



## Conventional Views about Founder

Drs. Moore and Belknap explain: "Laminitis is a term used for any animals exhibiting laminar pain regardless of whether or not there is displacement of the distal phalanx (coffin bone), whereas "founder" is most commonly used to describe a horse with laminitis in which displacement (rotation and/or "sinking") of the distal phalanx has occurred."

There are numerous symposia and seminars all over the world how to deal with laminitis. Scientific papers, extensive research and various new shoeing methods all raise the hope of the horse owner. The fear is real. What to do when a horse comes up with laminitis, founder? The veterinary and farrier community all are doing their best to help with what they know. It is important to understand their ideas in order to help the horse owner understand what may and may not work.

### Special shoes to push the coffin bone up



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## Orthopedic shoeing to make the hoof **steeper**, including wedge pads



From previous studies it is apparent why the methods on the previous page seem to work. Tight shoeing deprives the hoof of circulation and sensation.

The same happens when setting the hoof in a steeper position: Lack of circulation turns off sensation.

The third method (here and next page) has further ramifications.

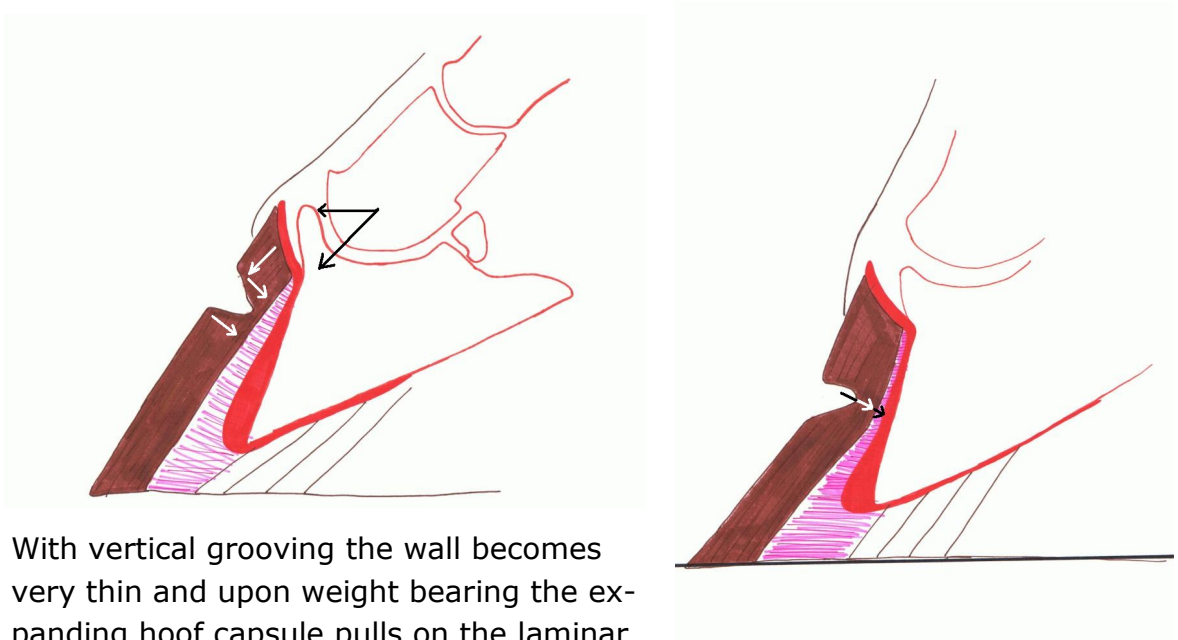
Orthopedic shoeing with grooving  
Grooves are cut into the horn capsule. Sometimes vertical, sometimes horizontal, even a combination of both. The idea behind this is to relieve the pressure inside the hoof capsule and therefore the pain through the apparent inflammation.



