

Achilles' Tendon Rupture: Recovery and Rehabilitation

By: Saurin Gandhi November 4, 2015

Introduction

The mythical Achilles' heel, the weakness in spite of overall strength, is a feared spot of vulnerability. Ironically, it is the strongest and largest tendon in the human body. The Achilles tendon is a fibrous cord that connects the calf muscle to the heel. It functions in pushing your heel off the ground and go on your toes, helping to walk, run, and jump. In those that have partially or completely torn their achilles tendon, it may be a difficult injury to accept as many times torn tendons occur in seasoned athletes. In this article we will discuss an overview of how this injury occurs, what to expect, symptom relief, rehabilitation, and definitive treatment options.

Risk Factors

- Achilles tendon rupture may occur due to a number of causes but there are certain factors that predispose an individual to injury. They include: Age (30-40), male sex (5x more likely than females), stop-and-stop sports, steroid injections into the fibers, and fluoroquinolone antibiotics.

How an Achilles Tendon Tear Happens and What You May Feel

- The mechanism of injury may be multifactorial but may occur when trauma occurs, stop-and-stop actions (tennis, basketball), or suddenly exerting force off of the ground (jumping).
- If the tendon ruptures, you may feel a snapping sensation where you may feel pain in the back of your calf, ankle, or heel. With injury, it would be difficult to walk, stand on your toes, or lift your foot off the ground. Swelling or bruising may occur around the area.
- Rupture most commonly occurs 6cm above the point where the tendon attaches to your heel bone. This area has decreased blood flow and thus makes it a difficult area to heal.

Diagnosis

- Can be a clinical diagnosis but to classify the extent of rupture and to guide treatment options, your physician will likely get an MRI. An MRI differentiates between a complete tear where the fibers are disconnected and a partial tear where only some of the fibers are disrupted.

Symptom Relief

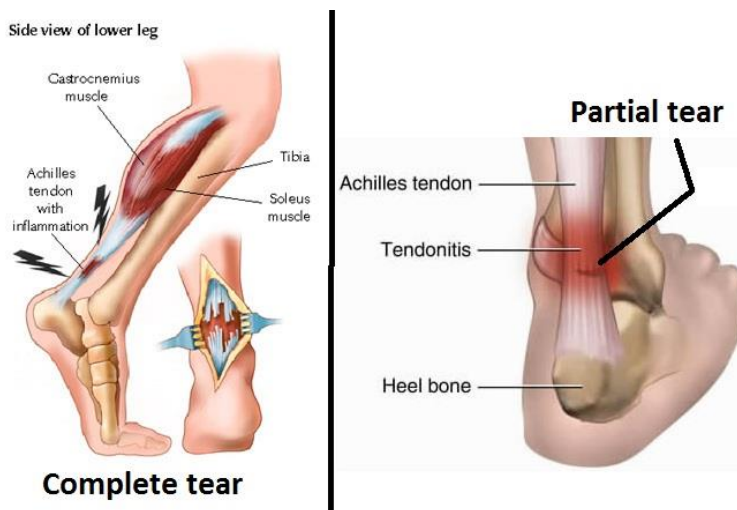
- To reduce swelling, one can place ice packs on the affected area and elevate your legs when lying down and sitting.
- Anti-inflammatories like ibuprofen or naproxen as well as acetaminophen may be helpful.

Treatment Options

- Complete tears likely will require surgery. Partial tears may require surgery however many of them can be treated noninvasively. This can be accomplished through casts, braces, splints or boots to immobilize the leg and allow the fibers to grow back together and strengthen. Usually they are used for approximately 6 weeks. After 2-3 weeks, your doctor may ask you to begin moving your heel if tolerable. In some, this may not be possible until about 6 weeks. Most people will recover with physical therapy in 4-6 months.

Follow-Up

- Once resuming normal activity, be weary that once you rupture your Achilles tendon, you are likely to do it again. Therefore it is important to remain in good shape, stretch before strenuous activity, avoid high-heel shoes, and obtain clearance from your physician. It is important to gradually increase your activity, use proper cushioning in shoes, and not to run on any hard surfaces. For any complications such as fever, excessive swelling, or discoloration of your limb, obtain medical advice immediately.



Closing Remarks:

Achilles tendon tears are a difficult injury to deal. Work closely with your physician to make sure you are rehabilitating and recovering gradually. Try not to aggravate the injury and be very careful in stop-and-stop activities as the tendon is more vulnerable to rupture if it has been ruptured before.

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- **Mayo Clinic:**
 - <http://www.mayoclinic.org/diseases-conditions/achilles-tendon-rupture/basics/definition/con-20020370>
- **Images**
 - <http://www.numalemedical.com/cm/dpl/images/create/hrt-pic.jpg>