

LAMINITIS IN HORSES

Laminitis (also called founder) is an inflammatory condition of the equine foot that affects the sensitive laminae or support structure of the foot that holds the pedal bone in position within the hoof casing. Loosening of the attachments inside the hoof combined with the weight of the animal, traction by the deep digital flexor tendon and forces acting on the hoof during movement cause damage to blood vessels, crushing of the sole and coronet and rotation of the pedal bone which result in excruciating and unrelenting pain. It can be an acute (of quick onset and short duration) or chronic (long duration) condition. This article discusses the clinical signs and treatments of acute laminitis.

One of the first observable clinical signs in a horse with laminitis is weight shifting from one limb to the other and is more commonly seen in the front legs. Hooves and lower limbs may feel hot to the touch and a bounding digital pulse may be palpable. It is a condition that commonly affects the front legs more obviously earlier in the condition although laminitis starting in the hindlimbs can occur. Horses generally adopt an abnormal stance as they attempt to relieve as much weight as possible off their toes and may stand with front legs placed forward of their normal position, allowing the heels of the front hooves to take more of the strain.

If hindlegs are more severely affected than forelimbs the horse will typically stand with front legs placed further back under the thorax and the head and forequarters angled forward to take as much weight off the hindquarters as possible. In either case, walking is extremely painful and when movement is forced, the gait is very stilted with notable short-stepping of the painful limbs. When laminitis affects all four hooves, horses will commonly lie on their side with legs extended away from the body.

Risk factors that can result in a bout of laminitis include feeding a high carbohydrate diet (eg grain overload), toxic conditions such as retained placenta in mares, colitis, pneumonia, rhabdomyolysis (tying up), prolonged weightbearing on one limb, exercising on hard surfaces and trimming toes too short. Ponies are over represented and laminitis commonly occurs secondary to grain overload or access to very lush pasture.

Treatment of laminitis is best undertaken as soon as possible to relieve pain and limit permanent changes within the hoof as soon as possible, in particular, the degree of rotation of the pedal bone. Anti-inflammatory therapy, hoof support with trimming of the toe, soft bedding to reduce concussive forces and supportive bandaging/shoeing are some of the treatments implemented immediately. Speed of response to treatment is a valuable indicator of the amount of damage within the hoof's supportive structures – a quick recovery suggests less damage to the attachments within the hoof and thus indicates a better chance of recovery and return to function. Horses and ponies that have had a bout of laminitis are much more susceptible to developing future episodes of the condition. It is an extremely painful and debilitating disease and veterinary assistance should be sought as soon as signs are first observed.