



# Achilles Tendonitis

## What is Achilles tendonitis?

Achilles tendonitis is inflammation of the Achilles tendon, which is the thick, fibrous, connective tissue that attaches the calf muscles to the calcaneus (heel bone). Achilles tendonitis is an overuse injury that occurs when the tendon is subjected to excessive stress, such as from repetitive running or jumping. This leads to swelling and small tears in the tendon that cause pain, stiffness, and weakness. If the injury is not treated properly and the stress continues, the weakened tendon is at risk for rupture or progression to tendinopathy, a condition in which the tendon become thickened and irregular, leading to chronic pain and stiffness.

## Why does it happen?

Achilles tendonitis is most common in activities that require repetitive running, jumping, or leaping such as track and field, cross-country running, gymnastics, and dance. Poor flexibility of the calf muscles and muscle strength imbalances in the legs increase the risk for this injury. Other contributing factors include not having adequate rest between training sessions, training on hard surfaces like cement, poor-fitting or worn-out shoes, and certain varieties of foot shape and alignment.

## What are the symptoms?

The main symptom is pain in the back of the lower leg and heel that is worse with running and jumping. Walking and using stairs eventually become painful as well. There may be swelling or weakness. It may affect one or both heels.

## How is it diagnosed?

Your doctor will review your symptoms and examine your legs. He/she will ask about your training routine and shoe wear. Imaging studies, such as X-rays and MRI, are not necessary to confirm the diagnosis, but may be requested by your doctor to look for other causes of the pain if the diagnosis is uncertain.

## How is it treated?

The most important step in the treatment of Achilles tendonitis is rest from the irritating activities. Rest gives the tendon time to heal and repair itself. Calf muscle stretching is also important and can be started right away. Ice and anti-inflammatory medications can reduce the pain and swelling. Ice can be applied for 15-20 minutes every 1-2 hours. Heat should be avoided since it can worsen swelling. Keep in mind that ice and anti-inflammatory medications only treat the symptoms. They will not heal the injury. Healing requires a period of rest to allow the body to complete the tendon repair process. Physical therapy is often prescribed to correct imbalances in muscle strength and flexibility, which can speed recovery and prevent re-injury. Specifically, eccentric strengthening exercises for the calf muscles may strengthen the tendon and reduce the risk for recurrent injury. Shoe inserts may be helpful if your foot shape and alignment are contributing risk factors.



### **When can I return to my activity?**

The goal is for you to return to activity as quickly and safely as possible. If you return before your tendon has completely healed or if you play with pain, the injury will worsen. Everyone recovers from injury at a different pace. Your return to sport or activity depends on how soon your injury heals, not how many days or weeks it has been since the injury occurred. In general, the longer you have symptoms before starting treatment, the longer it will take for the injury to heal.

It is safe to start light activities (i.e. jogging) when you no longer have pain with daily walking and stairs, and your calf muscle strength and flexibility are symmetrical to the uninjured leg. Gradually progress over several days from jogging to more sports-specific activities like running, sprinting and jumping. If any of these activities is painful, it is too soon to return to sports.

### **How can Achilles tendonitis be prevented?**

- Perform a proper warm-up before starting any activity. Ten minutes of light jogging, cycling, or calisthenics before practice will increase circulation to cold muscles, making them more pliable so that they transmit less stress to the tendon.
- Stretch tight calf muscles several times a day. It is better to stretch after exercise than before exercise. Hold each stretch for 30 seconds. Don't bounce.
- Avoid sudden increases in training frequency, intensity, or duration.
- Allow for adequate rest between training sessions.
- Wear shoes that fit properly and are appropriate for the activity.
- Replace worn-out shoes promptly
- Avoid wearing high-heeled shoes, which can lead to calf muscle tightness.
- Do not play through pain. Pain is a sign of injury, stress, or overuse. Rest is required to allow time for the injured area to heal. If pain does not resolve after a couple days of rest, consult your physician. The sooner an injury is identified, the sooner proper treatment can begin. The result is shorter healing time and faster return to sport.