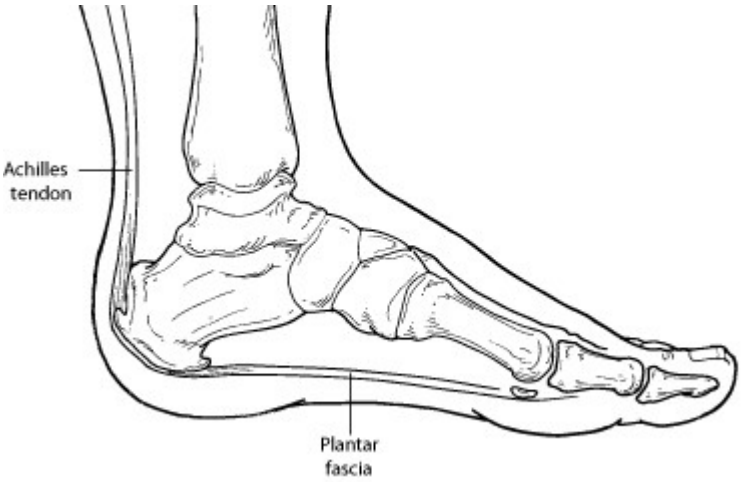
PLANTAR FASCIITIS

What is Plantar Fasciitis?
Plantar fasciitis is an inflammation of the band of tissue (the plantar fascia) that extends from the heel to the toes. In this condition, the fascia first becomes irritated and then inflamed-resulting in heel and arch pain.



Symptoms of Plantar Fasciitis
The symptoms of plantar fasciitis are:

- Pain on the bottom of the heel or arch
- Pain that is usually worse upon arising
- Pain that increases over a period of months

People with plantar fasciitis often describe the pain as worse when they get up in the morning or after they've been sitting for long periods of time. After a few minutes of walking the pain decreases, because walking stretches the fascia. For some people the pain subsides but returns after spending long periods of time on their feet.

Causes of Plantar Fasciitis
The most common cause of plantar fasciitis relates to faulty structure of the foot. For example, people who have problems with their arches—either overly flat feet or high arched feet—are more prone to developing plantar fasciitis.

Wearing non-supportive footwear on hard, flat surfaces puts abnormal strain on the plantar fascia and can also lead to plantar fasciitis. This is particularly evident when a person's job requires long hours on their feet. Obesity also contributes to plantar fasciitis.

Treatment Options
Treatment of plantar fasciitis begins with first-line strategies, which you can begin at home:

- **Stretching exercises.** Exercises that stretch out the calf muscles help ease pain and assist with recovery.
- **Avoid going barefoot.** When you walk without shoes, you put undue strain and stress on your plantar fascia.
- **Ice.** Putting an ice pack on your heel for 10 minutes several times a day helps reduce inflammation. Limit activities. Cut down on extended physical activities to give your heel a rest.
- **Shoe modifications.** Wearing supportive shoes that have good arch support and a slightly raised heel reduces stress on the plantar fascia. Your shoes should provide a comfortable environment for the foot.
- **Medications.** Nonsteroidal anti-inflammatory drugs (NSAIDs), such as ibuprofen, may help reduce pain and inflammation.
- **Lose weight.** Extra pounds put extra stress on your plantar fascia.

If you still have pain after several weeks, see your foot and ankle surgeon, who may add one or more of these approaches:

- **Padding and strapping.** Placing pads in the shoe softens the impact of walking. Strapping helps support the foot and reduce strain on the fascia.
- **Orthotic devices.** Custom orthotic devices that fit into your shoe help correct the underlying structural abnormalities causing the plantar fasciitis.
- **Injection therapy.** In some cases, corticosteroid injections are used to help reduce the inflammation and relieve pain.
- **Removable walking cast.** A removable walking cast may be used to keep your foot immobile for a few weeks to allow it to rest and heal.
- **Night splint.** Wearing a night splint allows you to maintain an extended stretch of the plantar fascia while sleeping. This may help reduce the morning pain experienced by some patients.
- **Physical therapy.** Exercises and other physical therapy measures may be used to help provide relief.

Although most patients with plantar fasciitis respond to non-surgical treatment, a small percentage of patients may require surgery. If, after several months of non-surgical treatment, you continue to have heel pain, surgery will be considered. Your foot and ankle surgeon will discuss the surgical options with you and determine which approach would be most beneficial for you.

Long-Term Care

No matter what kind of treatment you undergo for plantar fasciitis, the underlying causes that led to this condition may remain. Therefore, you will need to continue with preventive measures. If you are overweight, it is important to reach and maintain an ideal weight. For all patients, wearing supportive shoes and using custom orthotic devices are the mainstay of long-term treatment for plantar fasciitis.

Gastrocnemius Stretch

Stand facing a wall and use your hands to support you. Put the leg that you are stretching behind. Keep your back knee straight and the heel on the ground. Make sure your foot is facing straight ahead and not turned out. Feel the stretch in your calf muscle.

Hold the stretch for 30 seconds and repeat 2-3 times on each side, repeat 2 times per day.

Soleus Stretch

Stand facing a wall and use your hands to support you. Have one foot slightly behind the other. Bend both knees, keep the heels on the ground, and put a little more weight on your back leg. Make sure your foot is facing straight ahead and not turned out. Feel the stretch deep in the calf muscle.

Hold the stretch for 30 seconds and repeat 2-3 times on each side, repeat 2 times per day.

Sitting Stretch (or use night splint)
1) Sit on the floor or bed with your legs stretched out in front of you
2) Loop a towel around the top of your affected foot
3) Pull the towel towards you until a stretch is felt across the bottom of your foot
4) Hold for 30 seconds then relax - repeat 10 times

Ice massage
1) Put a small bottle of water in the freezer overnight.
2) Roll your injured foot (without a shoe on) back and forth from the tip of the toes to the heel, concentrating on most painful arch, over the water bottle
3) Repeat ten times in both directions

Shoes
Anti-motion shoes with arch support
No barefoot walking.

Motion-Control Athletic Shoes

Mizuno Wave Renegade 4, well cushioned, wide tread and reinforced arch

Mizuno Wave Alchemy 7, blend control and cushioning, durable outsole

Asics GEL-Foundation 8, extra-dense foam in midsole and molded heel cup

Asics GEL Evolution, enough volume to accommodate orthotics, narrow heel and wide toebox, maximum cushioning, good for long distance walking

Brooks Addiction 8, eco- friendly for severe over-pronator who needs serious motion control, runs narrow

Brooks Adrenaline, stability, comes in narrow and wide and a waterproof version

Brooks Beast (men), good for heavy walkers and severe over-pronators, built to take a pounding, durable, comes in wide and xw

Brooks Ariel (women), see above

Saucony ProGrid Omni, lightweight, breathable mesh

Saucony GRID Stabil, good for over-pronators and heavy walkers, light weight, more cushioning than competitors, more flexible than others

New Balance 1011, maximum pronation control with abrasion resistant liner

New Balance 1340, extra cushioning for heavier bodies, comes in xw, rated as a Medicare diabetic shoe

New Balance 928, stable walking shoe, full leather, comes in white, black, gray and tan

Reebok Premier Control III, several widths available

Avia Avi-Lite Guide, antibacterial sock liner, easy to clean

Ryka MC2 Run, cushioning in both the heel and forefoot

Pearl Izumi SyncroGuide II, maximum stability, smooth cushioned ride

Orthaheel Walker Shoes (built in orthotic), improves posture, does not accommodate orthotic