

BRACHYCEPHALIC SYNDROME

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French Bulldog Breed Column

This common health problem in Frenchies is often unrecognized and its seriousness underappreciated. Short-faced (brachycephalic) dogs don't breathe as well as dogs with longer muzzles even under the best of circumstances, making them less tolerant of heat, and making it hard for them to meet the extra oxygen demands created by exercise and stress. To make it worse, many Frenchies have one or more structural abnormalities that further interfere with the flow of air. The airway begins at the nares (nostrils), progresses through nasal cavities which are extremely cramped in Frenchies, past a soft palate which may be elongated, down a trachea which may be abnormally narrow (stenotic), and ends at the lungs. In addition, when the dog pants strenuously the extra effort required to move air through the brachycephalic airway can cause the tissues lining the airway to become inflamed and swollen, leading to further airway obstruction. Any obstruction within the upper airway causes the walls of the airway to be "sucked" inward. Pinch your nose shut and try to inhale, and you will feel this happening in your own throat. Prolonged airway obstruction over time causes secondary changes to occur in the larynx, and if untreated this can result in death due to laryngeal collapse.

A Frenchie who is a very noisy breather, gags and throws up frothy foam after being exercised or stressed, seems to become overheated easily in moderate weather and takes a long time to cool down, and/or can't play without becoming stressed should have its airway evaluated without delay by a vet experienced in treating brachycephalic breeds. This must be done under anesthesia, and you should agree beforehand that if a condition is found which needs surgical correction, that should be done during while the dog is anesthetized to avoid the risk of a second anesthesia.

If the airway is compromised by constricted nostrils, cramped nasal cavities, and/or by an overly long soft palate, the resulting reduced airway pressure will cause some little membrane outpocketings in the larynx (the laryngeal sacculles or ventricles) to become everted (turned inside-out) so that they stick out into the airway. This is the first stage of laryngeal collapse, and can itself be fatal if these little sacculles are pulled into the opening between the vocal cords and cause complete airway obstruction. Surgery to correct stenotic nares and/or an elongated soft palate should also remove these little sacculles if they have become everted.

If a seriously impaired airway is not surgically corrected, then over time the cartilages that form the walls of the boxlike larynx buckle inward, further narrowing and obstructing the airway. The increased air turbulence and vibrations that these changes produce cause a secondary irritation of the membrane lining the larynx, causing it to become swollen and inflamed. This causes a vicious cycle of airway obstruction that leads to airway changes (especially in the larynx) which in turn produce a worsening of the airway obstruction.

Frenchie owners are urged to investigate any respiratory problems that their dogs experience (including gagging and throwing up of foam); and if necessary to have an experienced veterinarian surgically correct any airway problems. To ignore this is to risk your dog's life.

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