Basic Trim

The basic trim is explained here for the **regular, non-pathological hoof**. Such a hoof would just be overgrown and, after being trimmed, would meet all the parameters of a healthy hoof. How is a healthy hoof defined?

Our working definition of a healthy natural hoof form is:

- a hoof capsule which follows the shape and angles of a correctly positioned coffin bone (i.e. which is balanced heel to toe and side to side);
- a toe length which facilitates optimal break over;
- low, well developed heels which are able to expand upon weight bearing;
- clearly defined, straight bars which ramp into the hoof and merge with the sole about halfway down the frog;
- a thick, evenly concave sole;
- a broad, tough frog that is level with the heel buttress and ramps into the hoof ending at the deepest point of concavity;
- a well developed rear half of the hoof;
- a strong laminar connection;
- a dense digital cushion, made up of hyoid cartilage interspersed with fibrous cartilage;
- straight flexible lateral cartilages.

Examine the Hoof

Before you take a hold of the knife, take a good look at the hooves. Check how every hoof corresponds with the leg. Check if there are conformational deviations of the leg, how is the pastern, fetlock, cannon bone and knee positioned in relation to the hoof? (For more definition about correct conformation, please study appropriate lecture in module #2.)

Make notes if necessary. If possible take a picture of all views of the hoof: front, side, side non-weight bearing, sole, heel.

Check for balance. Take measurements and make notes about those. Try to envision the coffin bone within the hoof capsule.

On the right top to bottom:
From the front
From the side (lateral and medial)
The sole
From the side non-weight bearing (lateral and medial)
Heel view

When trimming, you have to position yourself in such a way beside, behind and sometimes under the horse, that you are safe.

You also want to be still remain reasonably comfortable and in an optimal spot to exert the most leverage with the least input. This is different for everyone, so we will not expand on this here.

A lecture about body position and the Alexander technique is presented in module #5.

Furthermore, you will learn this in great detail during the practical (mentor) days.

Trim the wall

In areas needing trimming, you have to trim the wall so it lands flat once it becomes weight bearing.

Be sure to trim with the knife flat along the hoof wall like in the picture on the right.

Holding the knife like this would trim the wall at an angle that is beveled towards the sole.

Holding the knife like this would trim the wall at an angle that is beveled towards the outside of the hoof.

Below you see the correct finished wall.

Trim the bars

The bars have their beginning at the midpoint of the frog and their highest point at the heel where they become the wall. They run in a straight line from their origin to the heel. The collateral groove is the connection between the frog and the bar. The edge of the bar should be trimmed in

such a way that it is horizontal with the ground just like the wall is.

You trim with the crook of your hoof knife on the top of the bar, careful not to trim into the sole. Keep the knife handle very upright while you trim the bar. This way, you won't accidentally trim too much sole (over the bar) with the blade of a slanted or angled knife. You also must avoid thinning the bar by trimming in the collateral groove.

Above: When you are finished trimming the bar correctly, your knife will slide down the sole from the wall and find a purchase on the bar.

Left: Here you see the finished bar

Trim the Heel

After trimming the wall and the bar, you need now to tie the two together in such a way that the horse has a smooth landing platform when it sets the hoof down heel first. The same rules apply again as with trimming the wall:

You need to hold your knife level to trim a level heel point.
In the beginning it may help to take off the glove and feel the fresh trimmed heel point. This will give you tactile feedback about the quality of your work until your eye can provide the same information.

Here is a slightly different way to trim the heel point. This trim is performed by James Welz (http://www.thehorseshoof.com). James is an experienced trimmer and trims the bar and heel point in such a way that he has a bigger platform in the heel area for the horse to land on. Please note that the bar still ends in the middle of the frog. This may work well with a number of horses.

This is the same hoof with the last third of the walls, the bars and the heel point trimmed on both sides.

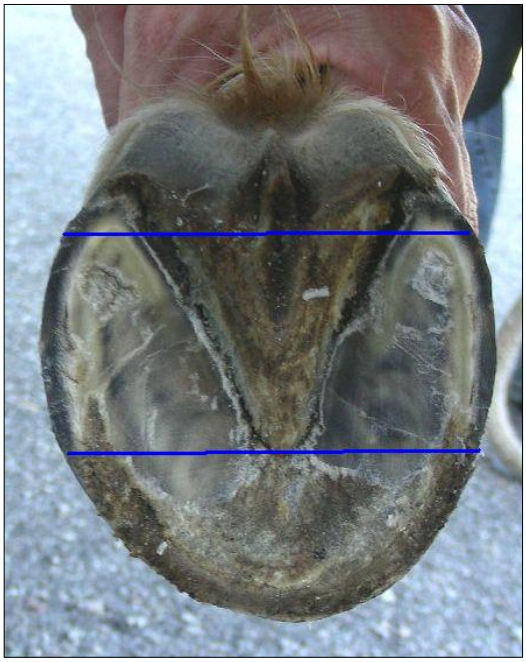
Frog

There is seldom much to do to the frog. It helps to trim the apex of the frog in such a way that it smoothly joins with the sole. Later you have to check that the whole frog is not too high and adjust frog height accordingly.

