

# NATURAL HOOF PRINTS

October/November '96

Volume 1, Issue 1



SERVICING  
THE  
NEEDS OF THE

## THE FOUR W's

### Who, What, When & Why

**W**elcome to the first edition of the Equine Digit Support System, Inc. Newsletter. "NATURAL HOOF PRINTS" is our way of keeping in touch with our customers and hopefully much more of the equine industry. Our mission at EDSS, Inc is as follows:

.....  
■ *To provide Equine Professionals and*  
■ *Horsemen with information and*  
■ *products designed to promote*  
■ *soundness through Natural Guidelines*  
■ *for Hoof Balance.*  
.....

We strongly believe in, and strive to meet, this overall goal. We are constantly looking for better ways to approach lower leg pathologies, and trying to make products that are easy to use, yet as effective as possible. The other aspect of our mission is partially accomplished through this Newsletter. Information is just as important, if not more important, than the product itself. The more information available to everyone, the better chance we have of successfully treating or curing the pathologies that plague our horses.

The format and subjects that will be covered in this publication consist of various articles and editorials from Gene Ovnicek and myself. We will cover new techniques that we have found to be beneficial in using our products, as well as other tools. Gene will continually print his findings from ongoing studies on *servicing the needs of the equine foot*. We

will keep you up to date on any new products we may available. In addition to our own articles, we will print many letters from customers or other interested persons, dealing with their successes, failures or other findings. There are a number of colleagues that have been very closely involved and have worked very hard in conjunction with EDSS, Inc. that will from time to time publish some of their own findings or insights. Finally, we will personally address many questions that are frequently posed. This format will allow many more people who have the same questions to get help. This publication will come out bi-monthly (6 per year), unless we have enough constant information to make it a monthly newsletter.

For those of you who do not know me, I am Cody Ovnicek, Gene Ovnicek's son, and run most of the business tasks at EDSS, Inc. I am not a farrier and Gene is not a businessman, but we still possess the same goal, to help our horses. Working together and utilizing each other's strengths and recognizing our own weaknesses. Our collaboration helps us accomplish more than we would working by ourselves. This working together, or synergy, has given us the opportunity to grow and learn. We feel that this relationship is very important to realizing our goals. By getting as many people involved and sharing strengths and insights, we can continue to

### Table of Contents

THE FOUR W's - Editorial (CO)	1
SOLUTION FOR SOFT SOLE TISSUE - Treatment Suggestion (GO)	2
LEARNING FROM LISTENING - Editorial (CO)	3
TIDBITS - Newsletter Side Notes	3
THE NATURAL BALANCE SHOE - New Product	4 - 5
THE INFORMATION SUPERHIGHWAY - Tech Beat (CO)	5
UNSOLVED MYSTERIES OF HOOF PREPARATION - Discussion	6 - 7
RELEASING INTERNAL PRESSURE - Treatment Suggestion (GO)	7 - 8

# SOLUTION FOR SOFT SOLE TISSUE

Dear Friends,

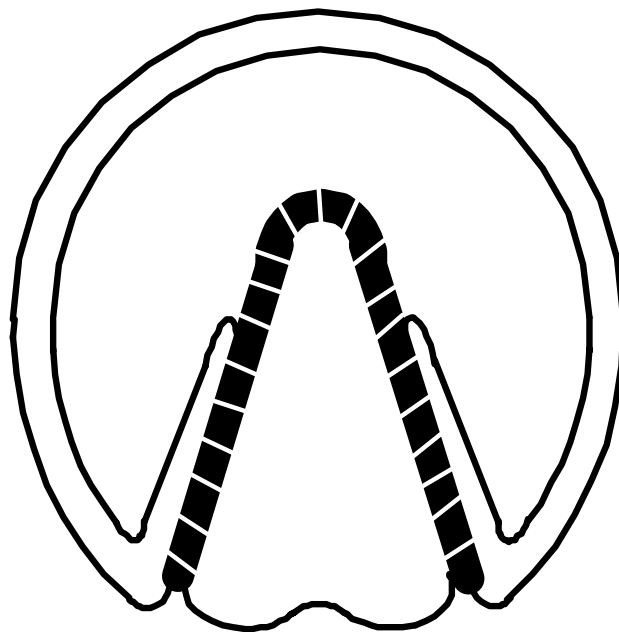
**W**elcome to the network of individuals working toward a higher level of soundness for horses through natural principles and guidelines. One purpose of this newsletter is to update information on treatment of lameness from feedback provided by hoof care practitioners (farriers and veterinarians). Horse owners are also encouraged to respond with case histories and results from treatment, whether they be deemed successful or otherwise. All information is important for education. Many factors such as diagnosis, prior & current treatments, hoof preparation, shoe placement, adjustments, other shoeing methods, medications and aftercare are all important aspects of the treatment process and need to be openly discussed.

