

AVENEL EQUINE CLINIC PTY LTD

Address: RMB 1356, Tarcombe Road, Avenel, Vic, 3664

Phone: (03) 57962411

Fax: (03) 57962584

Email: admin@avenelequineclinic.com.au

Website: www.avenelequineclinic.com.au



LAMINITIS

Every day veterinarians across the country see dozens of cases of laminitis, a painful disease that affects the foot of the horse. Alarming, many of these cases are preventable. We may be killing our horses with kindness. A common cause of laminitis is over-feeding, a factor that is well within a horse owner's control. By learning more about its causes, signs and treatments, it may be possible to minimise its incidence or control long-term damage if it occurs.

Laminitis results from disruption of blood flow to the laminae of the hoof. The laminae are fingers of tissue, blood and nerves, which grow from the pedal bone and the inside of the hoof wall. They interdigitate and form very strong bonds, which suspend the pedal bone within the hoof. Every time the horse moves, it is the laminae that prevent the pedal bone from driving through the sole. Damage to the blood flow to the laminae also results in disruption of the attachment between the two sets of laminae. In severe cases, this disruption can result in the pedal bone rotating within the hoof and "sinking". If this is severe enough, the pedal bone can penetrate the sole. Laminitis can affect one or all four feet, but usually affects the front feet. Laminitis and "founder" are used to describe the condition, although founder generally refers to a chronic condition, where the pedal bone has rotated. Acute laminitis is associated with the early stages of the syndrome, with pain and inflammation of the laminae.

The causes of laminitis are thought to involve certain plant products which occur during the maximum growth period in pastures (grass founder). It is also known that certain disease conditions result in the condition, presumably due to the release of substances which act on the blood vessels in the foot. Endotoxaemia, as a result of bacterial toxins, will cause laminitis in horses with grain overload and in mares with retained foetal membranes.

Concussion will also cause founder. This was more common when horses were used for commerce and spent long periods on hard roads. This is known as "road founder". Similarly, if a horse bears excessive weight on one leg, the foot may suffer from laminitis.

Factors that appear to increase a horse's susceptibility to the condition include:

- Heavy breeds such as draught horses
- Overweight body and cresty neck
- High nutritional plan (feeding large amounts of high carbohydrate feed)
- Ponies
- Unrestricted grain binges, such as when horse breaks into feed room. If this occurs, **DO NOT WAIT**, call your veterinarian **IMMEDIATELY**. These horses may look OK for a few hours, but **TISSUE DAMAGE OCCURS VERY QUICKLY. A LATE CALL MAY BE TOO LATE.**
- Older horses with Cushing's disease
- Horses that have had previous episodes of laminitis.

Signs of acute laminitis include the following:

- Lameness, especially when the horse is turning in circles: shifting lameness when standing
- Pain in the toe region when pressure is applied with toe testers
- Increased digital pulse in the feet
- Heat in the feet
- Reluctant gait, "walking on eggshells".
- A saw-horse stance, with the front feet stretched out in front and the rear feet camped in behind.
- Signs of laminitis may include the following:
- Rings in the hoof wall that widen from toe to heel

- Widened white line at the quarters and toe, commonly referred to as "seedy toe". This may be associated with blood pockets an/or abscesses
- Dropped soles or "flat feet".
- Dished hooves which are the result of uneven hoof growth
- The sooner treatment commences, the better.
- Treatment includes:
- Diagnosis of any underlying disease process
- Dietary restrictions – stop feeding all grain-based feeds and pasture; feed only grass hay
- In cases of grain overload your veterinarian will treat the horse with paraffin oil via stomach tube to help eliminate excessive grain from the digestive tract.
- Non-steroidal anti-inflammatory drugs are important to control pain and inflammation within the foot. Depending on the underlying cause, other drugs may also be administered.
- It is often advisable to stable the horse on soft ground such as sand or shavings, as this will provide frog support and make the horse more comfortable.
- Abscesses should be opened and drained and your veterinarian and farrier should consult about corrective shoeing and trimming. It takes horses 10-12 months to grow a new hoof, so therapy may last a year.

Some horses recover and lead useful lives, although others need to be euthanized for humane reasons.

Extra care is recommended for any horse that has suffered laminitis, including:

- A diet high in roughage and digestible fibre and fat. Avoid excessive carbohydrate, especially in the form of grain.
- Routine hoof care must be carried out regularly, and in some cases, therapeutic shoeing
- A good health maintenance programme that includes regular parasite control and vaccinations to reduce the horse's susceptibility to disease.
- Possibly a nutritional supplement to promote hoof growth and health.
- Avoid grazing lush pastures, especially between late morning and late afternoon when plant sugars are highest.

In summary, the best way to deal with laminitis is preventing it in the first place. Limit grain feeding and introduce lush pasture gradually to the diet. It would be advisable to consult your veterinarian to formulate a proper diet. If you suspect laminitis, consider it a medical emergency and contact your veterinarian immediately.