

A primary message I would like to leave you with is that many lameness's can be prevented, but it means recognizing subtle issues and hoof distortions early on, and then dealing with these distortions by getting the foot prepared so that it has a better relationship to the coffin bone and has the ability to get all of its needs met. At the same time, many of these debilitating pathologies like Navicular Disease and Laminitis don't have to have the same gloomy prognosis they once had. With a lot of the new information that is available now, we are finding that of the large number of horses that are diagnosed with "Navicular Syndrome" or Navicular related problems, only about 10% have a substantial deterioration of the bone (Navicular Disease). The majority of these horses are suffering from soft tissue damage or strain that can be effectively dealt with simply by addressing the distortion and offering the foot a chance to function as it was made to. With laminitic horses, there are many treatment systems that combine the knowledge of how the foot naturally responds to the disease, and uses that information by providing support and protection to the foot, so the horse can be managed and serviceable once the laminitis insult is dealt with. There are a growing number of horses which suffer from Equine Metabolic Syndrome, Peripheral Cushing, Insulin Resistance, or whatever you want to call it, that struggle with laminitic events regularly. There are many concerned practitioners that are finding new medications, supplements and feeding regimes that make these horses manageable, so don't write these horses off just yet. There is information out there to help you make decisions about what can be done if your horse currently has lameness issues, as well as information to help prevent lameness. Keep an open mind and seek out information that is practical and makes sense to you.



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Hoof Care Tips for the Horse Novice & Professional

Tip #1 “Recognizing Hoof Distortion Helps Treat & Prevent Lameness Issues”

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The skills and understanding that are required for the overall practice of hoof care in horses covers a broad spectrum. From blacksmithing and metal work, to horse handling and customer care, a farrier's job is multifaceted. With that in mind, the tools and information that farriers use on a day-to-day basis need to be dependable, practical and applicable for every horse in their care. It is of paramount importance to be able to effectively evaluate the horse, its movement, and each foot as an individual, and then use their tools and knowledge to service the needs of that horse throughout its life. The principles that make up the practice of Natural Balance offer some guidelines for some solutions to common problems that can benefit most horses and farriers.

The overall objective of Natural Balance is to utilize the latest and most practical scientific information for the welfare of the equine foot. An important and more specific goal of Natural Balance is to recognize and treat hoof capsule distortion before these distortions create pathologies that in turn negatively effect performance, or result in lameness such as Navicular Syndrome. In order to recognize, treat and/or ultimately avoid these distortions from happening, we have found it important to establish landmarks from

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the bottom of the foot that are static in their relationship to the coffin bone for the purpose of achieving lateral/medial (side to side) and dorsal/palmar (front to back) hoof balance. Recent radiographic and MRI studies have shown that the widest part of the foot (or more specifically, the widest part of the sole) maintains its relationship to the coffin bone. From that static reference, as well as results from recent histological and anatomical studies, a trimming and shoeing protocol has been developed that will maintain the parallel relationship between the front surface of the hoof wall and the front surface of the coffin bone, which helps correct and avoid hoof capsule distortion. At the same time, it is equally important to optimize the efficiency of the back part of the hoof (heels, frog & bars) and create maximum surface area by removing heel distortions which cause heel pain and other pathologies that in turn lead to a toe-first landing. As previously suspected, and current research has supported, a toe-first landing is a primary cause of trauma to the Distal Interphalangeal joint (DIP or coffin joint), Navicular bone, and Impar & Suspensory ligaments. With that in mind, the guidelines of Natural Balance place the primary focus on utilization of the frog buttresses, digital cushion and lateral cartilages for the assistance in proprioception, supporting & aligning the DIP joint, and optimizing energy dissipation upon landing and loading.

I realize for many horse owners this information is quite technical and complex, but what it means is that hoof capsule distortion is proving to be a primary cause of many lower limb lameness issues like Navicular Syndrome, heel pain, contracted heels, Impar ligament strain, Suspensory ligament strain, Ring Bone and certain cases of Laminitis & Founder. As a horse owner, it is important for you to recognize subtle lameness issues or gait faults that can be early indications that hoof distortions may be present. If you notice a horse has issues with stumbling, forging or interfering, then upon closer inspection you will probably find

that his or her foot is landing toe-first, as opposed to flat, or slightly heel-first, which would be optimal. If you can recognize the toe-first landing, then you can investigate further by evaluating the hoof mass distribution from the bottom of the foot. This consists of drawing a line across the widest part of the foot (at the sole level) (Line W). This line will basically cross the foot about 1" behind the tip of the frog, which will also generally be where the bars terminate into the foot. You can then draw a line across the rear most bearing surface, which if shod will be the heels of the shoe, or if barefoot will be the backs of the heels (unless the frog is closer to the ground, then it would be the frog buttress) (Line B). Lastly, draw a line across the front most bearing surface, or point of breakover, which if shod will be where the shoe rolls, or if barefoot, where the toe rolls upward (Line F). Based on the lines you have drawn, if there is a greater distance from the widest part of the foot to

the line at the toe, than there is from the widest part of the foot to the line at the heels, then the hoof capsule has lost or is losing its relationship to the coffin bone. We find it to be optimal if there is a little more mass behind the widest part of the foot than in front, or at a bare minimum, a 50/50 ratio. You can see some more detailed illustrations of this on our website. If you as a horse owner can recognize these minor lameness or gait fault issue before they become pathologies, then together with your farrier, discuss these issues and hopefully develop a plan to make some small changes to address these distortions. I can't stress enough how important it is to work with your farrier in developing a plan, as opposed to dictating instructions without both of you being on the same page. As I mentioned above, farrier's jobs are complex and as a professional they need to help you make the best decisions when it comes to the hoof care needs of your horse.

