

# Prymak Referrals Limited

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## Brachycephalic Syndrome Factsheet

### What is Brachycephalic Syndrome:

Brachycephalic, translated from its Greek roots to mean 'short head', refers to the short but wide skull shape typically seen in dog breeds such as the Pug, French bulldog, English Bulldog, Pekingese etc. Brachycephalic breeds have an excess of soft tissue in the upper airways that can sometimes become problematic.

Brachycephalic syndrome, also called **Brachycephalic Obstructive Airway Disease (BOAS)** refers to a combination of problems that are commonly seen in these breeds and include elongated soft palate, stenotic nares and everted laryngeal sacculles.

An **elongated soft palate** describes a soft palate where the tip protrudes into the larynx and can interfere with movement of air into the lungs.

**Stenotic nares** are nostrils that are narrow or collapse inward making it difficult for the dog to breathe through its nose.

**Everted laryngeal sacculles** is a condition in which the tissue within the larynx is pulled into the larynx to partially obstruct the airflow.

Some dogs with brachycephalic syndrome may also have a narrow trachea, collapse of the larynx or paralysis of the laryngeal cartilages.

### Signs and Symptoms:

Dogs with BOAS will generally have a history of noisy breathing, especially on inspiration. Other signs include marked snoring, occasional gagging/retching, increased incidence of vomiting/regurgitation and an intolerance to exercise. You may notice the tongue and gums going blue in colour (cyanosis caused by lack of oxygen) following activity, excitement or excessive heat and this can lead to episodes of collapse.

Many dogs with an elongated soft palate will show a preference to sleeping with their head and neck extended to allow an easier flow of air into the lungs.

These signs are likely to worsen as the dog gets older or if they put on weight.

### Diagnosis:

Stenotic nares are easily diagnosed on physical examination by observing the narrowing of the nasal openings (see Figure 1)

Definitive diagnosis of an elongated soft palate and everted laryngeal sacculles requires examination under anaesthetic to allow for visualisation of the soft palate and the larynx. Brachycephalic breeds tend to have a very thick tongue which makes visualisation of the larynx difficult with the patient conscious. Restraint to allow conscious examination of the patient can be very stressful.

### Treatment:

Surgery to correct brachycephalic syndrome significantly reduces upper airway distress and greatly improves the patient's quality of life. Under general anaesthesia the soft palate is shortened to remove excessive tissue (staphylectomy), everted laryngeal sacculles are removed if indicated and stenotic nares are widened (figure 3).

### Aftercare and Prognosis:

All surgeries carry some degree of risk. This can be minimised by having an experienced surgeon perform the procedure.



Figure 1 Stenotic nares



Figure 2 Normal nostrils

Close monitoring immediately after surgery is vital as many of these patients have compromised respiratory function before undergoing anaesthesia. Inflammation and bleeding can cause obstruction to the airway immediately after surgery. Pneumonia may also occur in the post-operative period.

It is important that the patient is rested and post op instructions are followed.

Many owners report a vast improvement in their pets breathing and therefore an improvement in the pet's quality of life after surgery.



*Figure 3 Surgical correction of stenotic nares immediately after surgery N.B. this is the same patient seen in figure 1.*