



Athletic Equine
— VETERINARY SERVICES —

Gastric Health May Sabotage Your Horse's Performance

Have you ever prepared for a big show to get there and find that your horse is just not the same as when you left home, or worse acting colicky? This occurs more than people imagine. Current research shows that 60-90% (based on discipline) of performance horses have some degree of gastric or colonic ulceration.

Why does my horse only become irritated at shows?

Alterations to a horse's program dramatically increase the risk of developing ulcers which can occur in a 24-hour period. An increase in stress ramps up a horse's production of hydrochloric acid (stomach acid). Your horse may not show any signs they are stressed but showing, increased training/exercise, trailering, and decreased turnout time all lead to an increase in stress.

One of the most underestimated risk factors is decreased roughage (hay). To better understand why let's look at the horse's anatomy. A horse's stomach is unique and specially designed for grazing animals. It is divided into two portions. The top half has a skin-like lining (squamous cells) and the bottom half has glandular cells that produce hydrochloric acid and mucus (to help protect the stomach lining the acidic pH). Since they are designed to graze most of the day they have a continuous release of acid, unlike humans where the acid is only released when food is present. So when there is not a continuous supply of roughage the acid is sloshed around up onto the sensitive squamous cells damaging them over time. Research has proven that intermittent hay deprivation alone can lead to ulcers in 96 hours.

Another major component is the use of NSAIDs (non-steroidal anti-inflammatories). NSAIDs block chemical pathways to help reduce inflammation but also block chemical pathways to the colon that regulate mucus production and blood flow. These alterations to the pathway increase the risk of colonic ulcers.

What will my horse do differently?

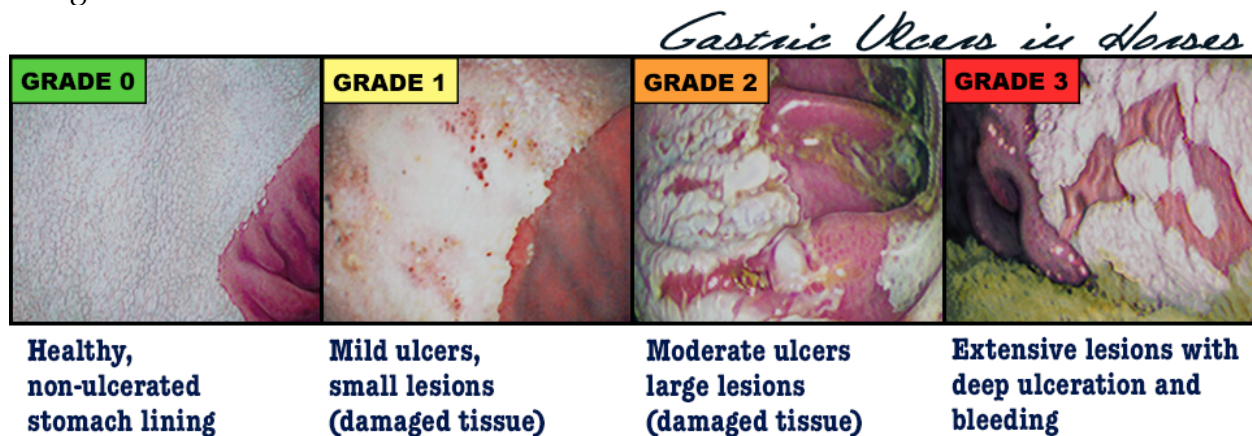
Presenting complaints of horses that are beginning to have stomach pain can vary greatly depending on severity and chronicity. Mild and early clinical signs include lethargy, irritable when saddling (specifically cinching up), not rounding or carrying themselves normally, not engaging as well behind or becoming pen sour. Behavioral changes you may notice in their stall can be a change in water consumption and decreased grain intake while their hay intake remains normal. If this goes on for a period of time they may develop a dull coarse hair coat and lose weight.

When the symptoms become more severe horses become anorexic, paw periodically, bite at their shoulders or sides (sometimes only while being ridden), and colic. The two most common types of colic associated with ulcers are gas colic, from alterations in bacteria within the gut, and impaction colic from changes in transit time and water content of digest.

How do I find out if my horse is affected?

Your veterinarian can use clinical signs, symptoms and a thorough physical exam to predict if your horse has gastric ulcers or colonic ulcers. For a definitive diagnosis of gastric ulcers your horse will need an upper gastrointestinal scope where a camera is taken down into your horses stomach to observe the stomach lining. A good test for colonic ulcers is a Succeed Equine fecal blood test that test for the presence of Albumin. Albumin is a protein that will be increased when the hind gut is damaged

Gastric ulcers in horses are graded on severity with 0 being normal and grade 3 being severe.



What can I do to treat my horse?

There are two types of products we can administer to help gastric ulcers heal. There are products that increase the pH of the stomach (less acidic) and products that coat the ulcerated areas.

Increase pH

Antacids (Maalox) increase pH for a few hours and are not expensive; however, these compounds must be administered on an empty stomach (which we try to avoid in horses with ulcers) at least four times a day. Some horses will eat the product mixed with grain, but your horse may need to be syringe-fed as many horses resent the taste. Another option is to administer Ranitidine and/or Cimetidine that decrease acid production by blocking histamine receptors. These can be administered with a full stomach.

The most popular choice is to administer omeprazole (Gastroguard) at a dose of 4 mg/kg once a day. Omeprazole is a proton pump inhibitor that stops the stomach's hydrochloric acid secretion. This medication should be administered for one month to heal the ulcers.

Coating Ulcers

Sucralfate sticks to the ulcer, forming an acid-resistant barrier that allows the ulcerated tissue to heal like a band-aid. While it is great at helping with pain by protecting the area it only last a few hours. Sucralfate works best when administered on an empty stomach however fasting is contraindicated in ulcer prevention and treatment.

Hind Gut

To heal the hind gut specialized buffers can be administered to help regulate the pH beyond the stomach. A few buffers that are not broken down in the stomach are Succeed and EquiShure. Additionally, probiotics may need to be given to help the gut flora return to normal. One of the most important things to remember about horses currently with or a history of colonic ulcers is the use of NSAIDs. These horses would do best on Equioxx as needed.

After a horse has been treated for ulcers it is imperative that they are placed on a preventative program during times of stress, travel or show. Low dose omeprazole (Ulcerguard) can be used as a daily preventative that should be started 1-2 days prior to the increase in stress. Horses that become anxious or nervous before a class can be administered ranitidine or cimetidine before heading up to the show pen to calm their stomachs for a few hours. There are also several feed additives (NeighLox, U Guard, GUT or SmartGut) that can be added to grain with every feeding that act as an antacid for 1-2 hours.

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