

Achilles Tendonitis

(Non-insertional Achilles Tendonitis)

What is Achilles Tendonitis?

- The Achilles tendon is the largest tendon in the body.
- Walking and running create large repetitive forces (>2-3x body weight) that are transmitted by the Achilles tendon with each step
- Repetitive overloading of the Achilles tendon creates microscopic injury to the tendon that can lead to tendonitis
- When tendonitis develops pain and inflammation of the tendon can occur
- Irritation to the lining that surrounds the tendon may also cause symptoms

Symptoms of Achilles Tendonitis

- Pain and swelling in the Achilles tendon are the main symptoms
- The primary area of discomfort is usually in the thick portion of the Achilles tendon --rather than where it attaches to the heel bone (Figure 1)
- An increase in activity level prior to the onset of Achilles tendonitis symptoms is often reported (ex. new sport, or new training program)
- Achilles tendonitis can occur at any age, but is more common with patients in their 30s, 40s, and 50s as tendons and muscles stiffen with age
- A tight/stiff calf muscle, or the use of a shoe with a negative heel (more stretch on the Achilles) will tend to lead to the onset of symptoms.
- The use of certain medications (ex. fluoroquinolone antibiotics) increase the likelihood of developing Achilles tendonitis

Treatment of Achilles Tendonitis

Achilles tendinitis can be treated without surgery in the VAST majority of cases. Conservative treatment can be viewed as having three phases:

- Phase 1: Settle the pain with rest and immobilization (typically 1-3 weeks).
- Phase 2: Gradually increase activity levels back to normal (~4-10 weeks)
- Phase 3: Maintenance phase (indefinitely)

Treatment elements for Achilles tendonitis include:

- Relative rest to protect the tendon
 - Activity modification
 - Cast boot (Walker boot) or cast for severe symptoms (Phase 1)
- Heel lift to help off-load the Achilles tendon
- Comfort shoe (stiff sole, rocker contour)
- Daily calf stretching with the knee straight (Figure 2)
- Physical therapy or a coordinated rehabilitation program (3-12 weeks)
 - Stretching the lower extremity muscles, especially the calf muscle
 - Strengthening lower extremity muscles
 - Eccentric loading exercises added gradually (Figure 3)
 - Soft-tissue mobilization and massage
- A gradual increase in activities (back off activities if symptoms recur)
- Weight Loss if patient is overweight
- Anti-inflammatory medication (NSAIDs) --used judiciously

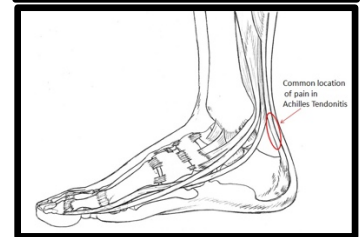


Figure 1: Location of pain and swelling in Achilles Tendonitis



Figure 2: Calf stretching (knee straight)

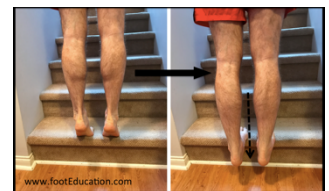


Figure 3: Eccentric Calf Stretching