NEW WAYS TO BEAT LAMINITIS

Treating and preventing laminitis can be tough. Here’s the latest on some encouraging alternative methods, detailed by natural hoof care practitioner Pete Ramey and veterinarian Joyce Harman.

By Debbie Moors
Photos by Pete Ramey

his spring, as racehorse Barbaro was recovering from a broken leg, reports announced he’d developed laminitis in the opposite foot. While many heard an unfamiliar medical term, we horse owners drew a collective breath at news of the dreaded diagnosis. We knew just what was at stake.

Fortunately, reports at the time this article went to press say Barbaro is recovering, but laminitis was a clear threat to his recovery. The disease is a leading killer of horses—second only to colic. And when you’ve got a horse that suffers occasional or chronic bouts with laminitis, it can be devastating and discouraging.

Laminitis is an inflammation of the "laminae," a fibrous structure within the hoof that extends from the hoof wall outward to attach to the coffin bone. Think of it as the tissue that "laminates" the hoof wall to the coffin bone.

If your horse suffers from acute laminitis—those flare-ups that come, for example, on the heels of a spring eating binge—his laminae are inflamed, becoming very weak.

Horses that have lost proper wall attachment to the coffin bone have "foundered." As natural hoof care practitioner Pete Ramey says, "the laminae and hoof wall have parted ways." This is often readily visible with the naked eye if it appears a smaller hoof is trying to grow in at the top (just below the coronet) and then the wall creeps out like a bell-shape as it approaches the ground. The coffin bone rotates down and away from the hoof wall under the horse’s weight (in some cases, you’ll see it pressing through the sole) and your horse’s health and future will be compromised.

The traditional approach to treating and preventing laminitis involves adjusting your horse’s diet, limiting movement, alleviating his pain, and adding pads to his shoes for support and comfort.

But new and alternative treatments for laminitis, such as barefoot trims, exercise, supplements, and acupuncture, are proving surprisingly effective.

In this article, we’ll lead you through all of the encouraging new remedies, plus give you the latest thinking on eliminating sugar, a potential cause of laminitis, from your horse’s diet. We’ll also tell you where to go for more information on all these strategies.

STRATEGY: SOLE SUPPORT

What it is: Using a natural-practitioner’s barefoot trim plus boots and pads to provide support to the coffin bone through the sole.

How & why it works: By supporting the sole (instead of the hoof wall, as with traditional shoes), boots and pads alleviate pain while a healthy hoof and laminae regrow around the coffin bone. The beveled walls of a barefoot trim place a “squeezing” effect on the laminae, rather than a separational force and distribute much of the weight across the sole, frogs, bars, and heels instead of the hoof wall. This minimizes or eliminates the mechanical stress on the laminae.

By using boots and pads for support and protection during recovery, a natural practitioner is able to keep the sole protected and the coffin bone well supported while the new hoof grows in.

If you attach the shoe to the hoof wall and provide perfect support, then the coffin bone is supported that day,” says Pete. “But the walls are constantly growing, the support is creeping away—and the coffin bone is free to creep away right with it. This is the primary reason founder seems so hopeless to many farriers.

Insights & recommendations: As Pete is quick to point out, the work that he and the vet do to help the horse heal can only go so far—diet and exercise are critical to a horse’s recovery. (See “Movement as Medicine,” this page, and “Stamp Out Sugar,” page 78.)

This is very similar to Type 2 diabetes in humans. The number-one reason diabetic humans are hospitalized is foot pathology; the number-two reason is problems with wound healing. Human doctors combat these problems with diet and exercise as the most important factors and so do we.

STRATEGY: MOVEMENT AS MEDICINE

What it is: Turning out and encouraging your horse to move. (To find a natural hoof care practitioner, see Pete Ramey’s Web site, listed in “Resources,” page 79.)

How & why it works: Exercise stimulates circulation and can reduce weight, but perhaps most importantly, exercise makes it easier for the horse’s body to process sugar (see “Stamp Out Sugar,” page 78). At the same time, horses that get exercise are able to grow a healthy hoof faster than sedentary, stall-bound horses.

Insights & recommendations: If you’ve ever had a horse in a full-blown case of laminitis, you may feel a little dubious about getting that horse moving. And Pete asserts that you should never force-walk a horse in pain. However, once your horse is outfitted in pads and boots as described above, he’ll likely feel much more comfortable moving around.

Pete also says one of the biggest myths he encounters with laminitis is the belief that it can’t be fixed—particularly in cases where the coffin bone has rotated through the sole. But he’s seen many cases of full rotation where the horse has recovered and gone on to lead an active, happy life. (See page 78 for X-rays showing one of these cases.)

