

Fact Sheet

Laminitis



What is laminitis?

The laminae are velcro-like bonds attaching the hoof to the foot in the same way that your fingernails are attached to your finger. Laminitis is a very serious condition in which the laminae become damaged, weakened and usually very painful. As the horse bears weight on these weakened structures they may begin to separate, allowing the pedal bone to rotate away from the hoof wall and sink downwards towards the sole. This is known as founder and the horse is known as a 'sinker', and if not treated early, the pedal bone may eventually penetrate through the sole.

Any horse or pony can get laminitis, but native breeds appear to have a higher risk. Factors which increase the chances of laminitis include obesity, little exercise, previous episodes of laminitis, Equine Cushing's Disease/PPID or Equine Metabolic Syndrome, mechanical trauma, and the diet, namely the excessive intake of soluble carbohydrates (i.e. sugars). The vast majority of laminitis cases have an underlying hormonal predisposition. High levels of blood insulin is the commonest trigger for laminitis. Insulin is increased after eating sugary feeds such as good grass or cereal-based mixes and levels will be far higher in certain individuals compared to others.

Some rarer types of laminitis include:

1. Supporting limb or overload laminitis - occurs due to excessive weightbearing on one leg, usually where there is a significant lameness on the opposite limb;
2. Toxic laminitis - this occurs as part of a severe illness associated with certain colic

How is laminitis recognised?

Most laminitis cases are painful although it is possible for foot changes to occur slowly and gradually without obvious signs of pain.

Most laminitis cases affect both front feet simultaneously although any or all feet can be affected.

Typical signs of laminitis include:

1. A "pottery", "careful" or stiff walk with heels striking the ground just before the toes. Worse especially on the turn and when walking on a hard surface, compared to soft
2. Weight-shifting when standing still
3. Increased pulses may be felt over the fetlocks and pasterns
4. Hot hooves
5. Leaning back on their heels
6. Reluctance to move or have a foot picked up
7. May lie down more than normal
8. Ridges in the hooves which are closer together over the front of the hoof than toward the heels
9. An expanded white line
10. Excessive toe growth compared to heel growth



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How is laminitis diagnosed?

Laminitis is often initially suspected by the owner or farrier based on the signs above. A careful veterinary examination is then needed to differentiate laminitis from a few conditions that may look similar such as foot bruising or abscess. In some cases it may also be important to take X-rays of the affected feet to determine whether or not the pedal bone has moved after losing its attachment to the inside of the hoof.



How can I treat/manage laminitis?

Acute, severe laminitis should be regarded as an emergency and if you suspect that your horse or pony may be showing signs, it is important to call your vet immediately. Treatment of the weakened and painful laminae involves giving anti-inflammatory painkillers and providing frog support to resist any possible pedal bone movement. Keeping the horse on strict box rest with deep bedding (ideally shavings) helps to support the foot as it recovers strength. The more they move about the more likely it is the pedal bone will destabilise.

Once the horse has recovered from the acute episode, it is important for your vet and farrier to work together and trim your horse's feet regularly. X-rays may be required to help assess if the pedal bone has rotated or sunk, and your farrier will trim and shoe the feet accordingly. This treatment and management will help improve clinical signs, but finding and treating the cause is imperative to prevent recurrence. Once the initial episode is under control, the vet may take a blood sample to test for Equine Cushing's Disease/PPID and/or EMS as these are the most common underlying causes.

If the pedal bone has sunk or rotated then treatment can be a long process and in severe cases is not always successful - it is second only to colic as a cause of euthanasia in horses. In the worst cases of uncontrolled laminitis, the pedal bone may sink so far that it penetrates the sole of the foot - sadly, this nearly always necessitates euthanasia. Prompt treatment and early diagnosis of underlying endocrine disease makes a huge difference to the outcome - if in doubt, speak to your vet sooner rather than later.



How can I prevent laminitis?

Laminitis is a preventable disease that generally arises because we often manage horses and ponies differently to the way that nature intended. The hormonal conditions called Equine Metabolic Syndrome and Equine Cushing's Disease (PPID) underly the vast majority of laminitis cases (see separate information sheets) and both can be controlled. Careful attention to the diet, exercise and body condition are especially important. Grazing must be limited in laminitis-prone individuals, possibly by using a grazing muzzle. Low-calorie, high fibre, low sugar and starch (<10%) diets are important. You can also feed hay that is low in calorie and sugar content (get it analysed) or you may soak it to reduce the sugar content. Use a weigh tape regularly and keep a record. If you are concerned about your pony being overweight or otherwise at risk, please call your vet for advice.

For further information, please contact your local VetPartners Equine Veterinary Practice on:

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