



ST DAVID'S EQUINE
VETERINARY SURGEONS

FACTSHEET

GASTRIC

ULCERS

Gastric ulcers are estimated to affect 92% of racehorses and almost 60% of performance horses. Recent studies have suggested that they are even common in pleasure horses and donkeys.

How and why do ulcers form

The lining of the stomach in the adult horse is split into two regions:

- The upper part is called the “Squamous Region” and has no secretory or absorptive function.
- The lower part of the stomach (the glandular region) is more complex and contains the glands that secrete hydrochloric acid.

Gastric ulcers can form in the upper region due to an increased exposure to acid (for example if acid splashes up onto it during exercise) or in the lower region (due to problems with the natural protective mechanisms).

Horses have evolved as ‘trickle feeders’. This means that they are designed to eat almost constantly and have free access to light grazing for 24 hours a day. In the wild, eating would only occasionally be interrupted when the horse needed to run to escape from predators. In contrast our modern, domesticated horse is usually stabled, and given two or three cereal-based feeds a day, sometimes with only small amounts of forage or grazing time. This results in long periods with little or no food intake. The glandular lining of the stomach of the horse continuously secretes acid, whether or not the horse is eating. If a horse does not eat for several hours, this continued secretion of acid means the environment in the stomach can quickly become very acidic, the acid then irritates or “burns” the lining of the stomach and ulcers can begin to develop. In contrast, horses that are constantly eating hay or grass have a much less acidic and more healthy environment in the stomach.

Other risk factors can also increase the susceptibility of the modern horse to ulcers:

- Intense exercise (which can cause the acid of the stomach to splash onto the squamous part of the stomach lining).
- Travelling.
- Stress.

What are the symptoms of gastric ulceration in horses?

Symptoms are generally quite vague, and clinical signs in adult horses can and do vary. They can include some or all of the following:

- Reduced appetite.
- Poor physical condition.



- Mild or recurrent colic.
- Diarrhoea.
- Changes in attitude (depression or aggression).
- Poor performance.

How can ulcers be diagnosed?

The only reliable way to diagnose gastric ulceration in horses is to physically look at the lining of the stomach with a gastroscope. The scope is passed into the stomach and fibre optics transmit the image to a television screen. This is usually a stress free and fairly quick procedure and is carried out in the standing horse with light sedation.

Treatment

If ulcers are present, treatment is necessary and studies have shown that, as in humans, the most effective treatment is omeprazole (known as GastroGard). This drug reduces the secretion of acid into the stomach and so allows the stomach lining to heal. Total healing time is usually between two and four weeks. Horses can remain in full intensity training while being treated with GastroGard.

Changes in management are also necessary. Continuous access to fibre based feed is important. More time grazing is preferable, but stabled horses should have continuous access to hay and access to hard feeds with high starch content should be kept to a minimum. If more energy is required to fuel a high level of work, supplementing the fibre diet with oil is preferable to adding starchy hard feeds.

Management and prevention

If there have been no changes in management, naturally occurring ulcers can start to reappear as soon as three to four days after the end of treatment in a horse in intensive training. To help prevent ulcers from returning, modifications to the horse's regime, or a maintenance dose of GastroGard will be needed – or a combination of both. If at all possible turnout (even for short periods) will help, as will adlib hay and spreading the same quantity of hard feed over at least four feeds per day.