



**LAKE SHORE**  
 VETERINARY SPECIALISTS  
 &  
 EMERGENCY HOSPITAL

PORT WASHINGTON 262.268.7800 • RACINE 262.554.5344

[www.LakeshoreAnimalHospital.com](http://www.LakeshoreAnimalHospital.com)

## LARYNGEAL PARALYSIS

**What is it?** The larynx has two “doors”, the arytenoids cartilages, that normally open when a breath is inspired and then come to a more closed, resting position at all other times and particularly when one is swallowing. This movement allows for air to move freely into the trachea (windpipe) on inspiration, but prevents aspiration of food, water, etc. when swallowing. With laryngeal paralysis the muscles attached to the arytenoids cartilage(s) no longer able to open so the “doors” are always in a more closed position and the animal is forced to breathe through a small slit rather than a nice open larynx. In some cases the cartilages will shut further or collapse on inspiration rather than opening. The cause of the paralysis is often unknown.

**What animals are affected?** Traumatic laryngeal paralysis can occur in any animal. Idiopathic or degenerative laryngeal paralysis is much more common and is typically seen in geriatric, large breed dogs. Golden Retrievers and Labradors are quite often affected.

**What are the clinical signs?** Animals with laryngeal paralysis tend to have a very characteristic noisy breathing pattern or stridor. In some species they are called “roarers” as it is a loud, harsh, freight train kind of sound. They often have intolerance for exercise, heat and humidity and can have episodes of severe respiratory distress, cyanosis (turning blue), and collapse. Because dogs tend to “blow off” some of their body heat by air exchange when panting, dogs with impaired respiration, as seen in laryngeal paralysis, tend to overheat. This process makes them pant more, and it becomes a vicious cycle. Sometimes this condition can be part of a larger polyneuropathy, and some dogs may also have difficulty with swallowing, regurgitation, megaesophagus, and generalized weakness.

**How is it diagnosed?** Diagnosis is made by visual exam of the larynx. This exam requires a very light plane of anesthesia so the arytenoid cartilages can be watched during normal inspiration and expiration. The characteristic stridor, age, breed, and history are also tip offs. We often will take radiographs of the chest as well to rule out other lung problems and to check for megaesophagus.

**How is it treated?** Conservative management includes keeping the animal calm and quiet (sometimes with the aid of sedatives) and minimizing their excitement and exposure to humidity and heat. They may also need supplemental oxygen. Surgical correction is often recommended to avoid a crisis episode or after a dog has experienced a crisis. The most common procedure recommended is an *arytenoid lateralization* or *laryngeal “tie-back”*. This procedure involves approaching the larynx from the side of the neck, isolating one of the arytenoid cartilages, manually opening it and suturing it in place in this open position.

**What is the aftercare?** The patient will remain hospitalized at least one night after surgery. They typically are able to breathe much more easily after this procedure. They may still be noisy but no longer experience respiratory distress. Because their larynx is now permanently in a more open position, they are at risk for aspiration so we usually are very careful feeding them initially. We recommend feeding a soft food formed into meatballs for the first several days and limiting how much water they can drink at one time. Activity is restricted to short leash walks only, for the first two weeks. The incision is on the side of the neck and so we recommend using a harness or slip lead placed under one forelimb, rather than a neck collar while they are recovering. Switching to a harness permanently is probably prudent. After this

procedure, dogs should probably not swim as they will be less able to protect their airway from aspiration of water.

**What is the prognosis?** Prognosis for dogs after surgery for laryngeal paralysis is very good. There certainly are some risks, particularly for aspiration. On occasion the “tie-back” can fail or the cartilage may fracture causing narrowing of the airway again, but this is rare, and most patients do very well.

**Can it be prevented?** Idiopathic laryngeal paralysis cannot be prevented, but early detection and correction of the condition can avoid a severe respiratory crisis.

Click to learn more about [Laryngeal paralysis](#)