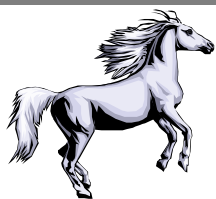
Since this is our first newsletter, we already see a need for an update on some procedures when using the impression material. As you know, those who have used the Equine Digit Support System know the importance of the impression material for support of P3 and to stimulate circulation. We have found some occasions when impression material is used consecutively for 3 or more times over a period of 4 months, that sole thickness improves, heels expand and frogs develop very well. There is some concern that the moist condition, constantly present under the pad, does not allow the sole surface deep in the commissures of the frog to become firm and hard, as it would if dirt were compacted in those areas. It also needs to be considered that the sharp edge of a much harder or very firm impression material may be somewhat uncomfortable for horses in the healing process. I have found that the softer impression material we now use services the support needs very well and eliminates the likelihood of irritation. To take one more step forward, we have looked at dealing with the moisture condition under the pad. Generally I am not concerned unless there is extreme pain response with hoof testers in the area of the Navicular bursa, behind the middle of the frog on the sole. We are always looking for a better method of firming up the sole in the caudal region of the foot while it's covered by a pad without encouraging contraction or poor frog development. So far we have found that a very tightly rolled piece of Oqume, about the size of a thin pencil, is very effective when placed around the frog deep in the frog commissures. This will provide a wick or sponge for a



solution of Sole Pack hoof packing material mixed with a very heavy solution of sugar dine (Badodine and sugar mix). This will make a heavy syrup that can be used sparingly to the Oqume strip. Next the sole impression material is applied, as instructed in the instruction tape and booklet.

As mentioned earlier, we are always interested to hear from other farriers, veterinarians and horse owners. This particular procedure was contributed for the most part by Mark Plumlee of Walla Walla, Washington. Mark has been involved pretty extensively with EDSS for quite some time and is consistently helping to advance the understanding of the information Mother Nature is making available to us. Again, we encourage everyone to work together to tackle these lameness problems.





## LEARNING FROM LISTENING

The study of the wild horses done by Gene Ovnicek in 1986 and 1987 provided us the opportunity to find some answers, formulate some viewpoints and gather some guidelines. The discoveries made from those studies gave us the opportunity to view things from a different perspective. One of the most helpful lessons or concepts that emerged was allowing the horse to guide us in providing him care. Through natural occurrences, we learned that the horse can maintain its health and provide itself with the services it needs to stay sound. Through years of experience and observation, we have been able to recognize where our domestic horses do not have the opportunity to maintain themselves and stay totally sound. This is how the need for farriers and veterinarians evolved. Adaptation illustrates to us that necessity is the mother of invention; hence, when a need arises, a solution must follow in order to survive. When horses began to be domesticated and we changed the environment they lived and worked in, the need for people to keep these animals sound and in working order was not far behind. Through adaptation and the need for sound horses, the service became more and more important. The environments horses were kept in changed as well as the tasks they were asked to do. Better techniques and more tools were invented to meet these needs. After years and years of discovering needs and trying to meet them, we have found many tools that work, as well as many that don't. Many techniques or products seem like acceptable tools at the time. Perhaps when a tool doesn't work it is not the fault of the tool, but the way it was applied. Possibly the application would be more beneficial had the product been more properly designed. Maybe hoof care failure is not the error of the product maker or of the service provider. Perhaps failures are due to the misinterpretation of the information, or failing to notice some aspect of the

approach taken.

