

## SUCCESSFUL BARE HOOVES or

"...know your horse's heritage...."

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If you have had the chance to follow the barefoot debate a little, then you will know that successful "barefooting" is not as easy as it sounds and that "new age barefoot trimming" has very little to do with the simple process of just pulling the shoes off and giving the horse a paddock trim.

To look after a barefoot performance horse requires dedication, effort and attention to detail and regular maintenance hoofcare plus a fundamental understanding of the equine nature, hoof function and natural limitations (which every organism has).

Bare hoof care is always about the horse and never about the rider. Shoeing on the other hand (forgive the pun) is always about the rider, never about the horse.

Nature has given the horse everything it needs – it has survived evolution and Ice Ages, life in the harshest conditions and on more difficult terrain than any domestic situation can ever present it with!

True wild and feral equines with super tough feet:



What is so remarkable about these horses in the wild and their hooves, compared to our domestic horses - and their hooves is this:

They both - wild/feral or domestic- have the same genetic make-up!

In other words - the make-up of their hooves is the same.

Genetically the structures and the functions are the same.

The question is, what is the difference between the hooves of wild and feral horses, living on the harshest terrain and the hooves of domestic horses? Why don't domestic horses have hooves as tough as those of their wild and feral cousins if they are genetically the same?

Why do some of us insist that some – but especially performance horses - "need" metal shoes to "protect" their hooves when they are ridden? Even though most performance horses these days work on mostly soft surfaces like sand or grass?

If they are genetically the same, we should not have problems keeping all our horses barefoot.

But we do. Some horses seem to cope better than others.

Why?

Has domestication spoilt horses? Or is there something else we are missing?

Coming back to natural (biological) limitations:

Every living creature has biological limitations.

The barefoot philosophy is based on this consideration and the desire to do what the horse is naturally capable of doing – on his own feet. Or in other words, if the horse is unable to do it on its own feet, we won't push him to do it.

An example would be: A barefoot horse, who lives in a soft grass paddock, may not be comfortable on a rocky gravel road. The present condition of his hooves is adapted to the ground he lives on (the grassy paddock) – This means he has physiological limitations at this point in time.

We now have a choice. We could push him beyond these limitations – and

- a) ride him over the gravel and cause him to tippy-toe over the stones and he may

- sustain bruises (and he would obviously be sore)
- b) not ride him over such terrain and find another way
  - c) protect his hooves by putting hoof boots on for this ride or
  - d) get the farrier to nail metal shoes onto the bottom of his feet, so he is "always ready for anything"
  - e) condition his feet

In this article I will not talk about the advantages and disadvantages of shoeing or incorrect trimming, but I will try to explain how and what is meant by "conditioning the horses' hooves", what works and what doesn't, and why.

One of the most obvious questions you must ask yourself before you go the barefoot path is this:

**What breed is your horse?**

There are soft and hard terrain breeds.

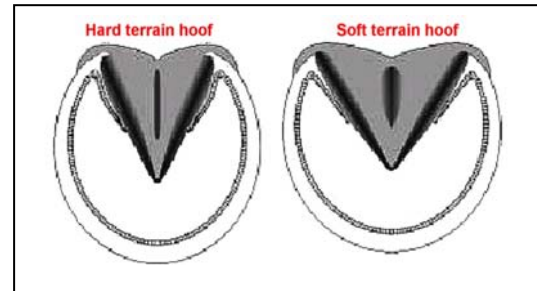
***THERE ARE  
SOFT AND HARD TERRAIN  
BREEDS  
(!)***

Most horses can ADAPT fairly well to the ground conditions they spend and move (!) on most of the time (live on), as their hoof tubules grow continuously and align in the direction of the ground's impact force. An adaptation process may take one or more hoofcapsules. (months to years)

Hard terrain would cause more impact on the hoof capsule and the coronet. The more impact, the more upright and therefore denser the tubules grow – making the horn (wall, sole etc) harder and more wear resistant. These hooves usually wear by abrasion. (See mustangs – hence the popular trim style of a "mustang roll")

Soft terrain, on the other hand, would provide little impact on the hoof and therefore the tubules would spread more and have wider inter-tubular spaces, a flatter sole and a big frog. Soft terrain hooves are softer and wider, they are able to absorb more moisture for better flexibility – so they can still have

hoofmechanism on soft ground - which gives little impact and may yield instead. (A big frog is important here, to help with the expansion of the hoofcapsule). Soft hooves wear by "chipping" and flaking.



Adapting to either ground conditions, softer or harder, can be achieved - to a certain extend.....

However:

It is never possible to change a hard terrain hoof of an Arab (a "desert horse") into a soft terrain hoof like that of a Warmblood that would have evolved in the marshy, soft terrain conditions of Europe.

Both have breed related, biological limitations.

A hard terrain breed, like an Arabian – to stay with the example - would have "naturally" dense, upright, hard hooves with a deep concavity and small frogs. His hooves are designed by nature to cope with dry/hard/rocky conditions. His hooves NEED hard going for optimal hoof function and health.

(A hard, upright hoof needs hard footing that provides sufficient antagonism to have hoofmechanism\*.

(\*The drop of the solar vault and expansion/contraction of the hoofcapsule)

Can you see how the hooves of a domestic Arabian would thrive in optimal health if we would consider his inherited background and give him the same or similar living conditions?

No – you don't have to send him to a rocky desert!.... 😊.....

But consider and be AWARE of the evolutionary background and the environment his feet have developed **for** – and allow him to have access to ground conditions,

on which his breed evolved to survive on and had adapted to.

