Natural Hoof Care:
Paradigm for Equine Hoof Care Excellence

Cindy Sullivan

Natural Hoof Care is not just about a horse without shoes. It is a change in long-standing beliefs about what is proper horse keeping. It is a horse that is given the basic biological requirements for health, long life and soundness. It is a return to the way of the Natural Horse.

Any animal, when kept in a manner that is consistent with its nature will fare far better in the domestic environment that an animal that is kept in ways alien to its physiology. Zoos around the world have come to realize that fact and have moved from the concrete floors and barred cages of the past to natural habitats. Zoo animals of all species now flourish in captivity where once they languished. Even animals that have been domesticated for thousands of years have innate, species-specific, requirements for health. To improve quality of life for domestic horses, it makes sense to look to their wild-living brethren for answers as to what their species requires, according to their nature, for health and soundness.

Some would argue that the domestic horse is genetically different from the wild horse. That is simply not possible. There has not been enough time – geologically/evolutionary – to have produced a separate branch of the equine species. Equus caballus is the Latin term for the modern horse … ALL modern horses are equus caballus – wild horses and domestic horses – same species. As recently as the Great Depression of the 20th century – a mere 60 years ago - thousands of domestic horses were turned loose by people who could no longer afford to keep them. These animals mixed with the wild herds and today's wild horse (technically feral) is a genetic blend of many modern breeds. It is important to realize that the horse living in the Ice Age, the present day feral horse and modern high-performance breeds are all anatomically, physiologically and psychologically the same. They all have the same biological requirements for health and survival.

THE MODEL FOR NATURAL HOOF CARE :
The wild and free-roaming horses of North America.

FIGURE 1

This feral stallion was observed moving effortlessly in extremely rugged terrain.

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Pioneering Wild Horse Studies:

In recent decades, researchers have studied wild horses seeking to understand the hardiness of wild Equus and how that information can be applied to improve the quality of life of their domestic counterparts. Of particular interest is the tough, durable and virtually lameness-free wild foot. How is it that wild equids can roam for miles each day over very rugged terrain and still have stronger, healthier feet *without shoes* than shod domestic equids under the doting care of humans?

This question intrigued long-time farrier, Jaime Jackson, who observed and studied wild horses in the American West over a period of several years. He discovered that the largest single factor in the production of sound

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healthy wild hooves is environment. He noticed that wild, free-roaming horses travel an average of 15-20 miles per day over rocky, abrasive terrain. This harsh environment produces a foot that is shaped very differently from what is conventionally accepted as "normal" in the domestic horse world. The continuous intimate ground contact of wild bare hooves provides stimulation to the hoof structures allowing them to grow and adapt to virtually any terrain the horse needed to travel upon, something that is not possible to reproduce with shoes. Jackson was convinced that these revelations could be applied to domestic horses. He has adapted the natural hoof shape and environmental factors seen in the wild to the domestic horse and has had phenomenal success with improved hoof form and quality, lameness rehabilitation, and improved performance and overall health in the horses he has served.

In reality, what Jackson advocates is not new at all. It is a return to a very old understanding of the horse and working in harmony with its nature. While Jackson is known primarily by his pioneering work in returning to a natural foot, he is but one individual in a much larger (and growing) movement back to natural horsemanship.

Gene Ovnicek:[i]

"Deep concerns confront many of the people involved in the equine industry. Especially those individuals who are devoted to treating and maintaining soundness and functionality of the equine limb. Veterinarians and farriers alike feel that many times unreasonable demands are placed on them to compromise functional hoof shape and stance by allowing unnatural leverage forces on the lower limb. This criteria is often encouraged by owners, trainers, etc. to produce movements, perform activities or acquire a stance specified by individual breed groups, either for performance or halter classes. Seasoned veterans know well that in time, hoof distortion can occur and eventual acute and chronic lameness can follow.

