

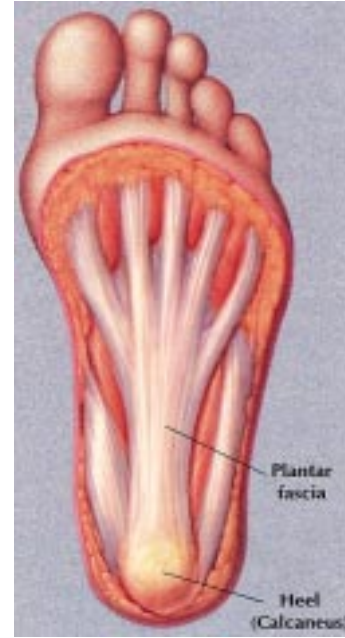
Plantar Fasciitis

Heel pain

Plantar Fasciitis (PLAN-tur fas-e-I-tis) is an inflammation of the plantar fascia, a fibrous band of tissue that runs along the bottom of the foot. The band of tissue begins at the heel and connects to the toes. It is believed to be important in maintaining the arch, and in reducing the stress across the bones in the mid portion of the foot, like a bowstring.

Symptoms

The symptoms include pain and burning beneath the heel, especially when taking the first few steps out of bed in the morning, and when getting up to walk after a period of time sitting. The pain may decrease after walking for a few minutes, but usually worsens as the day progresses. The exact cause is unknown, but it is believed to be associated with tightness or contracture of the achilles tendon and/or plantar fascia. Other causes may include overuse, obesity, prolonged standing or walking on hard surfaces, increasing age, or an abnormally flat or high arch. There is usually no history of an injury and the symptoms are usually gradual in onset.



Diagnosis

The diagnosis of plantar fasciitis is based upon the history and physical examination. An x-ray may be ordered to rule out a stress fracture, arthritis or bone cyst etc.... The presence or absence of a “spur” does not confirm the diagnosis of plantar fasciitis, and usually does not change the course of treatment.

Treatment

Approximately 90 to 95% of patients will improve with conservative treatment. Typically, the first line of treatment will include stretching, anti-inflammatory medicine, heel cushioning, and ice/heat therapy, shoe and activity modification. Other effective forms of treatment may include a night splint, cortisone injection (used sparingly), physical therapy, custom orthoses, and casting. Surgery is reserved for patients who have failed at least 6 months of conservative treatment. The FDA is expected to approve a new form of treatment using sound waves to “break up” the inflammation in the heel, much like the lithotripsy machine the breaks up kidney stones.

Activity Modification

Avoid high impact activities such as running, aerobics, and brisk walking. Try to exercise by swimming or riding a stationary bike. Do not walk barefooted, especially in the morning. Stretch before getting out of bed in the morning.

Shoe Modification

Wear shoes with a rubber or crepe sole, that have a good arch support. Typically a running type shoe or an orthopedic type shoe such as an SAS brand is most comfortable. Change shoes periodically during the day in order to alter the stress areas in your feet.

Orthoses

Try an over the counter heel cushion or “Spenco” type insole first. If this is not effective custom orthoses may be prescribed. Any orthosis or heel pad should be gradually integrated into your daily footwear.

Anti-inflammatories

Stretching

Stretching exercises have been shown to be a very effective treatment for plantar fasciitis. The goal is to improve flexibility and mobility in both the plantar fascia and the achilles tendon. They should be done at least three times per day.



With the effected leg behind you, lean forward keeping your toes pointing straight ahead and your knee straight. Hold for 10 seconds, 10 repetitions.



With the effected leg behind you, but slightly closer, lean forward with your foot flat on the ground, but your knee bent. Hold 10 seconds, 10 repetitions.



Place your heel on the ground and your toes against the wall. Flex your knee toward the wall. Hold for 10 seconds, 10 repetitions



Before getting out of bed in the morning, stretch the foot and ankle by pulling your “toes toward your nose” with a towel or belt. Hold for 10 seconds, 10 repetitions.

Ice/Heat Therapy

Soak your foot in a warm bath or hot tub in the morning, and apply ice for 30 minutes at night just prior to going to bed. Keep a thin cloth or paper towel between your heel and the ice bag to prevent a frost burn.

Night Splint

Wear the splint while sleeping to prevent shortening or contracture of the achilles tendon or plantar fascia. This appears to be effective at preventing the typical morning pain, and may be responsible for breaking the cycle of contracture-tearing of the small fibers in the plantar fascia.

Cortisone Injection

This allows the anti-inflammatory medicine to be put right at the location of pain, and is very effective for some patients. However, there are some reports of this leading to weakening and/or rupture of the plantar fascia and this should be used judiciously.

Casting

This is a very effective form of treatment by placing the foot at rest and relieving stress across the plantar fascia. It is typically worn for 4 to 6 weeks.

Surgery

A portion of the plantar fascia is divided and the inflamed tissue is removed. There is a nerve that runs beneath the plantar fascia which may also be released. If a heel spur is present, it may be removed if it is felt to be a