



What constitutes a sound horse?

This is a rather interesting topic. In general "sound" is understood as the absence of obvious lameness, which means the horse has a regular footfall. But what about these statements:

- My horse cannot walk without shoes
- My horse walks gingerly over rocks
- My horse stumbles often
- My horse is short-strided
- My horse wings/paddles
- My horse doesn't go forward
- My horse often/always runs away with me
- My horse is stiff to the left/to the right
- My horse has a hard, uncomfortable gait
- My horse does not release the poll
- My horse refuses the jumps
- My horse's soft feet break easily out on hard ground
- My horse's soles are too thin

Let's examine all the statements above one by one

1. My horse cannot walk without shoes

A horse who cannot walk without shoes is definitely not sound. There are no inheritable "bad feet". Almost all horses are born with good feet. If they are not it may well have something to do with the maintenance of the mare during pregnancy. However, many horses are not necessarily raised to maintain good feet. Shoes mask a lot of existing problems. If you take your horse's shoes off and he is gimpy, he may need some time to transition his feet to soundness. That process may take a very precise trim and a very strict transitioning protocol.

2. My horse walks gingerly over rocks

Barefoot horses often are not trimmed correctly and/or are not conditioned correctly. If the horse is not exposed to rocky terrain frequently, he may never have the ability to walk over rocks with ease. Just think about yourself. Could you walk barefoot on carpet? Absolutely. But could you walk over rocks with ease after having walked on carpet for months? Hardly. How about after a summer season outside without shoes? There are several steps in getting your horse to walk easily over rocks: a) a correct, frequent trim b) a reasonable time period to allow all inflammation to subside c) a reasonable timeframe to allow for a tight coffin bone attachment within the hoof capsule and then gradual conditioning.

3. My horse stumbles often

Stumbling is often a sign of unsoundness. The horse steps on uneven ground and pulls his foot away fast to avoid pain. The rider interprets this as stumbling and often looks immediately what his horse stumbled over. As the frequency of stumbling increases, so does the unsoundness. A healthy horse does not stumble, he may however once in a while pull his healthy hoof away



quickly when making contact with a sharp rock, in order to forgo damage. A healthy hoof can feel the ground.

4. My horse is short-strided

In my early training I learned that there were short strided horses and long strided horses. I learned how to evaluate each by studying their conformation. While this seemed to be fairly accurate, I now have learned something more valuable: Correct hoof form creates correct conformation. A short pastern often indicates an inferior laminar attachment of the coffin bone. The horse is in a variety of degrees of pain and short strided. Or a high heel changes the mechanics of the gait to the point that the horse becomes short strided. With the high heel comes a steeper pastern angle and a steeper shoulder angle. Once the heel is lowered to the correct height, the pastern becomes more sloped and so does the shoulder.

5. My horse wings/paddles

This is usually not an inherited conformation fault, but an imbalance of the hoof. A horse who paddles has usually a longer wall on the inside of the front hoof, he toes in, because this is the only way his body can handle the higher inside wall. A winging horse usually toes out and the outside wall is longer, creating a different problem. Over time the stress and inflammation on the insertion points of the ligaments in this hoof turns into a bone addition also known as ringbone.

Above: Here is a hoof severely out of lateral balance. The green line indicates where the coronet band should be if the hoof was balanced.

Here you can just see the ringbone that has developed after years of imbalanced (inside high) hooves



6. My horse doesn't go forward

The lazy or bomb-proof horse often does not want to move because his feet hurt. High bars and high heels throw the hoof off balance and the frontal laminar attachment becomes inflamed. These horses are also usually short strided. Re-



move the problem, rehabilitate the horse and you just may all of a sudden have more horse than you are used to handle. He is up and ready to go!

7. My horse often/always runs away with me

This is a variation of #6. The horse in pain tries to outrun the pain. He also shies a lot, always protecting his sore feet. His survival instinct tells him to run earlier as he is a bit handicapped with the sore feet.

8. My horse is stiff to the left/to the right



Once a horse is started under saddle or in harness, lateral suppleness is always a goal. "Good" horses are evenly smooth to both sides. There are a myriad of exercises to achieve this. But often it is difficult and the lateral stiffness, the inability to become fully supple, is anchored in a balance problem of the hoof. This may well result in a chiropractic problem or a muscular problem, but neither the chiropractor nor the massage therapist can achieve a lasting result if the base - the hoof - is off balance.

9. My horse has a hard, uncomfortable gait

Smooth riding horses land heel first. This is the way nature intended. It allows every muscle to work without too much strain and makes for a soft back. Horses with hoof pain hold their body braced against that pain and become rigid and hard to sit. The same is true for an ill-fitting saddle. The horse will tighten the back against the pain and will become an unpleasant ride.

10. My horse does not release the poll

Same origin as #9. The nuchal (or nuchal) ligament spans from the head to the tail, covers the spine and is connected to the musculature of the rump and neck. When the horse braces the shoulders and back, he cannot release the neck to round and relax. This also may be a problem with the alignment of the teeth or an ill-fitting bit.

