Laminitis Fact Sheet

Laminitis is an extremely painful and debilitating disease that affects the structure and healthy function of horse and pony hooves. One in 10 horses or ponies may have a laminitis episode each year. It often recurs in individual animals and is linked to a significant number of equine deaths annually. Despite a long-standing belief that laminitis is a spring-time disease, there is no ‘safe’ season; laminitis is a serious threat regardless of the time of year.

What is Laminitis?

Laminitis is the inflammation of the sensitive tissues (laminae) that bond the hoof wall to pedal bone in the hoof. Inflammation reduced the blood flow, starving the laminae of oxygen. If the blood flow is not promptly restored through treatment, areas of the laminae suffer necrosis (cell death). This can disrupt the integrity of the laminae, allowing the pedal bone to sink or rotate within the hoof under the weight of the horse. In extreme cases, the pedal bone can penetrate the sole of the foot, which will result in the horse or pony being euthanised.

Laminitis can be caused by:

- **Hormonal diseases**, including Cushing disease (associated with an abnormality in the pituitary gland) and Equine Metabolic Syndrome (associated with insulin resistance).
- **Mechanical overload**, which arises when an injury in one leg leads the horse or pony to favour the uninjured leg. The uninjured leg consistently bears more weight and is at increased risk of laminitis.
- **Concussive laminitis**, which arises when a horse has been worked fast and/or for a prolonged period on a hard surface (such as trotting on roads), creating trauma in the laminae.
• **Inflammatory laminitis**, which arises when there is a high intake of soluble carbohydrates (sugars and starch), leading to digestive system being overloaded. This creates acidity in the hindgut which kills the bacteria that digests fibre, releasing toxins into the gut. These toxins pass into the bloodstream through the gut wall, provoking a response within the horse that disrupts blood flow which, in turn, can cause laminitis.

• **Stress-induced laminitis**, which arises when there is dramatic change in environment and/or frequent travelling, particularly for overweight animals. Mares are at risk shortly after foaling from the additional physical stress.

• **Severe bacterial infection**, which arises from conditions that includes certain types of colic, diarrhoea, retained placenta and severe pneumonia.

Laminitis can be:

• **Acute** and is often associated with a rapid onset and is frequently related to an overload of starchy carbohydrates.

• **Chronic** which is more often linked to metabolic issues and can result in constant relapses (often seen as divergent hoof rings (rings that are wider at the heel than at the toe)).

**How to Recognise the Signs of Laminitis**

It is important that you recognising the signs, often subtle, of laminitis:

• Most horses and ponies will display non-specific, mild signs of laminitis, such as difficulty in turning, a short/stilted gait (also referred to as ‘pottery’ gait) or lameness at walk (affecting most commonly two limbs).

• Many horses and ponies will display the more classically recognised signs, such as leaning back on the hind feet or shifting from foot to foot to relieve the pressure on the front feet.

• Many horses and ponies will have a bounding digital pulse and/or an increased hoof temperature.

**What should you do if you suspect that your Horse has Laminitis?**

Laminitis is a medical emergency. You should consult your vet promptly if you suspect that your horse or pony has laminitis so that it can be treated to reduce pain. Even when subtle signs of laminitis are present, damage to the hoof will have already begun. Early diagnosis and appropriate management are crucial to prevent long-term, often irreversible, damage to structures within the laminitis-affected hoof.

After calling your vet, bring your horse in from the field slowly and box rest. You should make sure there is a deep bed that will support and cushion the hooves. Ensure the bed comes all the way up to the door. Provide plenty of fresh water and feed your horse on hay that has been soaked to remove as much of the carbohydrate as possible. Do not feed concentrates based on cereals as they are rich in carbohydrate.

**How is a Diagnosis of Laminitis made?**

The vet will normally be able to diagnose laminitis based on the clinical signs being displayed. X-rays may be taken if there is concern that the pedal bone has sunk or rotated, or if the horse or pony is
not improving despite appropriate therapy. Blood tests may be required if the vet suspects that an underlying hormonal disease is present.

**What is the Treatment for Laminitis?**

The vet will normally provide medicines to control the pain including non-steroidal anti-inflammatory drugs (such as phenylbutazone - ‘bute’). Other drugs may also be prescribed, for example, to increase blood flow. The vet may require the hoof to be supported to limit movement of the pedal bone and to reduce the pain experienced by the horse. This is likely to be a deep bed which extends all the way to the door but can also include frog, and frog and sole supports. The vet will prescribe box rest and may recommend dietary changes.

If the laminitis is the result of an underlying condition, such as a hormonal disorder, the vet will prescribe an appropriate treatment.

It takes weeks to months for a horse to recover from laminitis. Most horses and ponies will be sound at the trot after about 8 weeks and many will be back in work, but it can take much longer depending on the severity of the laminitis.

Once a horse or horse has had laminitis, they will be at an increased risk of getting it again. You should seek your vet’s advice on how best to manage this risk.
1 in 10 horses/ponies will suffer an episode of laminitis each year

Know the Symptoms
Those will laminitis will show the following symptoms:

- Difficulty in turning
- Reluctance to walk
- Presence of a bounding digital pulses
- Shifting weight from foot to foot
- Increased hoof temperature
- Foreshortened walk and lame at walk

If your horse/pony has laminitis – call your vet