Recovery time depends on the horse. Once Pete has trimmed the hoof and boots and pads are in place, he returns every two to four weeks to provide another trim. The horse is then allowed to go barefoot as soon as comfort and adequate sole thickness is achieved. Full re-growth of the walls can take as long as four months to two years, depending on movement of the horse. Once the horse grows a healthy hoof, Pete recommends a regular four- to six-week trim schedule.

“Wishing with a little bit of corrective trimming and a lot of dietary education for the owner, she’s grown very nice feet, is very happy and comfortable, and enjoys trail riding in the mountains and on gravel roads in hoof boots. She has made it almost two years (and counting) since her last laminitis episode,” Pete says.

“Turn out and encourage your horse to move.”
HORSE & RIDER
Joyce explains that there are
Acupuncture operates on the concept
that, in large quantities, might cause the problem you’re try-
ing to prevent, but in small, very dilute doses, are thought
to actually trigger the body to respond with healing.
Insights & recommendations: Joyce recommends
• Find hay that’s low in sugars called fructans.
• Check labels. While some feed companies are start-
ing to point out the sugars in their feeds—hay and grass contain varying amounts, as well. Vet-
• Find hay that’s low in sugars called fructans. “In general,
late-cut hay that’s starting to go seed may have a lower
sugar content,” says Joyce, adding that you can’t tell sugar con-
tent by looking at the hay. The only way to know for sure
is to have your hay tested (see “Resources,” page 79, for
more information).
• Cut grain. If your horse is overweight, Joyce advises that
1/3 cup of grain may be all he really needs (just enough to help
him take in supplements—more on that below). Oats or bar-
ley are preferable—they tend to be lower in rapidly soluble
carbohydrates.
• Check labels. While some feed companies are starting to
market low-carbohydrate feeds, Joyce says it’s important
to check labels to see if any straight sugar has been added
to the mix. Avoid any feeds that have molasses or corn syrup
in them. These sugars are rapidly absorbed by the digestive
tract. The more heavily processed the grain is, the more like-
it is to overload the small intestine and dump sugars into the
large intestine.
• Try a muzzle or dot. Limiting access to grass is key, but
in some cases, it’s easier said than done. Muzzles can help
keep a horse from overeating, but still gives him a chance
to be out where he can exercise and socialize. For some horses,
dots may be necessary. “There are horses who won’t wear muzzles—they remove them, or have buddies
who remove them,” Joyce admits. (Joyce offers a muzzle on
her Web site, www.harmanyequine.com, that she says more
horses seem to tolerate.)
• Limit sweet treats. Try to find horse treats that don’t have
sugar in them. Also, carrots are relatively high in glucose. “A
better alternative would be apples, which don’t trigger as much insulin release,” Joyce explains.
• Soak your hay. If your horse is extremely sensitive to sugars
in hay, Harman says soaking the hay during laminatic attacks
(see “The Equine Vet” in Horse & Rider) might be helpful. Kathryn
Watson, research director for Rocky Mountain Research & Con-
sulting, in Center, Colorado, has conducted studies and
found that soaking hay just before feeding for at least 60 min-
utes in clean, cold water, or 30 minutes in hot water, then
draining, can reduce the amount of sugar in hay. “The aver-
age reduction in sugar over 15 samples of a variety of hays
was 31 percent,” she reports.

STRATEGY: SUPPLEMENT THERAPY
What it is: Providing nutritional support that can stimulate
circulation and help with blood sugar levels.
How & why it works: By improving insulin transport to the
cells, flax (omega 3 fats), magnesium, chromium, and vana-
dium can improve insulin sensitivity and translate sugar into
usable energy at the cellular level. Additional supplements help improve blood flow and overall
health.
Insights & recommendations: In the September ’06 issue of Horse & Rider, Joyce talked about 10 supplements for a healthy horse. Four of those supplements (flax, Coenzyme Q-
10, Vitamin C, and free-choice minerals) are considered ben-
eficial for horses prone to laminitis. In addition, magnesium, chromium, and vanadium have been used for humans (par-
ticularly for diabetes), and Joyce reports that her clients have seen good results from these
supplements.
Insights & recommendations: Joyce notes that some horses have insulin resistance. “If a horse is very insulin resis-
tant it is like turning the dimmer switch back on and allow-
ing the body to actually trigger the body to respond with healing. “A good example is a horse with insulin resistance that had a very high
insulin sensitivity and transport glucose into the cells. Each
works on different transport pathways into the cell. Some horses respond beautifully to just one (usually magnesium), but some horses will need all three, “Joyce says.
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