



# LARYNGEAL PARALYSIS

TREATMENT OF  
BREATHING DIFFICULTIES IN OLDER  
DOGS

**VSA**

ADVANCED VETERINARY CARE  
SYLVIA PARK • AUCKLAND

# LARYNGEAL PARALYSIS

## TREATMENT OF BREATHING DIFFICULTIES IN OLDER DOGS

The most common cause of breathing difficulties in older dogs is a condition called laryngeal paralysis. This condition typically affects older dogs (>8 years of age) and seems to be more common in Labrador Retrievers and their cross breeds.

### LARYNGEAL FUNCTION

The larynx functions like a gateway to the trachea (windpipe) and lungs. The larynx is made up of a number of rigid cartilages to keep the airway open but avoid food and saliva from entering the lungs {Figure 1}. There are three cartilages in the front of the larynx. The epiglottis acts like a drawbridge and two arytenoid cartilages, that act like large gates, closing up when the dog is swallowing food, water or saliva. These cartilages open when the dog is breathing. In some dogs mostly due to long-term degeneration of the nerves, the function of the arytenoid cartilages can be lost. This means that they stay closed or only partially open during breathing. This leads to narrowing of the airway and difficulty breath-

ing {Figures 2 & 3}.

### SYMPTOMS

Symptoms typically develop slowly with increased panting and more noise during breathing. Dogs may become reluctant to perform their normal exercise. Some dogs will gag and bring up foamy liquid. These symptoms can be worse during warm weather. In advanced cases, breathing can be severely compromised and the lips and gums can become blue due to lack of oxygen. Some dogs may show other symptoms due to other nerves being affected.

### PROGNOSIS

In general, the prognosis for recovery following surgical treatment is good with dogs being able to return to a satisfactory level of exercise for their age. There is a risk of pneumonia developing after surgery. Occasionally, the condition can be caused by other diseases such as cancer and infection which can affect the prognosis.

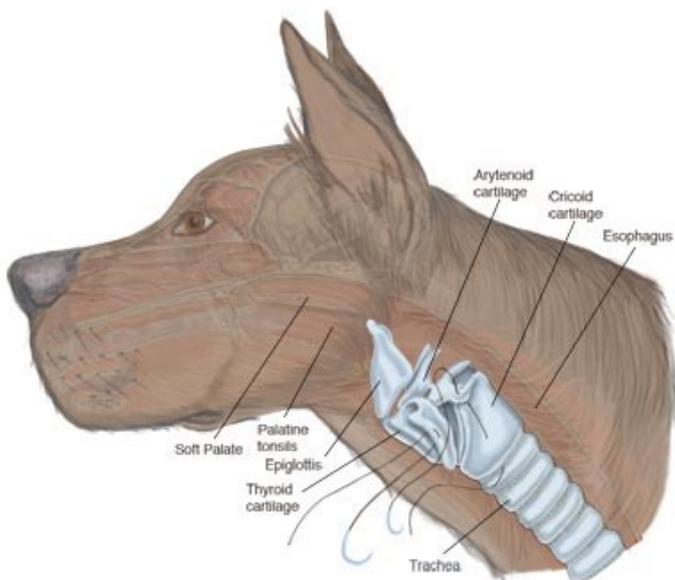


Figure 1

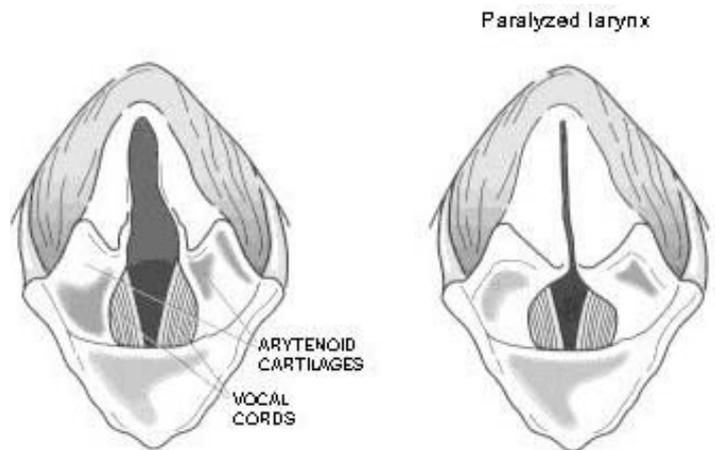


Figure 2

Figure 3

## DIAGNOSIS

Knowledge of the dog's history is essential in helping make a diagnosis. A thorough physical and neurologic examination is performed evaluating the head, all four limbs, and the spine. Blood tests, urine tests and chest X-rays are frequently performed. Ultrasound examination can also be used. Confirmation of laryngeal paralysis is made under anesthesia with visualization of the opening and closing of the larynx during breathing

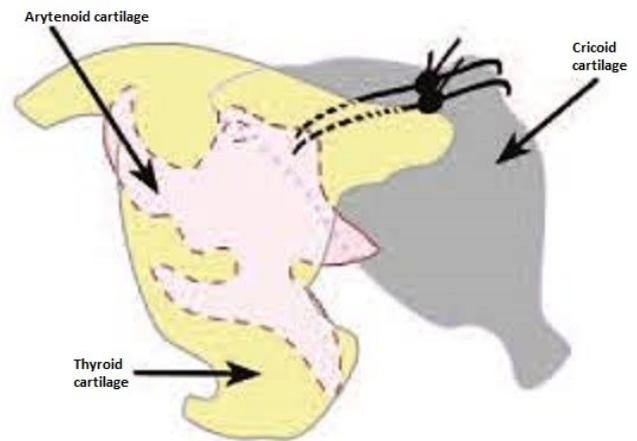
## MEDICAL TREATMENT

Some dogs with only mild symptoms will respond to medical treatment. Generally this involves avoiding warm, humid environments, restricting exercise and sometimes prescribing cough suppressants and anti-vomiting drugs. Occasionally, dogs will present as an emergency and these dogs require urgent treatment with oxygen therapy and anti-anxiety drugs.