Because much of the basis of our work at EDSS, Inc. has been derived from the wild horses (and then applied to domestic horses), many feel that we are trying to compare apples to oranges. Does this suggest that a domestic horse is a different animal than a wild horse? On the contrary, we are talking about the same animal; however, the inconsistent variable is the environment. I'm not talking about the climactic environment, such as wet vs. dry. I'm talking about the *natural environment* vs. the *domestic environment*. Main differences between these environments are apparent, such as room to move and be active, diet and exercise, activities asked to perform, and seasonal adaptation. The wild horse can move when it wants to move, and eat when and what it needs to eat. If the ground is constantly moist, the hard-packed dirt and calluses will soften up and break out. If the ground is rough and rocky, the soul will become hard callused and able to withstand the rigid ground. The domestic horse tends to be more restricted with its movement, perhaps stalled much of the time and only exercised for an hour a day. It eats when and what it is fed, and is often thrown from one environment of hard, rocky pasture to a soft, freshly bedded stall, on a daily basis. With so much irregularity and inability for self-maintenance, the need for outside services is much greater. We are not suggesting that everyone let their horses roam free all day, every day and let them fend for themselves. We are simply trying to use the working model of the wild horse to help recognize the needs of our horses and possibly integrate those needs into guidelines used in caring for them. The need for new approaches is apparent in the fact

that there are large numbers of unsound and unstable horses throughout the country and throughout the world. Perhaps we aren't too far off track. Perhaps we just need to listen more closely to the horse and to Mother Nature. After all, they should have some sense of what's best for them.

### TIDBITS

We cannot stress enough the importance of active participation by everyone with this newsletter. The more information we receive, the more information we have to share with everyone else. If there is any one topic or section you would like to see added or expanded on, please let us know.

Some of the article in this issue are already in the process of being expanded on, like the ones covered in the "Discussion Forum." If you like what you see in this publication, and would like more copies or would like to have us send a copy to another interested party, just let us know. We would like to reach as many people as possible, and with your help, we can increase our audience by ten fold. I would also like to encourage anyone who has the means, to visit our site and the bulletin boards on the Internet, at HORSESHOES.COM. The discussions that go on there are very helpful. Also, we can always be reached at our e-mail address: [edss@digisys.net](mailto:edss@digisys.net)

Please take the time to read these articles and let us know what you think. Keep in mind that: Together Everyone Achieves More. (TEAM)

NEW PRODUCT



## THE NATURAL BALANCE SHOE

**I**n the last few years of using the Equine Digit Support System, we have found that many pathologies can frequently be avoided if we can provide the horse with hoof preparation based on some natural guidelines. At the same time, we have not forgotten the simple fact of life that domestic horses are often asked to perform many tasks that require protection and support. Although we like to see horses have the opportunity to run barefooted, we cannot ignore the fact that we need to service the needs of that horse; often that means applying shoes. In an effort to service that need and yet still maintain the balance of the natural hoof, we have made available a new product called the Natural Balance Shoe (NBS). The Natural Balance Shoe addresses the biomechanical needs of the equine foot for support and protection in a domestic environment. This shoe offers the horse the most natural foundation for optimal performance with minimal stress. The Natural Balance Shoe is a wide web, rolled toe-designed shoe, which offers maximum support to the hoof. The rolled toe allows the horse to break over quicker and easier, which helps mimic the rocker seen in the wild horses and in the



“Natural Trim.” The toe area on the foot side is seated out to minimize sole pressure and add a little more protection to the area covering the tip of P3. The toe portion of the shoe is reinforced and offers more mass, which supplies more material for longer wear. There is no wear plate in the shoe; therefore, the toe can wear back as the foot grows longer. This allows the foot to stay in “Natural Balance” for a longer time through the

reset period. The steep shoulders of the shoe between the heels help to hold a ground material in this region, which offers caudal support for the frog and digital cushion. The Natural Balance Shoe is made of a forged alloy aluminum that has been heat-treated. Because it has already been heat-treated, we recommend that you do not heat the shoe to shape it. Since the shoes are aluminum, however, shaping them cold is rather easy (that is, if they need to be altered at

all). This particular combination of heat treated aluminum allows for light, yet durable construction, leading to optimal performance. The patented NBS design, along with a few suggested hoof preparation guidelines, will help eliminate hoof capsule distortions as well, which means displacement of P3 within the hoof capsule is less likely to occur. However, due to the design of the Natural Balance Shoes, when preparation guidelines are not followed, NBS use will not cause hoof distortions.

