

Using a Nebulizer

1. Most persons use a nebulizer by holding a mouthpiece in their mouths. If the person you provide care for is too weak, he or she can wear a mask. You can assist by correctly preparing the medicine and being sure the nebulizer works correctly.
2. You will need the following equipment:
 - a. Medicine (Usually in a vial)
 - b. Air compressor
 - c. Nebulizer cup and tubing assembly
 - d. Mask or mouthpiece
 - e. Option: Clean eye droppers or other measuring device to dispense the medicine
 - f. Glass with warm water (option if taking steroids)
 - g. Pair of disposable gloves
3. Check the compressor and nebulizer cup for any damage or wear.
4. Place the air compressor on a clean sturdy surface that will support its weight. Plug the cord from the compressor into a properly grounded (three prong) electrical outlet
5. If the person needs assistance, prepare the medicine or simply stand by and make sure the person takes the medicine correctly.
6. Wash your hands for 15 seconds and dry, or use a hand disinfectant. Apply the pair of gloves.
7. Prepare the medicine on a clean, dry surface where you have space to work, like a kitchen countertop. Always store these medicines in a cool, dry place
8. **Take your time.** It is easy to make an error when you are rushed or distracted
9. Read the label on the medicine container carefully. Check the person's name, the name of the medicine, the time of day it is to be given and the amount of medicine and diluent (if used).
10. Always give a medicine at the same time each day as ordered.
11. Look at the medicine in its container. If it has changed color or formed crystals, throw it away and replace with new medicine.
12. Have the person sit up straight in bed or in a chair.
13. Then check the person's pulse. Write down the pulse rate on a piece of paper. This gives you a measure with which to compare after the medicine has been given. A change in the pulse, a pulse that is too fast or irregular, could indicate a side effect of the medicine. See our lesson on **How to Take a Pulse**.
14. Assemble the equipment following manufacturer's directions; each device is a bit different. For example:
 - a. Open the nebulizer cup
 - b. Pour or use the eyedropper to place medicine in the nebulizer cup. Be sure to pour the ordered amount.
 - c. Reattach the top portion of the nebulizer cup and tighten.
 - d. Connect the mouthpiece or face mask either directly to the cup or using an adaptor.
 - e. Connect the adaptor on the cup to the nebulizer tubing. Then connect the tubing's other end to the compressor air outlet connector.

15. Turn the nebulizer power switch ON. Have the person hold the mouthpiece between the teeth and close the mouth gently, but be sure their lips are sealed securely.
16. If you care for a young child or an adult who is physically fatigued or unable to follow instructions, use a face mask.
17. Use special adapters for patients with a tracheostomy.
18. As an aerosol mist starts flowing, have the person take slow, deep breaths through the mouthpiece or mask. Have him or her hold each breath for two to three seconds before breathing out, to allow medicine to settle into the airways.
19. If a person has difficulty breathing, urge him or her to hold every fourth or fifth breath for 5 to 10 seconds.
20. Remind the person to continue breathing slowly and deeply until all of the medicine is inhaled. This usually takes about 10 minutes.
21. If the person becomes dizzy or feels "jittery," stop the treatment by turning off the power switch nebulizer and let the person rest for about five minutes.
22. Discourage the person from standing or moving about when they are dizzy or having other side effects of the medicine.
23. Then continue with the treatment.
24. Have the person tap the nebulizer cup occasionally during treatment and toward the end of the treatment to be sure all medicine is nebulized.
25. Warning: Never use a clogged nozzle, as the nebulizer will not be able to deliver the right amount of aerosolized medicine.
26. When all of the medicine has been inhaled, turn off the nebulizer compressor and unplug from the power source.
27. Have the person take several deep breaths and cough. Have him or her continue coughing a few times to try to clear any secretions that might be in the lungs. Have the person cough the secretions into a tissue and dispose of the tissues in the plastic grocery bag.
28. Once the person has stopped coughing and is relaxed, remove the gloves and place in a trash can. Wash your hands.
29. Wait a few minutes and take the person's pulse again. Compare the rate with the pulse rate you measured before giving the medicine. Report a rapid or more irregular heart rate to the person's doctor.
30. Store away the tubing assembly. Cover the compressor with a clean, dry cloth when not in use. Store it on a shelf, never on the floor.
31. If the person is taking steroids, have him or her rinse the mouth and gargle with warm water after each nebulizer treatment.
32. Describe in the care diary how the person responded to the nebulizer and note the heart rate.

Cleaning a Nebulizer

1. Clean a nebulizer in a dust- and smoke-free area away from open windows. Follow manufacturer's directions.
2. You will need the following equipment:
 - a. Disposable gloves
 - b. Basin with warm soapy water (e.g. Dove ® soap)
 - c. Paper towels
 - d. White Vinegar or disinfectant recommended by manufacturer
 - e. Water (to mix with vinegar)
 - f. Plastic Zip lock bag
3. While wearing gloves, disassemble the cup, adapter and mouthpiece completely.
4. Wash all parts in a basin of warm soapy water, using a mild soap like Dawn.
5. Rinse thoroughly in warm water.
6. Shake off any excess water and let all parts air dry on a clean paper towel.
7. You do not need to clean the tubing that connects the nebulizer to the air compressor.
8. Disinfect the equipment.
 - a. Disinfect the equipment about every 3 days, following manufacturer's directions.
 - b. Soak the equipment in a vinegar/water solution or the disinfectant solution recommended by the equipment supplier.
 - c. Soak the cup, adaptor, mouthpiece or mask 30 minutes. Then rinse the equipment well under a steady stream of cool water.
 - d. Shake off the excess water and allow to air dry on a paper towel. Always allow the equipment to completely dry before storing in a plastic, zipper storage bag.
9. Remove your gloves and then wash your hands