
Achilles tendonitis

Summary

- Achilles tendonitis is inflammation of the Achilles tendon (which attaches your calf muscles to your heel bone).
 - In most cases, Achilles tendonitis is an 'overuse' injury.
 - Treatment includes rest, non-steroidal anti-inflammatory drugs (NSAIDs), physical therapy and avoiding activities that aggravate the condition.
 - Surgery is only considered if all other treatment options have failed to cure the condition within six months.
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Achilles tendonitis is inflammation of the Achilles tendon, which attaches the calf muscles to the heel bone. In most cases, Achilles tendonitis is a type of overuse injury and is more common in younger people. Professional and weekend athletes can suffer from Achilles tendonitis, but it is also a common overuse injury in people not involved in sport.

Treatment includes rest, non-steroidal anti-inflammatory drugs (NSAIDs), physical therapy and avoiding activities that aggravate the condition.

Tendons explained

A tendon is a band of connective tissue that anchors muscle to bone. The Achilles tendon is the largest tendon in the body. It attaches the calf muscles to the heel bone (calcaneus) and is very important because it lets you lift your heel when you start to walk. It also helps you to walk, run or stand on tiptoe.

Symptoms of Achilles tendonitis

Symptoms of Achilles tendonitis include:

- pain in the back of the heel
- difficulty walking – sometimes the pain makes walking impossible
- swelling, tenderness and warmth of the Achilles tendon.

Degrees of severity of Achilles tendonitis

Achilles tendonitis is graded according to how severe it is:

- **mild** – pain in the Achilles tendon during a particular activity (such as running) or shortly after.
- **moderate** – the Achilles tendon may swell. In some cases, a hard lump (nodule) may form in the tendon
- **severe** – any type of activity that involves weight-bearing causes pain of the Achilles tendon. Very occasionally, the Achilles tendon may rupture (tear). When an Achilles tendon ruptures, it is said to feel like a hard whack on the heel.

Causes of Achilles tendonitis

Some of the causes of Achilles tendonitis include:

- **overuse injury** – this occurs when the Achilles tendon is stressed until it develops small tears. Runners seem to be the most susceptible. People who play sports that involve jumping, such as basketball, are also at increased risk
 - **arthritis** – Achilles tendonitis can be a part of generalised inflammatory arthritis, such as ankylosing spondylitis or psoriatic arthritis. In these conditions, both tendons can be affected
 - **foot problems** – some people with flat feet or hyperpronated feet (feet that turn inward while walking) are prone to Achilles tendonitis. The flattened arch pulls on calf muscles and keeps the Achilles tendon under tight
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strain. This constant mechanical stress on the heel and tendon can cause inflammation, pain and swelling of the tendon. Being overweight can make the problem worse

- **footwear** – wearing shoes with minimal support while walking or running can increase the risk, as can wearing high heels
- **overweight and obesity** – being overweight places more strain on many parts of the body, including the Achilles tendon
- **quinolone antibiotics** – can in some instances be associated with inflammatory tenosynovitis and, if present, will often be bilateral (affect both Achilles tendons), coming on soon after exposure to the medication.

Diagnosis of Achilles tendonitis

If you think that you may have Achilles tendonitis, see your doctor or a physiotherapist. Methods used to make a diagnosis may include:

- medical history, including your exercise habits and footwear
- physical examination, especially examining for thickness and tenderness of the Achilles tendon
- tests that may include an x-ray of the foot, ultrasound and occasionally blood tests (to test for an inflammatory condition), and an MRI scan of the tendon.

Treatment for Achilles tendonitis

The aim of the treatment is to reduce strain on the tendon and reduce inflammation. Strain may be reduced by:

- avoiding or severely limiting activities that may aggravate the condition, such as running
- using shoe inserts (orthoses) to take pressure off the tendon as it heals. In cases of flat or hyperpronated feet, your doctor or podiatrist may recommend long-term use of orthoses.

Inflammation may be reduced by:

- applying icepacks for 20 minutes per hour while the injury is painful
- taking **non-steroidal anti-inflammatory drugs**
- placing the foot in a cast or restrictive ankle-boot to minimise movement and give the tendon time to heal. This may be recommended in severe cases and used for about eight weeks
- occasionally slowly absorbed steroid injections may be tried, particularly for peri-tendinitis, but great care needs to be taken to avoid injecting into the tendon. This should only be done by a specialist doctor.

You may also be given specific exercises to gently stretch the calf muscles once the acute stage of inflammation has settled down. Your doctor or physiotherapist will recommend these exercises when you are on the road to recovery. Recovery is often slow and will depend on the severity of the condition and how carefully you follow the treatment and care instructions you are given.

Surgery for Achilles tendonitis

Surgery is only recommended if all other treatment options have failed after at least six months. In this situation, badly damaged portions of the tendon may be removed. If the tendon has ruptured, surgery is necessary to re-attach the tendon.

Rehabilitation, including stretching and strength exercises, is started soon after the surgery. In most cases, normal activities can be resumed after about 10 weeks. Return to competitive sport for some people may be delayed for about three to six months.

Prevention of Achilles tendonitis

Suggestions to reduce your risk of Achilles tendonitis include:

- incorporate stretching into your warm-up and cool-down routines
- maintain an adequate level of fitness for your sport
- avoid dramatic increases in sports training
- if you experience pain in your Achilles tendon, rest the area. Trying to 'work through' the pain will only make your injury worse

- wear good quality supportive shoes appropriate to your sport. If there is foot deformity or flattening, obtain orthoses
- avoid wearing high heels on a regular basis. Maintaining your foot in a 'tiptoe' position shortens your calf muscles and reduces the flexibility of your Achilles tendon. An inflexible Achilles tendon is more susceptible to injury
- maintain a normal healthy weight.

Where to get help

- Your **GP (doctor)**
- **Podiatrist**
- **Physiotherapist**
- **Exercise physiologist**
- **ESSA Exercise & Sports Science Australia** Tel. **(07) 3171 3335**

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