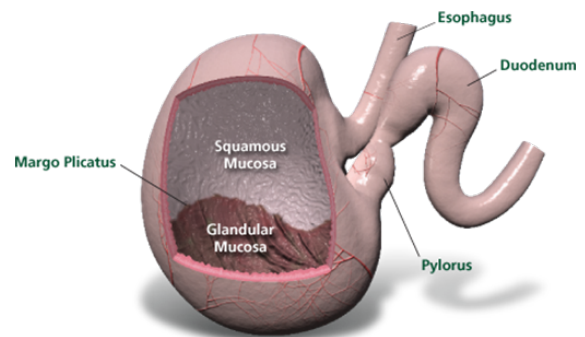


## Equine Gastric Ulcers

By Dr. Michelle Wiberg

Most horse owners have heard of gastric, or stomach, ulcers in horses. Many may not fully understand the condition or how it may be affecting their horse's health and performance. The prevalence of gastric ulcers in horses has been estimated to be 50-90%, depending on the population surveyed and athletic activity of the horse. Ulcers can occur in any age of horse, including foals only a few days old. Most commonly, gastric ulcers affect horses in work or under stress, such as show horses and race

horses. Infrequent feedings or meal feedings also increases the risk. The horse's stomach continually secretes acid for digestion of roughage, even when not eating. The horse is designed to be a continuous eater, where saliva and forage intake neutralize the stomach acid. Meal feeding can subject the horse to prolonged periods without feed to neutralize the acid. Prolonged transport, stall confinement, high grain diet, and NSAID use are other risk factors for acid production or thinning of the natural protective barriers.

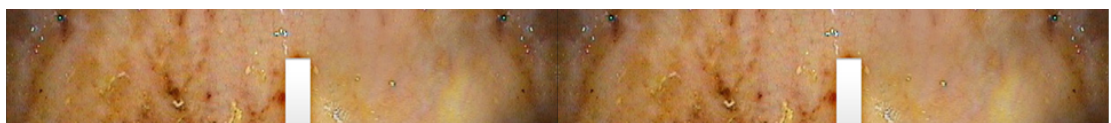


The horse's stomach has two distinct regions: the squamous region at the top of the stomach and the glandular mucosa at the bottom. The glandular mucosa secretes gastric acid, but this region also produces mucus and bicarbonate to protect the mucosa from acid exposure. Ulcers in this area are less common and are usually associated with chronic NSAID administration. The

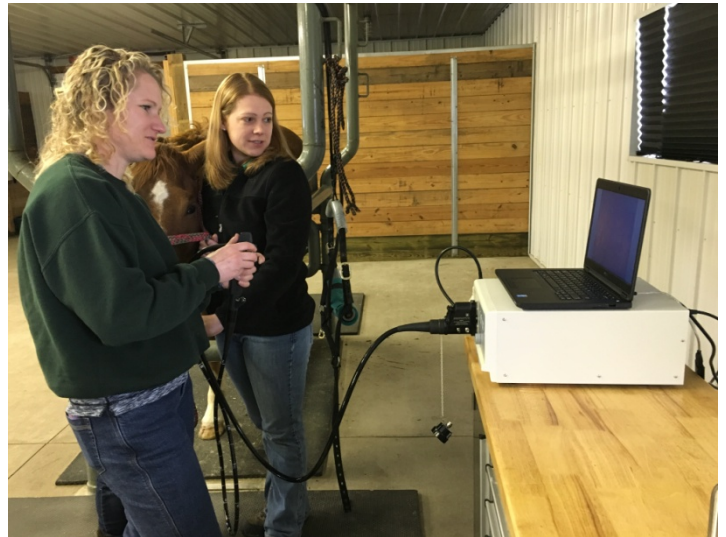
squamous region at the top of the stomach does not have much protection from the acid and gastric ulcers can form here much more commonly. The margin between the squamous and glandular portions of the stomach is called the margo plicatus. Naturally, this margin is the most common place for ulcers to occur, as the acid producing glandular mucosa lies adjacent to the susceptible squamous mucosa.

The majority of horses with gastric ulcers do not show outward clinical signs. Affected horses may show vague, non-specific signs such as low-grade colic, poor appetite, dullness/depression, attitude changes, decreased performance, poor hair coat, weight loss, increased time laying down, and loose manure. More severe cases may show more severe or more frequent signs of colic, bruxism (grinding of teeth), and belching. In foals, diarrhea is the most frequent sign of gastric ulceration. Other signs of ulcers in foals include frequently lying down, lying on their backs, intermittent colic (after suckling or eating), intermittent nursing or poor appetite, bruxism (grinding of teeth), and hyper-salivation. Ulcers are more likely to be severe in foals and should be diagnosed and treated immediately if the above symptoms are observed.

To confirm a diagnosis of gastric ulcers in horses, an endoscopic examination must be



performed. This a minimally invasive procedure that involves passing a long scope up a horse's nose, down the esophagus, and into the horse's stomach. Horses need to be fasted for at least 12 hours prior to the procedure and water withheld for four hours before the examination. To minimize stress on the horse, the horse is usually sedated and the entire procedure usually takes about 20 minutes. The light and camera on the end of the endoscope allows the veterinarian to observe the stomach lining and make treatment recommendations based on the severity of the ulcerations. Horses that improve with treatment should be scoped prior to discontinuing therapy.



The only FDA approved medication for treatment and prevention of gastric ulcers in horses is omeprazole, sold as a paste called Gastrogard or Ulcergard. Omeprazole is also available in compounded forms, but results are much more variable. Omeprazole works by inhibiting gastric acid production and promotes healing of gastric ulcers. Other medications used to treat or sooth ulcers include acid blockers such as ranitidine, antacids and sucralfate.

Prevention is always preferable to treatment. Management techniques that may help prevent ulcers include: feed horses frequently or on a free-choice basis; reduce the amount of grain and concentrates in the diet and/or add alfalfa hay to the diet; limit stressful situations such as intense training and frequent transportation; avoid or decrease the use of NSAIDs or consider newer medication with less side-effects such as fibrocoxib (equiox); and if horses must be confined, allow them to socialize with other horses and have access to frequent forage. Ulcergard can be used for prevention as well.

If you suspect your horse may have ulcers, please call our office to schedule a gastroscopy.