

### Rehab Report!

This past week we began treatment on a horse with a mild acquired flexural deformity of the distal interphalangeal joint. Frequently this is referred to as contracted tendons and in this case it caused a mild club foot. Flexural deformities can be acquired or congenital and can affect the coffin, pastern, fetlock or carpal joints. In this case, we believe it was acquired (meaning he was not born this way). Flexural deformities are grouped under developmental orthopedic diseases and can have many etiologies. With this case, we believe it was likely due to a large growth spurt. Treatment decisions are made based on severity, acquired vs congenital, joints affected, and owner's expectations for the horse. For this case, we had our farrier create light weight steel shoes with toe extensions. The toe extensions help increase the tension on the flexor tendons. The increase in tendon tension can cause relaxation in the associated muscle groups and allow for a more proper alignment of the joints. Along with the flexural deformity he had some mild white line disease which was addressed with hot fitting his shoes. In conjunction with the shoeing, he was given IV oxytetracycline to encourage tendon relaxation, a NSAID to relieve any associated pain, and his feed was more properly balanced to support a steadier growth plane. We will let you know an update soon!



Literature states that front feet should have a hoof angle between 48-55 degrees. With this case you can see his hoof angles were 62 and 64 degrees.



Arguably more important than hoof angle is hoof pastern axis. As you can see, this case is a good example of a mild broken forward hoof pastern axis. Ideally the bony column of the long pastern, short pastern and coffin bone would align straight. In this case his hoof angle is steeper than his pastern angle. This abnormality causes an increased weight load placed on the front 1/3 of the hoof rather than being distributed evenly. Uneven weight distribution places increase stress on the bony column and dorsal lamina which causes abnormal hoof growth. In the photo to the right, you can see dorsal hoof wall was actually rolling underneath the sole, covering the white line.



These are handmade steel shoes with a toe extension made specifically for this case. Frequently with therapeutic cases it is necessary for a farrier to hand make a custom shoe.



The final result! We will keep you updated with his progress!