

**TITLE:        NEBULIZER PROTOCOL**

**INTRODUCTION:**

A nebulizer is a type of inhaler that sprays a fine, liquid mist of medication. This is done through a mask, using air under pressure, or an ultrasonic machine (often used by persons who cannot use a metered-dose inhaler, such as infants and young children, and persons with severe asthma). A mouthpiece is connected to a machine via plastic tubing to deliver the medication.

A nebulizer changes medication from a liquid to a mist so that it can be easily inhaled into the lungs. Nebulizers are particularly effective in delivering asthma medications to infants and small children and to anyone who has difficulty using an asthma inhaler.

The medications used in nebulizers help your child by loosening the mucus in the lungs so it can be coughed out more easily, and by relaxing the airway muscles so that more air can move in and out of the lungs. Breathing the medication straight into the lungs works better and faster than taking the medication by mouth. Nebulizer treatments take about 15 to 20 minutes to give the medication. Always reassure

**Giving a treatment:**

The following steps are recommended when giving a treatment to your child.

- Gather supplies needed, including:
  - Medication to be nebulized
  - Nebulizer set (nebulizer cup, mouthpiece or mask, tubing to connect to nebulizer machine)
- Explain procedure to client. If client happens to be a child, explain procedure to mother or guardian
- Give client a comfortable place to either sit or lie depending on their preference. For children ask if they will be more comfortable seated on their mothers
- Find a quiet activity to do while your child sits up for the treatment (i.e., reading a book or playing a quiet game).
- Place the nebulizer on a flat surface (i.e., table or the floor).
- Plug the unit into a wall outlet
- Wash your hands
- Wear gloves

- Connect the air tubing to the nebulizer machine
- Put the medication into the nebulizer cup and screw the cap on securely
- Connect the other end of the air tubing to the nebulizer cup
- Connect the mouthpiece or face mask to the nebulizer cup
- Turn the machine on
- Check to make sure a fine mist of medication is coming through the face mask or mouthpiece
  - Mouthpiece:
    - Place the mouthpiece in the child's mouth with the lips sealed around the mouthpiece
    - Encourage your child to take slow deep breaths in and out of their mouth. The mist should "disappear" with each breath.
  - Face mask:
    - Place the mask over your child's mouth and nose. The adjustable elastic band may be used to hold the mask in place.
    - Encourage your child to take deep breaths in and out for the duration of the treatment
- Encourage your child to continue slow, deep breaths until all the medication in the nebulizer cup is gone. You may need to tap the sides of the nebulizer cup to ensure all medication is given.
- Turn the nebulizer off
- Inform the treating doctor that procedure has been completed

After each treatment:

- Disconnect the nebulizer cup from the tubing.
- Open the cup and wash all pieces in a mild dish soap and water. (Do not wash or rinse the tubing.)
- Rinse all pieces.
- Air dry on a clean towel.
- Store the dried nebulizer cup and tubing in a plastic bag.

- Once a week rinse the nebulizer cup in a vinegar/water solution, as directed by your physician, after washing.

**Notes:**

- If the client is an infant, stay with him or her throughout the nebulizer treatment.
- If the child should vomit or have a severe coughing spell during the treatment, stop the treatment, let the child rest for a few minutes, then resume the treatment.
- Check the filter on the nebulizer machine once a week. When it becomes discolored, replace with a new filter.