

Rehabilitation for Laminitis Sufferers

WITH ANDREW BOWE

Andrew is a master farrier and equine podiotherapist. He has had great success with barefoot rehabilitation at his Mayfield Barefoot Rehab Centre. Established circa 2002 by Andrew and Nicky Bowe and specialising in the recovery of laminitic horses by using the principles and parameters of barefoot rehabilitation. They regularly save the lives of seriously lame horses which are often borderline euthanasia cases and most are returned back to their pre-laminitic athletic abilities.

Their treatment plan is based on creating a total physical disassociation of the new post laminitic hoof wall that begins growing from the coronet band at the top of the hoof, from the old broken laminitic hoof wall. This requires a total removal of hoof wall weight bearing and subsequent transferral of weight to the frog, collateral grooves and caudal sole. It is this removal of pressure from the dynamic and continually growing laminar bond that allows full recovery even in the most serious cases.

For this reason, rigid horse shoes (that transfer a horse's weight onto its walls and by extension the laminar bond) are contra-indicated and not used as part of the treatment. Besides, with the advent of removable hoof boots and an endless choice of soft padding options, rigid shoes are no longer required in any capacity for laminitis recovery.

There has not been a rigid shoe attached to a laminitic hoof at Mayfield since the rehab facility commenced. Many horses have arrived with shoes, but they were all in trouble and the only way they were fixed was to remove the shoes and change to padded hoof boots.

The barefoot rehab program at Mayfield first and foremost aims for survival of the patient, but it also works to limit any fallout from the disease process that will negatively impact future athletic ability. It does not involve any procedures

such as flexor tendon cutting that permanently disable a horse.

Not all patients can be saved, but the successful rehabilitation of so many horses at Mayfield clearly shows that euthanasia should not be considered the routine outcome in serious cases of laminitis.

Furthermore, rehabilitation needs not to be prohibitively expensive. Euthanasia should not be driven by fiscal constraint.

A (very) brief summary of the barefoot rehab program:

1. REMOVE THE CAUSE FROM THE SYSTEM

Laminitis is mostly caused by too much of the good life; too much of the wrong pasture or too many of the wrong supplements. If this is the case, the solution is simple; stop feeding your horse like a dairy cow!

However, it's not always feed related. Anything that stresses or poisons a horse's system can potentially trigger a laminitic episode. The actual underlying cause can be elusive to find and a vet is always required for full diagnosis.

2. ESTABLISH GROUND ZERO

Laminitis manifests as a disruption to the spatial relationship between the external hoof capsule and the pedal bone, the extent and parameters of which can only be objectively assessed by x-ray.

Likewise and more importantly, x-ray vision shows whether there is any remodelling damage to the pedal bone and whether the case is acute (sudden onset, easier to fix) or chronic (long term, harder to fix).

3. RELIEVE PRESSURE

The spatial disruption between pedal bone and hoof capsule causes painful and damaging pressure which needs to be removed from:

- a. The laminar bond directly by removing all weightbearing from the

hoof wall (this means all shoes off; non-negotiable) and pushing the breakover back to beneath the pedal bone.

- b. The flexor tendon (which is the main force acting on the pedal bone), by putting thick soft pads underneath the hooves.
- c. The sole, by spreading the weightbearing surface area as widely as possible across the back of the hoof with conformable padding material.

4. PROVIDE COMFORT

Softly padded removable hoof boots are applied immediately after trimming, with the density, thickness and angle of heel wedge modified to optimise comfort.

Better still, nothing overcomes the compressive pressure of gravity on broken hooves better than having a laminitic patient lay down. This is encouraged by building an enticing 'nest' in a horse friendly location.

5. BEGIN AN EMERGENCY DIET

At risk of over generalising a huge and variable subject, all damaging feeds are removed and the bulk of the diet is provided through a constant supply of suitable grass hay. The addition of various supplements to alleviate pain and promote hoof growth is carefully formulated in a benign base that is low in non-structural carbohydrates.

6. HURRY UP AND WAIT!

Recovery from a laminitic episode doesn't happen overnight. A new, correctly attached hoof needs to grow into place from the coronet down, which takes 8-10 months. Full soundness can't be expected before this time, although walking soundness without boots and pads usually returns at about four months after the commencement of recovery. Patience is required.

