LAMINITIS:"

Bare-Hoof Rehabilitation Option

“Laminitis is probably the biggest single cause of equine lameness and loss of equine performance”

by Andrew and Nicky Bowe

www.barehoofcare.com

Andrew Bowe is a career master farrier who specialises in the barefoot rehabilitation of horses that are suffering chronic lameness. With his wife Nicole, he established the Mayfield Bare-Hoof-Care Centre in Yarck, Victoria, with the aim of rehabilitating horses with acute and chronic lameness issues. “It’s not just about the trim” says Andrew, “diet, body therapy, owner support and education all play an important role”. The Mayfield team rely on a network of horse care professionals including vets, researchers, and equine physiotherapists. This article explains the principles that underpin their work, and is based on many documented case studies such as the one highlighted here. There are others on their website.

Laminitis is disruption and inflammation in the laminar attachment. It can range from mild (sub-clinical with no noticeable lameness) to life threatening and ultimately fatal if it’s not treated.

There are many causative agents, but they can be broadly classified into one of two groups:

Systemic poisoning:
The feet are affected indirectly by pathology in the body, e.g.:
• overload of sugar in the digestive tract (lush pastures)
• overload of grain
• infection (especially pregnancy related)
• colic
• snake bite
• overload of cortisol
• it can even be something as simple as a long drink of cold water immediately after hard work

Mild laminitis in this case is defined as laminitis that is not originating in the feet. The sore feet are already a major problem, but this laminitis is not the problem. The major problem is systemic disease, such as:
• pre-existing low level chronic laminitis
• laminitis from incorrect mechanics
• laminitis from incorrect weight distribution
• laminitis from seedy toe or even beneath the frog as well.

Systemic laminitis is when there have been many different engineering devices developed - but all have had only limited success.

There is a basic and underlying flaw with corrective shoeing for laminitis: the foot is being asked to carry weight on the laminae which is the very thing that is 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 three steps (remembering we are only acting after the fact, that is: after veterinary diagnosis and treatment):

1. Identify and remove the cause (whether it is systemic or in the feet).
2. Provide comfort with padded boots or rubber laneways or even both, along with drugs (veterinary prescribed) and/or herbal support.
3. Facilitate the growth of a new attachment by keeping all the weight off the laminae (removing any mechanical forces that perpalty tear apart damaged laminae).

Specific treatment depends on the originating source of the laminitis.

Mechanical laminitis

Laminitis that is coming from incorrect mechanics in the foot. The foot is the problem. Soreness is mostly only coming from stressed laminae and comfort is restored with correct trimming.

Systemic laminitis

Laminitis that is not originating in the feet. The sore feet are just the outcome of a problem elsewhere in the body that needs to be addressed. If the underlying poisoning is not resolved, then the feet and lameness cannot be fixed.

With systemic laminitis, there is often inflammation beneath the sole and sometimes even beneath the frog as well. Treatment needs to consider this. 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. Usually it 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.

What about the success rate?

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

Chronic laminitis, however, is a grey one. It seems that the longer a horse has been suffering the condition, 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 Cushings disease or insulin resistance) which may affect the outcome.

LAMINITIS feature...

MAYFIELD BAREFOOTCARE CENTRE CASE STUDY: “Ayla” a stockhorse mare with acute laminitis

Ayla is a great example of how the shift away from traditional treatment towards barefoot rehabilitation can save the lives of horses that would have been previously euthanased due to laminitis.

Ayla suffered acute laminitis as a result of excessive concussion after being ridden at speed on hard roads (commonly called road founder). She was very much pre-disposed to laminitis with excess body weight being carried on shod feet with overlong toes and having unlimited access to rich river flat pasture.

When her hooves were hard and conditioned and she was fit, she had no lameness. With systemic laminitis, recovery begins immediately following the removal of the causative agent, but soundness does not return immediately. Usually it 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.

1. Remove the causative factors.

In this case she had to have her shoes removed and her feed intake managed. She was locked away from rich pasture on a diet of mainly soaked grass hay.

2. Trim to relieve the laminae.

This is where barefoot rehabilitation differs totally from corrective shoeing. All of the laminary line except the heel platforms is relieved from weight bearing as it is now separated and provides no mechanical support.

3. Provide comfort.

As soon as the hooves were trimmed we used Easycare hoof boots with soft pads and frog support. Instant relief! Padded boots are a much kinder and more effective treatment than traditional heart bar shoes. Boots need to be removed and cleaned daily so frog support as well as solar comfort can be monitored and micro managed on a daily basis.

4. Facilitate new laminar attachment.

New growth with a fully re-attached laminar line is made possible by keeping the leading edge of the hoof wall off the ground at all times. This means regular trimming (usually once a week for 6 months) which is obviously a very small touch-up trim that horse owners quite often take on themselves.

Recovery is also facilitated by managing feed intake and movement. In Ayla’s case her paddock was changed into a narrow loop that restricted her intake and encouraged movement.

In Ayla’s case laminitis was the very thing that is being torn apart by the inflammatory processes.

And the outcome?

In Ayla’s case, she may have had significant rotation but her pedal bones were pristine, so she always had a very good chance to recover. Several years later she is fully sound and earning her keep as a trail riding mount and part time working stockhorse.

When her hooves are hard and conditioned and she is fit, she has no trouble scaling the rocky hills barefoot. However when her hooves are un-conditioned and wet, she wears Easycare hoof boots with comfort pads. No more shoes for Ayla.

Radiographs showed significant rotation beyond what has been traditionally considered the point of no return, so euthanasia was advised. Her owner would not accept that outcome, she turned to the internet for other options and discovered barefoot rehabilitation as an alternative.

Ayla’s story typifies the barefoot rehabilitation process:

1. Proactive removal of the causative agent.

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