

### What is Founder?

In the horse vocabulary, founder is a bad word. It means that the horse has developed a condition of the feet which results in chronic pain and can sometimes be deadly. Founder is the common term for a medical condition of the horse called **laminitis**.

A horse's foot is comprised of the outer hoof wall which grows down from the coronary band and covered the bone inside the hoof called the third phalanx or more commonly referred to as the coffin bone. The name coffin bone comes from the unique arrangement of the bone fully seated within the hard hoof wall all around it – creating a "coffin". The bone and outer hoof wall connect to each other through tens of thousands of tiny interdigitating leaves of tissue call the laminae. There is a large blood supply to the hoof and the digital cushion at the back of the heel acts as a spongy fluid pump to help move blood back up the leg with each step the horse takes.



### Causes of Founder

Laminitis or Founder occurs when the sensitive and vascular laminae become inflamed and begin to separate from each other. As the interdigitating leaves of laminae separate, the bone become less attached to the hoof wall and the bone will begin to pull away from the inside of the hoof wall.

This can happen for many reasons and some include:

- systemic infection
- colic
- grain overload
- toxin ingestion
- fever
- pain
- over weight bearing on one leg verses the other
- metabolic disorders
- overheating of the feet
- severe ground concussion and/or
- damage to the blood supply to the foot.

### Symptoms of Laminitis

When laminitis occurs, the signs you will see in your horse will be:

- depression
- lethargy
- often standing or laying away from the herd
- inability to move – seems like they are planted to the ground
- heat in the feet
- increased pulses in the vessels at the back of the fetlock
- and sometimes fever.



### Treatment

A veterinarian needs to attend to confirm the issue is laminitis and to take some xrays to determine the degree of damage that is or has occurred in the feet. Veterinarians look at the degree of rotation of the coffin bone away from the hoof wall or the amount of sinking of the coffin bone from the level of the coronary band.

Emergency treatment is necessary and consists of icing the feet for extended periods of time and anti-inflammatories to decrease the inflammation in the feet as well as padding the feet with Styrofoam and deep bedding to decrease pressure on the hoof wall.

A farrier will need to be called as well to help with the management.

**If you suspect your horse has developed laminitis, contact your vet immediately.**

**Dr. Chris Bell** BSc, DVM, MVetSc

*Diplomate of the American College of Veterinary Surgeons*

*Equine Surgery, Lameness and Sports Medicine*

*Surgeon and Practice Owner Elders Equine Veterinary Service*