

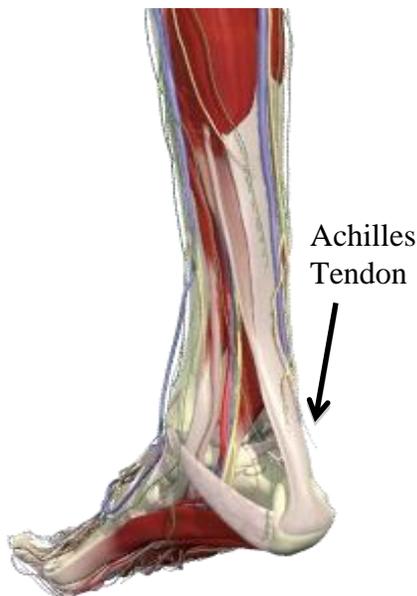
Chronic Achilles Tendinopathy

by: DR. STEFANO BOZZO, HBSC(KIN), DC

Chronic Achilles tendon pain is prevalent among athletes involved in running sports. The true cause of the injury is not fully understood, however, it is widely considered an overuse injury.

Anatomy

The Achilles is the largest and strongest tendon in the body. It is formed as the Gastrocnemius and Soleus (calf muscles) come together before attaching on the heel.



A healthy tendon is made up of a strong type of collagen (Type I), which is the most abundant in the body. This collagen allows the tendon to stretch a great deal without rupturing. A thick membrane covers the tendon. Blood vessels and nerves run inside this membrane to supply the tendon with nutrients and sensation.

Tendinitis vs. Tendinosis

A chronic painful Achilles tendon is often referred to as **Achilles Tendinitis**, which suggests the tendon is inflamed. In the past, Achilles tendinitis has been treated as an inflammatory condition.

More recent studies of painful Achilles tendons have shown changes of the collagen within the tendon, without evidence of inflammation. New blood vessels and pain sensitive nerve endings form in the tendon. It is thought that these new blood vessels and nerves keep the tendon in chronic pain. The term **Achilles Tendinosis** has been adopted to indicate a chronic tendon injury without inflammation.

Causes

A number of factors can contribute to a chronic painful Achilles tendon, all of which place the tendon under excessive load. Increased training frequency and duration, poor technique or footwear, and training on hard or uneven surfaces are all examples training errors that can contribute to Achilles pain. Some biomechanical factors include altered lower limb function, decreased ankle flexibility, and excessive motion in the back of the foot.

Management

A conservative approach is recommended initially and may include activity modification,

traditional stretching and strengthening exercises, orthotics, balance exercise, Active Release Techniques, etc. Eccentric exercises have shown promising results in chronic Achilles tendinopathy. It is thought that eccentric exercises act to remove newly formed blood vessels and pain sensitive nerve fibers (not present in healthy tendons), therefore decreasing pain. These exercises also promote proper healing by stimulating and strengthening Collagen Type I formation.

For persistent issues, other treatment options are available including corticosteroid injection, platelet rich plasma therapy, extracorporeal shockwave, etc.

Recovery could take weeks or even months, however, most do make a full recovery.



Dr. Stefano Bozzo, HBSc (KIN), DC, is the newest Chiropractor to join the GRSM team.

He is a 2007 University of Waterloo Kin graduate. He completed his Chiropractic degree at CMCC in Toronto, graduating with clinic honours in 2011. He is certified in Active Release Techniques and Contemporary Acupuncture.