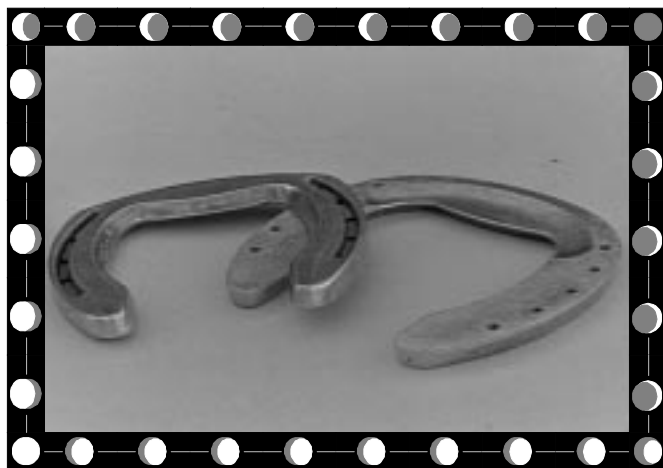
The Natural Balance Shoes have generally been used for hunters, jumpers, dressage, eventing horses, and English & Western pleasure horses.

## THE NATURAL BALANCE SHOE

Very positive feedback is also being reported from reining and cutting horse riders and trainers. People participating in gaming and speed events have given only reports of faster times and improved agility. This does not limit the use of these shoes in any way. We feel that the properties of the NBS and the accompanying guidelines can be beneficial in most circumstances. We have had tremendous results with the use of this tool, and in some cases have used it to treat horses with minor or nagging type lameness.

For the time being, the Natural Balance Shoe is available in Small, Medium and Large. The Smalls are comparatively a '00' to a small '0', Mediums are a large '0' to a '1', and Large are a large '1' to a '2'. There is a possibility of adding more sizes in the future, but for now we have been able to use the current sizes on a variety of feet.

We hope that those of you who try the Natural Balance Shoe will be pleased with your results. We are always encouraged and thankful for feedback on any of our products or procedures. Currently these shoes are available directly from us; however, we are continually looking for suppliers to carry these shoes. We are compiling a list of suppliers that currently carry them, and are encouraging anyone who uses these shoes to suggest to their suppliers that they become an NBS carrier. This will help make the NBS more accessible. If you would like to find out if one of your local suppliers carries the NBS or would like for us to contact a particular supplier, please let us know by calling, faxing or E-mailing our office.



## THE INFORMATION SUPERHIGHWAY

Throughout this newsletter we have emphasized the importance of information. Not just our own findings, but the collaboration of everyone's findings, questions and theories. Even with the help of monthly magazines, newsletters and advertising, the spread of this information can still be relatively slow. As technology and the amount of information grows, there is one tool that can probably move more information, to a broader audience, in a shorter period of time. This tool is the Internet or World Wide Web. For those of you not familiar with the WWW or the Internet, it is basically a 24 hour a day library that contains practically any sort of product, service or information you could probably imagine. Not to mention, this information is continually updated, some instances as many as 1000 times a day. Not only can you get published information, but you can also interact with other people, professionals and experts on practically any topic. For instance, you can pose a question about Ring Bone in one of the "horseshoes.com" bulletin boards, and in a number of hours or days, you could get several responses from farriers, vets or some other interested reader. Pages or sites on the WWW, like "horseshoes.com" are simply locations (kind of like file folders) that hold information, advertisements and bulletin boards (interactive question and answer sites). The largest equine site on the WWW is "horseshoes.com", which EDSS, Inc. will soon be a part of. Along with the Internet is the equally useful E-mail system. This is simply a fast way to send messages or ask questions quickly and easily. Most of these benefits are relatively inexpensive, a little frustrating at first perhaps, but the benefits are numerous and the options will continue to blossom.

our e-mail address is:  
**edss@digisys.net**



• • • • •  
*Discussion Forum*  
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## UNSOLVED MYSTERIES OF HOOF PREPARATION

