

Frog Health

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Frog health is critical. The more I trim, the more convinced I am that frog health is not only vastly overlooked, but the reason so many horses are not able to become rock crunchers.

Below is a photo of an unhealthy frog (Figure 1). It is such a common sight that not only owners, but veterinarians seem to think it is normal. Or at worst, a minor thing. You will see similar looking feet in ads for hoof products, and not necessarily as a problem!



Figure 1

This frog is not as bad as many. Most people would not even consider it a problem. *And that is the problem!*

What's wrong with it? It's small and weak.

Is that a big deal? YES. Check out the photos below to see the difference between a thin, weak frog, and a thick, healthy frog (Figures 2 and 3).



Figure 2



Figure 3

The photo on the left shows the lack of thickness a weak frog has. The photo on the right shows a vastly different situation. It doesn't take a rocket scientist to figure out which one better supports the horse – especially over rocks!

The frog has at least 2 functions.

K.C. La Pierre believes and teaches that the frog is triangular for a reason. (I agree with his theory.) To KC the frog is there to act as a hinge of sorts. Without the frog, the hoof would be a solid circle or cylinder – unable to flex. The frog, being somewhat elastic, is what allows the hoof to expand and contract. KC uses a paper plate to demonstrate this, and you can try it. Take a plain, cheap, paper plate and look at it. Clearly it can't expand and contract – it is what it is. Now cut a triangle out of one area. Suddenly, you can bend the plate in different ways – you now have independence between one side and the other. Think about this for a minute. A shod hoof is locked into one plane – the plane of the shoe. A bare hoof can flex depending on the terrain. Sort of like independent suspension in a car.

In addition to being a hinge (probably there is a better word – if you know it, let me know), the frog is there for support and shock absorption. Which frog do you think absorbs more shock? The puny one on the left (Figure 2) or the thick one on the right (Figure 3). It's no contest. If I was going to go on a trail ride I'd want my horse to have the frog on the right.

Why we ignore frog health is beyond me. Yet I have done it too! Years ago I didn't give any thought to the frog, other than to be on guard for thrush. This is so common as to be the norm. Below left is a photo from Wikipedia, which is what people see when they do research (Figure 4). I would venture that most people Googling the frog and finding this photo would assume it represents a healthy frog. Wrong!



Figure 4

The foot in Figure 4 is not a terribly bad looking foot. But compare it with the one below (Figure 5) which shows a truly healthy frog.



Figure 5

It's not too hard to believe your horse has good frogs if it looks somewhat like Figure 4. It's pretty impossible to make a mistake using the Figure 5 as the ideal.

I firmly believe that the back of the foot is misunderstood. Years ago I was taught that there is the frog **and** the heel bulbs. In reality, I believe what we consider the heel bulbs is actually the frog.



Figure 6

Look at the photo to the left (Figure 6) and you can see what I mean. The yellow arrow points to what are called the bulbs, but this frog is so healthy it's pretty clear that area is really frog.

Really consider this. If you look at this foot, you can see that the frog is actually almost half the mass of the foot. In addition, it's very clear that the frog is meant to be a major support, not unlike the pads of a dog's foot.

To the right is a photo of a dissected hoof – with the back of the foot (the frog and digital cushion) removed (Figure 7). It makes it pretty clear how much mass the frog provides, even in a foot that is clearly not that healthy.



Figure 7



Figure 8

To the left (Figure 8) is a photo of the frog corium, showing how the corium actually reaches around the back of the foot, which in a healthy foot would produce the frog shown in Figure 6.

The following photos show how the deformity of the hoof has caused what I call migration of the frog. Of course the frog doesn't go anywhere, but the hoof capsule has become distorted. This frog deformity is what people commonly call the heel bulbs! Such is the lack of understanding – even at the veterinary level.

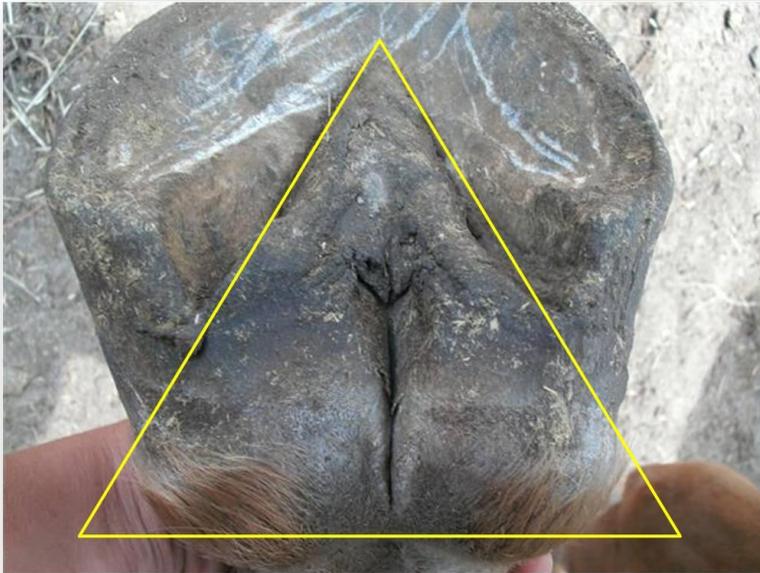


Figure 9

If you look only at the area enclosed by the yellow triangle (Figure 9) you can see that it is the frog. However, instead of the frog being on the bottom of the foot, facing the ground, some of it has become the back of the foot and is facing the wrong direction. The crack between the “heel bulbs” is actually the central sulcus of the frog, pushed out of position and contracted.

With correct trimming, the frog can move down to its correct position.

The photo to the right (Figure 10) shows this “migration” of the frog even more clearly. The frog is sitting at a 45 degree angle to the bottom of the foot. If it's allowed to continue migrating it will eventually look like the foot above.



Figure 10

In summary, the frog needs and deserves attention. A healthy frog is critical to a healthy foot. There are multiple factors contributing to frog health, chief among them is exercise, good trimming - by which I mean knowledgeable and skilled - and diet. Environment also plays a part, but if all other conditions are optimal the frog can be healthy despite a bad environment.