

What is Laminitis or Horse Founder?

Laminitis or horse founder is an issue of prime concern for all horse owners. Every breed may be affected by laminitis / founder. In order to properly understand this subject, a description of the terms "Laminitis" and "Founder" should be stated first.

What is Laminitis?

Laminitis is a painful condition of the horse's hoof. It is the swelling of the substances that attach the hoof wall to the coffin bone. These substances are called laminae.

There are 4 stages that a horse with laminitis can progress through:

- Developmental Phase - This phase duration is approximately the first 20-72 hours. This is the time period after the "cause", and before the first signs of lameness. There are few clinical signs during this phase. The hoof wall should appear as normal during this stage.

- Acute Phase - The duration of this phase is approx. 34-72 hours after the first signs of lameness. Heat will generally be found in the hoof at this point. The hoof wall will still appear as normal.

- Sub-Acute Phase - The beginning of this stage is 72 hours after the onset of lameness. This is the recovery stage when proper treatment has been given, pain is receding and proper care must be maintained to prevent any further damage. It may take up to 12-14 months for full recovery. The hoof wall may appear to have a "ring" of protruding hoof growth that will continue to grow downwards from the coronet during this stage.

- Chronic Laminitis - This is a stage that can be avoided if the disease is caught and treated early enough. At this point, the structures inside the hoof have been altered permanently - specifically, the coffin bone has rotated downwards in angle, front tip first. This is where our terminology combines and the word "founder" comes into play.

What is Horse Founder?

Horse Founder is the actual misalignment of the bone structures inside the hoof due to destabilization of the hoof capsule. The inner hoof wall has torn its attachment to the coffin bone - destabilizing the bone structures. At this point, the coffin bone rotates downwards due to the lack of support from the "laminae".

Founder may represent itself on the outside of the hoof wall in the form of "rings" of protruding growth - signs of stress that can occur over time. These rings will grow from the coronet downwards, eventually being cut out. Hoof wall may begin to curl upwards at the toe and sole may become flatter due to the misalignment of the hoof structures.

Causes of Founder / Laminitis

Causes of horse founder and laminitis may be broken into two main categories: Systemic and Mechanical

- Systemic refers to anything that relates to the normal function of a horse's overall body system. For example: improper diet, infections, etc

- Mechanical refers to something that has changed the normal function of a horse's movement. For example: improper farriery, traumatic insult (injury), etc

Most causes of laminitis or founder fall into the systemic category, with dietary concerns being one of the most common situations.

Diagnosis and Treatment of Laminitis and Founder

Laminitis / Founder can be a very devastating condition for a horse. It can also be controlled and managed with proper diagnosis and treatment. Veterinary and Farrier involvement is a necessity. If laminitis is caught in the early stages, much can be done to help prevent the progression to chronic. If the stage has already hit chronic, X-rays should be taken to determine the degree of rotation and necessary treatment options considered.

It is helpful to note that rotation may not be apparent on an X-ray focused on the coffin bone if the chronic condition has become classified as a "sinker". A sinker refers to the misalignment of the bone structure from further up than just the coffin bone. Further X-rays of the coronet area should be taken for inspection if coffin bone rotation and surrounding symptoms do not match.

It must be stressed that professional services should be sought immediately for this condition - in extreme cases founder / laminitis can be fatal.

Written By: Josh Emsley