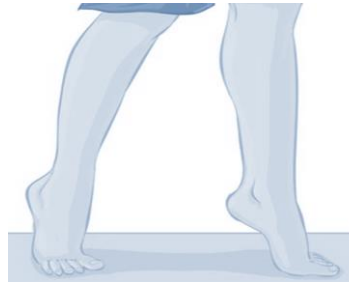




TOE WALKING



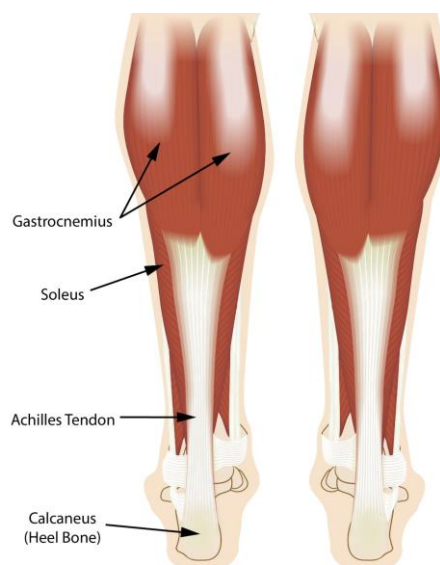
Toe walking is considered normal in children of 10-18 months as it can help with their balance. Some children demonstrate toe walking beyond this age where, in the absence of underlying disease, it is referred to as “Idiopathic Toe Walking” [ITW]. Whilst this nearly always resolves a small number of children may continue to walk this way as they get older. Walking on tip toes generally does not cause the child any pain or discomfort but it can increase the weight-bearing load on the ball of the foot as well as impacting on the stability of the joints within the foot itself. In the long-term toe walking may lead to tightening of the calf muscle and shortening of the Achilles tendon which can lead to the child being unable to put their heel to the ground.

ANATOMY

Your calf is formed by two major muscles:

- Gastrocnemius muscle.
 - This is the larger calf muscle. Its two parts form the bulge that is visible beneath the skin.
- Soleus muscle.
 - This smaller, flat muscle lies underneath the gastrocnemius muscle.

Both muscles merge at the base of the calf, where they transition into becoming the Achilles tendon. The Achilles tendon then inserts into the calcaneus (heel bone). When you contract your calf muscles, the Achilles tendon pulls on your heel.





TOE WALKING

IDIOPATHIC TOE WALKING?

In most cases the cause of toe walking is unknown and is possibly due to habit from a young age. There may be a weak link to the use of baby bouncers and similar devices which encourage forefoot contact without heel loading. There is mixed opinion in the medical literature. Idiopathic toe walking is identified if the child is able to put their heel to the ground when standing and walk with their heel to the ground for short periods if asked to and where there is an absence of other medical cause.

TREATMENT FOR IDIOPATHIC TOE WALKING

It is usually best to implement more than one treatment to tackle idiopathic toe walking. Treatment should include:

1. Parental encouragement to heel toe walk
2. Daily calf stretches
3. Footwear modification
4. Use of heel raises

For severe cases more active interventions can include:

1. Use of AFO's
2. Application of serial cases
3. Botox therapy
4. Surgery

OTHER CAUSES OF TOE WALKING

In rare cases toe walking can be due to more serious problems such as:

Cerebral palsy.

Toe walking can be caused by a disorder of movement, muscle tone or posture caused by injury or abnormal development in the parts of the immature brain that control muscle function.

Muscular dystrophy.

Toe walking sometimes occurs in this genetic disease in which muscle fibers are unusually prone to damage and weaken over time. This diagnosis might be more likely if your child initially walked normally before starting to toe walk.

Autism.

Toe walking has been linked to autism spectrum disorders, which affect a child's ability to communicate and interact with others.

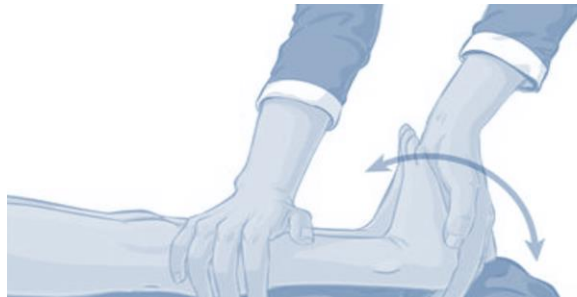


TOE WALKING

CALF STRETCH (CHILDREN < 6 years)

Tightness in the calf muscles will only tend to maintain the tendency for toe walking and therefore gentle stretching is often advised to improve flexibility of the foot and ankle.

- Have your child lie on their back on a comfortable surface such as a firm bed.
- With their knee straight and leg supported on the bed, bring your child's foot upwards, toward their head, bending their ankle.
- Hold the stretch at the end of the movement (that is, as far as your child's range of motion will permit) for 15 to 30 seconds. Bring the foot back to a normal position. Repeat 10 times on each leg, daily



CALF STRETCH (CHILDREN > 6 years)

- Stand two feet from a wall. Place both of their hands at shoulder height against the wall.
- With their right knee straight, have them step towards the wall with the left foot. They should lean in until a stretch is felt in the back of the right calf. Keep the heel of the right foot on the ground.
- Hold the stretch for 15 to 30 seconds & repeat the exercise 10 times on each leg, daily.

