on. Tell your child it might smell funny, but after they breathe in the medicine, they won't notice the smell anymore.

You will need:

- 1 or 2 nebulizers (depending on the medicine)
- aerosol machine (compressor)
- tubing
- 1 or 2 masks or mouthpieces (Picture 2)
- medicine prescribed by your child's health care provider (check the expiration date)
- clear white vinegar for cleaning the equipment (or disinfectant if ordered by your child's health care provider)



Picture 1 The mask is used with the nebulizer until the child is about 6 years old.



Picture 2 The nebulizer is used with either a mask (A) or a mouthpiece (B).

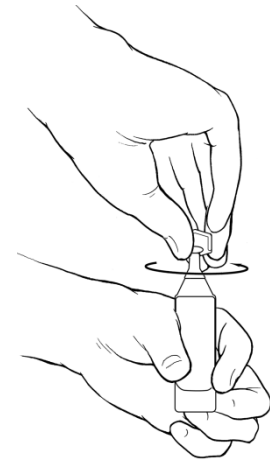
If your child uses Pulmicort Respules[®], Pulmozyme[®], Tobi[®], Bethkis[®], or Hyper-Sal, they should use a PARI[™] nebulizer. If you do not have one, talk to your child's provider.

NOTE: Do not give more of this medicine than is prescribed. If it does not work, call your child's health care provider right away.

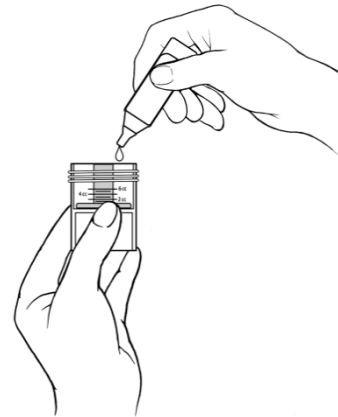
How to give this medicine

Opening the medicine and connecting the machine

1. Wash your hands. Have your child wash their hands too.
2. Unscrew the nebulizer and remove the cap from the chamber.
3. You will get the medicine from the pharmacy in a plastic vial or bottle. It is ready for use in the machine. Open the vial of medicine (Picture 3) and put it all in the chamber of the nebulizer (Picture 4).
4. Hold the chamber still and screw the cap back onto the chamber (Picture 5).
5. Connect the mask or mouthpiece to the top of the nebulizer cap. (Picture 6).



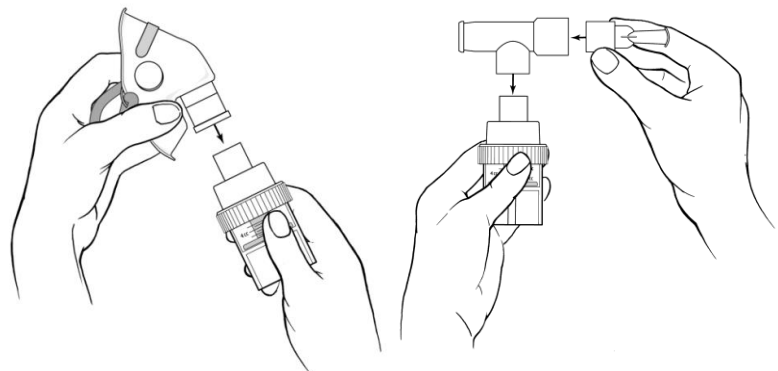
Picture 3



Picture 4

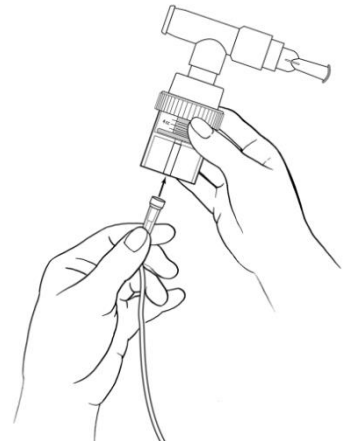


Picture 5



Picture 6

6. Connect one end of the tubing to the bottom of the nebulizer and the other end of the tubing to the aerosol machine (Picture 7). It does not matter which end of the tubing is attached to the machine.
7. Place the aerosol machine on a flat surface.
8. Plug in the aerosol machine. **Do not use an extension cord.**
Turn the machine on.



Picture 7

Using a mask

1. Have your child sit up straight or on your lap. (Picture 1, page 1).
2. Have them take slow, deep breaths until the medicine is gone. This takes 10 to 15 minutes. When using the mask, your child can breathe through both their nose and mouth.
3. Make sure the mask covers your child's nose and mouth. You can help by holding it in place or by using the strap.

Using the mouthpiece

Make sure your child is breathing through their mouth. You can tell by watching the end of the mouthpiece. If you see mist coming in and out, your child is correctly breathing through their mouth. If the mist is always coming out the end of the mouthpiece, they are breathing through their nose.

1. Have your child sit up straight. Give them the mouthpiece to hold.
2. Tell them to put the mouthpiece between their teeth and close their lips around it to create a tight seal. Tell them to take slow, deep breaths in and out through their mouth.
3. Have your child take slow, deep breaths through their mouth until the medicine is gone. This takes 10 to 15 minutes.

A good age to start using the mouthpiece is about 6 years old. If your child has trouble breathing through their mouth, you may need to use the mask for the aerosol treatments.

After treatment

1. Turn off the machine.
2. Remove the nebulizer from the tubing.
3. Unscrew the top half (nebulizer cap) from the bottom half (chamber) of the nebulizer. Remove the inner baffle. (Picture 2, page 1). If the removable baffle is lost or not in the nebulizer, the nebulizer will not work.
4. Wash the parts with soap and warm water, then rinse well.
5. Let the pieces air dry on a clean paper towel.
6. Store the pieces and the medicine out of the reach of children and pets.

7. Check the nebulizer and tubing for breaks and cracks. Throw away broken or cracked equipment. Be sure to reorder new equipment when needed.

Cleaning

Clean the nebulizer to kill bacteria and remove build-up. Take it apart and wash all of the parts in warm, soapy water. Check the booklet or video that comes with your child's machine. Many nebulizers can be washed in the dishwasher.

- Every day – Clean the outside of the machine with a damp cloth after unplugging it. Do not wash the tubing or compressor.
- Once a week – Disinfect the equipment using either a vinegar solution or a disinfectant ordered by your doctor.
 - To make a vinegar solution:
 1. Mix $\frac{3}{4}$ cup of water with $\frac{1}{4}$ cup of clear white vinegar.
 2. Take the nebulizer apart and place the pieces in a clean pot or bowl.
 3. Pour enough solution in the bowl to cover the parts.
 4. Let them soak for 30 minutes.
 5. Wash the mouthpiece or mask with hot, soapy water.
 6. Rinse the equipment with water.
 7. Let air dry on a clean paper towel.
- If the filter on the aerosol machine is dark brown, put a new one in. Follow the manufacturer's directions for replacing the filter. Always keep an extra filter on hand. If you need a new one, contact the provider.
- Store the equipment and medicine out of the reach of children and pets. The nebulizer can be stored inside the machine, along with the tubing.

Getting an aerosol machine

- You must have a prescription to get an aerosol machine. Ask your health care provider or their staff to help you find a medical supply company.
- Several different medical supply companies stock the aerosol machine. Most of them let you rent or purchase a machine. You may want to compare costs before ordering. Costs will be different with each company. Many insurance companies, Medicaid, or Medicare will pay for some or all of the cost.
- Usually, someone from the supply company will deliver the machine to your home. They will show you how to use and care for it.