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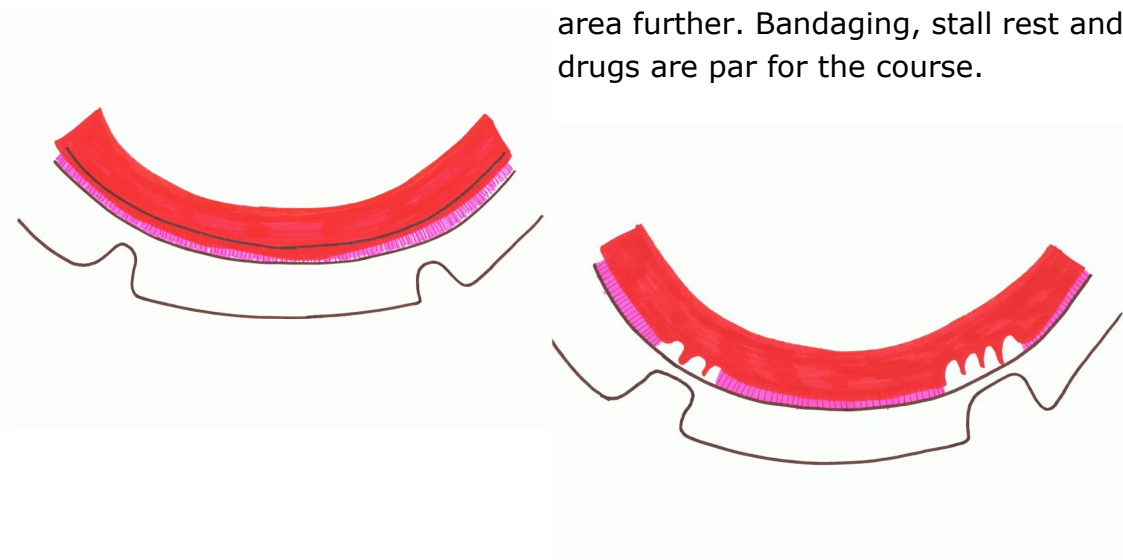


This has dire consequences for the horse. With horizontal grooving the horn tubules are interrupted, the groove does not give the support that the intact wall gave before. The upper part of the hoof capsule now collapses inward and pushes the coffinbone further into rotation.



With vertical grooving the wall becomes very thin and upon weight bearing the expanding hoof capsule pulls on the laminar corium, which is painful and damages the corium further

In addition there are often disinfectants used, which will dry out the area further. Bandaging, stall rest and drugs are par for the course.



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## Tenotomy

Flexor tendon surgery or tenotomy had been used to try to stop the rotation of P3 with some success. Deep digital flexor tendonotomy (surgical cutting or shortening of the tendon) at the level of the proximal interphalangeal joint has been recommended for horses with chronic refractory laminitis. The hypothesis is to reduce the pull on the tendon and thereby reduce the likelihood of the coffin bone being pulled back away from the wall of the hoof. Hunt et al. Hunt concluded that although short term clinical improvement was evident, the survival rate of the horses treated by this method did not warrant such action. Hunt R.J. 1991 Veterinary Surgery (journal) vol. 20 No 1 pp 15-20

RX from a veterinary terminology site:

**Tendons** – Equine. Superficial digital flexor tendon on outside; if cut, drop in fetlock w/ toe on ground. Next inward is deep digital flexor tendon; if cut in addition, deeper drop in fetlock w/ toe elevated. Then interosseous ligament; if cut all three, fetlock on the ground completely.

Contracted tendons – Ballerina tiptoes, deep digital flexor tendon (attaches to P3). Rx by cutting distal inferior check ligament. If knuckle over, superficial digital flexor tendon (attaches to top of P2).

Lax tendons – Foal w/ ankle on ground. Confine, time, rest. Heel extensions. Do not support bandage, makes weaker.

Bowed tendon – Superficial digital flexor tendon inflammation and swelling; racehorses. NSAIDs, ice/heat, rest.

Sounds barbaric? Well, it is.

Pictures: HoofCareUnLtd., r.g photography, Yvonne Welz