

Dog Tips

This Favorite Product Can Cause a Life-Threatening Emergency

Avoiding contributing to this medical condition is so simple - just check your supplies for this risky item and replace it if necessary. While the emergency can be idiopathic, in my experience it's often caused by trauma relating to this product. So please, sidestep tragedy by avoiding this mistake.

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STORY AT-A-GLANCE

- Laryngeal paralysis is dysfunction of the nerves that control the muscles and cartilage that open and close the larynx
- The disorder can be inherited in dogs but is more often an acquired condition. It is rarely seen in cats
- The most common cause of acquired laryngeal paralysis is trauma resulting from an acute neck injury, and is most often seen in dogs who pull at or are yanked by a leash attached to their collar
- Severe laryngeal paralysis is a life-threatening emergency, and surgery is the treatment of choice to permanently open the larynx to permit air flow
- Prevention of the condition should always be the focus, and can be accomplished by using a harness/leash combination instead of a collar/leash

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Laryngeal paralysis describes dysfunction of the nerves that control the muscles and cartilage that open and close the larynx. The disorder can result in voice changes, and also difficulty eating or breathing.

The larynx, also known as the voice box, is located at the back of your pet's throat, and has several important jobs to do:

- It protects the lungs from aspiration when your pet swallows or vomits
- It also allows barking, meowing, growling and other vocalizations to occur
- It allows the outside air to flow into the lungs

When your pet breathes, he pulls air into his mouth or nose, through the larynx, into the trachea (windpipe) and down into the lungs. In a normal larynx, the cartilages open during breathing. But when the larynx is paralyzed, the cartilages don't open and close effectively, making it more difficult for your pet to breathe normally.

Laryngeal Paralysis Can Be Acquired or Inherited

Acquired laryngeal paralysis is most often seen in older, large breed dogs, including the Labrador and Golden Retriever, the Saint Bernard and the Siberian Husky. Typically the larynx in these dogs is normal at birth, but the nerves and muscles controlling the laryngeal cartilages lose function over time.

Laryngeal paralysis can also be inherited, though it's less common than the acquired form. Breeds affected by the hereditary form of the disease include the Bouvier des Flandres, **Siberian Husky**, English Sheepdog and the Dalmatian.

In Dalmatians, the condition is usually part of a larger disorder called laryngeal paralysis polyneuropathy complex.

In affected breeds, inherited laryngeal paralysis usually shows up in the form of breathing difficulties by the time a puppy is 2 to 6 months of age, so it strikes very early. It is thought that males of affected breeds acquire the disorder at a rate of up to three times that of females.

Laryngeal paralysis rarely occurs in cats. Those that do acquire the disorder are usually older, or develop it as a result of accidental trauma to the neck or neck surgery.

Causes of Acquired Laryngeal Paralysis

Acquired diseases of the voice box, including laryngeal paralysis — we sometimes call laryngeal paralysis Lar Par — are often idiopathic, meaning there is no identifiable cause. We don't know why it happens. However, certain underlying issues can cause or exacerbate the condition, including:

- Vagal (vagus) nerve abnormalities
- Abnormalities of muscles
- Abnormality of the recurrent laryngeal nerves
- Immune-mediated disorders
- A chest infection, inflammation or cancer of the throat
- Hormonal deficiencies such as hypothyroidism or hypoadrenocorticism (Addison's disease)
- Nervous system disorders
- Trauma

The MOST Common Cause

In my experience, cervical or neck trauma is the most common reason for acquired laryngeal paralysis, and it can often be traced to an acute leash accident involving the neck. Perhaps a dog was tied outside, took off running, got to the end of the leash or rope and didn't realize it, and choked.

Just a single episode of severe acute trauma to the neck, even if it happened years ago, can cause laryngeal paralysis. The incident may not have even seemed like a big deal at the time. The dog may have coughed for a day or two afterwards. He may have even coughed up some blood, but otherwise seemed fine.

Weeks or months or years later, the dog develops laryngeal paralysis, and when questioned by their veterinarian, the owners say, "You know what? There was that one time when he did something to his neck ...".

A sudden jerk to the neck as part of inappropriate behavior training is another too common reason for laryngeal paralysis. It's the fear-based, old school and "you must be dominant over your dog" training, where neck pops with the leash, or prong or choke collars are used.

