

# Pinpointing the Pain: Achilles Tendonitis and Ruptures

While the modern reference to an Achilles' heel suggests a weakness of character leading to one's downfall, the mythological tale of Achilles reverberates with anyone who has suffered an injury of the Achilles tendon. In the fabled story, the infant Achilles is dipped in the River Styx by his mother, who seeks to protect her son from injury. Held only by his heel, Achilles becomes invulnerable anywhere he is touched by the water—only his heel remains untouched. Years later, Achilles' weakness is revealed when a poisoned arrow pierces his heel and he succumbs to death.

The largest tendon in the body, the Achilles tendon refers to the thick band of fibrous tissue that joins the calf muscle (or gastrocnemius muscle) to the heel bone. Both strong and pliable, the Achilles tendon is subject to a person's entire body weight with each step. Depending on speed, stride and additional weight carried or pushed, the Achilles heel may endure up to 12 times a person's weight.

In spite of its incredible strength and durability, the Achilles tendon can become inflamed (tendonitis), tear (often referred to as a gastrocnemius muscle tear) or rupture (a full tear of the tendon). The Achilles tendon is considered to be the third most common site of tendon rupture in the human body. Gary Galton ruptured his heel playing tennis—an example of the more than 200,000 Americans who experience Achilles tendon injuries each year.

## ACHILLES ACHES AND PAINS

Symptoms of Achilles tendon injuries may include swelling in the ankle area and mild or severe pain. The injury may progress slowly or occur suddenly, causing a popping sound and severe pain. People suffering from ruptured Achilles tendons are generally unable to point their foot or stand on their toes, finding it impossible to walk. Surprisingly, tendonitis often causes more pain than a rupture, which may go unrecognized as a severe injury unless a person seeks immediate medical attention, as Gary did.

## PREVENTING DAMAGE TO THE ACHILLES TENDON

As with most injuries, prevention is key. Middle-age adults are particularly vulnerable to partial or full tears of the Achilles tendon. The tendon becomes less pliable with age, making stretching an important component of prevention. Staying in shape, maintaining a healthy weight, warming up prior to exercise and strengthening the Achilles tendon are all ways in which to avoid serious injury.

Another important component of injury prevention is wearing the correct footwear. Proper footwear can also aid in recovering from these types of injuries.

## TREATMENT

Treatment for Achilles tendon injuries varies. Tendonitis can often be treated by rest, anti-inflammatories, careful stretching and physical therapy, including transverse friction massage—a method of stimulating blood flow by strumming the tendon with the fingers. A physician can best determine a course of treatment which may include a physical therapist.

Partial Achilles tendon tears can sometimes heal through rest and physical therapy, but a physician should determine the full extent of the injury. A complete tear or rupture of the Achilles tendon is debilitating, requiring surgery, rest and physical therapy for a full recovery.