



ANESTHESIA AND SURGERY IN ANIMALS WITH BRACHYCEPHALIC AIRWAY SYNDROME

What is Brachycephalic Airway Syndrome?

This is a condition seen in breeds such as Old English and French Bulldogs, Pugs, and other animals with short noses. This syndrome is caused by anatomic changes, such as an elongated soft palate, narrow opening to the nose (stenotic nares), extra tissues around the vocal cords (everted laryngeal sacculles), and a narrow trachea, all of which can decrease air flow to the lungs.



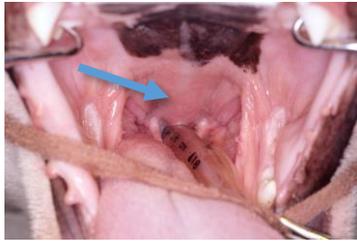
Stenotic nares in a pug.

These changes can cause signs such as loud breathing or snoring sounds, excessive panting, exercise intolerance, blue gums, collapse, and heat exhaustion. Being overweight can make these signs worse.

Why is this a concern for my dog during sedation or anesthesia?

When a brachycephalic animal is sedated or anesthetized, breathing can become much more difficult, and the risks of low oxygen to the brain and body, obstructed airway, aspiration (foreign material in the lungs leading to pneumonia), or even death are real possibilities.

Your pet could have a known risk based on his or her physical exam findings and history; however, these problems are sometimes not discovered until the time of sedation or anesthesia.



In this dog, the soft palate (arrow) hangs down into the airway. A tube has been placed to assist breathing during anesthesia.

What can be done to help my pet breathe better and allow for a safer anesthetic recovery?

Several surgical procedures can be performed to open the airway, including widening of the nostrils and removing excessive tissue from the soft palate (staphylectomy) and back of the throat (saccullectomy). Weight loss plans can also be implemented.

What are some risks of anesthesia and surgery?

As with any sedation, general anesthetic, or surgical procedure, there can be unexpected risks to your pet's life.

Whether or not they undergo corrective airway surgery, brachycephalic animals can have swelling of the airway that hinders anesthetic recovery. In severe cases, a temporary breathing tube, or tracheostomy, is necessary until the swelling resolves. Aspiration pneumonia can occur; it may even be life threatening and require intensive medical management. Bleeding may occur after surgery. For dogs undergoing palate resection, postoperative hospitalization with supplemental oxygen and treatment of inflammation is often required for 24 hours or more.

What are the additional costs?

Costs depend on the procedures that must be performed, the length of the hospital stay, and your pet's overall health. An estimate can be obtained from the UTVMC Soft Tissue Surgery Service by your veterinarian.

Will my dog look different after surgery?

If the nostrils are widened, your pet may look slightly different, but the benefits gained from improved breathing can be well worth the change!



Before and immediately after surgery