



Achilles Rupture

What is the Achilles Tendon?

A tendon is a band of tissue that connects a muscle to a bone. The Achilles tendon runs down the back of the lower leg and connects the calf muscle to the heel bone. Also called the "heel cord," the Achilles tendon facilitates walking by helping to raise the heel off the ground.

What is an Achilles Tendon Rupture?

An Achilles tendon rupture is a complete or partial tear that occurs when the tendon is stretched beyond its capacity. Forceful jumping or pivoting or sudden accelerations of running can overstretch the tendon and cause a tear. An injury to the tendon can also result from falling or tripping.

Achilles tendon ruptures are most often seen in "weekend warriors" – typically, middle-aged people participating in sports in their spare time. Less commonly, illness or medications such as steroids or certain antibiotics may weaken the tendon and contribute to ruptures.

Signs and Symptoms

A person with a ruptured Achilles tendon may experience one or more of the following:

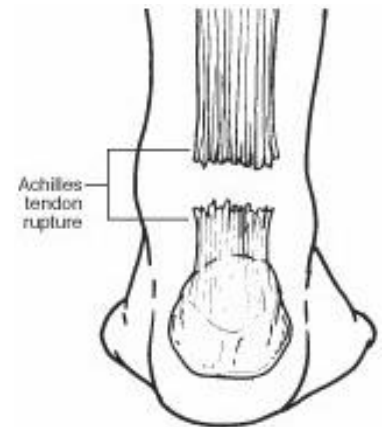
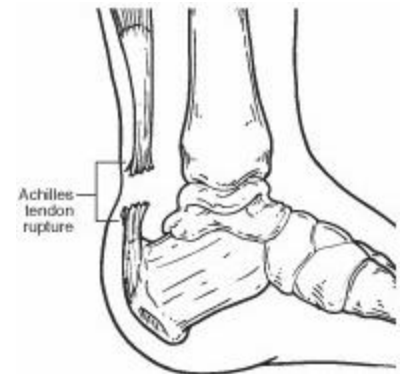
- Sudden pain (which feels like a kick or a stab) in the back of the ankle or calf – often subsiding into a dull ache.
- A popping or snapping sensation.
- Swelling on the back of the leg between the heel and the calf.
- Difficulty walking (especially upstairs or uphill) and difficulty bearing weight on the toes

These symptoms require prompt medical attention to prevent further damage. Until the patient can see a doctor, the "R.I.C.E." method should be used. This involves:

- **Rest.** Stay off the injured foot and ankle since walking can cause pain or further damage.
- **Ice.** Apply a bag of ice covered with a thin towel to reduce swelling and pain. Do not put ice directly against the skin.
- **Compression.** Wrap the foot and ankle in an elastic bandage to prevent further swelling.
- **Elevation.** Keep the leg elevated to reduce the swelling. It should be even with or slightly above heart level.

Diagnosis

In diagnosing an Achilles tendon rupture, the foot and ankle podiatrist will ask questions about how and when the injury occurred and whether the patient has previously injured the tendon or experienced similar symptoms. The podiatrist will examine the foot and ankle, feeling for a defect in the tendon that suggests a tear. Range of motion and muscle strength will be evaluated and compared to the uninjured foot and ankle. If the Achilles tendon is ruptured, the patient will have less strength in pushing down (as on a gas pedal) and will have difficulty rising on the toes.





The diagnosis of an Achilles tendon rupture is typically straightforward and can be made through this type of examination. In some cases, however, the podiatrist may order an MRI or other advanced imaging tests.

Treatment

Treatment options for an Achilles tendon rupture include surgical and non-surgical approaches. The decision of whether to proceed with surgery or non-surgical treatment is based on the severity of the rupture and the patient's health status and activity level.

Non-Surgical Treatment

Non-surgical treatment, which is generally associated with a higher rate of re-rupture, is selected for minor ruptures, less active patients and those with medical conditions that prevent them from undergoing surgery. Non-surgical treatment involves use of a cast, walking boot or brace to restrict motion and allow the torn tendon to heal.

Surgery

Surgery offers important potential benefits. Besides decreasing the likelihood of re-rupturing the Achilles tendon, surgery often increases the patient's push-off strength and improves muscle function and movement of the ankle.

Surgery to repair a torn (ruptured) Achilles tendon is conducted on an outpatient basis using a local anesthetic with IV sedation. It involves making an incision in the back of the leg above the heel to access the torn tendon. The tendon is then sewn back together. Surgery may be delayed for about one week after the rupture to allow the swelling to decrease.

After surgery, a cast or walking boot is usually worn for six to 12 weeks. Initially the cast or boot is positioned to keep the foot pointed downward as the tendon heals. The cast or boot is then adjusted gradually to put the foot in a neutral position (not pointing up or down). Specific gentle exercises (restricted motion) after surgery can shorten the time needed in rehabilitation.

Various surgical techniques are available to repair the rupture. The podiatrist will select the procedure best suited to the patient. Following surgery, the foot and ankle are initially immobilized in a cast or walking boot. The podiatrist will determine when the patient can begin weight bearing. Complications such as incision-healing difficulties, re-rupture of the tendon or nerve pain can arise after surgery.

Physical Therapy

Whether an Achilles tendon rupture is treated surgically or non-surgically, physical therapy is an important component of the healing process. Physical therapy involves exercises that strengthen the muscles and improve the range of motion of the foot and ankle.

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