

A NATURAL THING: Clinician John Lyons hasn't shod his horses in 10 years; other natural horsemanship advocates are also embracing barefootedness. "You don't need shoes just because you ride a horse, and leaving shoes off is ideal for forming a healthier, stronger foot," says Lyons.



IS BAREFOOT BETTER?

A growing contingent of hoof-care experts says yes. Here's what the natural-foot movement could mean for your horse.

THE BAREFOOT OPTION. YOU'VE HEARD OF IT, BUT YOU KNOW IT'S NOT for *your* horse, because (pick one or more):

- it's a fad.
- he has bad feet.
- you ride on rugged ground.
- you show.

You agree that going barefoot is healthy for a hoof, and that pulling a horse's shoes at least once a year to reestablish natural hoof growth is a good thing. But eventually those shoes must go back on, right? Permanent barefootedness is appropriate only for certain horses who already have tough, resilient hooves.

Right?

Four months ago, I'd have agreed with you on all of the above. But now I'm not so sure. By researching this article, I've learned amazing things about how a horse's hoof is designed to function. As a result, I'm beginning to understand why a growing number of natural hoof-care experts say barefoot is *not* just for horses with already-excellent hooves.

In fact, judging by the evidence, the opposite may be true. Going barefoot (as the result of a correct trim and combined with compatible living conditions) may be the way to make bad hooves better, and even excellent. It may also create hooves capable of supporting a horse—with rider—over most types of terrain. And (this is the most intriguing part) it may enhance a horse's overall health, comfort, and longevity.

What I learned, in fact, prompted me to consider the barefoot lifestyle for my own horses, who live and are sometimes ridden on hard, rocky ground.

In this article, I'll explain what I found so compelling. I'll tell how the barefoot movement began, share the thinking of some of its most prominent advocates, and detail what's necessary to make the barefoot option work. I'll also discuss an alternative approach that applies natural-foot principles to a nontraditional shoe.

In short, I'll give you the tools you need to decide if new-age foot care is something you want to pursue for your own horse.

BY JENNIFER FORSBERG MEYER



PHOTOS BY PETE RAMEY

LEFT: Hoof of an off-the-track Thoroughbred before his first natural-foot trim. "This is the 'hopelessly flatfooted' horse people think we've 'bred the foot off of,'" says hoof rehab specialist Pete Ramey. "The apex of the frog is the lowest part of the foot, and the horse was lame even in shoes."

RIGHT: The same foot four months later after "barefoot" trimming and work in a padded boot to stimulate growth. "Now the apex of the frog is buried within a concave, callused sole, and the horse is sound," says Ramey.

AS NATURE INTENDED

The foundation for a natural approach to hoof care was laid 20 years ago primarily by the work of two farriers. Jaime Jackson and Gene Ovniczek independently conducted field research among feral mustangs in the mid-1980s. Each hoped to see what the hooves and habits of horses in the wild might tell us about foot care for the domestic horse.

Both were astonished at the hardiness and resilience of the feet they saw. Without metal shoes to restrict elasticity and contact with the ground, the mustangs' feet remained tough and healthy even traveling at speed over the roughest ground. Lameness was rare, and usually accident-related rather than caused by disease of the hoof itself.

The mustangs' feet were heavily callused across the toe. Ovniczek's research showed that, contrary to popular belief, the hoof wall is not the primary weight-bearing surface. Rather, the load is shared among the sole, bars, frog, and wall.

"Intuitively, it always seemed to make sense that the hoof wall is the weight-bearer," says Ovniczek today. "And that belief kept us stuck in old modes of shoeing."

In the 20 years since the first feral-horse research, interest in natural methods of increasing the hoof health of domestic horses has blossomed around the world. Jackson has gone on to write several books related to the topic (see "To Learn

More," on page 57). He also helped create the American Association of Natural Hoof Care Practitioners, which promotes research and trains/certifies professionals.

Ovniczek, who still supports the ideal of "barefoot where possible," has gone on to develop an innovative shoe that takes the natural functioning of the equine foot into account (see "A More 'Natural' Shoe?" on page 54). He also lectures and provides clinics around the world on what he calls the "natural balance" of the equine foot.

