

Ouch! That Hurts: Detecting Lameness in Your Equine Athlete

By Karalyn Lonngren of University of Pennsylvania

“This horse is vet student lame.” The comment, meaning that the horse has a significant enough lameness that even we should be able to see it, stings a little, but only because it has truth to it. The horse is trotted in-hand up and down the arena while a group of veterinary students stare and try to determine if the horse is lifting her head while she steps forward on her left or right front foot. As a veterinary student planning to practice large animal medicine, I know how important being able to accurately detect subtle lameness will be to my future patients, but the ever-present goal seems to be more elusive than I had hoped. Much of the practice that I have had comes from the vet checks at endurance races where I have both ridden with and crewed for friends. Outside these events, during training and off-season, the horse owners are the first line of defense when it comes to detecting lameness, because a veterinarian is unlikely to get to evaluate your horse for lameness unless you suspect something is wrong. While some people seem to have a natural gift for detecting when a horse is lame, most of us must work at it by practicing analyzing each part of the gait to see if there is any asymmetry.

As I watch the horse trot back towards our group, I repeat to myself, “Down on sound”. Although technically a horse lifts its head as it places a sore front hoof on the ground to reduce the amount of weight the leg must catch, it often appears to observers as though it is dropping its head as it places its sound foot. This horse I am watching consistently lifts her head each time her left front hits the ground, which surprises those of us who had noticed a slight swelling in her right front leg and were expecting her to be lame in that leg. This level of lameness is classified by AAEP as being a grade 3, which means that while the horse is not obviously lame at a walk, it is consistently lame while trotting. A grade 5 is the worst, meaning the horse is essentially not weight bearing on one leg. A grade 0 would be no detectable lameness.

The next horse they bring in for us has actually been presented for “poor performance”, and even our instructor doesn’t know yet if there is a lameness going on or not. As we watch this horse trot, I decide that his front end looks fine, so I focus my attention to the hind end which I find much more difficult to evaluate. A horse’s mid pelvis lifts twice during each stride of trotting, once when it pushes off with its left hind leg and once when it pushes off with its right hind leg. In a sound horse these lifts should be equal in magnitude. The points of a horse’s hips also rise and fall alternately and, if the horse is sound, equally. As I watch this new horse trot away, I have a slight feeling that something may be off in the back end, but I am not particularly confident in this analysis. The horse is then tacked up and ridden by his owner. With mild lameness an asymmetry of the gait may not be apparent until an extra level of ‘stress’ is added. This stress may be a hard surface, a rider, a tight circle, etc. If adding this additional stress makes the horse consistently lame, it is considered a grade 2 lameness, but if it is still only sometimes showing asymmetry, it is only a grade 1 lameness. This is why it is important for both you and your veterinarian to examine your horse that otherwise appears sound while they are working. By watching them under these higher stress conditions, injuries can be detected earlier and will likely have a better outcome.

As the rider and horse move around the ring at a trot and then a canter, I watch the stride length of the horse carefully. Another asymmetry that you may be able to see on a lameness evaluation is when the horse doesn’t extend one leg as far forward as the corresponding leg on the other side. However, as far

as I can tell the horse I am watching has consistent stride lengths. At this point the veterinarian informs us that the horse does indeed have a mild left hind leg lameness. I watch intently as she tries to point out and describe what we should be seeing, but I cannot convince myself that I actually can see this horse's lameness. I feel better, though, when she says that she has seen horses compete at Olympic levels with more obvious asymmetries.

Unfortunately, simply being around horses won't make you or I better at detecting lameness; it is something we have to actively practice and think about while we watch horses move. I know I will be taking every opportunity I have during my last year and a half of veterinary school to improve my skills at detecting lameness, and I am sure that no matter how many years I practice as a veterinarian I will continue to improve my skills, and there will always be something new to learn about lameness evaluations. I hope you will join me in making the most of every opportunity to learn and improve ourselves so that we can do our best to keep our equine friends happy, healthy, and sound.

Credits: In addition to the friends, professors, and local veterinarians who have helped me learn about lameness, the website <https://lamenesstrainer.com/> with its great explanations and fun lameness 'video games' has particularly helped me with understanding hind-end lameness.

Cover Letter:

As a third-year veterinary student, I am excited to have the opportunity to spend more time with live animals again. During our first and second years of school we spend most of our time in the classroom or studying for exams. I have really enjoyed the opportunities I have had in the past to get involved with endurance racing, and I would love to participate in a Ride & Tie in the future. I hope to one day open a large animal practice in New England. I really appreciate this organization's support of veterinary students!

Sincerely,

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