

Three Silent, but Potentially Painful, Conditions of Horses
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Over the years I have recognized three main areas that are not traditionally recognized as causes for lameness and/or pain in the horse. These areas, to varying degrees and in varying relationship to one another, can be a cause for decreased positive attitude in horses, decreased performance, increased behavioral issues, and ultimately an underlying cause for lameness. The three conditions are wet feet, sub-clinical laminitis, and hooves with elongated toes, especially in the hind feet.

Wet feet. The wetness comes primarily from dew, mud, or excessive hosing. The horse evolved as a high desert animal and so wetness to their feet is not normal for the horse and can have a negative consequence for a certain number of horses. The primary group of horses that have problems with wet feet are those with abnormal foot conformation to begin with and/or poor quality of hoof such as thin walls and/or soles.

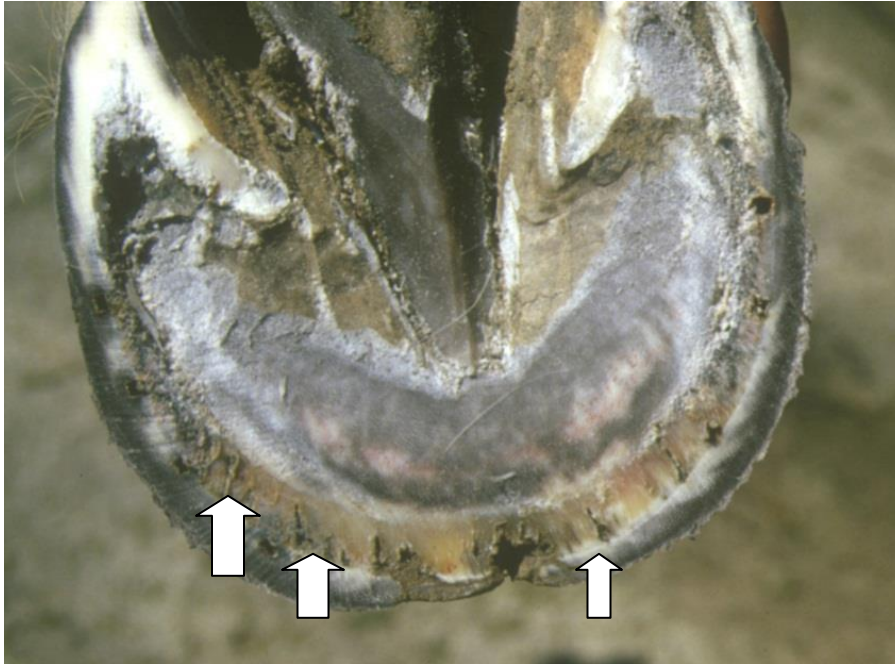


This is a horse with a longer toe and lower heel than normal. The clinches are “popping out” due to the moisture and there are cracks and chipping of the hoof wall. This is the type whose owner often complains the horse loses too many shoes.

We have found the owner often has a difficult time formulating a management plan that works for a period of time to get the horse’s feet dry. It is time consuming and potentially more costly to manage a stalled horse, clean the stall daily and keep it dry along with modifying turnout situations. I think each farm that has a number of horses should have a well draining 24x24 square turnout area that is all weather, drains immediately after rains, and does not accumulate mud. This can be accomplished by setting this square paddock on a slight hillside and packing in some solid footing such as decomposed granite, even to the extent of crush and run road base. For the small paddocks I like a square pen as opposed to a round pen so that the horse does not have an opportunity to run in circles and it is easier to catch.

The second condition is sub-clinical laminitis. This is laminitis that is slowly evolving when the horse is apparently very sound performing or has no obvious lameness to the owner, the farrier, and/or the veterinarian. It is usually occurring in the easy keeper type of horse that potentially is evolving an endocrine problem, such as Insulin Resistance or Cushings disease. Certainly in these horses that are six years of age or older and easy

keepers, seeing any kind of dishing to their feet or mild separation at the toe sole area of the white line should have a lateral radiograph done of their feet to determine if rotation of the coffin bone is occurring and if so, how much.

