



## Laminitis

Every day veterinarians across the country see hundreds of cases of laminitis, a painful disease that affects the feet of horses. Laminitis (sometimes called “Founder”) results from the disruption of blood flow (inflammation) to the sensitive and insensitive laminae within the foot, which secure the coffin bone to the hoof wall. While the exact mechanisms by which the feet are damaged remain a mystery, certain precipitating events can produce laminitis. Although laminitis occurs in the feet, the underlying cause is often a disturbance elsewhere in the horse’s body.

As a horse owner, it is important to recognize the signs of laminitis and seek veterinary help immediately. Signs of *acute* laminitis include the following:

- Lameness, especially when a horse is turning in circles; shifting lameness when standing
- Heat in the feet
- Increased digital pulse in the feet
- Pain in the toe region when pressure is applied with hoof testers
- Reluctant or hesitant gait, as if “walking on eggshells”
- A “sawhorse stance,” with the front feet stretched out in front to alleviate pressure on the toes and the hind feet “camped out” or positioned farther back than normal to bear more weight

Signs of *chronic* laminitis may include the following:

- Diverging rings in the hoof wall
- Bruised soles or “stone bruises”
- Widened white line, commonly called “seedy toe,” with occurrence of blood pockets and/or abscesses
- Dropped soles or flat feet
- Dished hooves, which are the result of unequal rates of hoof growth

The cause of laminitis may be obvious or ambiguous. Some more overt etiologies of laminitis include the following:

- 1) Grain over-load or dramatic feed changes.
- 2) Metabolic disturbances (Cushings or metabolic syndrome).
- 3) Trauma (“Road founder” or aggressive trimming)
- 4) Systemic illness (colitis, sepsis, colic surgery etc.)
- 5) Contralateral limb pain (overbearing of weight on one limb).

If you suspect laminitis, consider it a medical emergency and notify your veterinarian immediately. The sooner treatment begins, the better the chance for recovery. The average exam for a horse with suspect laminitis includes 1) Brief visualization of the horse in motion trying NOT to exacerbate any existing inflammation / pain. 2) Palpation of the distal limb for heat, digital pulses, and sinking noted at coronary band. 3) Application of hoof testers for sensitivity at the toe region of the sole. 4) Radiographs of the foot to document any rotation or

sinking of the coffin bone within the hoof capsule. 6) Regional nerve blocks to isolate the origin of pain and also alleviate discomfort for the horse temporarily while the horse is manipulated and treated.

Therapy for the laminitic horse will vary greatly from case to case and veterinarian to veterinarian but will always center around these basic principals: 1) Treatment and resolution of the underlying cause of the laminitis. 2) Relieve pain and discomfort for the patient. 3) Reduce inflammation within the hoof capsule. 4) Alter the weight bearing forces in attempt to stop or reduce rotation and/or sinking of the coffin bone within the hoof capsule.

Attaining these goals is always challenging for the practitioner, farrier and the owner. Unfortunately there is no universal outline for therapy of the laminitic horse and treatment must be tailored to each individual case. Treatments options include, but are NOT limited to:

- 1) Anti-inflammatory medications
- 2) Vasodilators and circulatory aids
- 3) Pain management (in addition to the anti-inflammatories)
- 4) Shoeing / trimming changes or addition of boots / slipper pads (based on radiographs)
- 5) Sand stall or deep bedding
- 6) Surgical intervention (tenotomy of the Deep Digital Flexor Tendons)
- 7) Venogram (to document quality and quantity of blood flow)

An accurate prognosis can be very difficult to provide as each individual case differs greatly. There is also poor correlation between the severity of radiographic abnormality and ultimate outcome. No matter the details of the cause or progression of laminitis, each case should be viewed as a potentially life threatening emergency.

W. Brady Little, DVM  
Great Basin Equine Medicine and Surgery, Inc.  
Gardnerville, NV, 89410