

Chronic bronchitis

Chronic bronchitis refers to inflammation of the airways resulting in a chronic cough. Most animals are otherwise well but some develop complications such as bronchopneumonia that can cause signs of illness as well as cough.

The cause of chronic bronchitis is thought to be an inappropriate immune response to everyday allergens such as dusts, pollens and moulds. The immune system produces inflammation against these substances which causes irritation, thickening of the airways and excess mucus secretion. Microscopic hairs (cilia) that line the airway, normally move mucus up the airway to the throat where it is swallowed. This defence mechanism is compromised in chronic bronchitis. Not only does the volume of mucus increase but cilia movement is impeded by inflammation. This can lead to mucus plugging the airways and breathing difficulty (dyspnoea). The body responds by using the cough reflex to try and clear the mucus. Inflammation also stimulates coughing. Chronic airway inflammation can cause weakening of the airways, resulting in collapse. This further compromises breathing and natural clearance mechanisms. Airways have bacteria in them. The excess mucus can act as a source of nutrition and allow opportunistic secondary infections to develop.

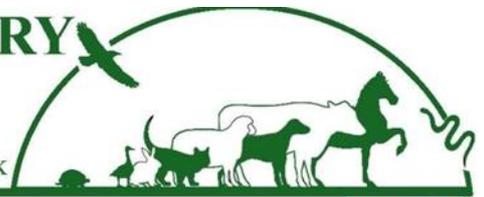
Chronic bronchitis is not curable but with appropriate treatment, symptoms can be controlled in the majority of patients. The following treatments may be recommended:

Treatment	Mechanism of action	Comment
Steroids (prednisolone)	Reduces inflammation and mucus production.	Often very effective in controlling clinical signs. Long term use is best avoided if possible due to potential side effects. Commonly used initially to control inflammation.
Inhalers	Reduces inflammation and opens up airways	Often take 1-2 weeks to reach their peak effect but often very useful long term for controlling symptoms. A negligible amount is absorbed from the lungs so side effects are very rare.
Bronchodilators	Open up airways, increase cilia movement and anti-cough	Sometimes used with steroids/inhalers in extra control of cough is required
Cough suppressants	Suppress coughing by	Only used if inflammation and



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	inhibiting the cough reflex	mucus secretion has been reduced (with steroids) and extra cough suppression required.
Antibiotics	Kill bacteria	May be used to treat secondary bacterial infections and bronchopneumonia
Harness		Dogs with bronchitis should not wear collars. A harness should be used instead
Exercise		Dogs with bronchitis should be encouraged to exercise. Some dogs will tolerate more than others so some experimentation will be required. As a guide, most dogs should tolerate 20 minutes harness walk twice a day.
Weight control		Fat deposition within the chest cavity impedes lung function. Many dogs will improve significantly if kept at their ideal weight. Weight loss for overweight animals is fundamental to successful treatment of animals with bronchial disease.

It is very important that dogs and cats are maintained in a smoke free environment. Passive smoking can cause and exacerbate chronic bronchitis.

Many dogs with bronchitis will continue to cough if excited or perhaps once or twice in the morning when they get out of bed. An 80-90% reduction in cough is a realistic expectation of treatment.

The prognosis for dogs with chronic bronchitis is guarded. Most dogs can be well controlled initially. Progressive weakness and collapse of airways occurs with more advanced disease. This carries a poorer prognosis and can be difficult to manage. However, some dogs can continue to have good quality of life if dosages of the above medications are optimised.