**T**he debate and discussions regarding 4-point, natural balance and traditional hoof preparation may provide a great opportunity for many farriers to answer questions about critical issues on servicing the needs of the equine digit. The horse's foot still has many mysteries that need clarity with simplicity. Conflicting opinions on issues of hoof maintenance merely imply that concerned individuals see a need to grow with the changing demands placed on the animals we serve. In our search for answers, we have always looked at the hoof wall as though it should support the weight of the animal. Many questions are asked: Should the sole touch the ground? Should the frog make contact with the ground? Should the horse walk only on the hoof wall? These questions have been supported and refuted for decades, and even more questions are being asked by farriers who are dedicated to their trade and want solid answers. Farriers routinely see the quarters being broken out on barefooted horses, as well as an extra buildup of frog at the frog buttress and apex, and wonder why this is? Why does the sole change rapidly when the weather changes? Why is the toe of a front shoe always worn more than the rest of the shoe and more rapidly represent a somewhat square and rolled toe configuration? Why does the hoof wall flare when it is allowed to grow beyond the level of the sole? All of these questions are very important and need to be addressed when trying to understand and thus service the needs of the domestic equine digit.

We know that a major part of horses' survival depends on their soundness. For centuries, the self-serving need for hoof care of feral horses and mustangs are met by their environment and lifestyle. The mysteries of the equine digit are often centered around the domestic horse and their feet. I believe the domestic horse can be studied and guidelines concerning maintenance and balance can be of value if we first look closely at the life cycle of the equine digit of the wild horses. The domestic equine foot is constantly trying to seek its most optimal form for function, as does the foot of the wild horse. Major barriers that limit the efficiency of the natural form

and function for domestic horses are the restricted areas in which they live. Temperature, moisture and a suitable abrasive ground surface are key factors for maintenance. It's a fact that if horses had a choice as to where they would live, it wouldn't be a box stall. Generally they would be roaming over a vast area of high plains desert. This has been the case since the horses evolved from a three-toed animal. Therefore, their environment and lifestyle as a roaming animal plays a major role in the maintenance and development of their feet for survival. Domestic horses have the same physical makeup as feral horses, so the needs for maintenance, development and survival are the same. All animals walk on the same digits. They are all provided with a means to protect the bone surface that is closest to the ground. That protection comes by way of a cushion or a semi-elastic horn material, which responds to the demands place on it very much like calluses we produce on our own feet when we go barefoot. A more solid horn material, which is attached to the skin, surrounds the end of the digit to protect the bone and sensitive structures inside. Cows, horses, goats, cats and dogs all function much the same. Humans, for that matter, follow the same basic anatomy and physiology as well. From recent studies conducted on wild horses' feet come the same conclusion that the sole surface of the foot offers support and protection to the equine digit. These studies indicate that horses do not walk entirely on the hoof wall. In fact, the findings show that those horses who live in the most abrasive environments exhibit little to no hoof wall extending beyond the callused sole surface. Further findings show that feral horses that range in a soft sand environment have a small amount of hoof wall extending beyond a less callused sole surface. In all examples of wild horse hooves examined, the hoof ahead of the sole surface bared no weight and the sole at the toe was consistently seen bearing the weight of the bone column and was always protected by a well-callused ground surface. Another factor that is rarely considered and offers a vehicle for support and cushion to the digit, is the dirt that is packed in the bottom of the foot. The fact is that the equine foot, domestic or feral, is designed so it will accumulate and hold dirt deep in the commissures of the frog between the bars. This compaction of dirt will vary some as the environment differs for each individual. It's like a self-regulating cushion support system, custom fitted for each foot. The frog plays a major role in supplying the means to regulate the amount of dirt accumulated in the caudal portion of the foot. We notice with domestic horses as well as feral horses that the ground surface of the frog pad becomes callused and flattens some from