Veterinarians, research centers, and universities are increasingly taking notice of the natural hoof's powers to prevent and in many cases cure diseases like laminitis and navicular. Moreover, word of mouth among horse owners is building demand for more information on natural hoof care and access to practitioners.

Just before I began work on this article, I heard an enthusiastic endorsement of the barefoot trim from my neighbor, who's pleased with the results she's getting with her laminitic gelding. That caused me to wonder: Just how does it all work?

THE UNDERLYING SCIENCE

Robert Bowker, VMD, PhD is a leading researcher in the natural function of the equine foot. A neurobiologist who teaches anatomy at Michigan State University, he became interest-

IF YOU WANT TO TRY BAREFOOT...

- **Find a competent trimmer.** A traditional pasture trim is not the same as a natural trim based on feral horse research. The American Association of Natural Hoof Care Practitioners is a good place to start: www.aanhcp.org. (Note: There are many descriptions of how to do a "barefoot trim" online, but *don't try to do it yourself*.)
- **Trim at frequent intervals.** Work with your practitioner to determine a schedule, but figure on every four to six weeks for

best results in remodeling the foot and avoiding soreness.

- **Ask about boots.** Most practitioners recommend them if you plan to continue riding between the time of the first trim and when your horse's feet have remodeled and developed thick calluses. Some even stock boots for your convenience. Many styles of boots are available online. Hoof rehab specialist Pete Ramey recommends the Easyboot Bare, a new model just out from Easy Care, Inc. (www.easyboot.com)

- **Keep your horse moving.** Round-the-clock turnout is best, supplemented with increasing amounts of riding as his feet toughen up (and with boots as necessary). Remember, movement creates the blood flow that enhances foot health and helps the hoof remodel. Ideally, turn your horse out on the same type of surface you'll be riding him on. Ask your practitioner about putting gravel and small rocks into your horse's enclosure to help condition his feet.

ed in foot function about 10 or 12 years ago, when students asked him about the correct placement of nerve blocks. The anatomy texts he checked were incorrect, so he began examining the equine foot himself.

His research extended from the nerves of the foot to the blood vessels, cartilage, and bones, and more recently to the hooves and their laminae in health and disease. He supplemented his lab work with observations of free-roaming feral horses.

What he found added momentum to the barefoot movement. He discovered that the blood in horses' feet does much more than provide nutrients to hoof tissues. It also enables the unshod foot to function as a hydraulic system, in much

the same way that gel-filled athletic shoes do.

"Moving liquids are the best way to dissipate energy," Bowker said in 1999, when his research was first publicized. "That's why some of the major running shoe manufacturers market products that contain liquids in their soles."

Bowker also discovered, however, that the blood isn't forced out of the foot upon impact, with the digital cushion—the thick pad of elastic fiber at the heel—absorbing most of the concussion, as was previously thought. Rather, as the hoof expands upon landing, it creates a vacuum that sucks blood from beneath the coffin bone into the rear portion of the hoof.



LEFT: Hoof of a Quarter Horse whose rotated coffin bone had penetrated the soles of both feet in 2004. "The farrier and vet both told the owner this horse was unsalvageable," says Ramey, who began caring for the gelding's feet.

RIGHT: The same horse today, after regular "barefoot" trimming. "This horse carried his owner to a speed-event championship buckle in local competition in 2005," says Ramey.

"As the blood moves through microvessels in the hoof cartilage, it dissipates the energy caused by the impact on the ground," he explained at the time. "We need to be trimming hooves so that more of the back part of the foot—including the frog—bears the initial ground impact forces and weight."

The problem, of course, is that traditional metal shoes not

only limit the expansion and contraction of the hoof, they also raise the frog and heel off the ground. Bowker says today that the difference between wearing shoes and going barefoot is like the difference between working in high heels and wearing sneakers.

"Horseshoes provide a much smaller surface area to absorb



Foot of a Quarter Horse showing the concave sole, healthy frog, and beveled hoof wall of a correct "barefoot" trim. This horse was referred to Ramey for thin, flat soles and a rotated coffin bone.

shock," explains the researcher, whose own wife's horse is now happily barefoot. "So if a bare hoof landing after a jump experiences, say, 1,000 pounds of loading per square foot, then with a traditional shoe, there's going to be 2,000 pounds per square foot."