When the trachea cartilage is popped repeatedly during this type of "training," the dog can wind up with tracheal damage. This type of handling puts a tremendous amount of pressure on the larynx because the collar sits right on top of it.

Also, a dog who constantly pulls while on leash even if there's no popping, or a dog that creates continuous tension on the leash can cause chronic, low-grade stress to the neck area. This is why veterinarians are so adamant that dogs learn to walk with slack in the leash.

If your dog is a persistent leash puller and it seems impossible to curb the behavior, my recommendation is to walk her with a harness and avoid clipping the leash to her collar. There are dozens of different types of harnesses on the market, so you should be able to find one that fits your dog and is comfortable for both of you on walks.

The type of harness doesn't really matter, since all of them take the pressure off the trachea and will help prevent laryngeal paralysis down the road.

Symptoms to Watch For

Often, the first sign of a problem with the larynx is a voice change, for example, your dog's bark may take on a different tone or sound hoarse. Abnormally loud inhalations are another symptom of laryngeal paralysis, along with gagging or choking while eating.

Many dogs with the condition start snoring, seemingly out of the blue. Situations that can worsen the problem include hot and humid temperatures, exercise and obesity. If the condition becomes severe, your pet may not be able to take in enough air, which is a life-threatening situation.

Diagnosing Laryngeal Paralysis

Oftentimes an experienced veterinarian will suspect laryngeal paralysis by simply observing the dog in the exam room and getting a brief history of symptoms. Confirmation of the diagnosis will require your vet to look down into the larynx while your pet is sedated.

If the folds of the larynx don't open and close normally while the dog breathes in and out, but instead remain closed (paralyzed), it confirms the diagnosis.

Treatment Options

In extreme cases of Lar Par in which sufficient air isn't being moved in and out of the lungs, the patient will need emergency care either at a veterinary clinic or an emergency animal hospital. The immediate treatment in lifethreatening situations is to put the dog in an oxygen cage. If the pet's temperature is high from overheating, emergency measures will be taken to lower it.

Surgery is the treatment of choice for most cases of severe laryngeal paralysis, with the goal of permanently opening the larynx to increase airflow. The most common procedure is known as a laryngeal tieback surgery and is usually performed by a board certified soft tissue surgeon.

During this surgery, one or two permanent heavy nylon sutures are placed to hold the laryngeal cartilage open, allowing adequate air to pass through. Typically only one side is tied back to decrease the potential for aspiration pneumonia after the surgery. The laryngeal tieback procedure, like all surgeries, carries certain risks, including bleeding, aspiration of stomach contents during surgery or aspiration of food or water after surgery.

The four hallmarks of aspiration pneumonia are coughing, lethargy, poor appetite and fever. All owners of dogs who have tieback surgery should be on the lookout for those symptoms, because they can be life-threatening. Fortunately, most dogs do quite well following the surgery, which provides them with instant relief and the ability to breathe.

Prevention Recommendations

Preventing acquired laryngeal paralysis is the goal, and proactive veterinarians like myself focus on steps we can take to reduce the potential for injury to the larynx. Ideally, we'd like every puppy to learn to walk in a self-controlled manner on a leash without pulling.

But what about that rambunctious dog who, for example, was adopted from a shelter and has never learned how to walk on a leash? Constantly pulling back on the leash attached to his collar won't teach your dog how to walk in a more self-controlled fashion.

This type of dog is a perfect candidate for a harness that takes the pressure off his neck while he's learning how to walk responsibly on a leash.

Or how about that puppy who hasn't attended puppy class and bounces around with crazy excitement at the end of her leash? That pup is at risk because her cartilage is still developing and her neck is quite delicate. Damage done at this stage can affect her much later in life, and become permanent. Getting this puppy into a harness rather than a collar/leash arrangement is what most proactive veterinarians recommend.

If your dog has had cervical trauma or is in the beginning stages of laryngeal paralysis, I recommend starting a protocol of cartilage supportive supplements. Some that I suggest are methylsulfonylmethane (MSM), glucosamine sulfate, perna mussel (also called green-lipped clam), eggshell membrane (not calcium), cetyl myristoleate and hyaluronic acid.