



PATIENT EDUCATION HANDOUTS

Use and Care of a Nebulizer

A nebulizer is a device driven by a compressed-air machine. It allows you to take some asthma medications in the form of a mist (wet aerosol). It consists of a cup, a mouthpiece attached to a T-shaped part (called a T-connector) or a mask, and thin, plastic tubing to connect to the compressed air machine. It is used mostly by three types of patients:

- Young children under age 5
- Patients who have problems using metered-dose inhalers
- Patients with severe asthma

A nebulizer helps make sure the patient gets the right amount of medication. A routine for cleaning the nebulizer is important because an unclean nebulizer may cause an infection. A good cleaning routine keeps the nebulizer from clogging up and helps it last longer. Directions for using the compressed-air machine may vary (check the machine's directions), but generally the tubing has to be put into the outlet of the machine before it is turned on.

How to Use a Nebulizer:

1. Some of the nebulizer medications come premixed and ready to use; others need to be correctly measured and mixed together. Make sure you know which medications and exactly how much to add to the cup.
2. Fasten the mouthpiece to the T-connector and then fasten this unit to the cup **OR** fasten the mask to the cup. For a child over the age of 2, use a mouthpiece unit because it will deliver more medication than a mask.
3. Put the mouthpiece in your mouth. Seal your lips tightly around it **OR** place the mask on your face.
4. Turn on the compressed-air machine.
5. Take slow, deep breaths in through the mouth.
6. Hold each breath 1 to 2 seconds before breathing out.
7. Continue until the medication is gone from the cup (approximately 10 minutes).
8. Store the medication as directed after each use.

Cleaning the Nebulizer:

Don't forget: Cleaning, drying, and getting rid of germs prevents infection. Cleaning keeps the nebulizer from clogging up and helps it last longer.

After Each Use:

1. Remove the mask or the mouthpiece and T-connector from the cup. Remove the tubing and set it aside. The tubing should not be washed or rinsed. Rinse the mask or mouthpiece and T-connector in warm running water for 30 seconds. Use distilled (or sterile) water for rinsing, if possible.
2. Shake off excess water. Air dry on a clean cloth or paper towel.
3. Put the mask or the mouthpiece and T-connector, cup, and tubing back together and connect the device to the compressed-air machine. Run the machine for 10 to 20 seconds to dry the inside of the nebulizer.
4. Disconnect the tubing from the compressed-air machine. Store the supplies in a closable plastic bag.
5. Place a cover over the compressed-air machine.

Once Every Day (when being used regularly):

1. Remove the mask or the mouthpiece and T-connector from the cup. Remove the tubing and set it aside. The tubing should not be washed or rinsed.
2. Wash the mask or the mouthpiece and T-connectors well as the eyedropper or syringe with a mild dishwashing soap and warm water.

3. Rinse under a strong stream of water for 30 seconds. Use distilled (or sterile) water if possible.
4. Shake off excess water. Air dry on a clean cloth or paper towel.
5. Put the mask or the mouthpiece and T-connector, cup, and tubing back together and connect the device to the compressed-air machine. Run the machine for 10 to 20 seconds to dry the inside of the nebulizer.
6. Disconnect the tubing from the compressed-air machine. Store the supplies in a closable plastic bag.
7. Place a cover over the compressed-air machine.

Once or Twice a Week:

1. Remove the mask or the mouthpiece and T-connector from the cup. Remove the tubing and set it aside. The tubing should not be washed or rinsed. Wash the mask or the mouthpiece and T-connector with a mild dishwashing soap and warm water.
2. Rinse under a strong stream of water for 30 seconds.
3. Soak for 30 minutes in a solution that is 1 part distilled white vinegar and 2 parts distilled water. Throw out the vinegar-water solution after use; do not reuse it.
4. Rinse the nebulizer. Use distilled water, if possible.
5. Shake off excess water. Air dry on a clean cloth or paper towel.
6. Put the mask or the mouthpiece and T-connector, cup, and tubing back together and connect the device to the compressed-air machine. Run the machine for 10 to 20 seconds to dry the inside of the nebulizer thoroughly.
7. Disconnect the tubing from the compressed-air machine. Store the supplies in a reusable plastic bag.
8. Clean the surface of the compressed-air machine with a well-wrung, soapy cloth or sponge. You could also use an alcohol or disinfectant wipe. **NEVER PUT THE COMPRESSED-AIR MACHINE IN WATER.**
9. Place a cover over the compressed-air machine

Adapted from: AMA Physician Select Reference Library for Asthma
NIH Asthma Education Clinicians Guide

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