The Thoughtful Horseman
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NEWSLETTER

Are Hoof Angles an Accurate Gauge for Trimming?

Ask most horse people to assess your horse's trim, and they'll start talking about proper angles.

The standard for the toe is about a 45 degree angle for the dorsal aspect of the front feet, and about 55 degrees for the hind. The hairline, viewed laterally, is described as ideally 30 degrees. These are the ideal parameters when the coffin bone is sitting ground parallel, there is no dorsal flaring, and the wall has not been dressed aggressively, because these are the approximate angles a healthy coffin bone will present.

A healthy, properly trimmed hoof will indeed come close to these parameters. However, there are a number of reasons that using angles as a guide for trimming is a flawed approach.

The critical factor is whether the observed profile of the hoof is really the natural angle. Is there any flaring that might make the angle look low? Underrun heels and a "forward foot," where the heel, and not the dorsal aspect of the hoof, should be the focus? Or has the wall been dressed aggressively to remove flares, thus presenting an artificial angle? (See *"The Angular Dilemma"* by Rob Sigafoos HERE.)

Even in a hoof where the dorsal aspect is not deceiving, trimming for ideal angles without assessing other aspects of the foot can be a mistake.

A hoof with dorsal flare will exhibit what looks like a low toe angle. If angles alone are used as a guideline, the fix would appear to be taking toe from the bottom to create a steeper angle. But doing so could dangerously thin the sole under the coffin bone in a foot that is already exhibiting poor laminar connection. Alternatively, a farrier might suggest that the horse needs to grow heel to stand the hoof up, creating a steeper toe angle. But this approach will tip the coffin bone on its nose, and exacerbate the stress on the toe, actually encouraging more flaring by mechanically weakening the laminae.

On the other hand, many farriers do extensive shaping of the wall, often to the extent that the angle appears normal, when in fact there exists a pronounced flare.

Horses with extremely underrun heels often exhibit a low toe angle, but again, trimming toe from the bottom to achieve a more "acceptable angle" thins the sole. Instead, trimming to the sole plane, using collateral groove depth as a guide to heel height when in doubt, and bringing the toe back aggressively from the top will encourage the heel to stand up, and the entire hoof capsule to gradually correct itself.



Unreliable angles:
Left: Laminitic foot with pronounced dorsal flare.
Center: underrun heel/"forward foot".
Right: Aggressively rasped dorsal wall.

The attitude of the coffin bone in relation to the ground must always be taken into account. If the coffin bone is ground parallel as nature intended, then the coffin bone itself will reflect the ideal angles.

Finally, the horse's comfort cannot be sacrificed to create the ideal angles. Making the horse uncomfortable discourages movement...and movement may be the single most important factor in growing a healthier hoof.

Ultimately, we must remember that the ideal hoof form is grown, not trimmed. And even then, the "ideal" is just a guideline, with a range of variation from horse to horse being perfectly normal and acceptable.


Just for Fun...

Top Left: Lilly Belle takes a walk on the wild side in leopard print and EasyBoot Epics.

Bottom Left: Julie & Yeller compete in their first Cowboy Race.

Right: Barefoot horses from Lucidi Farms in Poway strutting their stuff in Quadrille.



Jerry Tindell Horsemanship Clinic Report

Gilroy, California, October 3 & 4, 2009

Gilroy is a big part of my history with horses; it is where I first learned to ride. I spent plenty of mornings posting the trot without stirrups and practicing flying lead changes, the aroma of garlic and cows mingling -- not unpleasantly -- in the chilly air. If you've never been to Gilroy, it is the Garlic Capital of the World, and yes, you really can smell their claim to fame, especially on cool, misty mornings. So it was a nostalgic weekend at Joyce Vieira's ranch watching Jerry teach, and horses and humans learn.

Jerry starts each morning with just the humans gathered round. He lays the foundation by explaining the basic ideas we'll build on in the clinic. Participants are then given the opportunity to ask questions, or share any particular problems they're hoping to remedy. The bottom line here is very much of the "natural horsemanship" persuasion, although Jerry expresses his distaste for that label. (I whole heartedly agree...there is NOTHING natural about a horse doing a human's bidding!) Instead, the essence of this type of horsemanship is that it strives to work with what the horse innately understands.

There was a fairly broad range of experience at the clinic, both horse and human...some colts experiencing their first rides, and some green humans with older horses. The take home message was the same for all: get the horse working softly at any speed on the ground, and use the vocabulary established there to get the same things accomplished from the saddle.

The basic groundwork movements Jerry focuses on reflect what I've learned from other horsemen: control of the hindquarters, control of the front quarters, softness through the head and neck. Jerry describes this as the six steps of control:

1. Back up
2. Shoulder control
3. Forward with flexion
4. Hindquarter control
5. Stop
6. Stand still

Jerry gives us a fabulous tool for incorporating all of those things into one exercise: working in a small circle, and teaching the horse to yield and soften around that circle at any speed we choose. It was amazing to see the changes in horses, to see the softness happen, once the life was brought up to maximum and the horse (and human) grasped what was expected.

(Editor's note: please, please PLEASE don't EVER make the mistake of thinking that groundwork has nothing to do with riding your horse!!!!! It has EVERYTHING to do with it!!!)

