

Laminitis

Laminitis is probably the biggest single cause of equine lameness and loss of equine performance and is the second biggest killer of horses after colic. But the disease itself is not necessarily fatal. Nearly all fatalities are due to euthanasia which is considered an accepted outcome for horses suffering serious laminitis.

When the principles of barefoot rehabilitation are employed, serious laminitis does not necessarily equate to a death sentence.

What is laminitis?

Laminitis is disruption and inflammation in the laminar attachment which connects the hoof capsule to the internal structures. It can range from mild (sub-clinical, no noticeable lameness) to extremely painful and even life threatening and ultimately fatal if it's not successfully treated.

There are many causative agents which can be broadly classified into one of two groups

Systemic poisoning (the feet are affected indirectly by pathology in the body)

- . overload of sugar in the digestive tract
- . infection (especially pregnancy related)
- . colic
- . it can even be something as simple as a long drink of cold water immediately after hard work
- . grain overload
- . metabolic dysfunction
- . snake bite

Mechanical distress (laminitis originating in the feet)

- . poor hoofcare
- . too much concussion
- . over exuberant hot shoeing
- . neglect
- . contra lateral limb lameness

Laminitis can be acute (sudden onset) or chronic (long term, ongoing), or even a combination of both (i.e.: pre-existing low level chronic laminitis with an acute attack).

Whatever the cause, laminitis is a serious condition. If you suspect laminitis, it is necessary to seek veterinary advice.

Traditional treatment

Over the years there have been many different engineering devices developed, most of which aim to stabilize and then restore correct spatial orientation of the pedal bone relative to the hoof capsule. Corrective shoeing is based on applying devices that either transfer weight onto the frog to relieve pressure from the lamina and/or raise the heel height to relieve pressure from the flexor muscles.

However, there is a basic and underlying flaw with corrective shoeing for laminitis and that is the foot is being asked to carry weight on the lamina which is the very structure being torn apart by the inflammatory processes. It is a contradiction in terms and is why the prognosis for laminitis has traditionally always been guarded.



Barefoot rehabilitation

Since the principles of barefoot rehabilitation have been developed, laminitis is no longer a death sentence for horses. Serious cases that were once considered hopeless and euthanased without delay or question are now being routinely salvaged.

Why is barefoot rehab so successful?

It takes the pressure off the laminar attachment (both vertical "sinking" and rotation) and allows healing to proceed.



Barefoot rehab involves six steps (remembering we are only acting after the fact; after veterinary diagnosis and veterinary treatment)

1. Identify and remove the insult (whether it is systemic or in the foot).
2. Establish ground zero – set up the ground surface of the foot relative to the boney column (with the aid of radiographs).
3. Trim to initiate recovery by relieving incorrect weightbearing.
4. Provide comfort with padded boots* or rubber laneways (or even both), with herbal support to control inflammation.
5. Facilitate the growth of a new laminar attachment by keeping all the weight off the lamina (removing any mechanical forces that perpetually tear apart damaged lamina).

6. Change trimming parameters as the horse recovers to maintain correct weight sharing between frog, sole and wall.

*There are only two models of hoofboot recommended for laminitis rehab – the Easycare Epic and the Easycare Rx Therapy – all other boots can cause serious rubbing and are not suitable.

It should be noted that every case of laminitis is unique and needs to be treated individually. What works for one horse may not work for another.

How long until recovery?

This depends on each individual case.

With mechanical laminitis, recovery is often swift. Horses that may have even been sore for many months may occasionally begin walking soundly after just one trim!

With systemic laminitis, recovery begins immediately following the removal of the causative agent, but soundness does not return immediately. It usually takes about four months for the newly attached lamina to grow from the hairline to the ground surface at the heels. This seems to coincide with a return to comfortable movement. Most cases are fully sound after six months.

From this to that in six months using barefoot rehabilitation.



What about the success rate?

With acute laminitis the story is black and white. If the underlying cause is removed, soundness should return. The severity of the attack (the degree of rotation, sinking or even penetration) seems to have little bearing on the eventual outcome, so long as the insult is removed.

Chronic laminitis, however, is a grey one. The longer a horse has been suffering the condition; it seems the less likely is a full recovery. There may always be some residual lameness. This is linked with the progressive damage to both the pedal bone and - more importantly - the corium beneath it. There may also be metabolic issues at play (such as Cushing's disease or insulin resistance) which may affect the outcome.

Sub clinical laminitis

There are many horses that suffer constant low grade laminitis, enough to affect their performance and their ability to go barefoot under saddle. These are the horses that go sore after a trim, have thin soles and don't travel well over hard or uneven ground (i.e. gravel). At the same time they travel better when shod, although still reluctant to step out on hard surfaces. Such horses move best in hoofboots and pads.

With sub clinical laminitis, problematic feet are the effect, not the cause. Putting shoes on these horses may be a good short term option from a performance perspective, but such a cure is asking the weakened laminar attachment to carry the whole weight of the horse. This is when sub clinical laminitis becomes chronic and inevitably gets worse with time.



To overcome low grade laminitis, a horse's lifestyle factors need to be considered, especially diet.