Many hoof problems in domestic horses – and often the determining criteria for success or failure to barefoot performance, depends on our understanding of the connection of breed and breed appropriate terrain.

An Arab, living permanently on soft terrain (or even stabled on thick soft bedding, with little movement on “breed appropriate terrain” WILL develop hoof problems:

His hooves may adapt to a certain extend – if he has sufficient movement and exposure to what would make his feet more flexible and elastic (water), but even then, he may eventually develop contractions – as one extreme (which can lead to navicular problems, high heels and rotation) or the other extreme: Stretched white line and seedy toe.....etc etc.

As I mentioned before: There are breed related, biological limitations.



The problems that could occur in a horse of breed related soft terrain background (to give you the other example), like such of a Warmblood – or a Thoroughbred with inherited flat (soft terrain) feet, are often such that they are uncomfortable or even foot-sore on hard or rocky ground....

#### Why?

(\*note: I am not talking about those feet that have been trimmed incorrectly – that is an entirely different story.... but I leave this for yet another article...)

Because they have inherited soft-terrain-breed-hooves that were meant to function optimally on soft ground!

These soft feet would wear too quickly on hard and/or abrasive terrain and would become too short. They are also flatter - and every rock would be felt when the hoof is

loading, so the typical “tippy-toeing, walking-on-egg” is displayed.

It is sad that many horse-owners give up on “barefoot” at this point and put shoes back on, which lifts the hoof up and off the ground, but it also prevents the hoof from functioning. The impaired circulation from the metal brace will have such a detrimental effect on the nerve function within the hoof that the horse won’t even feel a stone that is higher than the rim of the shoe! Now that can’t be good either!

#### So what do we do?

How can we make barefoot successful? And how can we condition bare hooves, so that your horse can cope with terrains for which the breed of your horse was never made for?

Well – as usual there is no quick answer. And before you get all excited: Biological limitations are biological limitations. Barefoot – and I said it before - is not about us. It’s about the horse.

But just as in fitness training, which is what every athlete needs to do for progressive strengthening of muscles and better performance or endurance, so the horses’ hooves can be conditioned for better strength, endurance and performance.

For general hoof health you must....

1. Make sure your horse’s diet is well balanced.  
(building blocks)
- 2.. Make sure your horse’s hooves are well and regularly cared for (physiologically correct trim for balance and function).
3. Make sure your horse’s hooves don’t dehydrate  
(exposure to water once a day – like horses in the wild. They re-hydrate their hooves when they drink!)
4. Make sure your horse *m-o-v-e-s....*  
(herd movement, roaming free to find food and water plus exercise! This is all possible in most domestic situations!)

To "condition" the soft terrain type of hoof and to help improve its resilience on hard terrain:

- 1.. You must remember that there are breed-related limitations (you will not change the hoof of a Friesian to become the same as that of an Arab).
- 2.. You can only "toughen" soft terrain hooves by continuously exposing them to the ground you want them to be sound on (make your horse lives on it). The increased antagonism of the ground will stimulate the coronet and will cause the tubules to grow more upright and therefore denser! This may take one or more hoofcapsules!)

This process is what we call "conditioning" the hoof.

Note: you will not condition your horse's hooves (to become harder or tougher) by letting him stand or walk on pebbles once in a while! This will only cause him to get bruises.....and being annoyed with you...!

Note: A healthy hoof should not have a sole **that** thick that hoofmechanism is not possible anymore (you might as well put metal shoes on). We will talk about a physiologically correct trim in another article.

These considerations as well as the general "must do's" – will give your soft terrain horse a pretty good advantage if confronted with hard terrain. Good things take time. But if you don't have the time or the means (who wants to gravel their paddocks?!?!)) to condition your horse's hooves to hard terrain as far as it is physiologically possible:

### **GET HOOF BOOTS!**

They prevent bruising but allow the hoof to function within the boot. When you have finished your ride, you take them off. Easy.

Pic  
OldMacs



To finish, we just quickly talk about the problems you might encounter with hard-terrain horses that live on soft terrain: Since the soft ground does not provide the necessary antagonism or resistance/ impact, the hoofcapsule will not have sufficient hoofmechanism. This may cause the hoofcapsule to contract (especially if it is dehydrated as well!). In my experience it is beneficial to provide hard-terrain horses (that includes all pony breeds and donkeys!) that live in soft paddocks with an area of firm footing (where you feed or in the shelter) – and, of course, give them plenty of movement through exercise - if possible on firm surfaces. That way you will keep their hooves well conditioned but prevent problems caused by lack of hoofmechanism. All the "general must do's" apply as well.

### Hoof applications:

If you want to apply a hoof conditioner, make sure it is WATERBASED.

Oils, grease and Stockholm (and other wood tars) prevent the hoof from absorbing moisture - and some even have a drying effect.

They may make the hoof look nice and shiny, but that is all. When a hoof is dehydrated, all that it has lost, is WATER. Replace it. Just like the horses in the wild. After all, they don't trample around in berries or carcasses to extract oils or grease! But they walk into a body of water (or mud) to drink. Every day.

So.... you can see that successful "barefooting" is not as simple as just pulling shoes.... Maintaining barefoot horses in a domestic environment, requires educated ownership and some adjustments to our conventional comfort zones....

Barefoot care is not about the owners – it's about the horses! Healthy horses.

**Happy riding, Carola**  
**[www.EquineBarehoofCare.org](http://www.EquineBarehoofCare.org)**