

Laminitis is a Crisis

- by Jennie Hakes and Julie Michener, July 2024

Laminitis is inflammation of and damage to the tissues (laminae) that anchor the hoof wall to the underlying coffin bone. If the laminae separate, the coffin bone loses support and rotates or drops, putting pressure on the sole, blood supply and nerves. If the coffin bone loses all support, it can sink and in the worst case even come out of the sole. **Laminitis can be life-threatening and is always an emergency!**

Julie Michener and I are both long-time members and volunteers for CSDEA. We have a new thing in common - this spring we each had a horse with laminitis. This article recounts our experiences with the hope it helps others recognize the signs of, or better yet prevent, laminitis.

Our horses

Jennie: Doctor J is a 13-year-old double-registered Paint/Pinto gelding used as a husband-horse cum dressage-and-jumping lesson-horse.

Julie: Patsy is an 18-year-old warmblood mare working mainly in dressage at the moment.

How we knew something was wrong

Jennie: Doctor J is an easy keeper, but not fat, who has happily been on pasture for years on our farm. He had a slight problem of not always maintaining his hind right lead. It was getting more frequent, so after consulting with our vet and taking numerous x-rays indicating some arthritis, it was decided to inject both hocks. Less than 2 weeks later on Memorial Day (of course!), he tiptoed in from the field. I immediately felt his hooves and checked the digital pulse in each leg. Aaaargh. Laminitis in all 4 hooves! I phoned the vet as I ran cold water over his feet. Meds, icing, and stall rest with short walks in the arena ensued.

Julie: Patsy, another easy keeper, went out 24x7 in April - right when the Twin Cities was experiencing an early spring - lots of rain, grass jumping up. Didn't think much about it at the time although my trainer noticed that Patsy wasn't 100 percent on front right AND from April to May had gained a significant amount of weight (body score 8 out of 9, according to Dr. Horner).



Patsy March 2024 before pasture

At a late May vet lameness exam, Dr. Horner suggested doing radiographs. Those indicated rotation (albeit minor) in her front feet. She drew blood to determine insulin level and test for Lymes. We started icing her feet, giving her Equioxx (she will not eat Bute and it is impossible to give it to her orally). Also, I ordered Insulin-Wise online for overnight delivery, and moved her into a dry paddock. Bloodwork showed that her insulin was 135 - normal is 40, BUT no Lyme's. At a follow up exam two weeks later, radiographs showed no changes

in rotation, bloodwork showed her insulin had dropped to 32.4, and no Cushing's (PPID). At that time, the vet recommended substituting the Insulin-Wise for Metformin for a month.

What caused it?



2021 Doctor J, no crest

Jennie: My first thought was the spring pasture, even though he had been on pasture for years without known problems. However, I did notice his neck was getting “cresty” this spring. After conferring with my research friend Mr. Google, I ran across a vet clinic’s hand-out on what to watch for after hock injections. At the bottom of the page, it noted that an uncommon side effect was laminitis a week or two after the injections, due to the steroids mixed with the hyaluronic acid. I also read to be cautious about administering multiple hock injections to an overweight and/or EMS horse. Bingo. To be fair, I learned from many forums that this side effect is rare enough that

some vets don’t think to mention it. I believe the green pastures due to all the rain were a contributing factor.



2024 Doctor J, big crest

Julie: Patsy has had no known problems before with laminitis, and I think turning her out in April 24/7, combined with a lack of work (trainer was doing some specific groundwork with her, my work schedule was in overdrive) and the early spring/lush grass jumping up were the culprits.

Treatment and prognosis

Jennie: After the usual treatment of ice, Banamine, stall rest and some hand-walking for a couple of days, Doctor J showed no signs of lameness. The following week we x-rayed all 4 feet and was relieved to see no rotation of the coffin bones. I had him tested for PPID (Pituitary pars intermedia dysfunction, aka Cushing’s) and EMS (Equine Metabolic Syndrome). No PPID but his insulin number came back at 37.5, which is higher than the <20 you want to see (although I have also read on a laboratory website that “results <50 miu/ml are considered normal in grazing or fasting stabled horses and ponies.” It can be confusing.)

Doctor J’s prognosis is good. He needs no special hoof trimming, seems happy, is moving well, and goes out with the herd wearing his grazing muzzle.

Julie: Patsy is still on dry paddock and did a month on Metaformin (keeping the Insulin-Wise around for future use). She's now in excellent weight. Initial radiographs also pointed out her thin soles that I treated with a Sore-no-More-Iodine treatment. Unfortunately, a too soon trim (my bad call!), coupled with lots of fly-stomping (fly mitigation this summer is tough!), and she came up sore-footed in her third follow up vet exam. A third set of radiographs still showed no further rotation of her coffin bone. Luckily, I had purchased Cavallo Treks boots so she wore those 24/7 (with daily cleaning) until I could get the farrier back out to put shoes on her front feet. The plan is to slowly transition her back to her pasture by hand-grazing over the course of a month or possibly using a grazing muzzle to get her back to her pasture mates sooner.

Prevention and lessons learned

Jennie: I have reduced Doctor J's grain and put him on Quiescence, a magnesium/chromium supplement, which might help regulate his insulin. He is turned out with a Flexible Filly grazing muzzle, the best muzzle I have found to reduce grass consumption. He is also getting more exercise. This spring I had done the 15-minute grazing per day, adding 15 minutes daily to reach 4 hours of grazing before putting the 5 horses on the pasture. What I did wrong was graze Doctor J on our lawn, which was full of clover! That is when I think the cresty neck started. Hindsight is 20-20.

If you have a high-risk horse, keep a close eye on his neck. (see excellent photos at <https://www.safergrass.org/what-equine-metabolic-syndrome-looks-like>). If the diet has too much sugar, the crest will swell and get harder, and it can happen almost overnight. If you catch it in time, you can mitigate it before internal hoof damage occurs. Be aware when grass is highest in NSCs (non-structural carbohydrates) – after rain, a killing frost – and when it is lowest – cloudy days, overnight between 3 a.m. and 10 a.m.

Be cautious about using steroids on horses that are overweight, insulin resistant or have recently had laminitis. Do one hock injection at a time with a good couple weeks between to minimize the chances of laminitis. Make sure the horse is in good weight through diet and exercise. And get rid of clover in your horse pastures – we did.

Julie: The goal now is to maintain a good weight and monitor grass growth and consequent NSCs in the pasture in which she will be turned out and keep a container of Insulin-Wise in the feed room. Will definitely monitor conditions come spring 2025 and if we get the same kind of spring we had last year, will discuss the dry paddock option or grazing muzzle with barn owners.

A newsletter published by the University of Minnesota Extension Service noted that Midwest grasses are prone to NSCs, particularly in spring. Anecdotally, a Facebook friend who is a farrier on the west coast posted about a concerning rise in laminitis cases that she was encountering in Washington State.



Patsy May 2024 with laminitis