

Post-operative Information: Laryngeal Tieback

Your pet has had a Unilateral Cricothyroid Lateralization, or “Tieback” performed to treat laryngeal paralysis. This surgery involves changing the anatomy of the larynx (the opening to the windpipe) and permanently fixing it in a semi-open position (with a suture prosthesis) to improve airflow to the lungs. Because the airway opening may be paralyzed on one side and is now fixed in the open position on the other, your pet is indefinitely at some risk for aspirating fluid into the lungs and developing pneumonia. (This complication may occur in up to 20% of patients, but can resolve with early and aggressive treatment.)

ACTIVITY RESTRICTIONS

- Please keep your pet in a comfortable, safe indoor location with no free access to stairs for the initial 24 hours following the procedure.
- It may be several days before your pet defecates (poops) due to medications given related to the surgery.
- Keep your pet cool and quiet for the next 6 weeks. Try to *prevent situations that create excitement and especially barking* (which stresses and may break the surgical implants). You may take your pet for 5 minute walks in cool weather during this restricted period.
- Do not use a collar for restraint for the initial 2 weeks after surgery, to avoid irritation to the incision and surrounding area. Consider permanently using an “over the shoulder” style harness for life.

INCISION CARE & MONITORING

- A wound dressing may have been applied to the incision. It may be removed in 3 days if present. Remove it sooner if there is blood visible under the dressing (strike through).
- Please monitor the incision area daily for the following signs:
 - Gapping or drainage—please call if noted.
 - Swelling—it is not uncommon for a seroma to develop under the incision; this is a pocket of normal tissue fluids that develops in a high motion area such as the neck/throat area. If the swelling is smaller than a plum, please monitor. Warm compresses applied to the area will encourage the fluid to reabsorb over several days. If the seroma progressively enlarges, please have your veterinarian assess the problem.
 - Irritation/itching—please prevent scratching of the incision. A loose cloth neck collar fashioned from a t-shirt may protect the site; or a sock loosely taped to the rear foot to cover the nails may prevent harmful scratching.

RECOVERY MONITORING & COMPLICATIONS

- When your pet initially comes home, please count his/her breathing rate and take his/her rectal temperature, both when resting. This will be your baseline for comparison as you monitor your pet's recovery.
- Aspirating fluid, that is regurgitated up from the esophagus/stomach, into the lungs is a common complication of this disease and post-operative course. If aspiration occurs, the early signs are 1) increased body temperature, 2) increased breathing rate and effort, 3) loss of appetite and 4) lethargy; you may also hear and see a deeper, moist sounding cough.

Please call and return for a progress exam immediately (or go to an emergency hospital if overnight or weekends) if you notice these changes. The earlier we catch aspiration pneumonitis/pneumonia, the easier it is to treat; this can be a life-threatening complication.

- You may expect some light coughing with drinking and eating after surgery. This will usually diminish with time.
- Your pet's voice (i.e. his/her bark) will always remain hoarse and raspy. You will hear a louder than normal breathing sound when panting, but it should be quieter than his/her pre-operative status.
- A potential complication of this procedure is the breakdown of the suture prosthesis; this can occur immediately or over months to years. If you notice a return of the loud panting and breathing difficulty with excitement and heat, please return to your veterinarian for re-evaluation.

PROGRESS EXAMS

- Please return for progress appointment with your veterinarian in 10-14 days. They will assess your pet's healing and recovery, remove any skin sutures, and address any questions you may have at that time.

FEEDING

- Do not feed your pet after surgery until he/she is clearly awake and moving around normally (12-24 hours).
- To prevent stomach upset and possible vomiting, feed your pet his/her normal food. If it is dry kibble, soak it until soft and mushy to make it easier to swallow. Some pets will need help eating initially when their throats are sore after

surgery; you can form the dog food into meatballs and feed one at a time. Have them standing up when you feed and encourage them to walk around during and after eating; this will help stimulate their gastrointestinal tract to move food along normally and reduce the chance of vomiting or regurgitation.

- There are various opinions among veterinary professionals and pet owners regarding the best way to feed a patient recovering from laryngeal surgery like this. No scientific studies have clearly demonstrated the best approach; we must rely on common sense and an individual patient's response to eating to determine what is right for them.
 - Feeding your pet **by hand** (in the form of small "meatballs") may prevent large mouthfuls of food. There may be less chance of food getting caught in the throat. ***This is recommended for all pets for 2 weeks.***
 - Elevating your pet's food and water dishes to a height such that he/she does not need to bend over to eat and drink may prevent the "tossing" of food and water to the back of the throat to be swallowed; there may be less chance of food and water getting caught in the throat. This position also may prevent regurgitation of stomach liquids during a "head down" position.
 - Feeding from a ground-level position may allow food that becomes caught in the back of the throat to fall out easier.
 - Some dogs are very fast eaters; this behavior may predispose to food getting caught in the throat. Slow down their eating with simple changes, such as feeding smaller amounts in multiple bowls and locations, or more frequently. Placing a tennis ball in the food dish with the food may slow the rate of eating.
- Patients with an additional known or suspected esophageal abnormality (commonly seen with laryngeal paralysis) should be fed while in a very upright position, i.e. standing on back legs or sitting up on haunches in "begging" position. They should remain in this position for up to 30 minutes to prevent regurgitation of stomach fluids. Please discuss a feeding routine with your veterinarian if esophageal problems are suspected.

LONG TERM LIFESTYLE

- Even with this surgical airway correction, you should consider your dog to have a compromised, poorly functioning airway. *Avoid strenuous activities, especially during hot weather, for the rest of his/her life.* Dogs must pant to cool themselves; dogs with laryngeal paralysis (even with a Tieback) will not be able to cool themselves adequately and can experience heatstroke and breathing crisis.
- Dogs with laryngeal paralysis and a surgical tieback may not be able to tolerate swimming. Their airway is open, so water can go down into the lungs easily. Use caution and monitor closely during open water swimming.
- Over the long term, you should *use only a chest harness or head halter for restraint when walking your pet.* Please do not restrain with neck collar; a collar may be used for identification.
- Ideally, maintain your pet's weight near normal his/her whole life. Any breathing condition can be made worse with excess chest and abdomen fat; less body fat will relieve some of this breathing stress. Good parameters to monitor body condition are: 1) you should be able to feel the ribs and pelvic bones, but not see them; 2) your pet should have an "hour glass" figure when viewed from above looking down; 3) your pet should have a tucked up belly when viewed from the side.
- Some dogs will develop esophagus problems over time. This is likely related to the initial disease process that caused the larynx to be paralyzed. If you notice your dog "burping up" liquid or swallowing and smacking lips frequently, he/she may need medications to stimulate esophageal motility and reduce stomach acids to prevent regurgitation and aspiration pneumonia. Please consult with your veterinarian if these signs or obvious regurgitation of liquid/food is seen.
- Additionally, there is a known association between laryngeal paralysis and leg weakness. The exact cause of both conditions is not known, but presumed to be part of the same disease process. If you notice weakness problems, please have your pet evaluated to determine if this is related to an underlying disease process.
- The majority of owners are very pleased with the outcome of surgery for laryngeal paralysis. Your dog will need to be monitored for signs of aspiration pneumonia for the rest of his/her life and some modifications in activity may be necessary. Most importantly, your pet should now be able to breathe more easily and live a more comfortable lifestyle.