

Collapsing Trachea

Tracheal collapse is a chronic, progressive disease of the trachea, or windpipe, and lower airways. The trachea is a flexible tube, similar to a vacuum cleaner hose. It has small rings of cartilage that help keep the airway open when the dog is breathing, moving or coughing.

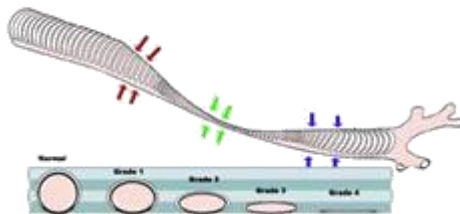
The rings of cartilage are C-shaped, with the open part of the C facing upward. In some dogs, the C-shaped cartilage becomes weak and begins to flatten out. As the roof of the trachea stretches, the cartilage rings get flatter and flatter until the trachea collapses. The collapse can extend all the way into the bronchi (the tubes that feed air into the lungs), resulting in airway compromise in your pet.



Small breed dogs are most commonly affected with the disease, particularly Yorkshire terriers, Pomeranians, Poodles and Chihuahuas. Affected dogs are often middle aged or older, though it can be seen in some young dogs as well. Dogs that are overweight or that live in a household with smokers may be more at risk.

Signs and Symptoms:

- harsh dry cough that sounds like a goose honking
- coughing when picked up or if someone pulls on their collar
- difficulty breathing
- exercise intolerance
- coughing or turning blue when excited
- fainting
- wheezy noise when they breathe inward



Diagnostics:

In general, the following tests are recommended to diagnose the degree of collapse, provide a clear picture of overall health and evaluate your pet:

- bloodwork to look at overall health
- chest x-rays may help with the diagnosis in some pets, and are useful for ruling out other conditions and looking at the size of the heart. Tracheal collapse may not always be visible on regular x-rays.
- fluoroscopy (a moving x-ray)—this will allow a check of the condition of your dog's trachea when he/she is breathing in and out. This is important since the size of the trachea can change depending on if your dog is breathing in or out.
- endoscopy (viewing the inside of the trachea with a fiber optic camera) provides the best detail of the inside of the airway and allows your veterinarian to take fluid samples for culture and analysis
- echocardiogram (an ultrasound of the heart)—to evaluate cardiac function

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Due to lack of oxygen to the lungs and heart at times, tracheal collapse can lead to heart disease and other more severe health problems.

Treatment

Medical Management:

- weight loss
- medications to reduce airway spasms and inflammation
- sedation to reduce coughing and anxiety. Some dogs may require heavy doses of sedation to break the coughing cycle, since coughing will irritate the airway and lead to more coughing.
- dogs should be kept away from smoke and other environmental pollution (coughing may be even stimulated by smoke or other irritants brought in on clothing and hair).

Medical management may work for up to 70% of dogs, particularly those that have mild collapse. As the disease progresses, some pets do not respond to medical management, and require surgical or interventional treatment. **Medical management will likely need to be continued for life, even after other interventions.**

Surgical Management

If medical management fails long term or is unable to alleviate a crisis then more aggressive measures such as tracheal rings or a tracheal stent may be considered.

A stent is a titanium alloy mesh tube that is placed inside the trachea. After it is placed, the stent expands and holds the trachea open, preventing collapse. Cost may be a major consideration with this technique. Not only are the stents relatively expensive, their placement is not a common procedure. They are not something that is placed by your average general practitioner, with stent placement typically taking place in specialist referral hospitals. The expertise needed further adds to the cost.

