

# Ask A Vet: Number One Cause of Lameness

*Sunday, July 26, 2015*

Dear Dr. Weldy's,

Recently, our horse developed a lameness that lasted for a few days and then got better after a crack formed at the top of the hoof. It appeared as if there was some drainage from the crack. What happened?

Dear Reader,

Your horse has experienced the most common cause of acute lameness that we see. It is known by several names such as gravel, hoof abscess, or subsolar abscess. It is a bacterial infection of the internal structures of the hoof which results in an accumulation of exudate or pus. The routes by which the bacteria gain entrance to the foot are varied. Foreign material (sand, dirt, gravel, etc.) can work its way up through the white line. Because this structure is often softer than the rest of the foot, it can separate allowing contamination. It is located on the bottom of the foot and is where the sole meets the vertical hoof wall. The debris will migrate to the sensitive subsolar tissue bringing bacteria with it and causing an infection. Another cause of hoof abscesses is penetration of the foot by a sharp object. If the penetration occurs in the area of the frog, it may be difficult to see where it entered as this elastic tissue will close quickly after the object is removed or falls out. Cracks in the hoof wall also allow infection into the internal structures of the foot.

Clinical signs often include a sudden onset of acute lameness. Most horses exhibit moderate to severe pain with some refusing to put weight on the affected foot. Bounding digital pulses and warmth in the hoof wall when compared to the opposing foot are clear indications of inflammation. Hoof testers can be used to locate the pain at the point of maximum intensity. Often, a small black tract or fissure can be found and pared out with a hoof knife. This tract can be followed deep into the hoof to locate and drain the abscess. Establishing drainage in this manner is the most important aspect of therapy. Following this, drainage is further encouraged with Epsom salt soaks and/or a poultice designed to draw more pus to the surface. Typically, the foot is bandaged for a period of three days to minimize contamination of the affected area.

Prevention is achieved through proper hoof health. If we can keep the white line intact, there will be less opportunity for a gravel to occur. This is accomplished by proper trimming. Keeping the toe short decreases the bending force on the foot and helps to prevent cracking of the white line. Also, not taking off too much sole can help preserve the integrity of the white line. When the weather is very wet it is helpful to bed your horse down on shavings or saw dust as well as using hoof hardeners such as Tuff Stuff or Keratix. In dry weather, a commercially available hoof conditioner or one made yourself with cod liver oil and pine tar (3:1 ratio) applied daily can add moisture. Finally, a good nutritional supplement designed for the horse hoof (Farriers Formula) gives your horse the building blocks he needs for a healthy hoof.

-Dr. Wade Hammond