

Owner Information Sheet

BOAS is a well-recognised condition that leads to airway compromise in short-nosed breeds of dog. The short-nosed confirmation is actually a growth anomaly in the bones of the muzzle created through selective breeding. This leads to abnormal (shortened) bones of the muzzle, but soft tissues that would be appropriate if the muzzle were long like in a poodle or whippet. The relative excess of soft tissue bunches up around the nose, which many people find cute or aesthetically pleasing. This excess soft tissue in the back of the mouth and nose is known to cause airway narrowing and obstruction that can impact both quality and quantity of life.



Airway compromise – What is going on?

All the components of BOAS result in narrowing of the airway, either due to primary congenital anomalies the dog was born with, or secondary acquired collapse of the airway resulting in further obstruction and narrowing of the airway.

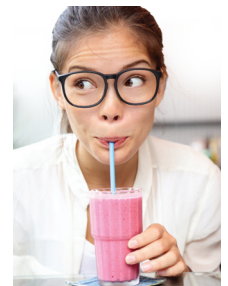
Why is a narrowed airway a problem?

Imagine you are watering your garden with a hose. If you put your thumb over half of the opening what happens? The water comes out faster, right!? This is exactly what happens in a narrowed airway – the air must move faster.



What is the problem with air moving faster?

This time, imagine you have a flimsy straw, and you are drinking a milkshake. If you suck too hard, (make the air/fluid move faster) what happens? The walls of the straw collapse and you suddenly get nothing. This is exactly what happens in BOAS. The fast-moving air causes suction that works to collapse the airway. This can limit the air going into and out of the lungs. What happens when your dog suddenly doesn't get enough airflow? They try harder to breathe! i.e. they suck harder, which leads to even more airway collapse and eventually airway obstruction that can rapidly become life threatening.



Surgical Treatment:

The airway compromise in brachycephalic (short-nosed) breeds is made up of a number of factors that all contribute to narrowing of the airway. Several of the components of BOAS can be improved with surgery resulting in a wider functional airway. The wider the airway, the lower the suction caused by fast moving air, and the slower the progression of the secondary components of the disease. This all leads to a longer and more active life.

When should surgery be performed?

The aim of surgery is to improve the primary components of the disease that the dog was born with and therefore prevent or at least slow the development of the secondary, acquired components of the disease. Surgical intervention should be considered preventative care, and when surgery is performed early (9-12 months of age) the prognosis is generally good. Whilst surgical intervention later in life is possible, most of the secondary, acquired components of the syndrome do not have good surgical or medical solutions. Therefore, if we wait for these patients to become severely affected in middle age, the prognosis is poor, and they are much more likely to require critical care.