

"Spring, glorious Spring....."

by Carola Adolf, NEP,fSHP

Birds are singing, bees are buzzing, the weather is getting warmer, the energy is high – for many of us, spring is the most beautiful time of the year. Our horses feel pretty much the same. They, too enjoy the change in season, as many of you can probably confirm as you have to deal with the increased energy levels they seem to produce. "Isn't he full of himself today", I hear you say.... Be thankful if your horse is one of those that are able to happily bounce around with enthusiastic spring-time energy. For many horses and ponies, spring time equals agony, despair and sometimes even death. It's founder-time.

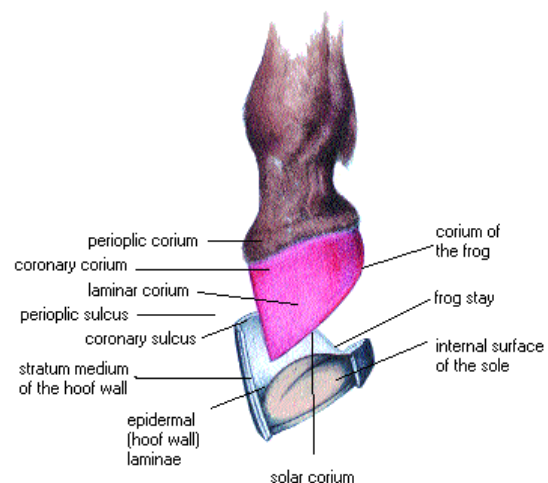
You all have heard about "Laminitis" and "Founder", and since these conditions are the most common and also the most preventable problems this time of the year, I would like to talk about them in this edition. Laminitis and Founder can "happen" to your horse or pony at any time of the year – not only in spring. There can be many different metabolic "triggers". However, one of the triggers for this devastating condition lurks right there in your paddock at this time of the year: It's the sweet, delicious, lush new growth of grass. That's what we are going to talk about today.

"Living a life of luxury"

Most of our well cared for domestic horses and ponies come out of winter in very good condition: They have been fed well and may have been rugged, they were possibly stabled and rested over winter. Now they are as well and round in spring as they were when they went into the cold season. There is a slight problem: Nature delivers the most nutritious food in spring to help those that lost condition over winter to build up again, ready for the new cycle of life.

For horses and ponies that come out of winter in peak condition, an (not needed) increase of nutritional energy from rich spring grass, can cause a systemic overload which can cause problems to the already overloaded metabolic organs. Part of this process is that the "dynamic equilibrium" gets out of balance - the blood chemistry changes due to the excess (waste) proteins and sugars. As metabolic processes are very complicated and not yet fully understood, the main point to consider, is the fact that metabolic organs become stressed when there are too many "toxins" floating through the system.

What has all this got to do with Laminitis and Founder – conditions that affect the hooves? In another article ([The Hoof & It's Functions](#)), we learned about the anatomy of the hoof. You may remember that we talked about "Corium" – which is a highly vascular tissue that surrounds the coffin bone. This tissue is also a highly metabolic tissue, as it produces – or excretes – HORN, which, of course is the hoofcapsule. (see pic.) (Since this production of horn is a manifestation of the metabolism, we can "read" a lot about the horses metabolic health from the hoof – but not just that).



Laminitis is an inflammation of the laminar corium. Because the corium is metabolic tissue, with the same metabolic "turn-over" like for example the kidneys, it is not surprising when this tissue becomes inflamed when it is stressed from excess toxins! IF there is another, additional stress factor like unphysiological hoof form, then your horse or pony could be well on the way to founder!

Metabolic stress + Mechanical imbalance = Laminitis and Founder

Laminitis is the inflammation of the stressed, diseased tissue. Inflammation however is a process of the body that produces an increase in blood flow to an area, to facilitate healing. With that – and unfortunately for the horse/pony - comes the very painful swelling process. There is no room for swelling and consequent pressure within the hoofcapsule, so laminar tissue breaks down, connections rupture, and the coffin bone starts to rotate as the laminar connection tears apart. That is Founder: – the rotation of the coffin bone away from it's tight connection to the hoofwall.

