

Laminitis

Laminitis - "Founder"

Many articles have appeared in equine journals on this subject and many people are aware of the agony it can bring to your horse. Yet, we see a variety of laminitis cases every year.

Laminitis is basically a circulation failure to the tissue in horse's feet (primarily the front feet) that supports and attaches the coffin bone (P₃) to the inside of the hoof. This failure of adequate blood flow can be caused by a variety of things.

Causes of laminitis include grain excess, lush pasture, giving cold water to a warm horse, concussion from hard surfaces, too rapid of a diet change, obesity, disease and infections, and genetic predisposition.

With the exceptions of concussion (road founder) and water founder, the other causes are related to digestive upsets that allow for too rapid of fermentation by bacteria in the large intestine. This, in turn, creates a release of endotoxins that close small blood vessels in your horse's feet. While small capillaries squeeze closed, larger vessels in the foot open to reroute blood flow. This leads to an increase in the digital pulse we associate with laminitis.

Treatment is critical during this initial time before one even sees the typical signs of lameness associated with founder.

Severe symptoms of laminitis include an unwillingness to move, lying down excessively,

walking like on eggshells, standing with the front feet extended forward with the rear feet under the body. Laminitis signs can also be very mild and only appear as a shorter, choppy stride than normal.

Treatment is aimed at reducing the endotoxin effects, "thinning" the blood, and reducing blood vessel closure. Appropriate medication given early enough is usually successful at controlling acute laminitis.

If the blood vessels remain closed for very long, blood clots form a permanent blockage of blood flow to the area. The death of the supporting structures in the hoof causes inflammation and swelling in the confined area of the hoof. (Have you ever had a large blood blister under a thumb nail?)

Once tissue death has occurred, your horse's anatomy does the rest of the damage. The deep flexor tendon pulls on the coffin bone (which now is poorly supported in the hoof) and can cause a backward and / or downward shift from its normal position in the hoof. This is often referred to as rotating or sinking of the coffin bone.

At this point, all treatment is directed at pain relief and anatomical correction for the rotation. Many types of corrective trimming and shoeing are successful. The challenge is that no single therapy is universally

successful or well tolerated by every horse. Success from this point is sometimes trial and error!

The basis of all corrective farrier work is directed at decreasing the pull of the deep digital flexor tendon on the coffin bone, and reducing the toe length on the front of the hoof. By limiting these effects and stopping any reoccurrence it is possible to end up with a normal hoof.

Heredity and obesity have recently been proven to be causes of laminitis. Overweight

horses or ponies are 40% more likely to founder than their "fit" counterparts. It has also been discovered that certain familial genes increase the incidence of laminitis within certain breeds.

An ounce of prevention truly is worth a hundred pounds of cure!

Tips to preventing laminitis:

- Grain should be kept in a bin that your horse cannot have access to.
- *Slowly* introduce horses to new, lush pastures (esp. in the spring).
- Do not let horses drink cold water after a workout.
- Keep shoes on your horse if you are going to ride on hard surfaces such as asphalt.
- *Always* make gradual conversions if you change your feed.
- Keep your horse the appropriate weight. Overfeeding does not help your horse.