



Home Aerosol Treatments

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.

This sheet contains general guidelines for the care of your child. Please refer to your child's "discharge instructions" sheet for more specific instructions.

What is an aerosol treatment?

An aerosol treatment is a way to bring medicine straight to your child's lungs to help him breathe better. Some people call an aerosol treatment a "breathing treatment." Your child breathes in a fine mist of medicine from a small cup called a nebulizer. The nebulizer has a tube attached to it that connects it to a small machine called an air compressor. In the hospital, the nebulizer is connected to a thin tube that attaches to a nozzle on the wall that blows air. The air compressor blows air across the medicine in the cup turning it into a mist that your child can breathe. The nebulizer and compressor for home use are obtained from a home health company. Arrangements for the equipment will be made before your child leaves the hospital or clinic.

What goes in the nebulizer?

Medicines given by aerosol are ones that act on the airways to open them (for example – Albuterol, Proventil, or Xopenex) or to decrease the swelling and irritation in the lungs (Pulmicort for example). Some medicines must be diluted with saline (salt-water solution) in the nebulizer, while others do not need to be diluted. You may buy saline at the drugstore without a prescription - a common brand is Broncho Saline. A nurse or respiratory therapist will show you how to prepare the medicine for the nebulizer before you go home. Follow your child's doctor's instructions on how often to give aerosol treatments and how to dilute the medicines.

You may also make saline yourself at home. Simply boil $\frac{1}{4}$ teaspoon of non-iodized salt in one cup of water for five minutes. Allow it to cool and then use it to dilute the medicine if instructed to do so. You may store the saline in a covered container in the refrigerator for up to seven days. After seven days, throw it away and make new saline.

How do I give an aerosol treatment?

Your child can be sitting in your lap, or on his bed or a chair to take his aerosol treatment. Some parents find it easier to put infants and toddlers in their high chairs or car seats to give them a treatment.

The aerosol treatment does not hurt, but the mist may have a funny smell and feel cold on the face. As a parent, your important job is to make sure the nebulizer mask stays on your child's face until the mist has stopped. Turning on the television or a video for your child to watch or reading a book to him may help him cooperate better with the treatment. Most aerosol treatments last 10-20 minutes, depending on how much medicine is in the nebulizer.

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

Home Aerosol Treatments, continued

Older children may use a mouthpiece with the nebulizer to breathe the medicine. Your child is ready to use the mouthpiece when he is old enough to understand to breathe only through his mouth when taking a treatment.

Infants, toddlers and pre-schoolers should use a mask with the nebulizer. If necessary for very young children, the mask may be held very close to his nose and mouth (almost touching the mouth and nose).

It is normal for your child to cough some during the aerosol treatment. Encourage him to cough once the treatment is finished. The cough will help clear his lungs.

Cleaning instructions:

- Wash the nebulizer in warm, soapy water after each use and let it air dry. It may also be washed in the top rack of the dishwasher.
- The nebulizer must be disinfected once a week. Soak it in a vinegar solution of ½ cup white, distilled vinegar and 2 cups water for 30 minutes. Then rinse well and let it air dry.
- The tubing does not need to be cleaned. Do not run water through it! Moisture inside the tube may allow mildew and mold to grow. If you notice mold or mildew (black spots) in the tubing, throw it away and get new tubing.
- Check the air filter in the compressor to see if it has gotten dirty. If it is gray, soiled or wet, it is time for a new filter. Most filters last at least several months. You may get new filters from the home health company that supplied the equipment.
- If you have problems with your child's air compressor, call the home health company where you got it.

When should I call the doctor?

Call 911 or your local ambulance service right away if your child:

- Is so lethargic that he hardly responds to you
- Is working very hard to breathe or finds it hard to take a breath
- Has chest retractions (skin pulling in around the ribs and chest when breathing)
- Grunts when he breathes
- Has a blue or dark purple color to the nail beds, lips or gums
- Stops breathing for more than 10 seconds
- Cannot speak while trying to breathe
- Has any breathing problem that needs care **right away**

Call your child's doctor if:

- Your child has persistent lethargy or irritability (does not smile or show interest in play for at least a few minutes during a four-hour period)
- Your child wheezes or breathes harder than he did when he was seen by the doctor
- Your baby is unable to breathe and suck at the same time or chokes when he sucks
- Your child has fast, shallow breathing
- Your child has a tight feeling in the chest
- You child is inconsolable (cannot be calmed for at least a few minutes each hour using methods that usually work for your child, such as holding, rocking, pacifiers or soothing talk)
- Your child doesn't breathe easier after the aerosol treatments.
- You have any questions or concerns about how your child looks or feels

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