Owners and trainers within various breed groups, with the best intentions in mind, often dictate hoof length, angle measurements, shoe types and shoe weights to hoof care practitioners, with limited knowledge of long-term side effects. Our experiences with domestic horses (along with the many graphs, gauges and tools) have centered our focus on the external appearance of the hoof capsule. Reliance on these tools for hoof balance have often altered our understanding of the horse's "Natural Equation for Balance."

Looking at this dilemma through the eyes of 35 years' experience and feeling responsible in part for my contribution to the problem, compassion and frustration caused me to look elsewhere for information. Knowing that horses exist very well on their own, in their natural environment with no assistance from humans, suggested a possible source of truth and answers. I made a few inquiries about my interest and eventually was able to study wild horses' feet closely during a two-year research project in 1986 and 1987."

With accelerating and constantly emerging research from others who have and continue to examine evidence from horses living in the wild, data continues to mount confirming Jackson's assertion that the feral and free-roaming horse is virtually lameness-free and presents a wealth of information to unlock information that can be applied to improving life for their domestic counterparts. The common thread among various theories that have surfaced from wild horse research is that horses living is accordance with their nature are healthy, sound, and able to traverse with ease, terrain through which you and I would hesitate to even lead our domestic horses.

INTERPRETING THE MODEL IN THE FIELD

With an eye to what occurs in nature, it is with relative ease that the trained practitioner can determine what needs to be done to begin the process of guiding the domestic horse toward natural soundness. However, how the hoof is trimmed is only one element of the picture. Interpreting the model for application to our domestic horses requires understanding and applying lifestyle needs in addition to hoof care application method(s). Sound horses are not just a result of how their hooves are trimmed. Lifestyle is actually the most important and overriding factor. Natural Hoof Care Practitioners have learned that restoring a horse to health and soundness requires an approach that addresses the cause and a trust in the power of the horse to heal itself, given the chance. Practitioners engage in discussion and educational efforts with each and every horse owner to assist them in understanding and implementing more natural horse keeping practices.

The basics of what horses need for health and soundness rests on interpretation of the lifestyle of horses living in the wild. Some of the core elements are:

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- Horses in the wild move an estimated 20 +/- miles per day in their search for food and water. For domestic horses, that means turn out twenty four hours a day, seven days a week.
- Horses in the wild eat a vast variety of vegetation as they travel. For domestic horses, that means we must provide a varied diet, particularly varied types of forage.
- Horses in the wild must move to find enough nutritional variety as vegetation is generally sparse in any given area. For domestic horses, that means lush green pastures with a monoculture of improved grass where horses can fill their bellies while only moving a few steps is unnatural and potentially dangerous (laminitis).
- Horses in the wild move over varied terrain all day, every day and their bare feet constantly adapt, becoming tough and durable the more they move. For domestic horses, this means that with attention to lifestyle and conditioning, they can become hardy, agile and sound without shoes.

Figure 2
Feral barrier island horses – U.S. East Coast

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THE VITAL IMPORTANCE OF HOLISTIC HORSE KEEPING

Feral horses forge their tough, durable, efficient hooves through diet and a nomadic lifestyle over varied terrain. No one "trims" their feet except nature. Recognizing these additional elements requires that natural hoof care practitioners become holistic in their approach to hoof care if the domestic horses they serve are to recover the hooves nature intended.

A lifestyle comparison between horses living in the wild and horses living in the typical domestic boarding facility provides a view of stark contrast between what is natural and what is commonly considered by horse owners to be in the best interest of the domestic horse.

