



## **Equine Gastric (Stomach) Ulcers**

Gastric ulceration is a common disease of athletic horses. It is erosion of the stomach lining (mucosa) due to prolonged exposure to gastric acid. To better understand the development of gastric ulcers, it is useful to know the anatomy of the equine stomach. There are two portions of the stomach. One portion, the glandular portion, secretes acid and is therefore designed to be in contact with the gastric acid. The other portion, the squamous portion, functions to mix the food. The mucosa of this portion is more sensitive to gastric acid, and therefore, more susceptible to ulceration. The division between the glandular and squamous portions of the stomach is called the margo plicatus. Gastric ulceration in adult horses is most commonly found at the margo plicatus or in the squamous portion of the stomach near the margo plicatus.

There are several risk factors that increase the likelihood of horses developing gastric ulcers. Horses that are fed two large meals a day are more likely to develop ulcers. Because horses are meant to be grazers, they are continuously secreting acid to help digest roughage. The roughage helps to neutralize the acid in the stomach. If there is extended time between meals, the acid is not neutralized and damage occurs to the stomach mucosa. Other risk factors include intense training and exercise. Stabling and stress can also contribute to the development of gastric ulcers. Finally, long-term administration of non-steroidal anti-inflammatory drugs, such as phenylbutazone and flunixin meglumine (Banamine), allows the stomach to be more susceptible to ulcer formation.

Some horses with gastric ulcers will show outward signs of colic. However, many cases do not show any symptoms of abdominal pain. Instead, owners notice lack of condition, weight loss, and decreased performance. The only way to definitively diagnose gastric ulceration is to have your veterinarian perform gastroscopy. This requires a three meter endoscope which is placed in the nostril, down the esophagus, and into the stomach. This allows the veterinarian to visualize the stomach mucosa and find any ulcerations that are present.

If your horse is diagnosed with gastric ulcers, there are effective treatments. The goal of therapy is to increase and maintain the gastric pH above 4. This reduces the acidity of the stomach, and allows the ulcers to heal. The most effective treatment is omeprazole (Gastrogard). This drug blocks secretion of acid from the stomach and maintains stomach pH greater than 4.0 for 24 hours. Another commonly used drug is ranitidine (Zantac), which reduces the gastric acidity by blocking the acid receptors in the stomach. Other therapies include gastric mucosal protectants and antacids.

There are management steps that you can take at home to prevent the chance of gastric ulcer formation. Allowing your horse pasture turnout with free choice access to grass will help neutralize the stomach acid. If pasture turnout is not an option, free choice access to hay and/or feeding multiple small meals throughout the day is beneficial. Finally, reducing stress on your horse helps to prevent gastric ulcer formation.

These preventative measures can greatly reduce the chances of your horse developing gastric ulcers and needing therapy. If you suspect that your horse could have gastric ulceration, a veterinarian could easily diagnose it with a gastroscope, and effective treatment can be initiated.

Contact Brandon Equine Medical Center at 813-643-7177 or email [info@brandonequine.com](mailto:info@brandonequine.com) with any questions regarding this topic.