

Tracheal Collapse

Your dog has been diagnosed with collapsing trachea.

The trachea, or windpipe, is a tube extending from the voice box (the larynx) to the division of the trachea into bronchi above the heart. The bronchi divide further and supply the lung with air. There are about 35 C-shaped cartilages that form the skeleton of the trachea. The open space on top is covered by a muscle (the trachealis muscle). The tracheal rings are also united by fibroelastic tissue. This allows a lot of movement of the trachea without breakage or collapse.

Yet, tracheal collapse is a common problem in some dogs. We don't know the exact reasons for the collapse but several theories exist:

- small airway disease can increase tracheal pressure and lead to collapse
- tracheal cartilage can demineralize and the softened cartilage collapses (can be due to infection)
- outside compression of the trachea, i.e. due to an enlarged heart (i.e. mitral valve insufficiency)

Tracheal collapse often develops in the middle-aged to older small dog breeds. Dogs afflicted with this disease may have one or more of the following signs although some pets seem to follow no rules at all:

- Chronic cough ("goose honk" or dry and hacking)
- Worsening of the cough with excitement, stress, exercise, leash pulling, picking up the dog, drinking water, eating
- Retching/gagging/choking
- Weakness, lethargy, or exercise intolerance
- Fainting episodes, and/or "turning blue" of the tongue or gums (cyanosis)

Your veterinarian may have found one or more of the following signs in addition to the cough:

- Heart murmur
- Harsh lung sounds
- Enlarged heart on radiographs (X-rays)

The confirmation of the diagnosis can only be done by an examination with a special X-ray machine, a fluoroscope, which provides motion pictures. We don't have a fluoroscope available, however, most often I will perform an echocardiogram of the heart ("echo"). With the help of the echo, we can determine if there is also heart disease and how advanced it is. This, together with the chest radiographs and the description of the cough, will tell us if your dog is suffering from collapsed trachea or if the cough is due to heart disease (or a combination).

Unfortunately, we cannot cure collapsed trachea. Some surgeons might still perform surgery, however, at this time we believe that the surgery is not very helpful. Possibly, with more advanced stenting procedures, surgery will once again be helpful. In the meantime, it is a most frustrating disease for you, the owner. The good news is that this is not an infectious type of cough and that your dog is often less bothered by it than you... Your dog will most likely cough forever, but with some fine tuning of the medication, she/he will hopefully enter few bad spells. Please be aware that response to the medication might be transient and/or incomplete depending on the individual dog and that you may have to place a few calls to me.

If medication is opted for or needed, then most likely, a bronchodilator will be prescribed first which tries to keep the airways open (i.e. theophylline). Another important drug may be a cough suppressant such as hycodan or torbutrol, or a combination of low dose steroid with an antihistamine. Antibiotics may also be given for a short time to treat a possible deep seated infection of the trachea. Then, corticosteroids (prednisone) can be prescribed for a little while. This will most certainly help but should be given as rarely as possible due to the many side effects of steroids. However, if your dog enters a bad coughing spell it is better to give the steroids than to hold them off. More medications may be added if your dog is also suffering from heart disease. It is also helpful to reduce stress and exercise and to lose weight where appropriate. Harnesses should be used instead of leashes. The short term prognosis is usually good but in the long run the cough often returns despite increasing the medication. Please contact your veterinarian or me if you see any changes in your pet. I know how precious your dog is to you and I hope that I will be able to treat her or him for many years to come!

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