

Is “Barefoot” An Option For Your Draft Horse?

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1-10-06 Pete Ramey Copyright 2006

It is so difficult to keep well connected hoof walls on draft horses, many owners and trainers have incorrectly decided draft horses are supposed to have flared, split hoof walls. The weight of a heavy draft is often more than the walls can take and the very finest shoers can really struggle to keep everything held together. On top of this, the expense of draft shoeing often causes owners to “stretch out” the shoeing schedule to save money. This makes the farrier’s job of keeping the hooves healthy almost impossible.

I “cut my teeth” on draft horses. I originally learned to shoe because I was running a rental string of trail horses in rugged mountain country. Of my 27 horses, 9 of them were Percherons and Belgians. I was spending all of my “would be” profit on horse shoeing, so I began an apprenticeship with a local farrier. The very first horse I ever shod was a 2,200 pound Percheron with #7 hooves.

Later in life I started studying Natural Hoof Care and immediately found the answers to many of the questions rattling around in my head about hoof pathology, soundness and gait problems. I wrote a book, “Making Natural Hoof Care Work” in 2000, and more recently my wife, Ivy, built a very informative website www.hoofrehab.com to try to deliver some of the important information we’ve learned since I wrote my book. These days we run a local natural hoof care business specializing in founder and navicular horses and travel the world teaching hoof clinics to veterinarians, farriers and horse owners.



This heavy draft horse plows several gardens every year, works kids to a plow (at our local “farm days” fair), trail rides and pulls a wagon on the road. His hooves are always ready to handle whatever the owner dishes out. The pictures were taken before a six-week maintenance trim during peak work season.



It may come as a surprise to you, but throughout my career, I have very consistently found that Draft Horses tend to #1) Take to being barefoot easier than smaller breeds and #2) Benefit from it more than smaller breeds. Why?

Recent research from Michigan State University (Dr. Robert Bowker) confirms what many insightful farriers have suspected all along. The hoof walls were never intended to bear all the horse’s weight. The soles, frogs and bars are supposed to share in the load, with the primary initial impact force received by the frog. This is why draft hooves seem so easily ripped apart; most people are trying to force the walls into a primary support role nature never intended. Wall flares, chips and splits are easily grown out when the wall is not forced to bear the horse alone.

The reason draft horses seem to be easier to “barefoot” than most breeds was discovered by more new research from Bowker’s team at MSU: When a foal is born, the foot hasn’t finished developing. The lateral cartilages, which form the foundation for the flexible back half of the foot are 1/16th inch thick and exist only on the sides of the hoof capsule. Miles and miles of twisting, flexing and expansion of the hoof capsule develops them so that by the time a horse reaches adult weight, they are almost an inch thick and also a solid “floor” of cartilage has formed beneath the frog.

The digital cushion is another structure that fills the heel bulbs and the space between the pastern bones and the frog. It is a very important nerve center in the foot that allows the horse to “feel” the terrain under him. When the foal is born, they aren’t fully developed, yet. They are “lumps of fat” that protect the nerves well enough for the weight of a foal. Miles and miles of frog stimulation cause fibrocartilage to gradually fill the digital cushion. By the time the horse reaches adult weight, the digital cushion should be a solid mass of fibrocartilage, offering enough protection for the nerves to withstand the impact force of an adult horse.

In domestication, we tend to provide for our horses' every need. They don't have to travel very much. We also tend to keep horses in soft terrain, which limits the hooves' development. We tend to neglect foal hooves; allowing the frogs to be lifted off the ground by excess wall length. This means that most of our horses reach adult weight with "baby feet" that haven't developed enough inside, to do their intended job. Many of our domestic horses reach adulthood (and die of old age) with digital cushions that are still mostly comprised of fat and lateral cartilages that are 1/8 inch thick. The result is sensitivity and short-strided, stiff movement. This leaves us with two choices. We can cover it all up with iron shoes, robbing the horse of much of its natural ability to dissipate energy; or we can develop the natural structure within the feet. This is important. Most horsemen think "we've bred the feet off our horses", when in fact we can usually make any hoof healthy when changes are made to the lifestyle and care. It's easier to blame a horse for having bad feet; usually more accurate, though, to blame ourselves.



