Brachycephalic Airway Syndrome

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Overview: Brachycephalic airway syndrome is a group of conditions often present in brachycephalic breeds of pets. Brachycephalic pets have shortened muzzles and noses that can result in restrictive breathing issues. Brachycephalic breeds include English Bulldogs, Pugs, French Bulldogs, Boston Terriers, Pekinese dogs, Persian cats, and others.

Brachycephalic airway syndrome can include one or more of the following:

- 1) stenotic nares—narrow or malformed nasal openings that make air passage through the nose difficult
- 2) elongated soft palate—hangs at the back of the throat and can cause airway obstruction
- 3) everted laryngeal saccules—everted tissue associated with the larynx
- 4) hypoplastic trachea—very narrow trachea

In addition, advanced cases may present with laryngeal collapse or laryngeal paralysis

Signs/symptoms: Signs will vary depending on severity and conditions present, but include noisy breathing and often snoring. The pet may have exercise intolerance, gagging, or even turn blue with excessive excitement or activity.

Diagnosis: Diagnosis is made on physical examination of the nares (external nose). Examination of the soft palate and larynx involves general anesthesia. Trachea evaluation is done with chest radiographs (x-rays).

Treatment: Surgical correction of the abnormalities should help improve breathing. Correction of the nasal openings by removing some of the external cartilage will improve air flow. The long portion of the soft palate is surgically removed. Everted laryngeal saccules are removed at the same time.

Aftercare/outcome: Patients should be monitored closely for airway swelling during the immediate postoperative period and will need to be kept quiet for several days after surgery. Young dogs generally do well and breathing is significantly improved. Older dogs or those with advanced stages of laryngeal disease may still have some difficulty postoperatively and may even require a permanent tracheal surgery to allow better airway function.