## UNSOLVED MYSTIES OF HOOF PREPARATION

use, which forms a lip that helps hold the tightly packed dirt deep in the commissures of the frog. There is an enlarged portion of the frog at the buttress which is always present and is generally callused in domestic and feral horses. The frog apex is also frequently left intact and callused when the central portion of the frog pad may be exfoliated. The enlarged, callused buttress portion of the frog supplies a means to transfer support to the digital cushion upon landing. The lateral cartilage is attached to the wings of the coffin bone. This semi-elastic framework interdigitates with the fatty mass (the digital cushion) to provide a bladder or balloon effect similar to that seen in the new air systems used in the latest athletic shoe designs. This support function of the frog that interacts with the lateral cartilage offers a cushioning support for the entire caudal portion of the coffin bone upon landing. The whole concept of arch support and shock absorption for horses has been kicked around for decades, but never been solidified until we looked at the wild horses for answers. This concept is just as valid and important for horses and other animals, as it is for humans. The hoof wall is more fragile in the quarters and will eliminate itself easily to allow the caudal portion of sole, frog and dirt-compacted commissures to become the primary area of the digit to be offered for cushion and support. If the hoof wall at the toe extends beyond its natural limits, excessive leverage on the dorsal hoof wall will result in creating flares and tearing of the lamina. Extreme cases of hoof distortion and flares will be noticed by an obvious groove where separation of the sole and wall are occurring. When the wall is allowed to grow forward, the sole will be stretched forward as well. A flat-footed, inverted, sensitive sole is often the result. If the quarters are not broken out, the dirt is likely to be concentrated toward the front portion of the ground surface of the foot, causing increased leverage on the deep flexor tendon. Therefore, with no support given to the caudal portion of the frog and sole, subsequent increased tension on the deep flexor tendon is incurred.

Hoofcare practitioners (farriers) are often instructed to remove the sole, bars and frog, so that the foot will be clean, neat and tidy. Farriers who know the side effects of that practice and don't aggressively remove those structures, have fewer hoof problems and sounder horses. It would be foolish to suggest that we've been doing things wrong for all these years. I do believe that all hoofcare practitioners approach their trade with a

## NATURAL HOOF PRINTS

profound dedication and deep concern for the work they do. I also believe that issues of what was right or wrong in years past are viewed differently today because of our growth and understanding. Therefore, the issues that are seen as right and just today will be different and improved on in the future. This might suggest that we are never wrong and possibly never right, but just constantly growing.

Utah farrier, Doug Frazier comments, "For all these years I've been taking out the things the horse needs, and leaving the things he can do without." Please think about these concepts in this article and don't hesitate to send comments yourself. We will continue this segment with procedures and comments in the next issue of NATURAL HOOF PRINTS.

## RELEASING INTERNAL PRESSURE

**H**orses that suffer from chronic laminitis occasionally go through periods of discomfort, especially if severe bone remodeling is present or when they are afflicted with a thyroid or Cushing's condition. Contraction of the foot or an overall tight hoof capsule around P3 can be detrimental to the progress of the horse's condition. You may notice this occurring when the horse prefers to walk on their toes, even though the hoof tester findings tell us that the heels and frog buttresses are pain free. Generally the apex of the frog and sole at the toe are very painful, sometimes as much as grade IV. One would assume that the horse would prefer to walk on the heels of his foot, if they were less painful according to the hoof testers. Wrong! A very small amount of inflammation inside the hoof capsule is like a sole abscess in a normal foot. Therefore, any tension on the deep flexor tendon or pressure induced through the digital cushion increases the internal pressure already created by the inflammation. This means that the sole pain at the toe is less than the pain created by the internal pressure created by the natural function of the digital cushion upon landing and loading of the heel. Generally there is a greater distance between the dorsal surface of P3 and the outer hoof wall. Between these two surfaces is the connecting tissue, (the lamina) which is normally damaged and enlarged as a result of the laminitis insult. Quite often during the acute phase of the disease, the

**Equine Digit Support System, Inc.**  
**525 Halfmoon Road**  
**Columbia Falls, MT 59912**  
**406-892-2977**

**RELEASING INTERNAL PRESSURE (cont.)**

hoof will abscess through the coronary band, resulting in a near total separation of the hoof wall and P3. If the condition is managed properly with adequate support and protection to P3, little to no painful reoccurrence follows. It may be necessary to aggressively thin the dorsal hoof wall back to and into the damaged necrotic lamina continually. Quite often it is necessary to groove the front half of the hoof capsule about 1/2" under the coronary band. This groove should extend around the hoof capsule to slightly ahead of the widest part of the foot on each side. As continued protection and support are provided through the heeling process, freedom from congestion can be better managed by aggressively thinning and occasionally grooving the dorsal hoof wall.

Your feedback is very important to all of those who care for chronic laminitis cases. Please feel free to offer suggestions if you can on specific or unusual cases that will help to simplify the mysteries of this disease. Segments of this information have come from a variety of sources. Many of these contributors do not realize the contributions they

