



## **EQUINE GASTRIC ULCER SYNDROME FACT SHEET**

### **What are gastric ulcers and why do they form?**

Horses are designed to be trickle feeders who would naturally graze on high fibre forage for around 16 hours a day. With our modern management of horses this natural state has been somewhat altered, with many horses stabled for long periods, fed a large amount of concentrates and with restricted access to forage.

Horses are continuously producing gastric acid (up to 1.5L an hour) which can cause the stomach contents to become very acidic. Usually this is somewhat neutralised by saliva that is produced when the horse grazes constantly.

The stomach is divided into a glandular portion (where gastric acid is produced) and a non glandular squamous portion. Ulcers can occur both in the squamous portion and the glandular portion.

### **Are certain types or breeds more likely to suffer with EGUS?**

EGUS can affect all breeds, ages and types. It is now thought that up to 1 in 3 horse will be affected. The severity can vary greatly from an inflamed (but intact) stomach lining right through large, widespread areas of bleeding erosions. Foals can also be affected.

### **Are there any factors that increase the risk of developing EGUS?**

- Horses that are on a high concentrate diet, without continual access to forage are more likely to develop ulcers.
- During high intensity exercise blood flow to the stomach decreases and gastric acid is also more likely to contact the areas of the stomach usually not in contact with acid.
- Stress - whether this is due to illness or disease or due to other factors (e.g. transportation, box rest, bullying or new surroundings) is a known risk factor
- Horses that wind-suck are at increased risk.
- Certain medications such as non steroidal anti-inflammatories (e.g. 'Bute') increase the risk of EGUS as they inhibit the production of protective mucus in the stomach.
- Young foals are also at risk. As with older horses this risk increases when they are 'stressed' and/or given medication.

## **Clinical signs**

There are a huge number and large variation in clinical signs seen with ulcers. Some of the signs you may see are:

- reduced appetite
- poor condition
- dullness
- poor performance
- low grade or recurrent colic
- reluctance to work
- irritability/attitude changes

## **Diagnosis**

Gastroscopy is the 'gold standard' for diagnosis and can determine the presence, location and severity of the ulcers. Gastroscopy involves passing a narrow fibre-optic camera into your horse's nose, which is then swallowed and passes down the oesophagus into the stomach. We can then visualise the stomach lining.

This technique requires your horse to be sedated but is minimally invasive and generally well tolerated.

Your horse will need to be starved prior to this procedure, usually for 16 hours, with water taken away 2 hours before gastroscopy. Without this period of starvation we would not be able to perform a thorough examination due to the presence of food in the stomach. Squamous ulcers are graded on a 0-4 system (4 being most severe). Glandular ulcers are not given grades.

## **Treatment**

Omeprazole, an acid inhibitor, has been shown to be the most effective treatment for gastric ulcers. The licensed UK form comes as a paste which is given straight into the mouth.

As discussed earlier, ad libitum forage is important to decrease the risk of EGUS. This plan is altered slightly in cases that are undergoing TREATMENT for EGUS. In these cases, we advise that the horse does have a period of fasting overnight (eg giving them enough hay to last until 10pm or so but no longer). This is because omeprazole has been shown to be more effective when given 'on an empty stomach'. Once the treatment period is over, we will then recommend the horse is put back on an ad libitum forage diet to prevent recurrence.

Timing of feeding also has an important role. To increase the efficacy of omeprazole we recommend that (after giving the omeprazole following an overnight fast) no food is given for 60 minutes. After 60 minutes we would recommend the horse is given high fibre roughage FIRST, followed by their higher concentrate feed.

We do have some cases, unfortunately, who do not respond as well as we would like to treatment. In these cases we may need to look at other medications we can given alongside the omeprazole.

## **Management and prevention**

Preventing ulcers means changes to the management and lifestyle of these horses to try and mimic a more natural environment.

- Free access to good quality forage and increased pasture turnout will help significantly.
- Concentrate feed should be fed in smaller quantities ie <0.5kg/100Kg/day
- Oil supplementation - a good alternative calorie source as opposed to concentrates.
- Minimising periods with no food available
- Ensuring a constant supply of fresh, clean water
- Minimising stress. It may be necessary to give preventative omeprazole prior to predicted periods of stress.

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WENDOVER HEIGHTS EQUINE TO DISCUSS ULCERS OR TO ARRANGE  
A GASTROSCOPE EXAMINATION FOR YOUR HORSE.

01296 621 840  
equine@whvc.co.uk