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Laryngeal Paralysis in Dogs

What is laryngeal paralysis?

The *larynx* or "voice box" is composed of a series of separate plates of cartilage that form a "box" in the throat. The stability of this box is maintained by the *laryngeal muscles*. When the nerves of these muscles become weak (*paretic*) or paralyzed, the muscles relax and the cartilages tend to collapse inwards.

What causes laryngeal paralysis?

"In the majority of cases of laryngeal paralysis, the cause is *idiopathic or unknown.*"

In the majority of cases of laryngeal paralysis, the cause is *idiopathic* or unknown. Trauma to the throat or neck can cause laryngeal paralysis. Tumors or space occupying lesions in the neck or chest area can also cause this condition. Endocrine or hormonal diseases such as *hypothyroidism* and *Cushing's disease* have also been shown to cause laryngeal paralysis in dogs. Some dogs are born with congenital laryngeal paralysis.

The nerve paralysis rapidly leads to laryngeal muscle wasting (*atrophy*).

Do certain breeds more commonly develop laryngeal paralysis?

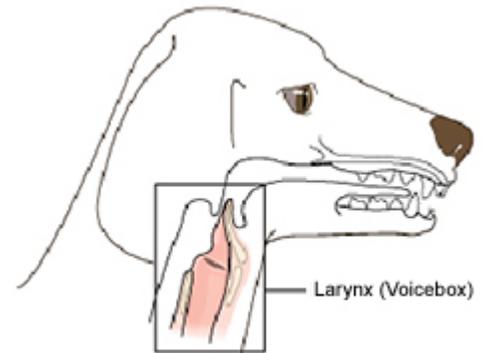
The most commonly affected breeds for idiopathic laryngeal paralysis are Irish setters and Labrador retrievers. The congenital form is seen in Bouvier de Flandres, Siberian huskies, bull terriers and Dalmatians, and clinical signs usually occur at an early age in these breeds.

What are the clinical signs of laryngeal paralysis?



The clinical signs of laryngeal paralysis vary widely. Unfortunately, laryngeal paralysis is probably more common than it is diagnosed. It usually affects middle aged and older dogs. Medium and large breeds are more likely to develop the condition. One of the primary reasons the condition is under-diagnosed is due to the fact that the initial symptoms often only involve a shortage of breath, noisy breathing or a cough.

"Coughing...noisy breathing, exercise intolerance and a change in the sound of the bark."



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Coughing, especially after exercise or exertion is probably the most frequently reported symptom, followed by noisy breathing, exercise intolerance and a change in the sound of the bark (dysphonia). These signs are more common in older dog. Unfortunately, these signs are often also associated with advanced age, cardiopulmonary disease and bronchitis, especially if the dog is obese.

In sudden, severe cases the dog may develop respiratory distress with bluish mucous membranes (cyanosis) in the mouth and may collapse.

How is laryngeal paralysis diagnosed?

Diagnosis is based on medical history and clinical signs. Coughing and shortness of breath are often the only early signs of the condition. Diagnostic tests that may be recommended include blood and urine tests, chest radiographs and laryngoscopy or examination of the larynx with an endoscope.

How is laryngeal paralysis treated?

Mild cases of laryngeal paralysis can often be controlled with medications such as anti-inflammatory drugs, antibiotics and bronchodilators.

"The pet should avoid hot environments and strenuous exercise, and should not wear a choke collar."

The pet should avoid hot environments and strenuous exercise, and should not wear a choke collar.



In severe or congenital cases, surgery is indicated. Patients with laryngeal paralysis are at slightly increased risk of anesthetic complications. Surgical correction is often very successful at reducing or eliminating clinical signs.

What does the surgery involve?

There are several surgical techniques available. Surgery will be based on the severity of the patient's condition. A common surgical procedure involves *arytenoid lateralization* by "tie-back." This involves tying the collapsed cartilage to the side of the larynx to prevent it from creating an obstruction to breathing. Surgery will often dramatically improve an affected dog's quality of life. Your veterinarian will discuss the anesthetic concerns and the specific surgical technique with you prior to surgery.

This client information sheet is based on material written by: Ernest Ward, DVM

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