

Understanding The Common Problems Of The Hoof And The Foot

Learning the basics can help novice horse owners get the help they need to head off minor issues before they become major

Many hoof problems are caused by the environment the horses' feet are subjected to, or inadequate nutrition or genetics. Some horses inherit thin soles, small feet, or crooked legs. In most instances, horse owners can prevent serious problems with good care — and with the help of a farrier to correct small problems before they become large ones.

Thrush

Thrush usually affects the cleft and grooves of the frog. This “hoof rot” is characterized by black necrotic (dead) tissue, caused by pathogenic organisms that thrive in wet/decaying material such as mud or manure.

Lack of ventilation in the hoof makes it susceptible to thrush; these pathogens prefer a damp, dark, airless environment. If the hoof is always packed with dirt, mud or manure, lack of air next to the frog and constant moisture allow infection to flourish. A hoof that is clean and dry is less likely to develop thrush.

It is important to treat thrush, because it can affect the overall integrity of the foot and interfere with its proper function.

Stone Bruises

Trauma to the inner tissues of the foot beneath the sole can rupture small blood vessels, creating a bruise. If the

horse steps on a sharp rock, crushing blood vessels between the sole and the coffin bone, the internal bleeding and pressure buildup can create pain and lameness.

A serious bruise may abscess and require treatment. Your farrier or veter-

to imbalance and imbalance places stress on hooves that often lead to hoof cracks.

Brittle feet, caused by dry conditions, genetics or nutrition (or combination of these) can lead to hoof cracks. You'll get arguments on this,

but some horse people think brittleness is more common in white feet than dark ones. If a horse has brittle feet that crack, a good hoof dressing may help, reducing moisture loss in the hoof wall. Feed supplements may help if the problem is nutritional.

Letting your horse go too long between trimmings inevitably leads to imbalance and imbalance places stress on hooves that often lead to hoof cracks...

White Line Disease

This progressive separation of the hoof wall from the foot starts at the bottom (at the white line) and travels upward. It affects the thickest layer of hoof wall — the portion that attaches to the insensitive laminae (the tiny fingers from the bloodless outer wall that interlock with the sensitive laminae).

The hoof horn in that layer becomes soft and chalky. The wall separation may start mechanically if the hoof wall is too long, prying the wall away from the sole. Dirt and manure can collect in the opening, forcing its way deeper into this separation, making an ideal habitat for microbes that grow in hoof horn.

Barefoot horses, particularly those with long feet, may suffer wall separation with mud or fine gravel packing into the white line area, forcing up between hoof wall and sole.

inarian can open and drain the abscess, show you how to soak the foot and treat it.

An abscess usually resolves quickly once drained and treated, but the hole in the sole may take several months to fill in. During that time, the horse may need a pad or special shoe to protect the foot when traveling on rocky or uneven ground.

Hoof Cracks

Cracks are usually the result of long, bare feet that chip or split, concussion on a brittle foot or an injury. Long, untrimmed feet may develop cracks that extend into sensitive tissue and make the horse lame. If a hoof is kept trimmed and balanced, minor cracks grow out and don't become a problem.

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Horn-digesting fungi may get started in the separation.

While topical solutions are available that will kill the invading fungi, the stress that is causing the separations must also be addressed, or the problem will persist or recur.

Laminitis

Inflammation of the tiny laminae within the foot may result in disruption of attachments between the sensitive and insensitive laminae that connect the hoof capsule to the coffin bone. Tiny capillaries nourish this interface, providing a steady flow of oxygen and nutrients to the inner laminae.

Sometimes toxins from grain overload, or from systemic illness or uterine infection (retained placenta or “foaling founder”) create chemical imbalances in the body that adversely affect the circulation in the feet.

If enough tissue dies, attachment between the coffin bone and hoof wall comes apart and the bone sinks down within the foot. Sinking of the coffin bone is called founder (like a sinking

ship). The foot becomes deformed — the sole drops, the hoof wall spreads and develops rings and ridges, and the toe turns upward.

Laminitis may or may not end up as founder, depending on how much damage is done to the laminae. Anytime, however, that laminitis is suspected, a veterinarian should be brought in. One telltale sign is when a horse seems to be trying to shift all of its weight backward as it stands, trying to relieve pressure on its painful feet.

Navicular Syndrome

The small navicular bone lies behind the coffin bone and short pastern bone. It provides a leverage point for the deep flexor tendon and stabilizes its attachment to the coffin bone. Concussion when the foot hits the ground is transmitted through the coffin bone and navicular bone and on up the leg. The smaller the hoof, in relation to the horse’s weight, the greater the shock to the navicular bone and its tendons and ligaments.

Upright pasterns or stress when

landing from a jump puts more squeeze on the bone from the vertical pull of the deep flexor tendon. The ligaments holding the navicular bone in place are also stretched, straining their attachments.

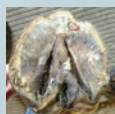
What was once called “navicular disease” can actually be caused by a number of conditions that cause pain at the back of the foot. Pain may come from the suspensory ligaments, coffin joint, deep digital flexor tendon, navicular bursa or interruption of blood supply to the navicular bone. To properly treat a case of so-called navicular syndrome, it is necessary to determine what structures are involved and what is causing the pain.

When In Doubt, Ask

Always keep an eye on your horse and be alert for any signs of lameness or a change in their behavior. If you suspect something is wrong, contact your farrier or veterinarian. Most of these problems can be corrected — and the earlier you get started on it, the better. **Q**

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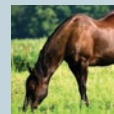
Treating Abscesses

- ▶ Hoof abscesses are a common cause of lameness. And there are many different theories on how to best treat one. This webinar discusses the identification and treatment of abscesses, management and client education after treating an abscess, as well as when a veterinarian should be called in.



Mistakes To Avoid When Using Hoof Boots

- ▶ This webinar shares the experience-tested ideas that you can implement into your footcare work for avoiding and overcoming common mistakes in the selection and application of hoof boots. Learn on how to best use this footcare tool.



Using The Whole Horse Approach

- ▶ The term “whole horse” has been used by many different equine professionals to describe a host of ideas and concepts. This webinar approaches it in terms of a holistic picture in order to restore soundness and wellness to the horse.

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