



NEBRASKA EQUINE VETERINARY CLINIC

10261 Co Rd P38A ~ OMAHA, NE 68142
PHONE: 402-533-1151 ~ FAX: 402-533-1159

Michael J. Black D.V.M.

Michael P. Thomassen D.V.M.

“Founder”

Mike Black, DVM
Nebraska Equine Veterinary Clinic

Almost all horse owners have had some past experience with a horse that has foundered. What does that mean? Here we will briefly explore the causes, clinical symptoms, and treatments available for horses that have foundered.

Founder is a term broadly used to describe laminitis, typically denoting a more severe form of laminitis. Thus what is laminitis? Laminitis refers to inflammation within the laminae of the horse's feet. These laminae are delicate structures which hold the bone within the hoof capsule (coffin bone) to the hoof wall. It would be similar to the structures holding our fingernails to our fingers. However, in the horse, it is much more developed due to the fact that the laminae often carry thousands of pounds of pressure transferred from the ground surface to the bony column of the leg. Therefore, when the laminae become inflamed, the horse shows varying amounts of soreness corresponding to the degree of inflammation in the laminae.

What causes this inflammation? This question has been explored by veterinarians and horse owners for hundreds of years, and we have been able to explain some, but not all, causes. Some of the more common causes would first be any disease processes which cause the horse to have an endotoxic event or to circulate endotoxins within its blood system. Examples would be retained placentas, grain overload, diarrhea or colitis, severe pneumonia, and many more. A second category is laminitis associated with metabolic diseases of the horse. This category encompasses the cases of laminitis initiated by an improperly functioning endocrine system. These are horses that acquire laminitis typically from a diet not compatible with the internal workings of that individual's own metabolic/endocrine systems. For example, such horses are sensitive to diet changes such as green grass and high carbohydrate feeds. Also in this category are horses with Cushing's disease, which is a disease that alters the horse's circulating blood cortisol levels. The third most common is laminitis initiated by trauma, most commonly referred to as “road founder”. This is somewhat self explanatory. The horse's feet, when worked on a surface or in a manner in which they are not accustomed, develop inflammation from the stresses induced by that work. Lastly there are horses that develop laminitis from unknown causes.

How does one recognize laminitis? These horses present with sore feet. They are often reluctant to move, and, when they do walk, they are very stiff and painful. They will typically lie down for long periods. When standing, they will shift their weight to the hind legs and stretch their forelegs out in front of them. If your horse demonstrates these signs consistent with laminitis, it is important to seek veterinary treatment as soon as possible. Early treatment will often lessen the severity of the disease and could save the horse's life.



Typical laminitic stance - rocked back.

Many treatments are available and vary dramatically due to the initiating cause of laminitis. If the primary cause is identifiable, then this condition must be addressed in addition to treating the laminitis. Therapy for laminitis varies from administration of phenylbutazone (Bute) and stall rest for mild cases to antibiotics, anti-inflammatories, long periods of soaking feet in ice water, acepromazine injections and other vasodilators for more serious cases. Discussion of these therapies and others is out of the scope of this article, but one method worth mentioning is supporting the foot. In more severe cases, we have recently had the best results by applying wooden shoes. This type of shoeing allows the farrier to alter the mechanics of the foot dramatically and re-align the coffin bone by shaping the wooden block in a manner to redistribute weight and mechanical forces in the foot.



Example of wooden shoes