

*Laryngeal Paralysis.* Laryngeal paralysis is most commonly seen as an acquired disease, usually idiopathic, in large and giant breed dogs. A hereditary form of the disease also occurs less frequently in Bouviers and Huskies. The laryngeal paralysis may be unilateral or bilateral, and in a few animals may be associated with hypothyroidism or peripheral neuropathies. Animals with bilateral acquired laryngeal paralysis are generally middle aged, and have symptoms of exercise intolerance, stridor, dyspnea, gagging, coughing, cyanosis, and collapse. Chest radiographs are recommended to rule out pulmonary or cardiac disease. The diagnosis is made by evaluating arytenoid cartilage movement during respiration under light anesthesia: anesthetic depth must be extremely light, with coughing and gagging reflexes maintained, or normal arytenoid movement will appear to be depressed or absent. The arytenoid cartilages should move symmetrically and laterally on inspiration, and return to a slightly paramedian location on expiration. In animals with laryngeal paralysis, the arytenoids do not move laterally, or they move slightly towards midline, on inspiration.

The most widely accepted surgery to treat laryngeal paralysis is the unilateral cricoarytenoid laryngoplasty or "tieback". This technique is performed from the ventrolateral aspect of the neck. The larynx is approached, the thyroid cartilage is reflected ventrally, exposing the cricoid and arytenoid cartilages. The arytenoid cartilage is disarticulated from the cricoid cartilage, then pulled laterally and caudally with a suture through the caudal aspect of the cricoid or thyroid cartilage. The larynx is re-examined immediately post-operatively to confirm lateralization of the arytenoid. With this procedure, the laryngeal mucosa is not disturbed (so there is less chance of webbing), and there is less interference with laryngeal airway protection because it is only performed on one side. The major reported disadvantage is minimal improvement if lateralization is inadequate; however, coughing gagging and aspiration pneumonia may also occur. Approximately 80+% of dogs are categorized as having a successful outcome, with improved respiration and greater tolerance of exercise and heat stress.