



Heel Contraction



Picture left: Contracted hoof

Picture right: Un-contracted hoof

Causes for Heel Contraction

Heel contraction is common in:

- Unshod horses which have been improperly trimmed (heels too high and bars too high and/or too long)
- Horses who were shod from a very early age (before the palmar processes were fully developed, usually at the age of five years)
- Horses who were shod incorrectly after the age of five years
- Hard hoofed horses who grew up on soft ground
- Hooves that have dried out too much
- Any kind of long term heel pain that leaves the horse to overload the front of the hoof, landing toe first



Above: Healthy heels and bulbs

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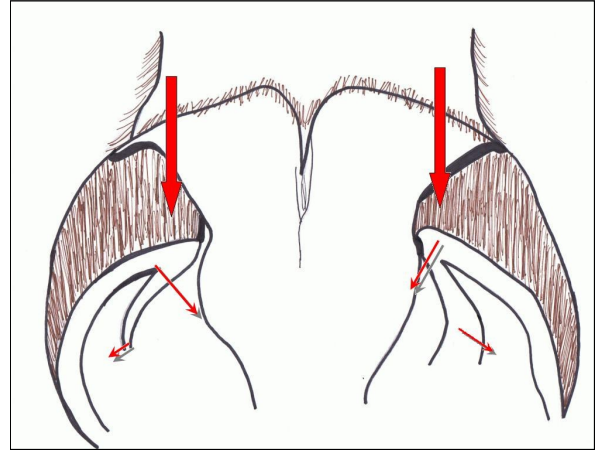
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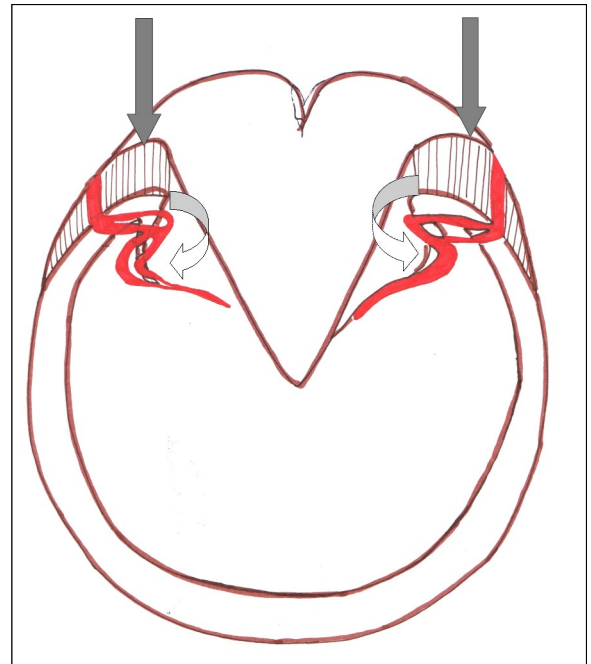
In general, a horse with heel contraction has high heels as well. These contracted high heels manifest all kind of problems:

The bars are forced into a curve



This may cause quarter cracks or turning points of the heels.

The bars are forced down onto the sole.



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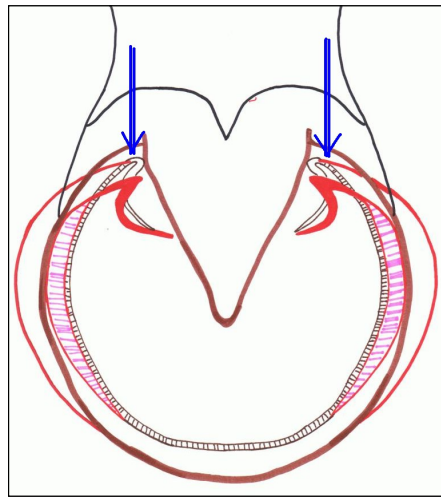
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Forces on a contracted and/or high-heeled hoof causing jagged cracks in the wall. They do not necessarily reach all around the hoof like in this extreme example.



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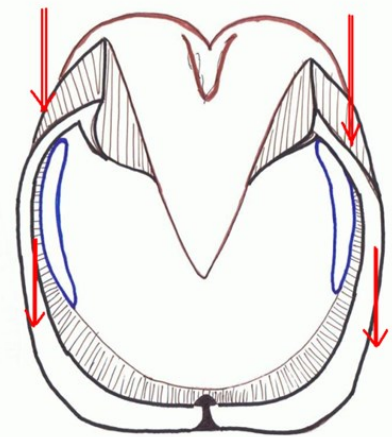
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Above: High, contracted heels can cause white line separation in the lateral hoof walls,

or a square toe wall



and toe crack.



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This hoof form is a heel contraction that has been in place from a very young age. The palmar processes, usually shaped very straight in the back of the hoof, have in their growing phase become curved, as the pressure of the contracted heels forced them inwards. In such a hoof you will not be able to make a lot of progress as you have no support from the underlying skeletal structure, the coffin bone.



In the left radiograph you can see the deformation of the palmar processes, the right picture shows "normal" palmar processes. Observe the width of the two frogs.



These forces are exerted with every step. It is possible for heel contraction to exist only on one side of the hoof and not on the other. When trimming a horse with heel contraction you have to take all these things into consideration.

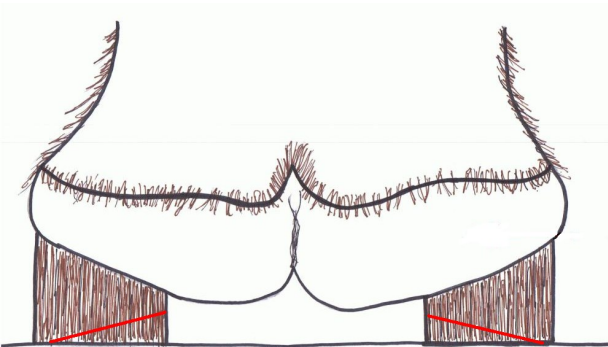


Trimming for Heel Contraction

It is important to notice that in general you will have high heels with heel contraction. When you first trim such a hoof, just lower the heels. This will change the weight distribution on the hoof. Now the horse bears weight farther back on the hoof and the weight alone may open the heels.



If this does not seem to make any difference after a couple of trims, you can trim the entire heel-bar connection at a slant. This will force that area at a different angle upon weight bearing and with time will open up the heel contraction. But you have to be careful how much slant you will apply, as too much slant may lead to white line separation. Start with a conservative correction, you always can do more at the next trim if nothing moves.



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