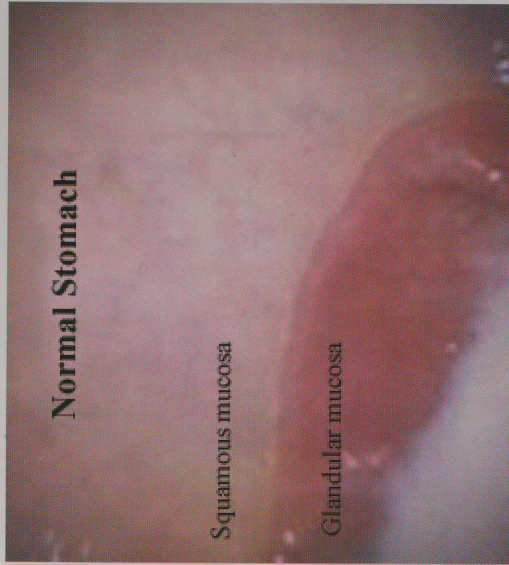


Prevention of ulcers is the key. Limiting stressful situations and frequent feeding or free choice access to grass or hay is imperative. This provides a constant supply of feed to neutralize the acid and stimulate saliva production, which is nature's best antacid. When this is not adequate or possible, horses at greatest risk will benefit from medication to decrease acid production.

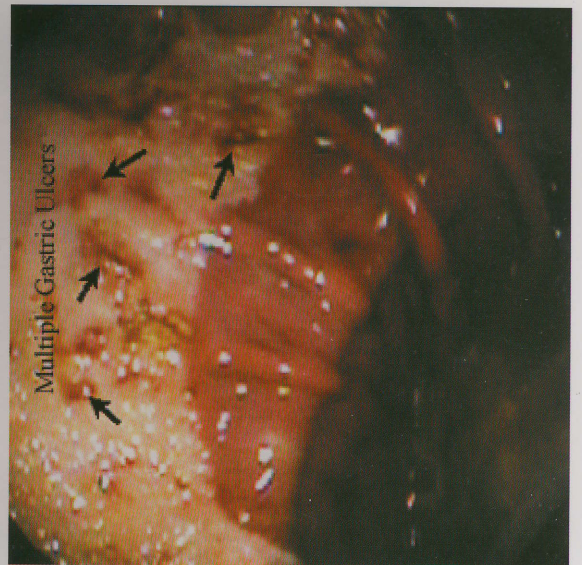
Normal Stomach

Squamous mucosa

Glandular mucosa



Multiple Gastric Ulcers



AAEP web site: myhorsematters.com

Nutrena equine web site: www.NutrenaWorld.com

For more information regarding Equine Gastric Ulcers, contact your veterinarian or the American Association of Equine Practitioners
4075 Iron Works Parkway, Lexington, KY 40511
859-233-0147



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EQUINE GASTRIC ULCERS



**Special Care
and
Nutrition**



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Why do horses get ulcers?

Equine gastric ulcers affect up to 90% of racehorses and 60% of show horses. Ulcers are the result of the erosion of the lining of the stomach due to a prolonged exposure to the normal acid in the stomach. Unlike ulcers in humans, equine gastric ulcers are not caused by bacteria. A horse's stomach continually secretes acid, which can result in excess acid when the horse is not eating regularly because there is no feed to neutralize the acid. Horses are designed to be grazers with regular intake of roughage.

The horse's stomach is divided into 2 parts. The bottom part is glandular and secretes acid and has a protective coating to keep it from being damaged by acid. The top portion of the stomach is designed more for mixing of the contents of the stomach and doesn't have as much protection from the acid. This is the most common place to find ulcers.

Horses at Risk

Ulcers are a man made disease. Stall confinement alone can lead to the development of ulcers and when horses are fed twice a day the stomach is subjected to a prolonged period without feed to neutralize the acid. Furthermore, high grain diets produce volatile fatty acids that can contribute to the development of ulcers. Stress, both environmental and physical, can increase the likelihood of ulcers. Hauling, mixing groups of horses, and training can

lead to ulcers. Strenuous exercise can decrease the emptying of the stomach and the blood flow to the stomach, thus contributing to the problem.

Finally, chronic administration of non-steroidal anti-inflammatory drugs like phenylbutazone can decrease the production of the protective mucus layer making the stomach more likely to develop ulcers.

Symptoms

The majority of horses with gastric ulcers do not show outward symptoms. They have more subtle symptoms such as poor appetite, decreased performance, and a poor hair coat. More serious cases will show abdominal pain (colic).

Diagnosis

The only way to definitively diagnose ulcers is by gastroscopy; placing an endoscope into the stomach and looking at the surface of the stomach. To do this the stomach must be empty so most horses are held off feed for 6-12 hours and not allowed to drink for 2-3 hours. With light sedation and possibly a twitch, the endoscope is passed through the nostril and down the esophagus into the stomach. The light and camera on the end of the endoscope allow the veterinarian to visualize the lining of the stomach.

Treatment and Prevention

Treatment is aimed at removing any predisposing factors and decreasing acid production. When possible horses should be allowed free choice access to grass or hay. Environmental factors should be addressed. In horses that must be stalled the horse should be arranged so they can see horses that they socialize with. Some horses appear to enjoy having a ball or other object in the stall to occupy their time.

More frequent feeding will help to buffer the acid in the stomach. Decreasing grain that forms the volatile fatty acids may help some horses. The energy from the grain can be replaced by using a feed higher in fat. In horses with lower caloric needs, free choice grass hay with the appropriate vitamin and mineral supplement will help.

Medication to decrease acid production is only necessary in horses showing clinical disease or when the predisposing factors cannot be removed, such as some horses in race training. While antacids sound good, to be effective they would have to be given 6 to 12 times a day. Antacids in feed are relatively ineffective because they are ingested at the same time as the feed which will buffer the acid. Multiple medications are available to decrease acid production. The most effective treatment is omeprazole which decreases acid production for up to 24 hours.