Scooping

If the wall is left in the quarters level with the ground when not weight bearing, you are creating a problem in a natural trim. When the hoof is loaded and expands, the walls move out and down - if the wall touches the ground already when unloaded, there is no more room to move down - so quarters that already rest on the ground in an unloaded hoof prevent full expansion. You need to leave room under the wall for expansion in the quarters. In a healthy hoof you therefore arch the hoof wall slightly in the area between the apex of the frog and the heel point as shown in the picture. It really depends a little on the horse's

individual needs how high the scoop should be, but in general it should be at the highest point just high enough that you could push a thin piece of cardboard under the wall when the horse is standing still on hard ground. Check your scoop by laying the knife flat on the wall as shown in the picture.



Note: the scoop should only be trimmed as described above in a healthy hoof with enough toe height. If you have a hoof with a shallow coronet angle, you have to insert a shorter scoop. More about that in module #4 under trimming for pathology.

Heel Height

It is important to leave enough heel height for the horse to be comfortable. In a healthy hoof the heel height should be about 3.5 cm vertical height from the top end of the lateral cartilages or 3 cm from the edge of the hair-bearing skin below them. Measure the heel height vertical to the ground!

Wall and Frog Height

Once you have trimmed the wall and have adjusted the wall height so it does not protrude above the sole level (if it marginally protrudes it's

ok), you have to check for frog height. In very soft terrain a protruding frog may not be a problem. On hard ground the protruding frog will be felt by the horse and he may not load the hoof completely, coming up short strided. In the picture to the right you see how the knife balances on top of a frog that is too high.

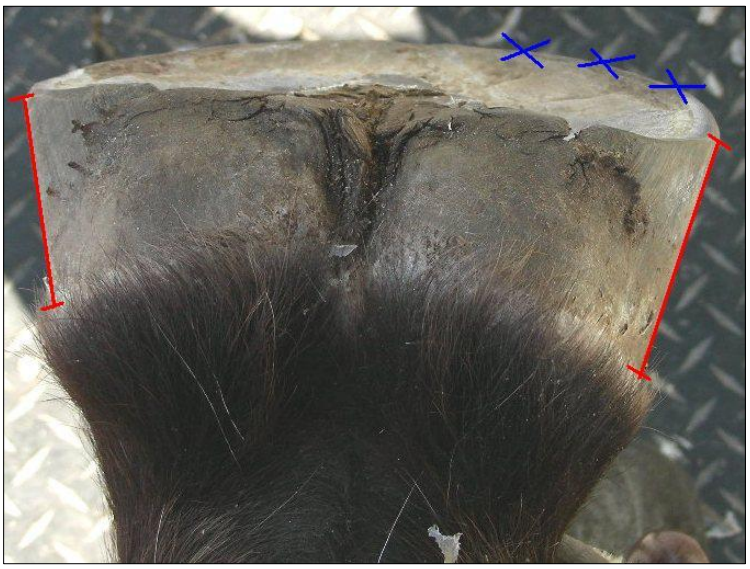
Here the frog has been adjusted so the knife is no longer rocking. This will give the horse enough support when the hoof becomes weight bearing without bruising the frog corium.

Checking the Solar Aspect of the Hoof

Now you have trimmed the wall, the bars, inserted the scoops and cleaned up the frog.

Comparing wall height from this view

Check carefully both walls from this view as well as the toe: Is one wall longer than the other? Is the toe higher on one side than the other side? Can't really see it?



Check out this picture:

Adjust the wall and the toe to balance the hoof. More about balancing the hoof in module #2.

Rasping the Wall

Rounding the wall all around the hoof will provide a better breakover and make movement more pleasant for the horse. In the picture on the right you see a well applied mustang roll.

There are several ways to rasp the hoof wall. You can turn the rasp around, holding it by the end (opposite the handle) and pull it up the non-weight bearing hoof like the picture here.

Or you can set the hoof on a hoof stand to rasp. (right)

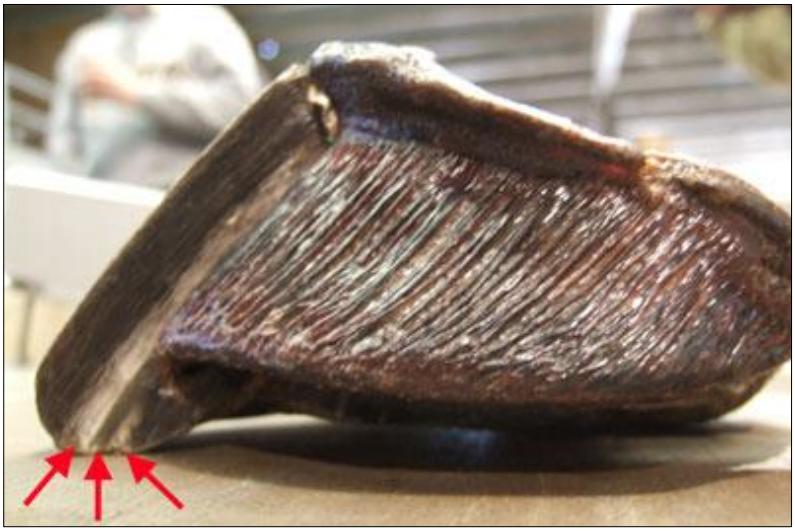
You can pull the hoof out front over your thigh, whatever you and the horse are most comfortable with.

