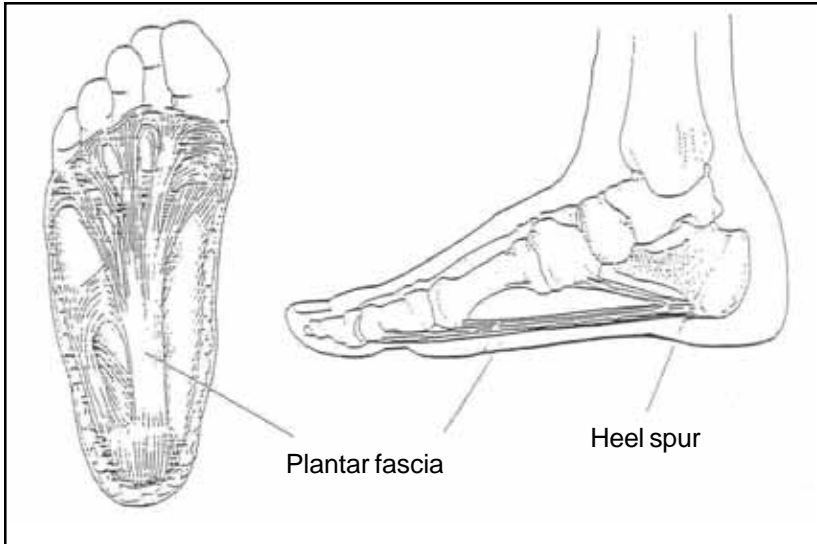




Plantar Fasciitis



Plantar fasciitis is an inflammatory condition involving the plantar fascia, a thick band of connective tissue found on the bottom of the foot. This thick band of tissue extends from the heel to the ball of the foot, and aids in support and stabilization of the foot (especially the arch) during walking and running.

Symptoms involve two areas: the arch and, more commonly, the inside heel arch. Severe pain can be present especially in the morning on arising and after periods of rest. This pain usually decreases somewhat with initial activity and then, as the day progresses, can become quite painful, depending on the activity level. Swelling, redness, and heat are usually not apparent.

Many patients use the term “stone bruise” to describe this condition because of the intense, localized area of discomfort.

The most common cause of plantar fasciitis is overuse, an excessive amount of activity over a given period of time. This excessive activity causes a stretching or pulling force on the heel area, resulting in a fatigue failure or breakdown of the fascial tissue. Over a period of time, this traction, or pulling force, can result in heel spur formation, which can be clearly seen on x-rays. Certain generalized arthritic problems can also be responsible for plantar fasciitis/heel spur syndrome and should be considered.

Treatment initially consists of:

- Supportive/stable shoes
- Stretching exercises to stretch the Achilles tendon and plantar fascia. This should be done in the morning or before activity. Ice application after activity.
- Temporary over-the-counter (OTC) arch supports
- The use of oral anti-inflammatory agents (ie., Advil, Aleve, or Ibuprofen)

Four to twelve weeks is usually the amount of time necessary for symptoms to improve significantly. In resistant cases the following may be necessary to obtain a cure:

- Local anesthetic steroid injections
- Custom orthotics
- Night splint - stretches plantar fascia while at rest
- Physical therapy; deep tissue massage and ultrasound
- Heel cups
- Surgery

Conservative treatment is curative 95% of the time for this problem. During treatment activity to tolerance using pain as a guide is recommended.



Plantar Fasciitis/ Heel Spur Syndrome/Stone Bruise

Plantar fasciitis is an injury to the bottom of the foot caused by an alteration in the biomechanics. This may result from an increase in weight, pregnancy, change in shoe gear, change in activity level, or change in working surfaces. Treatment of the problem is accomplished by controlling the biomechanics, this may be done in a step wise order.

Shoes- It is important that the shoes have a stiff heel counter in order to control pronation or flattening of the arch. Shoes should also have good arch supports. Try to wear your shoes at all times, do not go barefoot. The SAS company has two styles that provide this support-Free Time and Time Out. There are many other companies that have shoes with these features. Women with narrow heels often need to switch to the athletic shoe brand RYKAS; or add heel counter pads to the existing shoe. RYKAS makes women's athletic shoes with a narrow heel counter.

Over the counter arch supports- These supports must have a deep heel cup as well as a firm arch support.

Taping of the foot -This holds the foot in the corrected position. If taping helps decrease the pain on the bottom of the foot, you will most likely benefit from custom made orthotics. The tape should be worn on the bottom of the foot for approximately three days. Try to wear your shoes at all times. If an irritation, blister, or reaction to the tape occurs take it off immediately. To shower place a plastic bag over the foot. Wrap a towel around the ankle inside the bag. Place tape over the plastic at the level of the ankle.

Custom molded orthotics- This is a prescription device that is placed in your shoe made from a mold that is taken of your foot held in it's correct biomechanical position. This position allows your foot to function the way it functioned prior to injury. This device may require that you purchase shoes that are slightly larger in order to accommodate this device. Shoes worn with orthotics should have a stiff heel counter.

Other treatments that may help decrease the pain on the bottom of the foot are:

Stretching Gastroc & Soleous - Wall push ups & wall squats. Place both feet on the floor 2 feet away from the wall. Lean into the wall stretching the foot and calf. Make sure the heels stay in contact with the floor. This should be done for approximately 30 seconds at a time repeatedly through out the day.

Night Splints - These are prescription devices that are worn while sleeping at night. They keep the foot at 90 degrees to the ankle. This keeps the plantar fascia on stretch all night.

Icing - Place a block of ice on the bottom of the foot where the pain or inflammation is located. This should be done for twenty minutes at a time. This will help reduce the inflammation, which is the cause of the pain.

Contrast baths - Place the foot in warm water for 5 minutes followed by 5 minutes in iced cold water. This will also help reduce the inflammation.

Anti-inflammatory medications- Take Motrin 800mg three times a day with food. Nonsteroidal anti-inflammatory product should be taken as directed or the maximum benefit will not be obtained. Do not take these products if you have gastric ulcers.

Steroid injections- A small amount of steroid can be injected into the area of inflammation. This is usually mixed or used in combination with a local anesthetic. It may cause a hard nodule at the area of injection. This will be temporary, lasting only a few hours. If this occurs, rub the area with ice. Long-term benefits are inconsistent.

Remember this injury did not happen over night, so it may take a few weeks to resolve