

Esophageal Obstruction in the Horse

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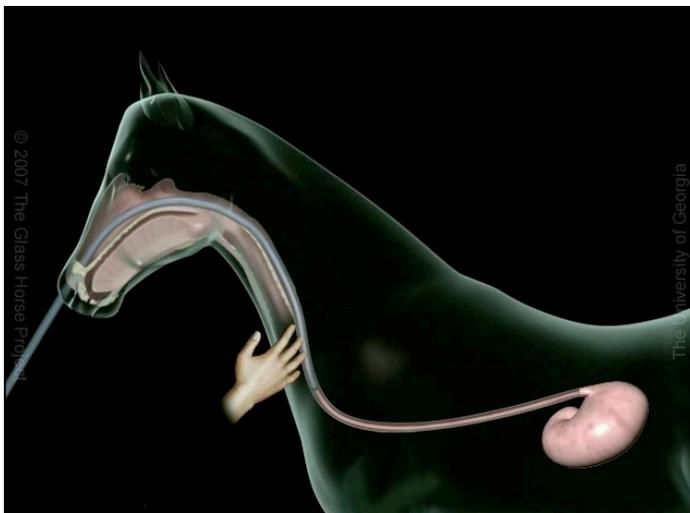


<http://www.horses-and-horse-information.com/articles/1002horsepig.shtml>

Imagine you just finished feeding your horses and are heading out of the barn when you hear coughing. You go to investigate further and find that in addition to the retching, Mr. Ed has feed material coming out of his nostrils and is salivating excessively. What should you do next?

Call a veterinarian!

Mr. Ed is most likely experiencing an esophageal obstruction, or choke. Choke severity can be very variable depending on what the horse is choking on and the reason for the choke. When you first recognize a choke has happened remove all feed, hay, and water. Further attempts by the horse to drink or eat could increase their risk of aspirating foreign material into their lungs and subsequently developing a pneumonia.



<http://horsesidevetguide.com/drv/Diagnostic/82/nasogastric-intubation-stomach-tube/>

When a horse ingests feed material, it first gets ground into smaller particles by the surfaces of their molars and premolars. The combination of the circular motion of their jaw with saliva creates a food bolus. This food bolus then leaves the oral pharynx and moves into the esophagus, which is a long muscular tube that propels the bolus from the mouth, down the neck, through the thorax and rib cage and into the stomach where the digestive juices and enzymes break up the food and begin the absorption process.

Why do horses choke?

There are several factors that can predispose a horse to choking. Geriatric horses are commonly associated with choke since they often have poor dentition and decreased saliva production. Horses that bolt their food can be at greater risk of choke, especially when fed a pelleted grain that expands in the lumen of the esophagus when it comes in contact with the saliva. For these horses, placing large rocks in their feed bin can force them to eat around the rocks and slow down their intake. Another factor that can play a role in choking is feeding a sedated horse. Horses can choke on any feed material including beet pulp, hay, pelleted feed, or bedding. The two most common regions of the esophagus where feed material gets obstructed is the proximal esophagus, or the part closest to the head, and the segment just cranial to the thoracic inlet, or the region just before the esophagus enters the rib cage.



<https://equineink.com/2012/01/29/what-to-do-when-your-horse-chokes/>

Do we need to do the Heimlich maneuver?

Luckily, to relieve choke we do not need to perform the Heimlich maneuver. Initially, your veterinarian will sedate the horse to lower their head, reduce anxiety, and relax the esophageal muscles. A long nasogastric tube is passed into their esophagus until resistance is felt, presumably the area of obstruction, and water can be used to lavage the obstruction while gently pushing it towards the stomach. It will be important to keep their head down as much as possible while relieving the choke to decrease the risk of the horse aspirating any liquid. Additional medications, such as Buscopan, can be used to relax the esophagus to aid in the movement of the food bolus. Another theory, is giving a drug to decrease smooth muscle tone such, as oxytocin. This drug can be associated with transient abdominal discomfort and sweating and is not safe to use in pregnant mares.

If these initial steps do not resolve the choke, the veterinarian may need to provide intravenous fluids to maintain adequate hydration since you horse will be unable to drink water while choked. Additionally, if the choke cannot be relieved with sedation, general anesthesia may be needed to get more relaxation and a more aggressive lavage. If all attempts to dislodge the choke are unsuccessful, surgical management can be pursued as an emergency procedure.

What are the complications that can be associated with a choke?

A common complication of choking is aspiration pneumonia, or an infection in the lung caused by inhaling food particles and material. Prophylactic antibiotic administration,

either with oral tablets or injectable formulations, is typically prescribed following a choking incident to prevent this possible serious complication. It is important to monitor your horse for coughing, increased respiratory rate, appetite, lethargy, and fever for 5-7 days following a choking incident so you catch the early signs of pneumonia. If there is great concern for aspiration, a thoracic ultrasound can be performed to look at the lining of the lungs. Additionally your veterinarian will want to listen to the horse's lung sounds to see if there are any crackles or wheezes which are an indication of pathology in the. Factors that increase the risk of aspiration pneumonia include the duration of the choke, more attempts to drink while choked, and the horse having their head elevated while choking.

With a more difficult choke, an endoscopic examination, or passing a camera through the horse's nose and into their esophagus, may be warranted. By visualizing the esophagus on the camera, the integrity of the esophageal tissue can be assessed for irritation or damage that can be associated with choking. When there is damage to the esophageal tissue, the area will heal by laying down scar tissue. This scar tissue is less elastic than the healthy esophageal tissue and can form a stricture, or narrowing of the esophagus. If a stricture forms then food passage down the esophagus will continue to be an issue and a feeding program will need to be adjusted accordingly.

Days Following the Resolution of Choke

After a horse has choked it will be important to introduce food very gradually and as a soupy gruel. The esophagus will need to have time to heal therefore making the food into a slurry will make passage through the esophagus easier. Prophylactic antibiotics as well as an anti-inflammatory drug, such as Banamine, will typically be prescribed following the incident. Additionally, rectal temperature monitoring and close monitoring for signs of pneumonia will be crucial in recognizing any post-choking complications. A first time choke incident with no complications has an excellent prognosis. With complications of stricture or aspiration pneumonia, the prognosis decreases.