PREVENTION IS BETTER THAN CURE!

Of course! Because nobody likes to see an animal suffer. But please remember: Even if it looks bad, and your best friend is in agony: There is help and a cure! Laminitis and Founder is not a death sentence unless **you** speak the verdict and give up.

You must work together with your equine healthcare- and a knowledgeable hoofcare provider.



If all conditions are met, an acute attack can happen in a matter of hours, however:

The conditions that led up to this painful disease, would have been present for a much longer period of time beforehand!

Namely –

The patient was either (and/or)

- Overweight (but not necessarily)
- Overfed (either sheer volume or just energy - protein/sugar/carbs)
- Did not have enough exercise
- Had some sort of mechanical imbalances in the hooves.

Let's talk about “prevention” first (and remember we are only discussing the “nutritional trigger” for laminitis/founder in this article).

There are nine golden rules:

1. Make sure your horse/pony has enough exercise and freedom of movement (and reason to move) 24/7
2. Don't allow your horse/pony become too fat. Feed so energy input matches energy output. (Pony breeds are normally very “good doers” anyway!)
3. Feed good, wholesome food only (in its natural form) – stay away from processed feed.
4. Don't starve your horse/pony. Always provide adequate fibrous nutrition (hay)
5. If your horse/pony is not an athlete in work, good meadow hay is all (s)he needs. (Avoid legume hay)

6. Make sure you know what a healthy hoof is suppose to look like and how it is suppose to function! (dimensions, balance, condition) and have your horses hooves attended to REGULARLY.
7. Observe your horse on a daily basis. Know his/her habits, resting periods, movements, gait, manners, "moods".
8. BE ALERT and take changes in behaviour seriously, even if they seem minor. (A naughty horse may be sore!)
9. Know what is normal and healthy – know your horse!

What, if it happened and you find a sore and sorry horse/pony in your spring green paddock?

1. Remove him/her from the paddock
2. Cool his/her hooves in cold/icy water (to arrest the swelling)
3. Ring the vet and a knowledgeable hoofcare provider

(For more first-aid tips, also read my article ["Did you say "Founder"](#))

Immediate action is critical. Don't wait!

If you act within the first 24 hours after onset of symptoms, the whole episode may be forgotten after a week or two. But if you don't, you may cause your horse/pony AND yourself a lot of heartache and pain – and a timely and costly rehabilitation! Should you be in that situation, please always discuss "alternative" treatments with your veterinarian and get second opinions, if you have to.

Never forget that it is only the organism itself that can heal itself –. No shoe or drug can do it. What we can do however, is set up the ideal conditions for the organism to heal. In the case of laminitis and founder, initial help to arrest the inflammation is needed, but then the metabolic system must be strengthened and physiological hoof form must be restored. Healthy circulation will be needed for healing, therefore movement is essential. Don't lock your laminitis/founder patient up. Once hoof balance is restored and the mechanical stress on the laminar connection is removed, make sure your horse/pony is kept on FIRM (!) but non concussive ground. (Hoofboots can often be a great help) Do not put your horse/pony on soft or deep bedding as commonly recommended, as this will cause the toe to dip, therefore once again putting stress on the dorsal wall.

With time, the laminar connection will regrow healthy and strong again from the coronet down, re-suspending the coffin bone. Once this laminar connection has broken down and the coffin bone has lost part of its suspension, nothing anybody could put underneath the sole or frog will keep this coffin bone up! Pads and casts, as often used in conjunction with "remedial" shoeing may only create additional bruising to the solar or frog corium and are not helpful.

The re-growth of a new laminar connection will take months, which means, even if your horse/pony appears to be sound again after a few weeks since (s)he has foundered, you must understand that the healing process will take much longer for the horse/pony to be ready for work again.

That's why prevention is so much better!

Enjoy the glorious spring, and make sure your horse/pony will, too,

Carola