The consequences of this are significant. With their natural function compromised, key hoof structures become weak through lack of use, thus more vulnerable to navicular syndrome and other lamenesses. And, with the shock-absorbing ability of the foot limited, the concussion travels up the horse's leg, stressing bones and joints.

It's this latter phenomenon of how the wearing of shoes affects the rest of the horse's body that initially grabbed the attention of yet another barefoot advocate, farrier Pete Ramey.

BAREFOOT IN ACTION

Now an instructor and clinician for the AANHCP and one of the world's most experienced natural hoof-care practitioners, Ramey first learned about the potential advantages of barefootedness in 1998. Intrigued, he pulled the shoes from his own string of about 20 rental horses and was "blown away" by what he saw.

"These were geriatric geldings, many over 30, averaging 20 miles a day over rocks," he recalls. "Once their feet made the transition, they functioned beautifully over that terrain. But what really got me was how the geldings' endurance increased, and their 'creaks and groans' diminished. I began to have fewer of them on the 'injured reserve list.'"

Ramey points to the findings of Bowker's research to explain what was happening.

"Because the bare foot is such an effective blood pump, the horse's heart doesn't have to work as hard. Endurance riders have known this for a while—it's why many of them use boots instead of shoes: Their horses recover faster."

A MORE 'NATURAL' SHOE

Intrigued by natural-foot theories but not ready to give up shoes? Gene Ovniczek, internationally recognized farrier, clinician, and researcher, has applied what he learned about the hooves of feral horses to his Natural Balance shoe.

"It's a blending of science with Mother Nature, and the horses are telling us we're on the right track," says Ovniczek, whose Equine Digit Support System, Inc., is based in Penrose, Colorado.

His shoe is positioned on the foot to provide support to the coffin bone, which generally means it sits back from the toe a bit. It's built with a wider web, which distributes weight to both the hoof wall and the sole, rather than only the hoof wall as with a traditional shoe. The design and placement of the shoe also allow for an earlier breakover to more closely match the movement of a bare foot.

The preparatory trim for a Natural Balance shoe (similar to a barefoot trim but without the beveled hoof wall) is essential to the shoe's success. "The concept is great," says 2005 Snaffle Bit Futurity champion Ted Robinson, whose horse Nu Circle Of Cash wears Natural Balance shoes on his front feet.



Left: The greater width of Gene Ovniczek's Natural Balance shoe places a horse's weight partly onto the sole, rather than exclusively on the hoof wall as with traditional shoes. This weight-bearing arrangement is closer to that of a bare foot.

Right: The shoe is positioned back from the toe of the foot, enabling the foot to break over sooner than it does with a traditional shoe, and closer to when a properly trimmed bare foot does.

"The greater thickness of the shoe allows dirt to stay compacted in the sole, and dirt-on-dirt provides the best traction," says Robinson. "Of course you need the back feet to slide, so I use sliders in the back."

The trainer, who's been using Natural Balance shoes for three years, says he's had fewer tendon problems in that time. "My biggest problem is with owners," he says with a laugh. "They don't like the

look of the horse's toe hanging over the squared-off toe of the shoe. But the theory makes sense to me—with the quicker breakover, the foot spends less time on the ground, which is easier on the tendons. I'll take soundness over looks any time."

For more information on Ovniczek's shoe and his hoof-care approach, go to www.hopeforsoundness.com.

Then, too, there's that superior cushioning of the bare foot, which spares a horse's joints, ligaments, and other tissues.

"It's like the difference between a steel wheel and a rubber tire," he notes. "People assume it's normal for horses to have joint or back problems as they age, but it may be many of these aches are caused by the increased stresses of wearing shoes."

Ramey strongly disagrees with those who say shoes are necessary because we've "bred the foot off" the modern horse.

"It's just not true. Unless there's a bone pathology, virtually any horse can grow a healthy foot, given time and proper trimming."

