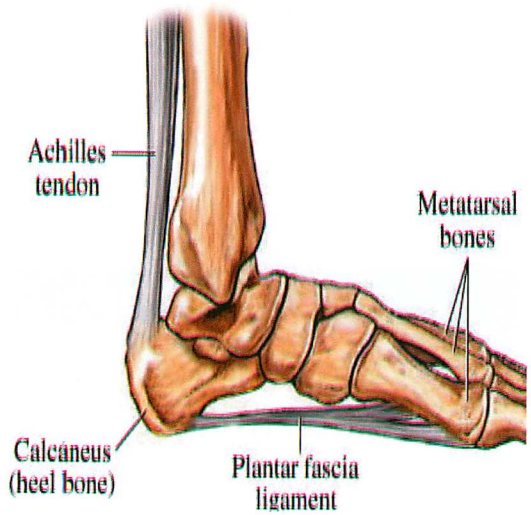
About Plantar Fasciitis

Foot Anatomy

The plantar fascia (also known as the plantar aponeurosis) is a thick band of connective tissue. It runs from the front of the heel bone (calcaneus) to the ball of the foot. This dense strip of tissue helps support the arch of the foot by acting something like the string on an archer's bow.

When the foot is on the ground a tremendous amount of force (the full weight of the body) is concentrated on the plantar fascia. This force stretches the plantar fascia as the arch of the foot tries to flatten from the weight of your body. This is just how the string on a bow is stretched by the force of the bow trying to straighten.



What is Plantar Fasciitis?

Plantar fasciitis is an inflammation of the origin of the plantar fascia and the surrounding structures. It is a painful condition affecting the bottom of the foot. It is a common cause of heel pain and is sometimes called a heel spur.

What Causes Plantar Fasciitis?

When the foot is on the ground supporting the weight of the body, there is stress on the plantar fascia where it attaches to the heel bone. Small tears of the fascia can result. These tears are normally repaired by the body.

As this process of injury and repair repeats itself over and over again, a bone spur (a pointed outgrowth of the bone) sometimes forms as the body's response to try to firmly attach the fascia to the heel bone. This appears on an X-ray of the foot as a heel spur.

Symptoms

Common symptoms of plantar fasciitis include the following:

- Pain along the inside edge of the heel near the arch of the foot
- Pain is worse when weight is placed on the foot, most pronounced in the morning when the foot is first placed on the floor
- Pain with pulling the toes up

How Physical Therapy Can Help

Physical Therapy can help patients with plantar fasciitis in a number of ways.

- Modalities (heat/ice, electric stimulation, ultrasound) to decrease pain/inflammation and promote healing
- Therapeutic exercises to strengthen muscles of the foot and ankle
- Manual techniques to improve foot and ankle range of motion (ROM)
- Personalized home exercise program to maintain strength/flexibility outside of therapy
- Education on body mechanics, footwear modifications to prevent future recurrence

With physical therapy, many patients gain relief from their plantar fasciitis symptoms and are able to return to full activity with improved strength and flexibility.