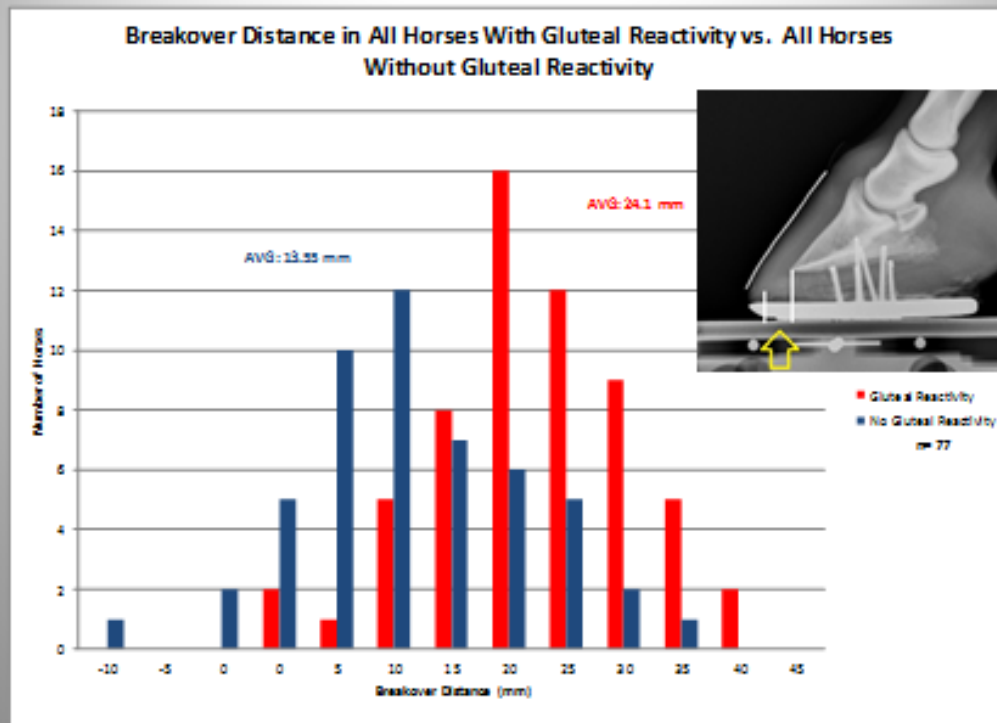


The white arrows point to the stretched areas of the white line from possible subclinical laminitis.

It certainly easier to treat this horse mechanically before it gets painful than after it gets painful. Once the horse develops active painful laminitis it can be difficult to reverse.

The third condition is a horse that has long toes of their hind feet. We have a study on 77 horses published looking at the breakover distance from the tip of the coffin bone to the breakover point. The longer that distance the greater the chance of having painful gluteal muscles on palpation. Our theory is that long toes create a significant lever against the tip of the coffin bone making the horse work harder to get that foot off the ground. Working harder to get that foot off the ground then in turn stresses the gluteal muscles and creates pain in those muscles. If that pain progresses then lameness can occur. Prior to lameness some of these horses do have behavioral issues such as stopping at fences, difficulty shoeing the hind feet and reluctance to move off the leg when asked to move forward by the rider. The best way to evaluate the length of toe and how it can be corrected mechanically with shoeing is a lateral radiograph of the hind feet.

The following graph shows the typical lateral radiograph with the arrow pointing to the breakover point. The breakover distance measurement is made from a line drawn down from the tip of the coffin bone to the breakover point. The zero point on the “Y” axis is where the breakover point is right under the tip of P-3 and then each 5 mm are scored. The blue bars are horses that have no pain in their gluteal muscles on palpation and the red bars are horses with pain on palpation. The further the breakover distance (the longer the toe) the greater the chance of pain. It seems like about 15 mm breakover distance or less is potentially ideal. This usually translates to about 1 ¼ inches in front of the true tip of the frog.



From Mansmann, RA, James, SJ, Blikslager, AT & vom Orde, K. Long Toes in the Hind Feet and Pain in the Gluteal Region: An Observational Study of 77 horses. JEVs. Dec 2010, pp. 720-726