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# Gastric Ulcers

## What are Gastric ulcers or Equine Gastric Ulceration Syndrome (EGUS)?

Gastric ulcers or EGUS can be caused by prolonged exposure of the stomach lining (gastric mucosa) to gastric juices causing it to erode and resulting in ulceration and sometimes bleeding. In extreme cases the stomach lining can perforate which can be fatal. Horses have evolved to eat little and often so their digestive system has evolved to continually secrete gastric acid into the stomach. In the wild, horses will continually chew which allows the continual production of saliva, containing bicarbonate, to buffer the gastric acid. Domesticated horses will often go for prolonged periods of time where they are not eating and therefore not producing sufficient saliva to neutralise these gastric juices and as a consequence can be susceptible to gastric ulcers.

### The horse's stomach

The stomach can be divided into two sections. The region where the food first enters the stomach is the non glandular section which is unprotected by a mucous layer. The second section where hydrochloric acid is produced is called the glandular region and is protected by a mucous layer. It is in both these regions but more frequently the non glandular region that ulceration can develop.



## Who is at risk?

Horses at risk of gastric ulcers are those whose activities, routine and/or inappropriate feeding practices make them more susceptible. Stress is also thought to be a major factor as it decreases the stomach lining's defence mechanisms.

### Athletic performance horses

It has been suggested that 80-90% of horses in training and 50% of competition horses have gastric ulcers. This may be due to prolonged periods stabled with no or low levels of forage and increased stress levels. Intensive exercise has been shown to increase abdominal pressure in the abdomen and thus push gastric acid into the upper half of the stomach that is not protected by a mucus layer. In addition the physical motion of galloping can splash the non glandular region with acid.

### Foals

It has been suggested that 50% of foals suffer from gastric ulcers. Foals have a developing stomach lining which is thinner than adult horses increasing their risk of ulceration. The amount of gastric acid secreted in a foals stomach often increases at a time when they are often not eating enough forage to buffer it which can also leave them more prone to ulceration.

### Ways to help reduce stress in foals

Encourage foals to creep feed so that when they're weaned they already have an appetite for feed and forage. Try and minimise stress i.e. prevent rough handling, illness, transport, sudden weaning or weaning too young.

Ensure an adequate amount of colostrum is received by the foal, which contains an epidermal growth factor that enhances growth of the gastric mucosa.

## Ill horses or horses on box rest

Horses that are on box rest often have a decreased appetite and as such may go for prolonged periods without forage increasing their risk of ulcers.

### What to look out for?

Diagnosis can sometimes be hard as not all horses will have definitive signs however the signs include:

- ◆ Changes in temperament i.e. irritability
- ◆ Poor body and coat condition
- ◆ Reduced appetite
- ◆ Teeth grinding
- ◆ Diarrhoea (Most common sign in foals)
- ◆ Low grade colic
- ◆ Pot belly
- ◆ Decreased performance

### How nutrition plays a role

Although there are short term treatments available that neutralise gastric acid and reduce its production, in the longer term nutritional management is required. Feeding practices can impact on the severity and frequency of gastric ulcers therefore correct feeding management and appropriate nutrition can go a long way to reducing the risk and decreasing the severity of gastric ulcers in horses. In order to minimise gastric ulcers we recommend the following:

- ◆ Feed a high fibre, low starch and sugar diet. If extra energy is needed consider using a high oil feed.
- ◆ Do not allow you horse to stand for long periods of time without forage. Provide pasture turnout whenever possible.
- ◆ Feed ad lib hay or haylage or use a low calorie forage replacer that has been approved by the Laminitis Trust.

### Extend eating time by:

- ◆ Use short chop hay replacers
- ◆ Place hay in a double haynet or haynet with small holes
- ◆ Feed little and often, adding chopped fibre to bucket meals.
- ◆ Allow access to forage before exercise to maintain the gastric mat of fibre in the stomach.
- ◆ Don't use straw as the sole forage supply
- ◆ Make sure clean fresh water is always available



For more information contact  
the SPILLERS® Care-Line on 01908 226626