CONVENTIONAL BOARDING (stalled)	NATURAL ENVIRONMENT (free ranging)
Abrupt temperature changes: Exiting and entering the barn Blankets or rugs on and off	Constant exposure to natural climate: Gradual changes in temperature through exposure to the elements
Infrequent movement, and movement is often unnatural	Constant natural movement in search of food
Lack of Psychological stimulation: No herd life - isolation Unnatural environment in a stall	Psychological stimulation: Company of other horses Natural environment in the open
Insufficient nutritional variety: Extruded/processed feed Hay from same fields year after year Groomed pasture with single variety of grass Fed "meals"	Nutritional variety: Hundreds of plant species to choose from, over miles of terrain traveled. Horse chooses what to eat and when
Unnatural body posture: Feeding in elevated bucket or bin Drinking in elevated bucket Ridden with unnatural carriage (head high, over-collected)	Natural body posture: Feeding and drinking with head lowered Movement at all gaits with natural carriage (head low, body relaxed)
Efforts taken to keep hooves dry. "Painted" with artificial moisturizing agents.	Hooves exposed to the elements allowing natural moisture exchange according to climate and use.
Resting place in small enclosed areas: Closed stalls (forced confinement with ammonia vapors and fecal pathogens)	Resting place in open areas: Fresh air, clean earth
Hooves lack intimate & direct ground contact (shod)	Hooves have direct contact with the ground (unshod)
Lives on uniform, (usually soft) terrain	Lives on varied terrain

Clearly, in the care of humans, the horse has been subjected to the exact opposite of what nature has deemed necessary for health and survival. You would think that with such a long history together, humans would know so much about the horse and its needs that it would have a healthier and longer life in man's care than in the wild. Sadly, the modern domestic horse has an average ***useful*** lifespan that is often far less than that of his wild-living cousins simply because the lives of many are cut short in their prime by intractable and incurable lameness,

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behavioral issues, and other conditions rarely observed in the wild. You would think that this stark reality would be alarming enough to cause people to look at management practices that so drastically reduce a horse's lifespan, but most of us resist admitting *we* are the cause. The mistakes of conventional horse keeping beliefs are so longstanding that most people don't even realize there is a problem. We systematically treat the horse in a manner completely inconsistent with their biological and psychological needs.

In the pursuit of holistic horse keeping, there is "ideal" and there is "real" It is not always possible, in domesticity, to provide an environment that mirrors what horses experience in the wild. There are constraints in the domestic environment over which many horse owners have little control, such as; limited space to roam, limited variety of food coupled with minimal opportunity for the horse to choose his own diet. Also, we ride them – the most unnatural activity of all. Everything about our relationship with the horse is unnatural; the partnership between predator (us) and prey (the horse) is unheard of in nature! But the core fact remains; the more elements we can incorporate to keep horses according to their nature, the less the impact from unnatural activity. Our job is to apply ourselves diligently to the study of wild and feral equines and, to the best of our ability, apply what we learn to the care of our domestic horses. We owe them at least that much.

ELEMENTS OF THE NATURAL TRIM

The hoof is a remarkable example of engineering excellence. It is capable of carrying the horse over even the most rugged of terrain with ease. It is naturally highly adaptable to whatever environment the horse is in….except the extreme unnatural environment of stall confinement.

THE NATURAL FOOT

Perhaps what startles researchers the most when observing feral horses was their hooves. Short toes, low heels, thick rolled walls, tough leathery frogs seemed quite alien to professionals used to seeing the hooves of domestic horses living in confinement.

- Short toe – 3.25" or (usually) less
- Low heel – bulbs flattened and engaged
- Frog – the consistency of rawhide and engaged
- Walls – thick, smooth from coronet to ground, distinctive "mustang roll" along the bearing surface
- Consistent angle of growth from coronet to ground
- Well developed solar "dome"
- Secure footing on all terrain
- Natural shock absorption
- Hoof mechanism optimizes peripheral circulation

