

How to Provide Home Respiratory Therapy (Humidification, Nebulization, Coupage)

BACKGROUND

Respiratory therapy is often recommended by veterinarians for pets that have an infection (bacterial or fungal) in the lungs or upper airway, or to loosen phlegm that accumulates due to chronic inflammation of the respiratory tract. The purpose is to provide humid air for a dog or cat to inhale. These techniques can be performed easily at home.

Nebulization therapy essentially involves the creation and inhalation of cold steam. A nebulization kit is optimal, consisting of a mask (canine or feline) and a nebulizer. Nebulization is similar to vaporization; however, a nebulizer creates fine fluid droplets that are small enough to penetrate into the lung, whereas vaporizers make larger droplets that mainly moisten the nasal passages and throat.

Coupage therapy is simply a form of gentle physical percussion of the chest that loosens respiratory secretions, allowing them to be coughed out (expectorated).

GETTING STARTED

Equipment/materials needed:

- Nebulization kit (optional)
- Source of steam such as a hot running shower in a room small enough and enclosed such that the steam lingers in the air

Nebulization therapy takes only a few minutes. If you are using a nebulization kit, an instruction manual may be included that states the proper timing of nebulization treatments for that model.

TROUBLESHOOTING BEFOREHAND

Most pets adapt to nebulization therapy and enjoy coupage therapy. Your pet may at first reject a nebulization mask. However, since the mask has to be on for such a short interval, after the third or fourth session, pets usually accept the mask and treatment. Nebulization may require two people until the pet accepts the mask.

If you feel at any time that you cannot complete the treatment or your pet rejects the treatment, call your veterinarian to ask if he/she can complete the treatment or suggest alternative therapies. Do not stress your pet unduly, as respiratory diseases lower an animal's resistance to physical exertion, and no amount of respiratory therapy justifies a forceful approach. If your pet refuses the treatment despite gentle restraint and coaxing, avoid putting yourself in harm's way or allowing yourself to get bitten.

PROCEDURE

Vaporization: Without a Nebulization Kit

- Begin by running a hot shower while in the bathroom with your pet (in the bathroom but *not* in the shower). The bathroom door should be closed, and any bathroom window closed and ventilator fan switched off, so the steam can accumulate and saturate the air in the bathroom.
- Once steam has built up in the bathroom, let your pet breathe in the humid air for 10 to 20 minutes. (Aside: this entire process can also take place when someone is actually taking a shower and your pet waits in the bathroom outside the shower, benefiting from the steam generated.) This should usually be done once daily or more, as recommended by your veterinarian.
- The moistening of the airway brought about by vaporization loosens secretions in the lungs and airways; expulsion of these can be helped with coupage (see below), which almost always

should be performed after each session (exception: a pet that is already spontaneously coughing).

- Offer copious praise and a treat after each session, particularly if your pet was hesitant or reluctant to do it. This way your pet can come to understand that vaporization is just the prelude to a great reward, rather than fighting it off as an ordeal.

Nebulization: Using a Nebulization Kit

- There are a few different types of nebulizer units. Usually, these can be rented from a respiratory supply company (the type of pharmacy that sells and services treatments for people with sleep apnea or respiratory disease). Follow the directions of the nebulization kit to set up the machine, or speak with the person at the respiratory supply company that is renting you the unit.
- Measure the indicated amount of saline (sterile salt water) and place in the nebulizer cup. If you are to include drugs in the nebulization solution, dilute and add to the cup as instructed. Only use medications that your veterinarian has prescribed – not all liquid medications are suitable for nebulization!
- Place the mask on your pet and turn on the unit.
- Medicated treatments may be very brief (your veterinarian can provide specific directions if this is not the case), whereas nebulization of saline alone can last for 10-20 minutes. Keep in mind that many dogs and cats are reluctant to inhale from a nebulizer at first.
 - A gradual approach is preferred, keeping the mask at a distance of several inches/centimeters for the first treatment or two (meaning the mask is not actually over the nose, just ahead of it) and then gradually bringing it closer until it fits over your dog's or cat's muzzle completely.
 - Remove the mask from your pet, and remember to praise lavishly at the end of each treatment. Also be sure to have a treat handy to offer after each treatment. This way your pet can come to understand that nebulization is just the prelude to a great reward, rather than fighting it off as an ordeal.
 - While the use of a mask is important when nebulizing medications, it is less vital for saline nebulization. If your pet resents the use of the mask, it may be possible to create a small hood or tent that can be loosely placed over your pet's head. Discuss this option with your veterinarian if use of the mask is difficult.
- Clean the machine as indicated in the instructions. It is imperative to clean the machine between each treatment to reduce the risk of contamination of bacteria.
- Wash your hands.

