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How to Heal Plantar Fasciitis Part I

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Plantar fasciitis (PLAN-tur fas-e-l-tis) is one of the most common forms of heel pain that we see in our practice. It can be particularly debilitating for people who work on their feet and require long hours of weight-bearing activity. It can also cause them to curtail normal activities and keep them from participating in their favorite recreational activities.

Many of our patients are confused about the causes of plantar fasciitis and how to get rid of it. There are numerous infomercials on the Internet and TV that offer miracle products to end heel pain. They all sound great; some even offer a money back guarantee if your foot pain is not ended. Unfortunately, it may not be that simple!

The first part of this article will help you understand what plantar fasciitis is, explain the causes and symptoms, and provide an overview of conservative treatment measures. The second part of this article will appear in next month's issue to provide information regarding alternate treatment measures and surgical procedures.

What is plantar fasciitis?

Plantar fasciitis is an inflammation of the band of fibrous connective tissue in the bottom of the foot that extends from the heel to the ball of the foot. It occurs when the tissue is overstretched beyond its normal extension, causing the fibers to stretch or tear. Sometimes it leads to the growth of a bone spur in the heel bone where the plantar fascia attaches.

The plantar fascia supports the mid-foot bones (cluster of small bones) and five long bones (metatarsals) that extend to the toes. The long, flat band of tissue supports the arch of the foot and acts as a shock absorber. It can be extremely discomforting when it becomes inflamed and torn. Shoes can aggravate the inflammation if they do not provide appropriate support. The condition can especially become a chronic irritation for people who have athletic lifestyle or who are on their feet a lot.

Causes and symptoms

The root cause of plantar fasciitis often is an overly tight gastrocnemius (gas-troc-ne-mi-us) and solius muscle group (two major muscles in the calf muscle) coupled with an overly tight Achilles tendon (tendon that connects the calf muscle to the heel bone).

Repeated strain on the plantar fascia can cause tiny micro tears in the ligament. As tension and tearing increases, the fascia becomes more inflamed and painful. The condition worsens as the tissue degenerates into small micro tears. When degeneration occurs, the body reinforces itself by adding more tissue. Unfortunately, as the plantar fascia becomes thicker, it becomes less elastic. As weight is transferred into the foot, the tightness causes a stabbing pain in the heel and burning ache across the sole of the foot. The plantar fascia has a tendency to become stiffer and more painful as the condition becomes more chronic.

Other risk factors that can contribute to this condition are faulty foot mechanics: flat feet, high arches, excessive pronation (feet roll inward), tight Achilles tendons or calf muscles, abnormal walking pattern, improperly fitting shoes, occupations or activities that keep you on your feet walking or standing for long durations on hard surfaces, high intensity activities (long-distance running, dance, ballet), and obesity.

Plantar fasciitis generally presents as pain in the morning when you get out of bed and begin walking or after sitting for any length of time. Pain usually hurts as the day progresses but spikes when climbing stairs, walking/running on steep grades, or standing for long periods of time.

Conservative treatment measures

There are multiple treatment options for plantar fasciitis. Here are some of the conservative measures used to address this condition:

- Rest and avoidance of activities that make your heel hurt
- Icing (cold therapy) to reduce inflammation and pain
- Anti-inflammatory medication to reduce swelling
- Mechanical controls like tape, straps, splints, or a walking cast. Splints are excellent devices to facilitate stretching calf muscles and arch. They can hold the fascia and Achilles tendon in a lengthened position and can be worn while watching television or sleeping.
- Footwear modifications like wearing supportive shoes with low to moderate heels, good arch support, and sock absorption. Avoid wearing worn-out shoes or walking barefoot on hard surfaces. Runners should change out shoes after 400-500 miles.
- Using supportive insoles, heel cups, and custom orthotics to reduce point load pressures and to distribute pressures more evenly. Walking casts may be used to ensure that the plantar

fascia heals in a stretched position.

- Load and impact-bearing exercises should be swapped for activities like swimming or bicycling until the pain subsides and condition improves. In some cases, it might also mean altering your work duties to reduce standing or walking.
- Stretching and physical therapy is an essential part of treatment for plantar fasciitis and will help prevent reoccurrence. Consult with your physical therapist or podiatrist to obtain home exercises to stretch your calf muscle, Achilles tendon, and plantar fascia; and to strengthen the muscles in your lower leg. The basic types of exercises include toe stretches, Achilles tendon wall stretches, exercise band or towel stretches, and heel drop stretches. Usually, 80 to 90 percent of the plantar fasciitis improves within two months of exercises.

The vast majority of people can end their plantar fasciitis with simple management and early intervention. Unfortunately, most people wait eight months to a year before coming into the clinic for treatment. Most often, they leave with complete pain relief wishing they had come in substantially sooner.

There are numerous options to end plantar fasciitis. We can begin using conservative measures and take steps to avoid surgery. Call the Foot & Ankle Center of Illinois at 217-787-2700 to schedule an appointment. We have clinic locations in Springfield, Taylorville, Decatur, Carlinville, Shelbyville, Sullivan, and Monticello. Visit myfootandanklecenter.com to obtain information of stretching exercises you can do at home.



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