



# ACHILLES TENDINOPATHY

## WHAT IS ACHILLES TENDINOPATHY?

The Achilles tendon is the strongest tendon in the human body and serves as the attachment of the soleus and gastrocnemius (calf muscle group) into the calcaneus (heel bone). The calf muscle and Achilles are responsible for pushing off during walking and running.

Achilles tendinopathy is classified by an overuse of the tendon which leads to disrepair and further degeneration.

## CLASSIFICATION OF ACHILLES TENDINOPATHY:

Achilles tendinopathy may be classified into the following stages:

1. *Reactive tendinopathy* which refers to a rapid increase in loading;
2. *Tendon disrepair* often follows a reactive tendinopathy if the tendon continues to be excessively loaded;
3. *Degenerative tendinopathy* represents the Achilles tendon response to chronic overloading

Achilles tendinopathy is often further classified into:

1. Mild: pain following exercises
2. Moderate: pain before exercise that lessens during and increases afterwards
3. Severe: pain at all times during sporting activity
4. Extreme: pain during daily activities



## CAUSES OF ACHILLES TENDINOPATHY:

Some major causes of Achilles tendinopathy include:

- Repetitive loading of the Achilles normally
- Poor footwear
- Decreased ankle mobility or previous ankle injury
- Increased foot pronation (flattening or rolling in of the foot)
- Poor hip and knee strength
- may include running and jumping
- Previous calf tear and poor rehabilitation
- Overweight person
- Changes in training loads and volumes;



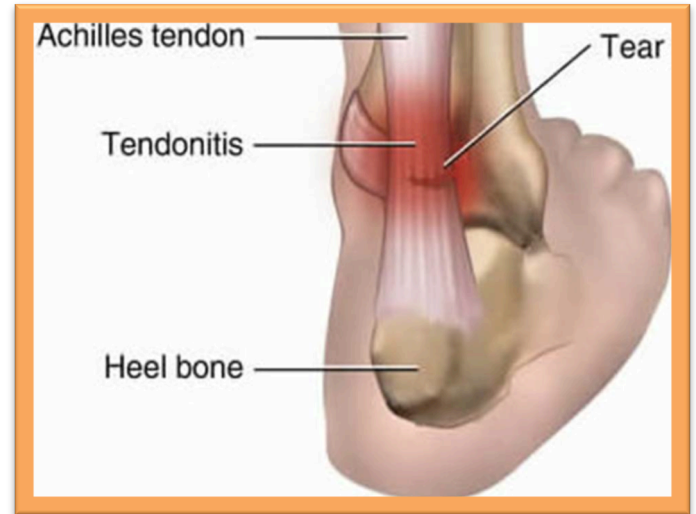
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## DIAGNOSIS:

A thorough subjective history will guide the physiotherapist in the correct direction for diagnosis. The physiotherapist will also look for changes in training loads, muscles tightness, previous injuries, calf weakness, joint mobility and often test for aggravating activities. Pain will often occur during running, hopping or calf raise stress testing and tenderness through the Achilles will be present on palpation. With a degenerative tendinopathy there may be a lump or nodule present in the Achilles

Tendon compromise will be seen on MRI or US in the way of tendon thickening, swelling and disorganisation of the tendon



## PHYSIO TREATMENT OPTIONS:

- Exercise prescription including concentric and eccentric strengthening programs
- Biomechanical analysis and correction of walking and running techniques
- Orthotic prescription
- Massage therapy
- Dry needling
- Training program prescription and modifications
- Taping techniques and footwear advice
- Assisted stretching

## FURTHER TREATMENT OPTIONS:

Tendon injuries are a very slow healing structure and often require further medical treatment in regards to injections from a sports doctor. Common types of injections include cortisone, saline and platelet rich plasma (PRP).



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## HELPFUL HINTS:

- Use ice massage over the tendon after exercise
- Self-massage through the calf will help;
- Exercise rehabilitation programs associated with Achilles tendinopathy can be long and boring but must be adhered to for appropriate recovery;
- Decrease training loads and use cross-training principles to unload the tendon;
- Customised strengthening programs are imperative for healing.

## WHEN THINGS GO WRONG:

Long-standing Achilles tendinopathy greatly increases the chances of Achilles tendon rupture. Rupture to the Achilles tendon is a common injury amongst middle age athletes, otherwise referred to as 'weekend warriors' and will require surgical repair with a 9-12 month rehabilitation