

# Laryngeal Paralysis

Laryngeal paralysis (LP) is a common condition seen in older large breed dogs, such as Labradors and golden retrievers. LP is less common in smaller breeds of dogs. In LP, the muscles of the larynx are paralyzed and cannot open when the pet breathes in, resulting in loud noisy breathing, excessive panting, or even collapse. LP is often undiagnosed as clinical signs are frequently attributed to aging or obesity.



## Clinical Signs:

The typical clinical signs of LP include

- Excessive panting
- Change in the character of the dog's bark
- Inspiratory stridor (loud noise when breathing in)
- Coughing after drinking
- Exercise intolerance.
- Occasionally these dogs will have an acute episode of respiratory distress and collapse.

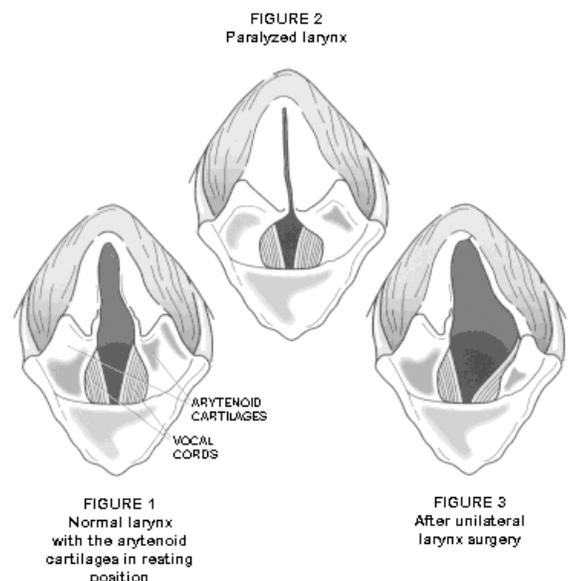
The signs of laryngeal paralysis are often made worse by exercise, hot humid weather, or obesity. Aspiration pneumonia can occur during violent gasping and gagging episodes. LP can be secondary to a polyneuropathy, generalized neuromuscular or muscular disease, trauma or hypothyroidism, but most cases are idiopathic (no known cause).

**SEVERE DISTRESS OR COLLAPSE SHOULD BE HANDLED AS AN EMERGENCY. KEEP YOUR PET AS CALM AS POSSIBLE, IN A COOL ENVIRONMENT, AND TAKE THEM TO THE CLOSEST VETERINARY EMERGENCY CLINIC.**

## Diagnosis:

A presumptive diagnosis may be made based on physical examination and clinical signs. Once a presumptive diagnosis has been made, a preoperative work-up consisting of thoracic radiographs (to check for aspiration pneumonia or megaesophagus), blood tests, and evaluation of thyroid function is recommended. Laryngeal examination under anesthesia should be performed to confirm the diagnosis.

The arytenoid cartilages are usually inflamed, edematous, and they sit in a midline position when LP is present. There is no opening of the larynx seen with inspiration.



**Treatment:**

Surgery should not be delayed as these dogs can become acutely worse. Medical management is **not** recommended as a treatment for laryngeal paralysis, although dogs presenting in severe respiratory distress may require medical stabilization before surgery (oxygen, body cooling if they are hyperthermic, corticosteroids to reduce laryngeal swelling or intubation in severe cases). LP will not resolve with treatment for coexisting hypothyroidism.

Surgery, cricoarytenoid lateralization, (a “tie-back”) is usually scheduled at the same time as the laryngeal examination. The prognosis for improved exercise tolerance and avoidance of acute life-threatening airway obstruction is good following a tie-back procedure. Most patients still have a slightly louder pant and altered voice even after successful surgery. There are risks and complications associated with every surgical procedure. Although not frequent, the most serious potential postoperative complication is aspiration pneumonia (approximately 10% incidence). Aspiration is more likely in patients with a pre-existing vomiting or regurgitation problem or in patients that eat too rapidly. This usually requires hospitalization, intensive antibiotic treatment, and can be life threatening. After surgery, your dog will learn how to swallow again without allowing food or water to go down the wind pipe. Dogs usually adapt very quickly and within the first 2 weeks are eating and drinking normally.

**Special postoperative care:**

- It is important to avoid excitement and heat stress for the first 2 weeks after surgery
- We recommend the use of a harness when walking
- Elevating food and water bowls helps insure proper swallowing

**Expected results with surgery:**

- Improved ability to breathe
- Increased ability to exercise
- Generally much less noise is heard with breathing
- Dogs will have a permanent change in their bark
- There is an increased chance of developing pneumonia due to increased airway opening
- Swimming is not recommended and dogs will have a change in the character of their bark.

Generally, owners are very pleased with the clinical improvement in their dog after surgery, even if they had to deal with aspiration as a temporary postoperative complication.