

Chronic Bronchitis of Dogs

Authored by: Brendan McKiernan DVM, ACVIM

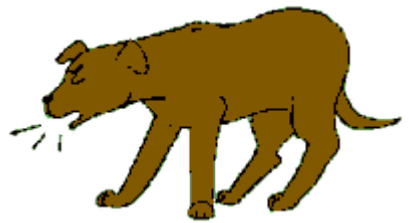
Definition and Causes

Chronic bronchitis is usually a non-infectious, inflammatory condition affecting the lining (mucosa) of the large airways (the trachea and bronchi) that results in a cough on most days for more than two months. In most cases, the specific cause of chronic bronchitis in dogs is not identified. Chronic bronchitis is neither infectious nor contagious to other dogs; dogs will not pass it on to other dogs as they can in the acute form (see below).

Acute bronchitis, on the other hand, is most often caused by infectious agents, such as viruses (e.g. parainfluenza virus, adenovirus, **canine influenza virus**, **distemper virus**) or bacterial agents (**Bordetella bronchiseptica** is the most common). It is commonly termed kennel cough or canine infectious tracheobronchitis. Inflammation can also be caused by noxious irritants such as second hand smoke, foreign bodies, allergens (similar to hay fever in humans), food allergens, and either migrating or primary lung parasites. In many of these cases, this acute bronchitis, occurring at the time of the infection or insult, will resolve with appropriate therapy from your veterinarian. However, if the bronchitis persists long enough – generally, more than a few months – it is labeled chronic, and the cough itself can begin to cause and perpetuate airway inflammation.

Clinical Signs

Dogs with chronic bronchitis generally have a persistent hacking cough. Some people describe it as sounding like a goose honking. However, any trachea-bronchial inflammation/irritation can produce a similar sounding cough. Often, the coughing occurs during the night or when the dog first starts to move around upon waking. It also commonly occurs with excitement or exercise.



Diagnosis

Chronic bronchitis is a diagnosis of exclusion. Other diseases can cause clinical signs similar to chronic bronchitis. These include **tracheal collapse**, **laryngeal paralysis**, lung diseases, lung cancer, **heart failure**, **heartworm disease** and infectious causes of acute bronchitis (listed above). Your veterinarian will likely attempt to rule out many of these causes with a history, physical examination, and additional testing.

Diagnostic tests that are used to establish a diagnosis of chronic bronchitis include chest x-rays (thoracic radiographs), airway endoscopy (passing a small camera into the larynx, trachea and bronchi), collecting samples from the lower airways for culture and analysis of the cells in the airways (broncho-alveolar lavage or a transtracheal washing), and sometimes even echocardiography (examining the heart using ultrasound). A fecal analysis might be needed to rule out parasites.

Treatment

Once a diagnosis of chronic bronchitis is made, your veterinarian will generally treat this condition with a variety of medications.

There are several things to remember about treating chronic bronchitis:

- *The cough in chronic bronchitis is unlikely to completely disappear.* The aim is to reduce the coughing by more than 70-80%, and to reduce the severity of the coughing fits.

- *Coughing begets coughing* – the more a dog coughs, the more they irritate their airways, which stimulates more coughing. Therefore, the aim is to initially break the coughing cycle.

Treatment of chronic bronchitis generally relies on using a combination of medications:

- **Corticosteroids.** These drugs are the main therapy for chronic bronchitis. They reduce and suppress the inflammation in the airways. They can be given orally (pills) or with an inhaler. Specific canine inhalers are required to properly administer steroids.
- Certain antibiotics, such as **doxycycline**, minocycline, or **azithromycin** may be given to rule out common infectious agents of the airways. These particular antibiotics also have an anti-inflammatory effect, and may decrease coughing even if there aren't any infectious agents.
- **Cough suppressants.** These are usually narcotic-based preparations that require a prescription. They sometimes need to be given to the point of sedating the dog, especially early in treatment.
- **Bronchodilators.** These may help by relaxing the airways, allowing air to move more easily into and out of the lungs. They can be given orally, by nebulizer, or by inhalers.

Your veterinarian might prescribe a combination of these drugs, and alter the doses as the disease is controlled to minimize side effects while still maintaining good control of the coughing.

An important factor in successful therapy of chronic bronchitis is weight loss. If your pet is overweight, a loss of even 5-10% of the body weight can dramatically improve the coughing. When the dog is overweight, improving your dog's condition is completely in your hands; therefore, your veterinarian might prescribe a weight-loss program for your pet in addition to the medications.

Your veterinarian might also ask you to keep a "coughing log" to keep track of the severity and frequency of coughing, as this can help determine how successful the treatment is.

Prognosis

The prognosis for treating chronic bronchitis is good. However, because this condition generally occurs in older dogs, other causes of chronic coughing (listed above) might complicate the management. If coughing persists or recurs despite appropriate therapy, your veterinarian might be required to pursue other causes, or refer you to a specialist for additional diagnostic tests.

Co-authored by Dr. Mark Rishniw, ACVIM, and Dr. Rosie Henik, ACVIM

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