Although the exact specifications of that trim are still evolving, most natural-foot practitioners agree that the result should enable the sole, the bars, the frog, and the walls to share the load. Only exfoliating material should be trimmed from the sole and frog, allowing thick calluses to develop over these structures. The outer hoof wall is best beveled to minimize flaring and separation. Sometimes called a "mustang roll," this beveling mimics the wear pattern on feral horses' feet. (*Note:* The experts I spoke with for this article agreed that the Strasser trim, developed by German veterinarian Hiltrud Strasser, is invasive and should be avoided.)

To ease the transition from shod to barefoot, Ramey and other practitioners recommend hoof boots, often helping their clients select and fit them. Because of the increasing demand for boots from owners of barefoot horses, a wealth of styles and models is now appearing on the market.

"Boots provide protection while a horse's hoof is remod-

eling and becoming tougher," says Ramey. "They're the 21st century 'shoe,' protecting a foot as well as the 'old school' metal shoe, only supporting hoof health rather than degrading it. Over time, as the feet develop their natural resilience, the boots are no longer necessary for most riding."

NATURAL FOOT, NATURAL HORSE

Most natural hoof care practitioners agree that a barefoot trim works best on a horse living a more natural lifestyle, including as much turnout as feasible. Ideally, the horse should live on the same type of ground he'll be ridden on. For example, if you ordinarily ride a lot on rough trails, your barefoot horse is best turned out on terrain that includes rocks and hard footing.

"It's something the AANHCP and the barefoot movement in general are working towards now," says Mark Jeldness, a field instructor for the association. "We want to help owners find ways to create the right kind of environment for their horses, and to encourage their horses to move around on it as much as possible."

For owners who can't provide enough turnout, keeping the horse well exercised under saddle during the transition period is critical. Boots make this possible, as well as frequent trims (every four to six weeks) that encourage the foot to remodel properly.

In that this approach to foot care fits within the natural-is-better movement at large, it's not surprising that natural horsemanship clinicians are embracing the no-shoes option more readily than are mainstream trainers. John Lyons hasn't shod his

horses in 10 years, but he believes owners must use common sense when considering what to do with their own horses.

"You don't need shoes just because you ride a horse, and leaving shoes off is ideal for forming a healthier, stronger foot," he maintains. "I put gravel in my pastures where the horses walk to help toughen their feet. But you have to use common sense, too. If I were roping all the time in a sand arena, I'd probably use shoes."

Clinton Anderson quit using traditional shoeing a year and a half ago, and now puts hind shoes only on his reiners. "You do need the shoes in back to be able to slide," he says. "But other than that, with the right trimming, there's no reason to shoe. The feet don't change overnight—I've found it takes anywhere from six months to a year for them to fully make the transition—but when they do, they get hard and strong and tough enough for most any kind of riding."

Of course, not everyone agrees this is so, and there are any number of traditional farriers and longtime horsemen who'll tell you the "barefoot thing" is misguided, plain and simple. But one undeniable strength of the natural hoof care movement is its emphasis on maximizing the health potential of every foot.

"The key difference between traditional farrier care and the barefoot approach is that we're zoomed in on figuring out how to make *all* horses grow good feet," says Ramey. "A vet I work with told me recently he used to look at a horse with bad hooves and say, 'Wow—that horse has awful feet.' Now he says, 'Wow—that horse could have good feet if we do this and this and this.' It's a significant difference."

TO LEARN MORE...

...check these resources.

- www.aanhcp.com
American Association of Hoof Care Practitioners.
- www.hoofrehab.com
Hoof rehabilitation specialist Pete Ramey.
- www.hopeforsoundness.com
Farrier, clinician, and researcher Gene Ovnicsek.
- www.barefoothorse.com
Horse owner and barefoot advocate/student Marjorie Smith.
- www.star-ridge.com
Books, videos, and other resources; includes titles by Jaime Jackson and Pete Ramey.

For my part, I'm impressed enough with the underlying science and the case histories to give barefoot a try. My horses received a natural trim from an AANHCP-certified practitioner last December, and are spending several months turned out in an area with varied terrain. When my daughter and I resume riding, we'll use boots if necessary until their feet are sufficiently remodeled.

At the end of the transition period, the worst-case scenario is that our horses will have much healthier hooves on which to nail shoes. And if they wind up happy without their shoes, even better. ⁿ