James Welz (www.thehorseshoof.com) describes his rasping of the wall and application of the mustang roll as follows:

This is our simple stand: We trim our domestic horses' hooves to give him all the structural benefits that the mustang's enjoy due to their natural lifestyle. This lifestyle is simply not possible in domestication. Few people can give their horses even adequate exercise, much less wild-horse-style exercise. Through trimming, we can shape the healthiest hoof possible for our beloved equines. One of the most important features of this shape is the Mustang Roll.

"Our" Mustang Roll comes to us from the Mustang himself:

This is a cadaver hoof from a healthy Mustang. Really study that hoof wall edge closely. Note the nearly vertical angle of the front edge at the toe! Yet the whole shape is smooth. There is even rolling from toe to heel.



Here is a similar Mustang cadaver hoof, with the capsule split down the center. We can see the internal structures of the wall:
The left arrow points to the "water line" (which is the white material). The center arrow points to the "white line" (which is the gray material). The right arrow points to the edge of the sole.

When evaluated, it is clear that the lowest part of the hoof is somewhere between the water line, white line, and the edge of sole. The water line actually rises up a bit from the ground surface (barely brushing it), then the outer wall outside the water line sharply and drastically turns upwards, in a near vertical swoop. The top arrow points to the height of the mustang roll. This outer wall is as passive as the inner concave sole!

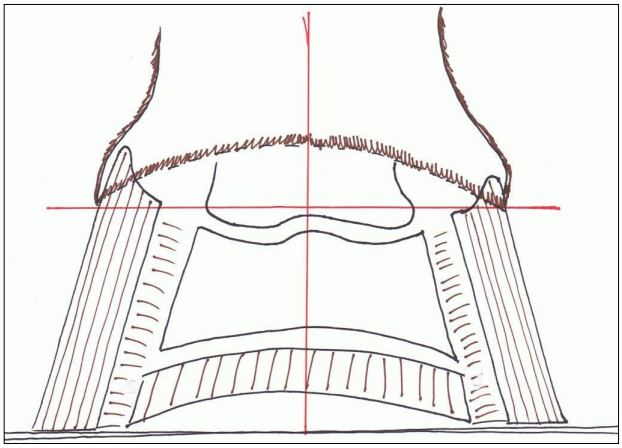
This is how we pattern our mustang roll, to duplicate this effect of unloading the outer wall. Here is an example of James' mustang roll: The roll creates a slight vertical edge to the hoof, not very high up, but very distinct. The surface is rounded, but the roll does not extend deeply onto the bottom sole surface of the hoof. Just like the Mustang, this mustang roll exists mainly on the outer wall. The purpose is not to create a smooth, pretty, rounded edge; the purpose is to relieve the outer wall.

According to Dr. Bowker, unloading the hoof wall and transferring the pressure to the sole, helps for more even weight distribution and better tissue diffusion within the hoof.

Paige Poss has this beautifully depicted on her website (www.ironfreehoof.com): Mustang rolls are going to vary from foot to foot. The thicker the hoof wall, the wider or larger the roll will appear. I hope these pictures make it clear what I mean when I say a "large roll". The first picture has a really sharp or small roll because the wall is so thin. The last picture depicts a really thick walled horse with the largest mustang roll.

Levelness and Balance

Check levelness and balance. Examine the placement of the hoof from the front and assure that the coronet is horizontal. Correct if necessary (by shortening or weakening) and also assure that the bulbs (end of the lateral cartilages) are of equal height, seen from behind when the hoof is weight bearing. Correct if necessary.



Note: In a normal, healthy horse the wall is produced at about 1 cm (3/8 inch) every month. The sole horn is produced at about 1 cm every three months.

At last: Assure that the hoof flexes properly on whichever terrain the horse lives on. Check if you can see the bulbs move apart when the horse loads the hoof while walking. If this is hard to see as the horse moves, the handler can ask the horse to just shift its' weight back and load the heels that way.

Trimming position alternatives

With a reasonably well trained horse you may be able to use a rolling chair for trimming like the one depicted here.

Trimming the hind hooves very low to the ground (and resting the hoof on your boot) may be easier on a stiff horse's hind quarters and easier on your back.

References:

Sound Horse Solutions—Audrey Bryant trimming

Freedom Farms—Jerry Schmidt trimming

HoofCareUnLtd.—Claudia Garner trimming

The Horse's Hoof—James Welz trimming

The Ironfree Hoof—Paige Poss trimming

Known models: Reverdy—Selle Francais gelding

Hudson—Thoroughbred gelding

Wyndhaven Desperado—Miniature Horse gelding