FIGURE 3

Preserved feral hoof from the collection of Jaime Jackson

FIGURE 4

Preserved feral hoof from the collection of Jaime Jackson

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FIGURE 5

Preserved feral hoof from the collection of Pete Ramey

FIGURE 6

Preserved feral hoof from the collection of Pete Ramey

The Natural Trim requires understanding all the forces at work in the horse's natural environment and how they impact hoof health. Every element is a factor, either primary or secondary, working in harmony to produce the tough, durable hooves of the feral model and must be taken into consideration if the goal is to move the horse in the direction of developing (or recovering) healthy, hardy hooves it would forge on its own if it could. Diet carries a great deal of weight in this evaluation process because what the horse eats is intimately tied to hoof health. Horses removed from the wild and fed common domestic fare quickly show alterations in hoof integrity. Domestic horses fed more naturally exhibit improved hoof health and resistance to common hoof pathology. Research has shown that an unnatural and overabundant diet, and the resulting gastrointestinal disruption, is a key factor in laminitis. What goes in the mouth, will show up in the feet – good or bad

Successful natural hoof care requires that the practitioner develop the ability to "read the hoof" or to "listen to the horse" in order to determine what and how to trim on any given day. Foremost is the understanding that everything must be considered in the context of "this moment in time for this individual." Diet, lifestyle, age, health, intended use, even season and climate must all be taken into consideration. Qualified practitioners have the ability to assess where the horse is now (and why) then determine a plan to assist the horse back to hoof health. Trimming of the hoof requires an understanding of natural hoof form which then allows the practitioner to evaluate specific

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information in the hoof. This, in turn, shows the trimmer where and how to trim according to the specific needs of the individual at that moment in time. Hooves cannot be trimmed to mimic those of the wild horse; they must be "enabled." The short capsule and thick walls exhibited by feral horses cannot be cut into place; they must be allowed to develop over time though the natural lifestyle of the horse. What trimming is done is not to "create" a hoof, rather to simulate natural wear that would occur if the domestic horse were able to live as do his wild counterparts.

HOOF BOOTS – A BRIDGE FOR HOOVES IN TRANSITION

One of the most difficult hurdles for owners and professionals alike to overcome in the arena of hoof care is the belief that the hooves of domestic horses need protection and support in order to withstand the rigors of domestic use. This belief creates fear and the expectation of irreversibly damaging the hooves and thus the horse unless the horse is shod. Certainly horses living in unnatural environments, eating unnatural diets and ridden to degrees that push the limits of the body will need protection, as will some horses recovering from pathology, and some horses just coming out of shoes. However, shoes do not support the horse, the hoof supports the horse and a healthy hoof is all the support and protection the horse needs.

Natural Hoof Care Practitioners are not against protecting hooves of those horses that need it. Because of our understanding of how nature forges the perfect foot, through time and use, we are keenly aware that many horses will need some form of hoof protection during the transition period from shod to barefoot. Additionally, some horses will always need boots from time to time, especially when being ridden at infrequent intervals on terrain more rugged than that in which they live. Hooves can withstand the challenges of virtually any terrain, but they must be conditioned. Much like you taking your shoes off after a long winter in boots and trying walk over rocky ground barefoot, the horse would struggle, as you would, until over time and regular exposure to the rocks produces callous than enables the horse (and you) to eventually run across the them with ease. Hoof boots provide needed protection in the interim with the added benefit of allowing the hoof to function normally, free of the constraints of rigid metal shoes, and can be removed and the end of the ride with no farrier needed and no residual nail holes!

Hoof boots are not new to the equestrian market. They have been around for many years and used as a "spare tire" for horses that throw a shoe on a long ride and no farrier is accessible. The gold standard for hoof boots for the past 30 years has been the Easy Boot by Easy Care Inc. Virtually everyone who has been involved with horses for any length of time, knows about Easy Boots - nothing new there. What is new is the surge of new hoof boot designs specifically developed to address the needs of the barefoot horse. The growing consumer demand for better boots, particularly for high performance barefoot horses, has been heard by boot manufacturers worldwide. Its not surprising that Easy Care, Inc., long the leader in the hoof boot market, has answered the call. Easy Care's president, Garrett Ford, an avid endurance rider, has taken an interest in the needs of the barefoot horse. Easy Care has produced two new boot designs specifically developed with the barefoot performance horse in mind; the BOA Horse Boots and the Easy Care Epic.

