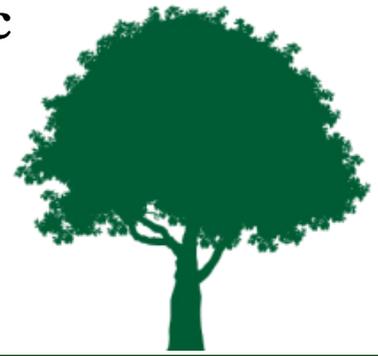
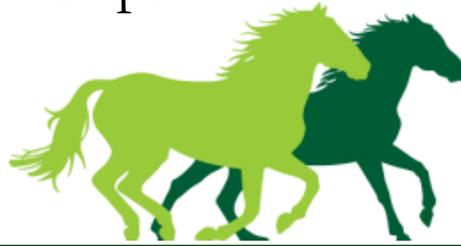


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Laminitis

What is it?

The laminae are finger-like projections that attach the hoof capsule to the underlying soft tissue and pedal bone. A number of diseases impair the flow of blood to these laminae resulting in damage and weakening of the laminar bond. This condition is painful and called laminitis.

What are the causes?

Most cases are caused by either:

- Obesity (and more specifically Metabolic Syndrome -see later for discussion); or
- Eating too much grass which is too rich in sugars

Other triggers include: excessive concussion, toxic diseases (eg. severe colic) and Cushing's disease.

What are the signs?

Essentially you should look out for pain in more than one foot. Usually both front feet are most painful, but all feet may be affected. The horse or pony may show any of the following syndromes: Pottery gait, spending more time lying down, lame when turned in tight circles, stiff, reluctant to move, rocking back onto its heels.

In addition, affected feet may be warmer. The digital pulse (palpable on the outside of the fetlock) is usually stronger, although this can be more difficult to appreciate particularly if the leg is feathered.



The types of laminitis

Generally speaking there are 3 types of laminitis:

- Sore laminae but the pedal bone has not moved
- Pedal bone rotates away from the front of the hoof (as shown opposite: the white line highlights the hoof)
- Pedal bone sinks towards the sole: more laminae are detached for this to occur.



The first scenario is obviously less serious and there is a good chance of recovery. When the pedal bone has moved, the outlook is more uncertain. 'Sinkers' have a lower chance of recovery than 'rotators.'

It does not automatically follow that a horse or pony will be in more pain if the pedal bone has moved. X-rays are required to detect if movement has occurred .

Treatment

1. Complete rest

Ideally put the patient in a stable with a deep bed of sand or shavings. This will cushion the feet and encourage the horse to lie down, taking weight off the hooves. The horse should remain in the stable all the time until it is comfortable without pain-killing medication.

****A horse with laminitis should never be forced to walk****

2. Frog support

As the pedal bone literally is suspended by the laminae, if weight is shifted away from the laminae then rotation and sinking can be reduced. The result is also a more comfortable patient. This can be achieved with supports to help the frog take some weight. The type of support can be as simple as a rolled up bandage in the first instance. We can apply a type of play-doh to the foot that sets very hard giving much better and longer term support. Later on (see below) special shoes can be made to do the same job.

3. Medication

Bute (phenylbutazone) is a painkilling drug that is similar to aspirin or ibuprofen. All patients with laminitis will be given the drug: It reduces the pain, and therefore also helps to dilate the compromised blood vessels in the foot.

ACP (sold as sedalin) is a drug that is mainly used as a tranquiliser. However it also helps to dilate the blood vessels at low doses.

4. Corrective farriery

In the early stages the first step would be to remove the shoes: This helps the weight of the horse to be spread across the whole foot, including sole and frog. If the laminitis is very severe then this may not be possible until drugs have improved the comfort level.

Secondly trimming the toes back helps to improve comfort. The farrier will often rasp the toe until the hoof looks pale (almost to the white line): This helps to reduce the pressure through the laminae.

Later on when the horse is less lame, special shoes can be fitted that continue to support the pedal bone by giving frog support. Heart bar shoes are the commonest shoe used and are frequently fitted when there has been rotation or sinking of the pedal bone.

The heart bar shoes can be metal and nailed on, or made from plastic (as in the photo opposite). Plastic shoes are less traumatic to put on, but are more difficult and the process takes longer.

In general, x-rays should be taken of the feet before heart bar shoes are fitted, so the farrier knows where the pedal bone is and how long to make the 'V' that covers the frog.

Prevention

Identifying any underlying causes is important: A blood test can help to diagnose Cushing's disease in older patients or Metabolic Syndrome. Follow up x-rays will assist the farrier to maintain good foot balance and help detect pedal bone movement before signs of pain occur.

