

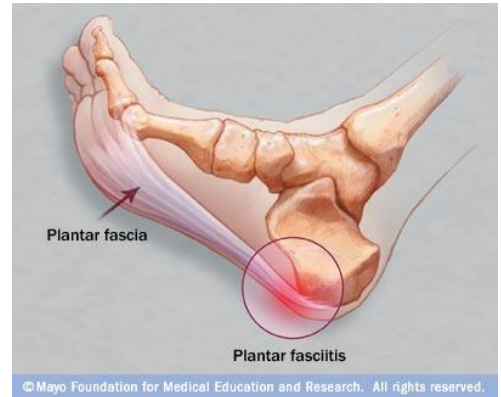
Plantar Fasciitis (Heel Pain)

Plantar fasciitis (heel pain or heel spur syndrome) is a common problem that we treat on a daily basis. It starts as a dull intermittent pain in the heel area, which may progress to sharp persistent pain. Classically, it is worse in the morning with the first few steps, after sitting, after standing or walking, and at the beginning of activity.

The plantar fascia is a thick band on the bottom of the foot. It is attached to the heel bone (calcaneus), fans forward toward the toes, and acts like a bowstring to maintain the arch of the foot.

The problem may occur when part of this inflexible “fascia” is repeatedly placed under tension. Tension causes an overload that produces an inflammation usually at the point where the fascia is attached to the heel bone. The result is pain.

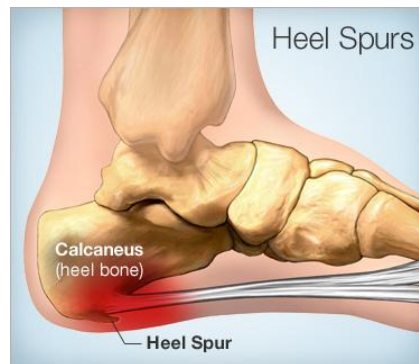
Plantar fascia injury may also occur at the midsole or near the toes. Since it is difficult to rest the foot, the problem gradually becomes worse because the condition is aggravated with every step. In severe cases, the heel can become visibly swollen. The problem may progress rapidly and treatment must be started as soon as possible.



What is a heel spur? The inflammatory reaction at the heel bone may produce a “calcium deposit” projection of new bone often referred to as a “heel spur.” They sometimes show on x-rays. They do not cause the initial pain, nor do they cause the initial problem; they are a result of the problem.

Contributing Factors:

- Flat (overpronating) feet
- High arch, rigid feet
- Poor shoe support
- Toe running, hill running
- Soft terrain (i.e. beach sand)
- Increasing age
- Increase in body weight
- Increase in activity
- Family tendency



Treatment:

Improvement may take longer than expected, especially if the condition has existed for a long time. During recovery, loss of excess weight, good shoes, and sedentary activities all help the injury to heal. One should return to full activity gradually.

Rest: Use pain as your guide. If your foot is too painful, rest it.

Ice: Ice the sore area for 20 minutes several times a day to reduce the inflammation. Apply a plastic bag of crushed ice over a towel. You should also ice the sore area for fifteen minutes after activity.

Medication: Anti-inflammatory/analgesic medication (in table or injectable form) is often used to relieve pain and reduce inflammation.

Physical Therapy: Various forms of therapy are used to decrease inflammation and to stretch and strengthen the muscles that support the weakened fascia.

Shoes: Poorly fitting shoes can cause plantar fasciitis. The best type of shoe to wear is a good athletic walking shoe with excellent support.

Taping: Dr. Williams may tape your foot to maintain the arch; this will take some of the tension off the plantar fascia.

Orthoses (foot orthotics) Custom foot supports that your doctor may prescribe to brace and control the way your foot moves.

Extracorporeal Shockwave Therapy (ESWT): A form of therapy that is considered when more conservative treatments have not been successful. High-energy shockwaves are used to reduce inflammation and stimulate healing. This treatment is believed to “breakup” scar tissue in the damaged fascia by increasing the availability of blood and oxygen to the injured area.

Surgery: Surgery is rarely required for plantar fasciitis. It would be considered only if all forms of more conservative treatment fail and the pain is still incapacitating after several months of treatment. When needed, surgery involves release of the plantar fascia from the heel bone often with reduction of any bone spur formation if present.

Sporting and Work Activities

Plantar fasciitis can be aggravated by all weight-bearing athletic and work activities. Any sport or work activity where the foot is stressed repeatedly, such as jogging, prolonged standing/walking or heavy lifting can aggravate the problem. The injury may be precipitated by a weight increase, changes in activity profile, or return to activity suddenly after a long period of rest. To maintain cardiovascular fitness, weight-bearing sports can be temporarily replaced by nonweightbearing sports such as swimming or cycling.

When recovering from plantar fasciitis, return to athletic and/or weight bearing occupational demands slowly. If you have pain either during the activity or the following morning, you are doing too much.

Exercises

The following exercises are designed to strengthen the small muscles of the foot to help support the damaged area. If done regularly they may help prevent reinjury.

Towel Curls: Place towel on the floor and curl it toward you, using only the toes of your injured foot. Resistance can be increased with a weight on the end of the towel. Relax, then repeat the towel curl.

Shin Curls: Run your injured foot slowly up and down the shin of your other leg as you try to grab the shin with your toes. A similar exercise can be done curling your toes around a tin can.

Stretches: Stand at arm’s length from a counter or table with your back knee locked and your front knee bent. Slowly lean toward the table, pressing forward until a moderate stretch is felt in the calf muscles of your straight leg. Hold 15 seconds. Keeping both heels on the floor, bend the knee of your straight leg until a moderate stretch is felt in your Achilles tendon. (Tendons attach muscles to bones; the Achilles tendon attaches the muscles of the calf to the heel bone). Hold 15 seconds more. You should feel a moderate pull in your muscles and tendon, but no pain. Change legs and stretch the other leg.