Boots continue to be developed and improved as more input from the field is received. They are the perfect bridge to barefootedness, both for the horse and for the nervous owner. Hoof care professionals can confidently remove shoes and put the horse quickly back to work with boots, Veterinarians can opt for the noninvasive boot for transition period support and protection during lameness rehabilitation.

VETERINARIANS AND NATURAL HOOF CARE PRACTITIONERS - WORKING TOGETHER

"To a true scientist….finding proof that ones theories are wrong is just as exciting as if they were right. Scientific advance in either direction is still scientific advance." – author unknown

The "Barefoot Movement" is growing worldwide. Increasing numbers of horses are being helped and healed all over the world, not by highly credentialed equine professionals, rather by self-educated horse owners who hold fast to a belief in the healing power of nature. They understand the basics of horse physiology, hoof form and function through reading published works and attending various clinics. Certainly – even with all that self study - they have far less training than a veterinary intern, let alone a fully degreed veterinarian with years of professional practice under his, or her belt. Yet these owners are succeeding where the professionals fail. How is it that a backyard horse owner, having read a few books, attended a few clinics, and chatted online with other horse owners, can recover their chronically foundered horse when years of professional attention and thousands of dollars in professional treatment has failed? I submit it is because they possess an understanding of the feral model and an unwavering belief that if the horse is given back to its "nature" it can heal itself. The unsettling aspect of all that is that overwhelmingly, owners find themselves at odds with the directives of their attending veterinarians who should be the leading advocates for returning the horse as closely to his nature as possible. One would think it would be a

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standard of care. Yet, conventional wisdom dictates that we continually do things "to" the horse to "fix" the problems rather than step back to assess and then to remove the cause. In many cases, the cause is years of unnatural living and its associated stress. Adopting a holistic approach requires us to admit that much of what we have done to the horses in our care has been harmful.

Professional hoof care practitioners often find themselves in a difficult situation when called in to assist in the care of a lame horse. Frequently, what the attending veterinarian prescribes and what we would suggest are at odds. It strains us to walk the fine line between educating the owner and crossing over into practicing veterinary medicine. We are all keenly aware of that line and struggle to help while respecting professional boundaries. We need the support and alliance of veterinarians. Who better to help hundreds of horses per practice and spread the word about natural health and soundness than veterinarians? Unfortunately, most equine practitioners have not been educated in holistic approaches to horse and hoof treatment and the effect of many commonly prescribed treatments to the ailing hoof; pharmaceutical, surgical, orthopedic shoeing, convalescence and even common diet recommendations disrupt not only the natural hoof function, but interfere with the natural process of adaptation and healing. The goal of practitioners is to forge relationships with veterinarians and foster open discussion, enter into joint research, and work united toward the betterment of all domestic equids.

As prey animals, equids evolved to roam continuously in search of food and water. They are hardy and strong, fast and surefooted. They have adapted to all types of terrain and climates, from the rugged, cold mountains in Iceland, to the dry hot savannahs in Africa. Nature has equipped all members of "Tribe Equus" with everything they need to survive and thrive. Living examples can be still seen in the wild around the world. Living examples can also be seen in a growing number of domestic horses returned to natural living by their owners. Returning a horse to a more natural state of health and soundness does not mean turning him loose on the range to join a wild herd. It does, however, require committed and educated effort on the part of the owner, veterinarian and hoof care practitioner.

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Resources:

American Association of Natural Hoof Care Practitioners (AANHCP) - www.aanhcp.org
Easy Care Inc. - www.easycareinc.com
Star Ridge Publishing - www.star-ridge.com

[i] Gene Ovnicek, Wild Horse Study, http://www.hopeforsoundness.com/research/whstudy/whstudy.html

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