Coupage

The purpose of coupage is to loosen excessive respiratory secretions and stimulate expectoration (coughing the secretions out). Coupage should not be performed in dogs or cats that are coughing frequently for two reasons: coupage will cause them to cough more, and the natural action of coughing already helps expel secretions spontaneously.

- Identify the chest as the area where you feel the ribs on your pet.
- For medium- and large-breed dogs, it helps to be standing over the dog, as if straddling him/her like a horse. For cats and small dogs, it is easiest to have your pet sitting beside you on a couch or on the floor.



The correct shape of the hand (cupped) for performing coupage.

- Cup both your hands and gently thump both sides of the chest repeatedly, 2 to 3 times per second for 15 to 30 seconds. In medium- and large-breed dogs, moving your hands in a circle over the whole chest surface as you are doing the coupage can help you cover the whole lung field, but in cats and small dogs, the human hand covers most of the lung field without changing position.
- If coughing begins, stop the coupage and allow your pet to finish coughing. If coughing occurs again immediately when you resume coupage, then stop. Otherwise, finish the coupage session (15 to 30 seconds total).
- In patients with pneumonia, coupage may be beneficial as often as every 8 hours (three times daily). This is usually done for 1 or 2 weeks. In patients with long-standing chronic respiratory



The correct starting position for coupage on this dog's left side. While gently thumping the chest, the hand is moved gradually in a circle that extends ahead of, behind, above, and below the starting point shown here. Then perform the same procedure on the right side.

disorders, coupage usually is only administered from time to time, as directed by your veterinarian based on recurrence of respiratory illness.

AFTERWARDS

Depending on the diagnosis for your pet, nebulization and/or coupage therapy may last for several weeks or the rest of your pet's life. Discuss all the options with your veterinarian. Nebulization can enhance your pet's quality of life.

Usually, a pet with a respiratory illness that requires coupage will need to be reexamined periodically by the veterinarian, with follow-up x-rays to determine how well the pet is responding to therapy.

FREQUENTLY ASKED QUESTIONS

Does my pet get right into the shower and get wet?

No, a pet remains dry throughout this process and should only ever be standing in the bathroom outside the shower.

Can it be too hot and overheat my pet?

Steam in the bathroom should not usually get too hot for your pet, since he/she should only be in the room for approximately 10 minutes. However, if the weather is very warm or if your pet is intolerant to heat (notably some short-nosed breeds like bulldogs or Boston terriers, or with overweight dogs or cats), then heat intolerance is a concern. Good judgment dictates that you should watch for signs of heat intolerance (excessive panting in a dog,

any panting in a cat, lethargy, or sluggishness) and take your pet's temperature if uncertain—it should never go above 104°F (40°C). If heat intolerance or overheating/hyperthermia seem to be present, discontinue the steam sessions or try again later with lower heat and less steam.

Is the nebulizer dangerous for people to be around and to inhale?

As a general rule, it is not advised to breathe in the vapors from the nebulizer if medication has been added to the nebulization cup, because then you will be taking the pet's medication yourself. Because your pet will be wearing a mask, your exposure to the medication, while not zero, should be negligible.

Also available in Spanish.

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