



Equine Grass Sickness (EGS)

What is EGS?

EGS is a debilitating and frequently fatal disease of horses, ponies and donkeys, which commonly presents as impaired activity of the gut, caused by nervous system damage. Cases occur frequently, but not exclusively, in northern European countries, particularly Great Britain. The disease occurs almost exclusively in horses with access to grass, but even though the condition was first identified around 1907, the true cause EGS remains unknown.

What are the signs of EGS?

There are three main presentations of EGS: acute (AGS), subacute (SAGS) and chronic (CGS).

- **AGS** has a severe and sudden onset with 100 per cent mortality. These horses die or require euthanasia within 48 hours and there is no treatment for this form of the disease.
- **SAGS** cases exhibit milder clinical signs than in acute cases, with affected equines surviving beyond two days but generally dying or requiring euthanasia within seven days.
- **CGS** signs develop more slowly, displaying no gastric reflux, which can be seen in AGS and SAGS cases, but instead a rapid weight loss. These cases survive longer than seven days and recovery maybe possible.

Courtesy of Dr. Elspeth Milne



Figure 1. A case of acute grass sickness exhibiting signs of colic.

Clinical Signs:

AGS + SAGS:

- Depression
- Absence of gut sounds (ileus)
- High heart rate (tachycardia)
- Salivation
- Reflux of gut contents through the nose (nasogastric reflux)
- Muscle tremors (fasciculation)
- Drooping eyelids (ptosis)
- Patchy or generalised sweating
- Difficulty swallowing (dysphagia)
- Abdominal discomfort (colic)
- Constipation (impaction)

CGS (gradual onset):

- Rapid and severe weight loss leading to emaciation
- Markedly tucked up abdomen
- Base narrow stance
- Dry, crusty nose (rhinitis sicca)
- Drooping eyelids (ptosis)
- Slightly elevated heart rate (tachycardia)
- Muscle tremors (fasciculation)
- Patchy sweating
- Reduced appetite (inappetance)
- Slight difficulty swallowing (dysphagia)

What causes EGS?

The cause of EGS is unconfirmed, however strong evidence suggests that the soil-borne bacterium *Clostridium botulinum* (type C) plays a role. It is thought that a toxin produced in the horse's gastro-intestinal tract causes damage to the nervous system, interrupting the normal gut movements and stopping digestion proceeding.

This leads to a number of typical clinical signs, which may include colic, difficulty eating/passing faeces, patchy sweating, muscle tremors and rapid weight loss.

Courtesy of Professor Chris Proudman



Figure 2. A case of chronic grass sickness showing marked weight loss.

Although cases of EGS occur in every month of the year, most are seen between April and July, with a peak in May. In some years this is followed by a second peak in autumn.

Risk factors for EGS fall into three main categories:

Horse-related Risks	Premises-related Risks	Management-related Risks
2-7 year old horses	Previous occurrence of EGS	Grazing
Good – fat body condition	High soil nitrogen	Movement of horses
	Sand/loam type soil	Feed changes
		Pasture disturbance

For more information on EGS risk factors please visit the [Equine Grass Sickness Fund's website](#)

How is EGS diagnosed and treated?

EGS can be difficult to diagnose, with some horses showing few signs, while no non-invasive tests exist for diagnosing the disease. The application of eye drops has shown potential as a useful test in reversing the drooping eyelids seen in grass sickness. Currently however, confirmation of the disease can only be made by microscopic examination of nerves following surgery or post-mortem examination.

Once a diagnosis is made, your vet will be able to advise you on whether treatment is recommended or not. Treatment should not be considered in acute or subacute cases and careful case selection is needed for the treatment of CGS cases. CGS cases will require constant nursing, stimulation, grooming, and attention from both the vet and owner.

What can be done to prevent EGS?

Preventive measures to minimise the risk of EGS include:

- Avoid grazing previously affected fields
- Avoid feed changes
- Reduce horse movements between premises/pastures
- Avoid pasture disturbance

Studies suggest EGS may be prevented by vaccination, but this requires further investigation. To aid this, the Animal Health Trust (AHT) is developing the first nationwide surveillance scheme for EGS in order to identify high risk premises for a vaccine trial against *C. botulinum*.

To report any cases of EGS, which have occurred since the year 2000, please visit:



<http://www.equinegrassickness.co.uk>

or phone:

Georgette Kluiters on 01638 555664 for more information.