CASE STUDY 1

Dancer (17yo Friesian cross mare, acute laminitis)



Dancer with all four boots on busy at her hay net.



Dancer resting her inflamed hooves.



Dancers hoof after 6 months.



Dancers hoof before trim.



Dancers hoof after trim.

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Dancer's case is a vivid example of how effective barefoot rehab can be, from a very dire situation to a full recovery.

Despite coming off lush South Gippsland pasture and being too forward in condition, there was an unknown factor that triggered a very serious acute case that affected all four hooves. There was no definite diagnosis of an underlying cause, although blood tests revealed an infection. A possible hatching of encysted worms was suggested as the likely cause.

She was weight bearing fully on the hoof walls and x-rays showed more of a tendency to sink rather than rotate. Sinking pedal bones have long been considered impossible to recover and have been a common trigger for euthanasia, but are routinely fixed with barefoot rehab.

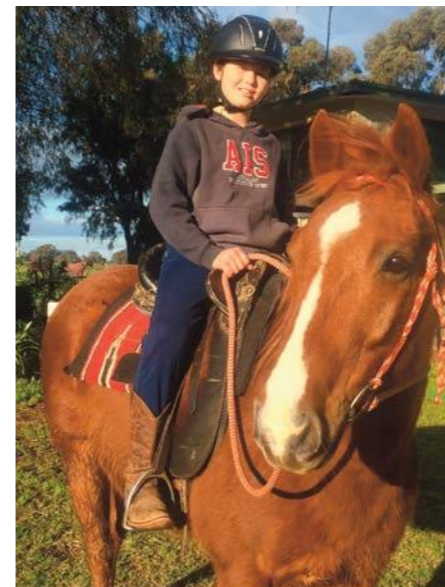
She was recumbent and depressed and was in such a terrible looking state that an outsider would have rightly questioned why we were attempting rehab. Total recovery was always possible because the episode was acute and a clear disassociation of the new hoof wall from the old was achieved.

She only stayed at Mayfield for two months because she was well on the road to recovery and her owners were in a position to manage her remaining rehab. She still needed padded boots and a regular exaggerated trim for several months, but recovery proceeded without setback.

Dancer's hooves are now being attended by a podiotherapy student and the old broken laminitic hoof has grown out. She is enjoying life in the paddock, sound and very much alive. It hasn't been a full year yet since her near death experience, so she will need to be monitored going through her first spring, but her hooves are possibly as good as they have ever been.

CASE STUDY 2

Charlie (10yo QH with severe grain poisoning)



Charlie looking after his young rider.



Charlie resting his inflamed hooves.



Charlie's new hoof growing down.



Charlies solar penetration growing out.



Charlie's hoof today.

Charlie is a horse lucky to be alive since suffering a major laminitic episode after breaking into stored grain. The lowest rate of survival from acute laminitis is from that caused by severe grain poisoning due to ongoing damage in the gastro intestinal tract.

The consulting vets considered his case hopeless and most people would have followed that advice, except Charlie is one of a kind and has a special job in life looking after a disabled child rider, so it was decided to save him if at all possible.

The initial treatment advice was for tenotomies on all legs (the cutting of the flexor tendons), but this would have totally disabled him as a saddle horse. His owner decided to try barefoot rehab.

Charlie was fully recumbent for the first month and despite the hooves being trimmed to recovery parameters, they got progressively worse until they bottomed out with penetration and nasty abscesses. As soon as the necrotic tissue had been expelled, recovery started.

He wore four padded boots and slowly but surely began walking his way to recovery. Fallout from the grain poisoning meant his digestive system required a lot of support with ulcer medication, probiotics and gut soothing herbs and probably contributed to his slow recovery (five months at Mayfield).

After he returned home, the remainder of his recovery was overseen by a podiotherapist, but in recent times due to his remote location, his owner has had to take over his hoof care. She does not rely on the services of an outsider visiting irregularly, but can trim the hooves on an as needs basis to keep the hoof walls off the ground.

Charlie will probably always be somewhat metabolic with digestive issues (he already had a sensitive gut before this episode), but two years on he is quite sound and doing what he does best; looking after his young rider.

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