Another great take-home lesson was the importance and usefulness of getting down to the horse's feet from the end of the leadrope. Instead of moving out of your position to roll the horse's hindquarters away (yield the hindquarters), Jerry used a quick bump on the lead rope from his position inside the circle, bringing the horse's nose towards its inside hip. He'd then back the horse a step or two, and ask the horse to step its front feet across, pivoting on the hindquarters, back out to the circle...all without moving far from his original position inside the circle. This expects much of the horse, who really has to pay attention to separate out exactly where the feel on the rope is being applied; it also requires a LOT of finesse and well-directed energy on the human's part. But I believe this gives the horse an excellent start on following the leading rein from the saddle; perhaps much more so than other techniques I've seen.

Riding focused on letting the horse move forward freely, establishing control of the feet using rollbacks and several drills at the trot and lope using the other horses as obstacles. Several owners put the first ride on their colts, and some even graduated to the big arena by day two!

Jerry was very attentive to each and every student, working his way from horse to horse throughout the clinic. He also took several opportunities throughout the weekend to gather us all around and pointedly ask each participant for questions or comments. I found him to be an effective and engaging teacher.

Learn more about Jerry Tindell and Tindell's Horse and Mule School here: http://www.jerrytindell.com

Common Horsemanship Mistakes

Get the horse MOVING FORWARD.

Too often we let the horse plod through groundwork and rides. It's usually because we're afraid of what will happen when things start moving faster. But the only way to really have control of your horse is to get them handling softly and reliably full speed ahead!

STOP LETTING YOUR HORSE MOVE YOU.

Be aware...I see this happen all the time, and folks don't even realize they're doing it. But even a half step backwards sets a precedent. You should NEVER, EVER have to make room for the horse. He should ALWAYS make room for you!

Just plain not really paying attention.

FOCUS. Your horse lacks focus if you do. On his back or on the ground, be aware of EVERY MOVEMENT. If you didn't ask for it, put him back where he was. We're much more inclined to be aware in the saddle, but it is every bit as important to be aware and very particular on the ground.

THINK.

Be proactive. Analyze the problems your having carefully, and take a step by step approach to fixing them.

Understanding Navicular Syndrome

Navicular syndrome or navicular disease is a dreaded diagnosis.

Without a doubt, navicular problems can be the most difficult foot problem to fix, and restoring some margin of soundness can take anywhere from a few months to several years. Indeed, in some horses, the damage is just too severe, and there is little hope of restoring the horse to complete soundness. Being aware of what can cause navicular syndrome, and being watchful for problems before the internal structures are damaged beyond recovery can prevent this devastating diagnosis.

Horses suffering from navicular problems frequently have underrun and contracted heels.

It's important to understand the difference between a diagnosis of navicular syndrome and navicular disease. The term navicular syndrome essentially describes chronic heel pain, with or without any visible injury to the internal structures.

A diagnosis of navicular disease indicates that telltale damage has occurred to one or more of the internal structures. Certain types of damage to the deep digital flexor tendon, the navicular bursa, the impar ligament, inflammatory fluid in the medullary cavity of the navicular bone, and damage to the navicular bone itself in a horse exhibiting pain in the back of the foot can all elicit a diagnosis of navicular disease.

It's not entirely uncommon for a horse diagnosed with navicular syndrome to show no damage to the internal structures. Conversely, it's also not rare for horses showing the classic signs of navicular disease to never show lameness. While we can identify damage to the internal structures that typically occurs in navicular horses, the actual cause of the horse's pain remains mysterious. What we're sure of is that the discomfort is in the palmar aspect, or heel, of the foot.

Traditionally, these horses are shod in some type of bar shoe, and often a wedge, to lift the painful heel out of use. Unfortunately, this is a temporary fix at best. The less the horse uses the heel, and the more the horse lands toe first, the worse the damage becomes.

Many horses with navicular syndrome present an underrun, contracted heel. This is the most typical foot I see in navicular horses. The good news is, this type of pathology is usually not terribly difficult to improve with a good, basic physiological trim. The key is encouraging the heel to stand up and de-contract, and the hoof capsule to move back under the bony column. Encouraging a heel first landing and stimulating the structures in the back of the foot is essential to recovery. Boots and pads, virtually unlimited movement, good hoof hygiene, and a balanced diet all assist in healing.

Chronic frog infection (thrush) can make the horse's heels painful enough to cause the horse to toe walk, and may very well be a common contributing factor. Keeping the frogs healthy is paramount.

In my experience, the younger the horse, the faster the pathology can be corrected. But even older horses can be made much more comfortable, and the deterioration at least stopped, if not reversed.

Four horses diagnosed with navicular syndrome all show heel contraction, with narrow, atrophied frogs. The hoof capsule is elongated, with underrun heels, and the point of heel purchase far forward. The widest part of these hooves is at the toe; a healthy hoof is widest at the middle of the frog. While this is a common hoof shape in navicular cases, other "navicular" horses show none of these pathologies.

THE THOUGHTFUL HORSEMAN

About Maria Siebrand

& The Thoughtful Horseman...

With a background in the life science and pharma industries, and a determination to make life better for our domestic horses, Maria brings a science-based approach to horsekeeping, equine nutrition, and the field of barefoot hoof care. She offers barefoot hoof care services, nutrition consultations and diet formulation, and horsemanship coaching, as well as a line of supplements formulated to fit the typical Southern California equine diet.

Maria is available for clinics, lectures, and mentorships on barefoot hoof care and progressive horsekeeping practices.

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