

## USING A NEBULIZER ON DOGS

A nebulizer is a machine that sprays a fine mist of medicine into the respiratory tract. Make sure that you obtain the compressor (i.e. the machine), tubing, and the medication cup - the tubing, T-piece and medicine cup are called a "nebulizer kit."

You will need a crate to place the dog in and a sheet or towels to cover the crate to keep the mist inside.

Steps in using a nebulizer: Plug in the machine. It's also called a compressor. Insert one end of the tubing into the compressor and the other end into the cup.

Place either albuterol and/or saline in the medicine cup. See the next page for the solutions and amounts to use for the size of the dog.

Place the sheet or towels over the crate except for the door opening. Place the solution in the cup and secure it to the wiring on the door to the crate making sure the cup is secure upright so the solution does not spill out. Place the dog in the crate and close the door. Cover the door with the towel or sheet so the crate is completely covered.. Start the compressor and set the timer for 15 minutes. After 15 minutes turn the machine off and leave the dog in the crate another 5 - 10 minutes to allow it to inhale the residue mist.

When done, take apart the plastic parts of the nebulizer and wash all the parts. Bacteria and viruses can live and reproduce in a nebulizer that is not routinely cleaned. After each use, swish each piece in warm running water. At the end of the day, after you use it the last time scrub each piece with warm soapy water. Rinse each piece under warm running water. Let each piece air-dry on a clean dish towel or a paper towel. When the pieces are completely dry, put the nebulizer back together. If not using for a period of time, store it in a clean, dry bag.

Twice each week, or after the treatment is completed, mix 1/2 cup white vinegar with 1 and 1/2 cups of tap water. Soak each piece in this mixture for one hour. This includes the tubing. Rinse each piece under warm running water. Let each piece air-dry on a clean dish towel or a paper towel. When the pieces are completely dry, put the nebulizer back together.

The easy way to dry the tubing is to attach the tubing to the compressor and turn the compressor on. Let it run for a minute or two. The blowing air will dry out the tubing. Use a paper towel or clean hand towel to dry the other parts.

What medications can be administered with a nebulizer?

1. Albuterol - opens up the bronchioles, making it easier to breath, and allowing antibiotics to get "deeper" within the lungs - use this prior to using the saline.

As albuterol can increase heart rate, it should be used with caution in dogs with heart disease. Treatments should not exceed 3 per day, unless advised by a veterinarian. The dose of albuterol may need to be adjusted based on the size of the dog. Following are suggestions for treatment with the nebulizer for pneumonia:

-over 60# - 3cc (1 vial)

-45-60# - 2.5 cc

-30-45# - 2.0 cc

-20-30# - 1.0 cc

-10-20# - 0.5 cc

-under 10# - 0.25 cc

You will need to use enough saline solution to make up the difference with the Albuterol. i.e. 0.25 cc of Albuterol and 2.25 cc of saline will equal 2.5 cc solution total. Since you are using a crate it doesn't have to be sterile saline. This is being dispersed in the crate not directly in the dog's face or mouth.

Following treating w/ nebulization with 2-3 cc of sterile saline.

**Note:** If your pet has any nervousness, rapid heart rate or pant excessively. Although symptoms are rare, they can occur. Symptoms will disappear within an hour or so. If this happens, report to your DVM for possible adjustment of dosage, or change in frequency of treatments.

2. Saline - decreases thickness of mucus and helps to moisturize the bronchioles, which helps material to be coughed up. Saline can be obtained from your veterinarian (can use saline used as intravenous fluids). Do not use that used for contacts

3. Antibiotics - gentocin or amikacin, which are intravenous antibiotics, can be mixed w/saline (6mg/kg of antibiotic, mixed w/ saline enough to make 3 cc. total volume) once daily (ideal to monitor kidney function as these drugs can be hard on the kidneys.

Nebulizing w/ these antibiotics are more "kidney friendly" than when they are given intravenously.

4. Mucomyst can be given via the nebulizer to loosen and thin debris in the lungs.

As a suggestion to veterinarians who have not used albuterol, here is an example how we write our prescriptions:

Albuterol 0.083% 2.5 cc vials x 25

sig: using a nebulizer, administer q8-24hr as directed

Albuterol comes in a box of 25 vials, each containing 2.5 cc.

1. Have veterinarian advise on dose of albuterol for your pet (see guide above)
2. Nebulize the computed dose of albuterol; if 1 cc or less, mix with 1 cc of saline
3. Nebulize additional 2-3 cc. of saline after albuterol treatment is completed

For prevention of recurrence of aspiration pneumonia, for example in patients with megaesophagus, or pets with bronchitis, daily, every other day or twice weekly nebulizer treatments with either saline and/or albuterol may be useful.

Source:

Morris Hospital for Veterinary Services - 26684 Grand River Avenue -  
Redford, Michigan, 48240

Use of a crate from:

Shelly Drive Veterinary Clinic - Tyler, Texas - 903-561-7373