## SURGERY

Most dogs with laryngeal paralysis are surgical candidates. The surgery is designed to permanently open the larynx to allow more air into the lungs. Typically, the procedure involves placing two nylon sutures in the side of the larynx to permanently "tie-back" one of the arytenoid

cartilages. Only one side is tied back to reduce the risk of food or fluids entering the lungs.

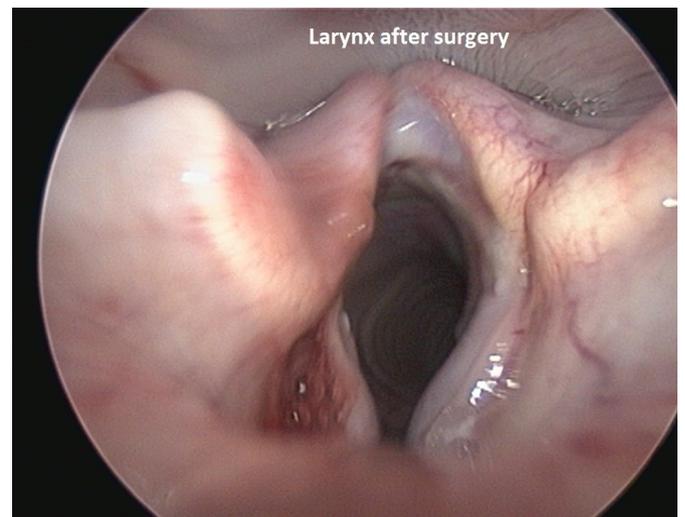
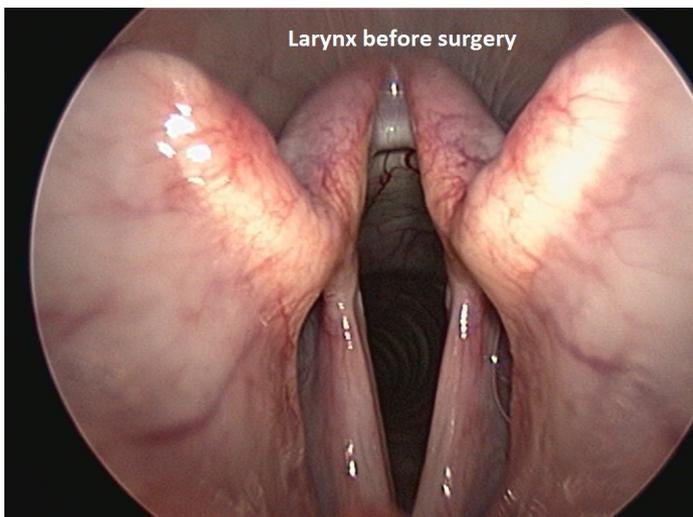


## COMPLICATIONS

Typical post-surgical complications such as infection, wound breakdown and bleeding can occur after laryngeal surgery but the main complication is the development of pneumonia. This risk can be reduced by careful surgical technique and by changing the way dogs are fed after surgery.

## RESULTS

Most dogs have a rapid improvement in breathing immediately after surgery and can enjoy a significantly increased quality of life.



# POSTOPERATIVE CARE

## EXERCISE CONTROL

To allow the larynx to heal following the surgery, complete restriction of exercise is necessary for the first 2-3 weeks. Your dog can be walked on a lead for toileting. Light (5-15 minutes) lead walks can begin after 2 weeks.

## BANDAGE AND SUTURE REMOVAL

A bandage is generally placed over the operated site for protection. This bandage should be removed 4-5 days after surgery. The skin stitches need to be removed 10-14 days following surgery. These tasks can be done by your regular veterinarian. Please call our hospital if there is any swelling, discharge or redness around the stitches.

## FEEDING MANAGEMENT

As the larynx area will be swollen after surgery making swallowing difficult, it is very important that your dog is not allowed to eat watery or crumbly food after surgery. It is best to make up small meat-balls and feed your dog by hand each meatball for the first 2-4 weeks after surgery. Water intake also needs to be carefully

monitored so that your dog is not gulping in large amounts of water at one time.

## MEDICATION

Most dogs are sent home with medication for additional pain relief. Sometimes, antibiotics are also dispensed. Give the medications as prescribed. Further pain relief can be prescribed if necessary.

## BREATHING MANAGEMENT

Some dogs will cough and gag a small amount after surgery which is normal. Warm, humid environments should be avoided. Sometimes, excessive barking can occur putting a strain on the internal stitches, behavioral control can help this but anti-anxiety medication may be prescribed. You may notice a change in your dog's voice after surgery, this is normal and occurs even when surgery is not performed. Monitor your dog for signs of lethargy, decreased appetite and a moist cough, this could indicate pneumonia. If this occurs then an appointment with our hospital or your regular veterinarian is strongly recommended.



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