Equinus Deformity

Equinus is a type of condition where the upward bending motion within the ankle is limited. Someone who has this condition doesn't possess the flexibility to bring the top part of the foot toward the leg. It can occur in both of the feet or just the one. When it involves both of the feet, the limited range of movement will tend to be worse in one of the feet over the other one.

A horse has the bones in the foot angled at such a way that it appears the horse is walking on its toes, and that is where this term comes from.

People who have this condition will often find ways to compensate for limited movement in the ankle, which can lead to other leg, foot and back problems. The most common form of compensation is a flattening of the arch or picking the heel up too early when walking, instead of placing an increased amount of pressure on the ball of the foot. Some people compensate by toe walking, while others take steps by bending improperly at the knee or hip.

Equinus Deformity Anatomy

Equinus deformity is when the forefoot is plantarflexed in relation to the rear foot. Looking at the calcaneus running along the foot's sole or looking from the side of the foot that isn't bearing the weight you will notice the forefoot is plantarflexed in relation to the rear foot. Patients don't have a lot of dorsiflexion because they are using the range they have to try and compensate for the equinus deformity.

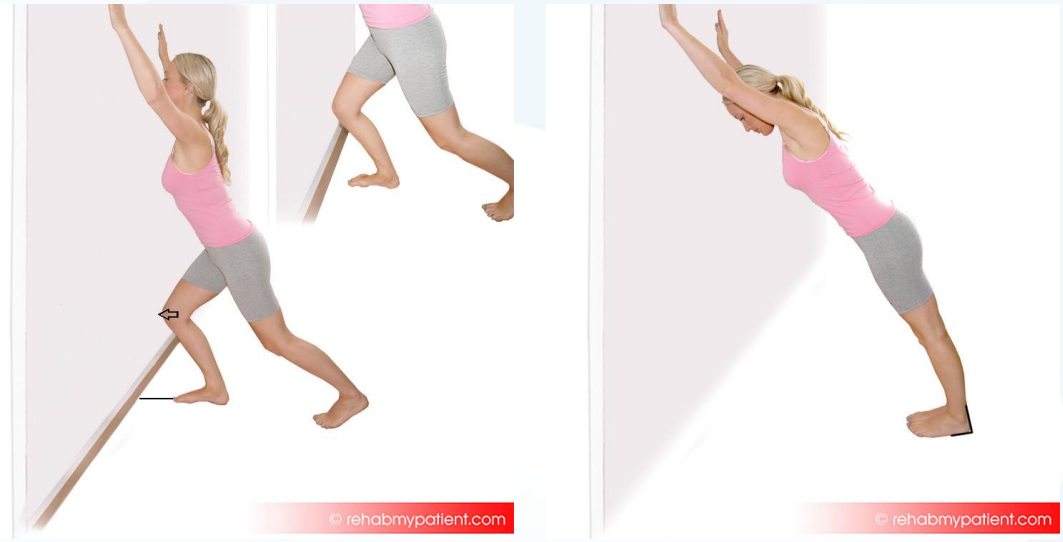
How to Treat an Equinus Deformity:

1. **Night Splint**
   The foot might have to be placed into a splint at night to help maintain proper positioning. In doing so, it will help to reduce the tightness within the calf muscle.

2. **Heel Lifts**
   Placing heel lifts on the inside of the shoes or wearing those shoes that have a moderate heel will often help alleviate the stress on the Achilles tendon when walking, which will help to alleviate some of the symptoms felt.

3. **Orthotic Devices or Arch Supports**
   Custom orthotics that fit nicely into the shoe tend to be prescribed for keeping the weight evenly distributed and helping to control muscle and tendon imbalances.

4. **Physical Therapy**
   To help alleviate muscle tightness, using exercises to help stretch the calf muscle are often recommended. There are many exercises to stretch the calves, and your therapist will recommend some.



5. **Surgery**
   In certain instances, it might be necessary to undergo surgery to correct the cause of the problem, especially when it is related to a tight tendon or a bone blocking the movement of the ankle. The ankle and foot surgeon will be able to determine what type of procedure is best needed for the individual patient's condition.

Tips:

- In some cases, the tightness is present at birth, while in others it tends to be more of an acquired trait.
- Some individuals acquire tightness from being in a cast, on crutches or wearing high-heeled shoes on a regular basis.
- Diabetes has been shown to affect the fibers in the Achilles tendon and cause it to become tight.
- At times, equinus could be the direct result of a bone that is blocking the movement in the ankle.
- The condition could be the result of one leg being longer than the other.