



# What's Up Doc?

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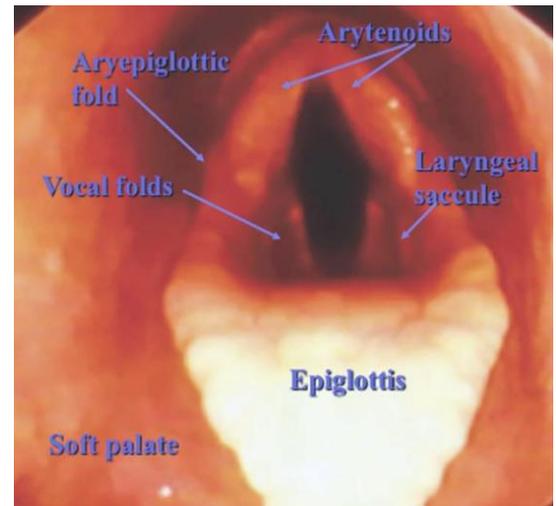
### Up His Nose It Goes!

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#### Up His Nose It Goes!!

Does your horse make a roaring noise after a hard workout? Or maybe you see blood in his nostrils after a run. These symptoms certainly seem concerning, but how do you go about helping your equine athlete? Having an endoscopic exam performed may allow you to have the answers. The endoscope is a 1 to 1.5-meter long flexible camera that can be passed through the nasal passages to visually examine the upper airway of the horse. This includes the nasal passages, throat, guttural pouches, and the trachea. The endoscope is used to diagnose dysfunctions or structural abnormalities of these structures as well as the pharynx and larynx. Endoscopic exams may be recommended for symptoms such as respiratory noises, chronic nasal discharge, difficulty swallowing, poor performance, coughing or nose bleeds. Because breathing is important to exercise, even the mildest abnormality may cause a significant reduction in performance.

Laryngeal hemiplegia, which is a disease that affects the movement of the arytenoid cartilage and can cause exercise intolerance, can be diagnosed using an endoscopic exam. Laryngeal hemiplegia if present, is almost always on the left side. This is due to degeneration of a nerve that courses down the neck, around the base of the heart and back up the neck to the larynx. The nerve that serves the same purpose on the right side has a significantly shorter path from the brain, to the muscles of the larynx. The partial or complete loss of innervation causes the muscle that opens the left arytenoid to have various levels of paralysis. Although severe cases can be diagnosed by palpation of the larynx, most cases are more mild. The arytenoids are weak or slow to open, so during exercise, the effects are noticed.



Dorsal displacement of the soft palate causes expiratory obstruction of airflow. The soft palate normally sits with a tight seal below the epiglottis. Therefore, horses only breathe from their nose — not their mouth such as dogs or humans. The soft palate is composed of muscle. Weakness or inflammation of this muscle or the nerves that serve it may lead to flaccidity of the palate and lead to a malposition or displacement. It is usually intermittent - often at the end of exercise during fatigue.

An endoscope allows visualization to diagnose this condition as well as assist with a tie forward surgery, to resolve the condition if indicated.

Exercise-Induced Pulmonary Hemorrhage may be diagnosed within 2 hours of a nose bleed episode (epistaxis). While EIPH is most common in race horses, it can present in any horse after undertaking periods of intense exercise. Blood pressure in the lungs increases greatly during intense exercise, this causes some capillaries to rupture, releasing blood into the airway. Over time the cycle of EIPH can cause more damage, increasing the incidence and severity of epistaxis. Only severe episodes yield blood in the nostrils. Other tests are often performed with endoscopy to diagnose the condition.



The endoscope can be used to see other conditions such as epiglottic entrapment. This is a fold of tissue below the epiglottis that gets caught over the epiglottis, causing restriction of swallowing and irritation. Inflammation, cysts, polyps, injuries, foreign bodies, infection, and tumors may also be identified.

The endoscope is also used to evaluate the guttural pouch, which is a large diverticulum of the passage between the inner ear and the throat. Streptococcus equi infection, better known as strangles, is an infection of the lymph nodes around the pouch. These infections can turn into abscesses that rupture into the guttural pouch, leading to accumulation of pus. The scope is used to evaluate and flush these pouches. There is a long list of other conditions that can affect the guttural pouch - - there are a lot of major blood vessels and nerves that pass through it that can be life threatening if damaged.

Finally, the trachea can be examined with the endoscope. The trachea may be collapsed, compressed or obstructed. Most commonly, however lower airway diseases may be evaluated by grading and collecting samples of discharge present in the trachea. Diseases such as recurrent airway obstruction (heaves), inflammatory airway disease, and exercise induced pulmonary hemorrhage (bleeder) are often scoped as part of the diagnostic process. The endoscope can be used for a bronchoalveolar lavage procedure to collect these lower airway samples.

Countryside has a 1.5-meter endoscope used for these upper airway procedures. Horses undergoing an upper airway endoscopic procedure usually are lightly sedated and remain standing. They do not need to be fasted, nor do they need to stay with us in the hospital. Using our new video endoscope our doctors will be able to diagnose and treat many upper airway ailments in your horse without breaking the bank. Diagnosing and treating upper airway problems commonly will bring quick relief to the horse. Call us at 970-351-7045 to make an appointment!!