Front left foot of an 1800 lb. Percheron working every day as a guide horse for a trail riding outfit in rugged mountain terrain.

We created the heavy draft horse through breeding. We didn't manage to scale everything up proportionately, though. While overgrown walls can usually lift the soles and frogs off the ground in a light horse, they are rarely proportionately strong enough in a draft. Instead the walls flare, split and break away. Believe it or not, this actually works to the draft horse's advantage. With the soles and frogs on the ground throughout life, it is rare to find a draft horse with inadequate development and sensitive structures in the back of the foot. Because of this, we almost always can pull the shoes, start a competent natural trimming program and the horse will comfortably keep on working. (If not, we use hoof boots for work while we wait for the inner structures to develop. I usually use the Easyboot Epics; available up to size #8's)

Sole and frog trimming should almost never be necessary. What is necessary is routine trimming of the walls, every four to six weeks. The walls and bars should be trimmed to 1/16th

inch longer than the sole plane and then the walls should be dramatically beveled or "mustang rolled". During the first 2-3 trims, the flare should generally be removed in the lower 1/3 of the wall to match the upper 2/3 of newer growth. Watch for flaring between trims and trim **before** any additional flaring occurs. This way, the walls should be perfectly attached to the bones in one growth cycle.

Disconnected, flared walls cannot even help support the horse. If large flares are present, the horse is walking on the soles, anyway, so don't worry about being aggressive with growing out the flares. The large mustang roll rarely adds more pressure to the soles when you really think about it and it gives you a chance to grow in walls that are actually attached to the coffin bone well enough to help support the horse. As you grow out the flared walls, the splits and chips will usually be gone forever as well.

The end results? Traction, performance and health.

If you decide to try this, please do it sensibly. If your horse is currently in shoes and in work, order boots and have them available before you pull the shoes so you can safely continue work while you wait for callus and healthy structure to develop. It is best if your farrier has studied natural hoof care. There is very little similarity between trimming for a shoe and for performance barefootedness. You might check the locator list on www.americanhoofassociation.org to see if there is a Certified professional in your area. If so, you will be in good hands, but don't tell them I sent you; draft horses are hard work! You need to watch out for barefoot trimmers that carve out the soles from the bottom of horse's feet. Your horse would be better off neglected, so avoid these folks.

The barefoot vs. shod debate strikes emotion in many people. Really, though, I think it shouldn't. Done correctly, the "worse case scenario" is that you will have a healthier foot to nail a shoe to. Every farrier text I've ever seen recommends long barefoot periods to "rest the feet from shoes" and heal the feet. We just allow this healing to continue throughout the horse's life and provide boots when the horse asks for them. The result is improved traction and improved health of the feet. The flexible energy dissipation provides safety and comfort to the joints, muscles, ligaments and tendons of the whole body. If you've ever worked all day on concrete, you already understand a lot of it. That's why workers stand on rubber mats in front of every machine in every plant in America. That's why we have rubber tires on our cars instead of steel wheels. Lets consider providing the same thing for our beloved horses.

For more information and Pete's current clinic schedule, please visit www.hoofrehab.com



The 17.3 hand Percheron above was working for a living on asphalt; pulling a carriage 25 hours a week in a hilly mountain tourist town. I was called to the horse because the hooves were severely split and broken. Rapid growth stimulated by work made growing out better walls quick and easy, and the drivers reported better traction and endurance than they had seen on any horse. The soft “thup-thup-thup” of his hooves left his joints and muscles fresh at the end of the day. The owner of the carriage company was so happy she built me a website and married me!



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