11. My horse refuses the jumps

While there are many reasons for horses to refuse a jump, hoof pain is one of them. In the landing phase he has to bring all of his weight for a moment onto a single hoof. If this hoof is not healthy, this phase of the jump hurts the most. Once this pain is engraved in his memory, he will refuse the jump.

12. My horse's soft feet break easily out on hard ground

There are several possibilities for this problem. When your horse first is deshod, the horn towards the ground is of an inferior quality and breaks out easy. If the horse does live on soft ground and neither moves a lot, nor gets trimmed regularly, his feet may become overgrown quickly. An overgrown hoof "self-trims" by breaking out. When a hoof is soft from inferior horn quality, you have to be patient until the better quality horn has grown in from the coronet band. A hoof that is soft from intense hydration is a very elastic hoof, an excellent shock absorber and this kind of hoof has to be conditioned for hard ground by gradually exposing him to the same.

13. My horse's soles are too thin

This is usually determined by x-rays. But here is the question: Are the soles too thin or is the coffin bone not properly attached? In picture 1 the coffin bone is not properly attached and the sole looks thin. In picture 2 you see a properly attached coffin bone. The real problem is the attachment, not the thickness of the sole.

In the picture the yellow line indicates the situation of the extensor process of the coffin bone. The red line indicates the top of the hoof capsule. The green line marks the sole thickness.

In the picture above the laminar attachment of the coffin bone in the hoof

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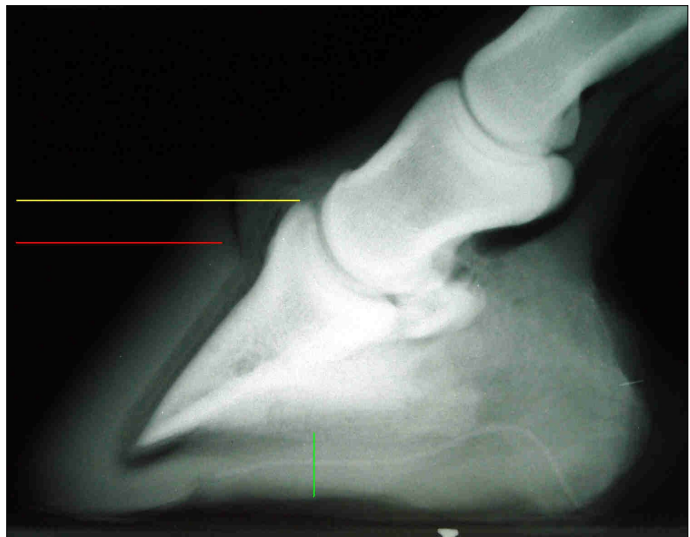
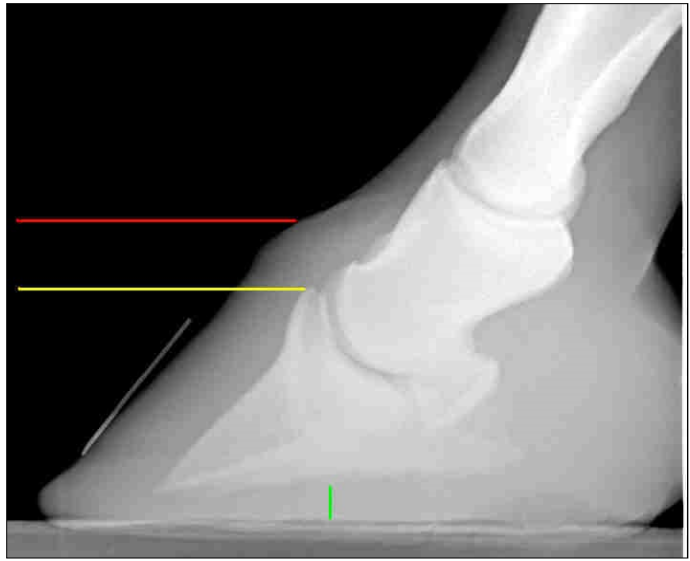
capsule is poor and the coffin bone is sunk in the hoof capsule, thus the sole appears to be thin. The problem is not the sole, but the placement of the coffin bone within the hoof capsule.

In this picture the extensor process, and therefore the coffin bone, sits very high in the hoof capsule, it actually can be felt just outside the hoof capsule.

As the coffin bone has a very tight (and correct) laminar attachment, the sole appears to be very thick.

All of the above sounds a bit strange at first. How come that horses are in so much pain, so unsound, but still do reasonably well by human standards? This too has something to do with survival. A prey animal is not well if he limps, he will be spotted by the predator and will be an instant target for the predators hungry belly. For the same reason horses do not make a sound when they are in pain, they would be too easily detected. They suffer in silence. Do not mistake this for the absence of pain.

A sound horse is a barefoot horse who can move over any type of terrain at any speed, any gait and at full range of motion for an extended period of time.



Lower picture courtesy of Jamie Jackson.

Pictures courtesy of Alexa Luckman, Dwayne Snyder, Jamie Jackson (Wild Horse X-Ray) and HoofCareUnLtd.

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