Gastrocnemius Tendinopathy

Gastrocnemius tendinopathy is a type of injury caused by repetitive strain or loading. Unlike that of a traumatic injury, which are attributed to an accident or a trauma, repetitive strain injuries are commonly associated with a small amount of damage and stress to the tissues. If these issues aren't addressed, they can end up accumulating slowly over the course of time and cause pain.

As the muscle is repeatedly stressed and used excessively, it leads to small amounts of damage within the muscle tendon (the structure attaching the muscle to the bone). The tendon can undergo micro-damage or inflammation causing pain, and can lead to fibrosis or scar tissue formation.

Gastrocnemius Tendinopathy Anatomy

This muscle is located along the back side of the calf. The upper part of the muscle is attached to back part of the knee, while the lower end is inserted onto the back part of the heel by means of the Achilles' tendon. The gastrocnemius is a critical knee and ankle muscle. It plays a pivotal role in being able to maintain the proper mechanics of the knee along with any weight-bearing activities like running, walking and even climbing stairs. If the muscles becomes overloaded or strained, pain can end up occurring in the back of the calf or the knee.



Gastrocnemius tendinopathies most commonly affect sports people, and can be related to poor lower limb biomechanics, poor footwear, or problems with walking/running gait.

How to Treat Gastrocnemius Tendinopathy:

1. Treatment to the Scar Tissue to Help Facilitate Healing

One of the most crucial steps is treating any adhesions from scar tissue. The adhesions are a sign that the gastrocnemius isn't healthy. When tissue isn't healthy, it won't respond well to traditional exercises and stretching. Friction and massage techniques can help the scar tissue. Resolving the adhesions is critical in resolving the condition.

2. Correct Flexibility and Strength

Often problems occur when the calf muscle is too short. This places extra strain on the tendon. Correcting length of the calf muscle will take strain off the tendon. Also the calf might be weak, and building strength in the muscle will help with force loading to the tendon, and reduce the likelihood of injury.



3. Re-Train Movement

The final stage in the treatment plan is to make sure proper movement and alignment is coordinated with the knee, hip, foot and trunk using functional movement patterns. This helps make sure all of the movements are working together as a single unit, which is what you need when running, cycling, walking and climbing stairs. Also work with your coach to ensure good technique in sport.

Tips:

- See a manual therapist to examine your calf muscle, and address any tightness or fibrosis in the muscle.
- Sometimes it can be hard to differentiate a trapped sciatic nerve (from the back) and a calf problem. So seek medical advice in case the pain is actually coming from higher up.
- Get your technique and gait checked for any problems.
- Some cases of tendinopathy are caused with a problem at the pelvis or the hip.
- The gastrocnemius can wind up becoming forced into compensating for any problematic muscles.