

## Common Hoof Ailments

Routine management may reduce hoof problems and lameness

By Adam Whitehead, Resident Farrier UFVMC

With horse-ownership comes the responsibility of hoof care. Most horse-owners happily provide routine care yet know little about the consequences of neglect or poor management. With negligence, horses can face a multitude of hoof problems such as thrush, abscesses, white line disease and laminitis. Although all hoof problems and lameness cannot be eliminated, the severity, duration and frequency can be significantly reduced with the correct prevention and/or response.

### Thrush

Thrush is an infection in the cleft and grooves of the frog and is a common problem for horses, although it is generally viewed as a nuisance rather than a cause of lameness. In its early stages or milder forms, thrush is easily treated with proper trimming of the frog, applications of topical solutions, and routine cleaning of the hooves. However, more advanced cases of thrush involve the sensitive tissue and are nearly always associated with varying degrees of lameness. These advanced cases can be rather difficult to treat for several reasons. The deep grooves create a trap for moisture and debris that not only exacerbates the lameness but perpetuates the thrush. Accessing the affected hoof area may involve removing healthy portions of the frog, and even after removing as much healthy tissue as possible, access may still be very limited. Damage to sensitive tissue may be irreversible and create a void that provides an ideal environment for reoccurrence of thrush. You can assist your farrier and veterinarian in prevention and treatment by good hygiene. Clean your horse's hooves daily and thoroughly clean stalls to remove the root cause of thrush – a dirty, wet environment.

### Abscesses

Abscesses are another common ailment that produces lameness. They are manifested in multiple ways including solar bruising, hoof cracks and puncture wounds to name a few. Infection invades the sensitive tissue and creates localized inflammation which in turn creates an abscess. The abscess is not able to drain, so the infection ascends the hoof wall and produces drainage at the coronary band. Less common sub-solar abscesses extend between the sensitive and insensitive layers of the sole. These generally last longer and are more difficult to treat; lameness may persist for weeks or even months. Regularly scheduled appointments with a qualified farrier to maintain and remove excess hoof and sole growth will

help to reduce occurrences of abscesses. Awareness of your horse's footing and protective measures, such as use of shoes and/or pads when horses are exposed to hard surfaces or rugged terrain, may also reduce instances of abscesses.

### White Line Disease

White line disease is a common problem in our warm, moist environment here in Southeast. White line disease is caused by a bacterial or fungal infection that invades the non-pigmented layer of the hoof wall, causing progressive separation. It generally begins where the sole meets the hoof wall at the white line then migrates towards the coronary band and throughout the hoof. White line disease may be found in one or more hooves; it may be localized to one area of the hoof or may spread and invade the entire hoof wall. Treatments of white line disease vary from chemical soaks and topical treatments to debridement of affected areas or complete hoof wall resection. White line disease typically responds better in the long term to aggressive treatments and may also be less likely to reoccur.

Varying degrees of lameness may be associated with white line disease: minor cases may show no signs of lameness even in horses competing at high levels, but more advanced cases devastate foot function as well as induce laminitis, causing debilitating lameness. Much like thrush, daily cleaning of hooves and promoting hygienic conditions within stalls and paddocks combined with regularly scheduled appointments with a qualified farrier, may be the best methods of prevention.

### Laminitis

Laminitis is a source of debilitating lameness in horses and in severe cases is life-threatening. Laminitis is defined as the inflammation of the sensitive laminae of the hoof, especially in horses, but this definition may well be a gross understatement of what actually occurs within the hoof. No matter the underlying cause of laminitis, a complicated series of events take place within the hoof capsule. An interruption of blood flow to the hoof causes death and edema of the laminae. After significant damage to the laminae occurs, the coffin bone may become displaced – either by rotation or sinking. More commonly, the tip of the coffin bone rotates within the hoof capsule due to the mechanical pressure of the deep digital flexor tendon. Sinking takes place after catastrophic failure of the laminae allows the entire boney column to move downward within the hoof capsule. Many theories exist on the cause of laminitis, yet little is truly understood about this devastating disease. For this reason it may be impossible for owners to prevent it; however, early diagnoses and treatment of laminitis by a

veterinarian and farrier that commonly treat this disease will greatly increase the chances of a successful outcome. Photo by Summer BestA diet low in non-structural carbohydrates (starches & sugars) may reduce the incidence of laminitis.

Your horse's hooves are his foundation, and keeping that foundation solid is an important key to overall health and performance. Routine management practices such as regularly scheduled appointments with a qualified farrier, promotion of hygienic conditions within stalls and paddocks, awareness of your horse's footing and frequent cleaning of the horse's hooves can help prevent hoof problems and lameness.

(References: Adams' Lameness in Horses Fifth Edition, Diagnosis and Management of Lameness in the Horse, [www.equipodiatry.com](http://www.equipodiatry.com) Northern Virginia Equine Dr. Stephen O'Grady DVM, MRCVS).

Adam Whitehead is the resident farrier at the University of Florida Veterinary Medical Center. Whitehead completed farrier school in Tennessee and studied animal science at Abraham Baldwin Agriculture College in Tifton, Ga. Prior to joining the UF team, Whitehead successfully practiced in the field for 10 years.