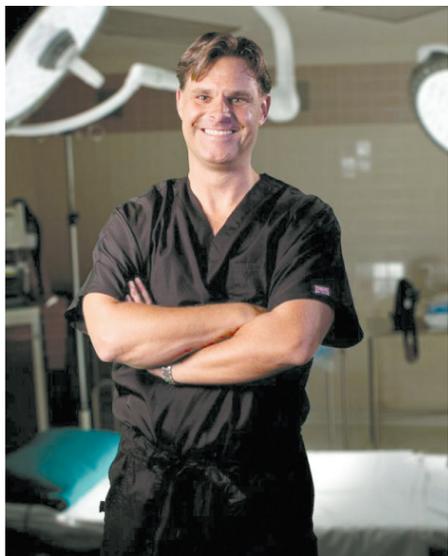


# End heel pain now!



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Submitted by the Foot & Ankle Center of Illinois/Illinois Laser Center

Heel pain, medically referred to as Plantar Fasciitis (PLAN-tur fas-e-I-tis) is one of the most common pathologies that we see in our practice. Heel pain can be particularly debilitating for people who work on their feet and require long hours of weight-bearing activities. It can also cause seniors to curtail or stop doing recreational and fitness activities they love doing.

Many of our senior patients are confused about the causes of heel pain and how to get rid of it. There are numerous info commercials 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!

Here is an overview of the condition, symptoms and causes, and range of treatment options to end your heel pain.

## 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 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, improper fitting shoes, occupations or activities that keep you on your feet walking or standing for long durations on hard surfaces, high intensity activities 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 castes 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.

## Alternate treatment measures

When conservative measures are not successful at eliminating the pain, alternate treatment measures may be considered. These include the following:

- Plantar fascia injection of a corticosteroid is injected directly into the damaged portion of the ligament for temporary relief. Cortisone injections are usually administered into the heel or the arch of the foot.
- Platelet-Rich Plasma (PRP) therapy is in the experimental stage

but holds great promise. The medical community is gathering more evidence about its use. PRP appears to be effective in the treatment of chronic tendon injuries. This treatment may be preferred over the use of cortisone shots because cortisone is considered to be degenerative and provides temporary relief. PRP may also be used to improve healing after surgery for some injuries.

- Extracorporeal Shock Wave (ESW) therapy is sometimes used if conservative treatments have not been successful. This therapy can be performed prior to considering surgery if symptoms persist for more than 4-6 months. The ESW device applies high intensity shock waves to stimulate healing of the plantar fascia.
- Ultrasound physical therapy is an alternate therapy to help reduce pain. Ultrasound uses sound waves to generate heat in the heel to enhance blood flow circulation and to loosen tissue. Deep heating tendons, muscle, or ligaments increases circulation to promote healing and to decrease pain. This helps tissue respond better during stretching and physical therapy.
- MLS Laser therapy is a new innovation that is used with much success in Europe and the U.S. to reduce inflammation and pain. The MLS Laser is a Class IV laser that is FDA cleared. This therapy eliminates the need for injections or medications. Treatments are done in 5-10 minutes. The number of treatments depends on the patient condition. Typical protocol requires three to twelve treatments depending on the severity of the condition. Most patients achieve a disappearance of symptoms and long-lasting results.

When conservative and alternate efforts fail, surgical management becomes the most viable option. Some methods are more invasive than others.

## Minimally invasive procedures

Micro Radio Frequency Ablation (RFA) and Platelet Rich Plasma Injection can be utilized with immediate weight-bearing. Often, the addition of a Gastrocnemius Recession to length in the muscle is utilized with these modalities to try and address the deforming force causing the condition.

## Plantar fascia release surgery

Plantar fascia release surgery is the gold standard surgical procedure for treatment of Plantar Fasciitis; however, it does render the plantar fascia weakened. This can lead to instability to the mid-arch which requires orthotic management to replace the strength of the plantar fascia to prevent arch collapse. This release can be done open through a regular incision, or as endoscopic (minimally invasive) surgery.

The vast majority of people can end their heel pain with simple management in 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 heel pain. 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. Clinics are located in Springfield, Taylorville, Decatur, Carlinville, Shelbyville, and Sullivan. Visit [myfootandanklecenter.com](http://myfootandanklecenter.com) to obtain information of stretching exercises you can do at home. Also view short videos on MLS Laser Therapy and listen to patient testimonials.

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