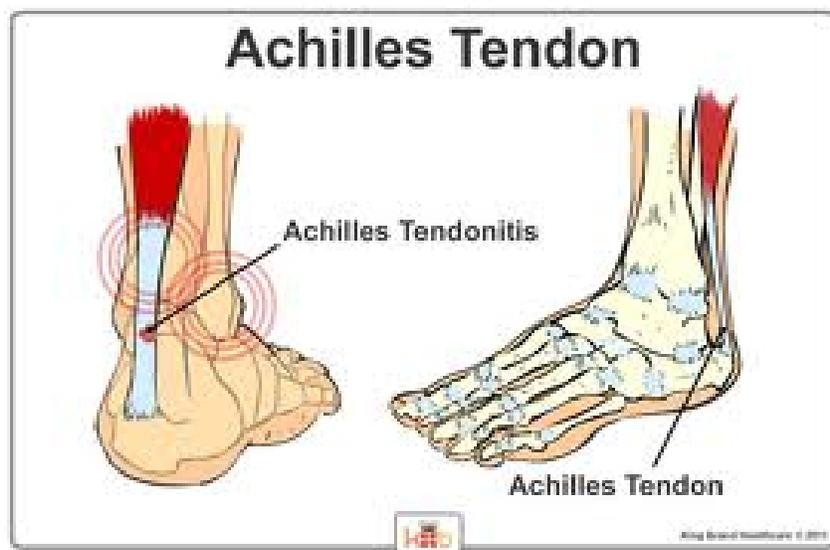


## Achilles Tendinitis

### Background:

This Achilles tendon is the long tendon that connects the calf muscles to the heel bone. It is used when walking, running and jumping and is prone to overuse injury because of the amount this tendon is used and the great deal of force that is exerted through this tissue. Achilles tendonitis is an inflammation of the Achilles tendon that can make walking and everyday activities difficult.



### Cause:

Achilles tendonitis is an overuse injury that occurs because of repetitive stress on the tendon, especially when the tendon is pushed past its normal limits. There are a couple factors that may predispose an athlete for developing Achilles tendonitis.

- 1) A sudden increase in the amount of activity you are doing.  
-Ex: Increasing the distance that you are running.
- 2) Having tight calf muscles and beginning strenuous activity.  
-Tight calves will not allow the foot to move in the full range of motion and will add extra stress to the tendon.
- 3) Bone spurs  
-Bone spurs are extra boney growths that can form on the heel and begin to rub on the Achilles tendon causing pain and inflammation.

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**Examination:**

Upon examination the Doctor will be looking for the athlete to describe some specific signs and symptoms in order for them to suspect Achilles tendonitis. Some of these symptoms include pain and stiffness on the Achilles tendon in the morning and during/after activity, inflammation or enlargement around the Achilles tendon, and bone spurs. Once these symptoms are noted the doctor will then check to see where the most tenderness is felt, what the range of motion limitation is, and may send the athlete to get an X-ray or MRI so the doctor can get a better idea of what is going on.

**Treatment:**

The non-surgical treatments for Achilles tendonitis are conventional and consist of rest, ice, anti-inflammatory medications, stretching the calf, wearing more supportive shoes, physical therapy, and cortisone injections. It is becoming more common to treat this injury with the use of eccentric calf exercises, contracting and controlling the elongation of the muscle. These exercises create micro-tears in the tendon than promotes healing in the area. Surgical treatment is also a possibility with Achilles tendonitis but it is often not needed. There are three types of procedures that are used in order to fix Achilles tendonitis; Gastrocnemius recession (lengthen the calf muscle), Débridement and repair (remove the damaged part of the Achilles tendon and repair it), and débridement with tendon transfer (remove the unhealthy part of the tendon and replace it with another tendon).

**Athlete Recovery:**

Lifestyle changes will typically aid in the recovery of this injury. Unfortunately, it could take up to two to six months to fully recover from serious cases of Achilles tendonitis. Some times surgical treatment will need to be done. If the Achilles tendonitis is serious enough the surgical treatment could take around one year to heal and become pain-free with physical therapy.

**Prevention:**

Achilles tendonitis may predispose an athlete for Achilles tendon ruptures. This is a much more serious condition and will require surgical treatment to repair. In order to prevent these more serious complications maintaining strength and flexibility in the calf muscles is a must. Overworking a weak or tight calf muscle will cause a greater risk of Achilles tendonitis.

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**Athletes At Risk:**

Achilles tendonitis is an orthopedic injury that can occur to any type of running athlete. Long distance and short distance runners and any field (football, soccer, etc.) or court athletes (basketball, tennis, etc.) are at risk for this injury. The most important factor to remember for this injury is training intensity. Slowly increasing the training intensity that an athlete is utilizing will greatly lower the risk of acquiring Achilles tendonitis, as long as there is no existing damage to the tendon that predisposes the athlete further for this condition.

**Professional Athletes with Achilles Tendonitis:**

Dan Marino (NFL), Kobe Bryant (NBA), Elton Brand (NBA), Jose Contreras (MLB)

**Relevant Articles:**

*Treating Achilles Tendon Injuries*

<http://achillestendon.com/treating-injuries/>

*Rehab for Chronic Achilles Tendonitis*

[http://www.carletonsportsmed.com/chronic\\_achilles\\_tendinitis.htm](http://www.carletonsportsmed.com/chronic_achilles_tendinitis.htm)

**Academic Journal Articles:**

*A Treatment Algorithm for managing Achilles Tendinopathy: New Treatment Options*

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2658946/>

*Achilles Tendinopathy: Etiology and Management*

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1079614/>

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