



WHAT IS PLANTAR FASCITIS ?

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DEFINITION: Plantar fasciitis (also known as heel spur syndrome) is the # 1 most common condition causing heel pain. It is an acute injury or subacute injury which occurs due to the **stretching and/or partial rupture** of the thick, fibrous, firm band of connective tissue (plantar fasciitis) on the sole of the foot. Since this fascia acts like a bow string to maintain the arch of the foot, tension causes an overload that produces an inflammation usually at the point where the fascia is attached to the heel bone (calcaneus). A bone spur can develop the longer the inflammation lasts. Excessive stretching of the plantar fasciitis may be produced by:

- sudden **increase** in activity that causes instant foot **acceleration** and **deceleration**.
- **excessive**, long periods of foot **pronation** (rolling inward when you walk which bears weight on the inside surface of the foot).
- **landing hard** on the sole of the foot and/or **repetitive shock** caused by **heel strike**.
- **running** in **sand**.
- **standing** for long periods of time, especially on hard surfaces.
- **flat feet**, **knock-knees**, and **tight calf muscles**.
- **high-arched** feet.
- **age**-frequent complaint with the middle-aged due to loss of elasticity or resilience. Can also be associated with arthritis or other systemic diseases.
- poor **shoes** that are worn-out, have improper arch support, or very stiff soles.
- sudden **weight** increase.

COMMON SYMPTOMS of PLANTAR FASCITIS:

- Pain in the arch and/or inside the heel area; irregularity, or swelling along the fascia which feels like a **stone bruise**. Symptoms usually develop slowly unless trauma occurs.
- Pain in the morning when you first get out of bed ("first-step pain") and then decreases with movement.
- Pain and stiffness when you start to walk after sitting for a while.
- Increasing pain in your heel or arch towards the end of the day.
- Tired feet at the end of the day.
- Usually affects only one foot.
- Gets worse with repetitive weight bearing exercise and after exercise.

TREATMENT FOR PLANTAR FASCITIS:

- **Stop** the activity that caused the problem. **Rest** and **activity modification**: limit to pain tolerance. Switch to non-weight bearing activities like swimming or biking.
- **Manipulation** of the foot biomechanics with emphasis on the calcaneus.
- Ankle, arch, achilles tendon and calf **stretching** (especially in inversion exercise).
- **Ice massage** of the painful inflamed area by rolling your foot over a cylindrical piece of ice (use a paper cup for a mold) for 10-15 minutes especially after exercise.
- **Anti-inflammatory medications**: Aspirin, and other NSAIDS such as Aleve, Motrin, Advil, Naprosyn (all known as “nonsteroidal anti-inflammatory drugs”).
- **Massage**: local, deep massage to the area of pain at the heel preferably after warm shower. You can also use a **golf ball**- roll it under your bare foot- it works like trigger point therapy.
- Proper **shoe wear**: comfortable, minimal heel, well-cushioned sole. **Heel Pads/cups** may be helpful to decrease shock absorption of the plantar fascia.
- **Orthotics**: molded specifically to your foot and custom designed to help correct abnormal pronation, support arch and relieve heel pressure.
- **Arch tape**: 1-inch from one side of the arch to the other to help maintain the arch.
- **Vitamin/Herbal Supplements**: To aid in overall soft tissue healing; Vit. C w/ bioflavonoids, Vit. B-Complex, calcium/magnesium, ginger, cayenne.
- If the above conservative measures fail to bring significant relief, **physical therapy** (like ultrasound and cross-friction massage), **cortisone injections** and night splints, and crutches may be used to relieve stress on the heel. In rare cases, surgical release may be required.

Always give conservative treatment at least 6 months to work. The majority of cases will resolve with the above treatment measures provided that they are followed faithfully. Plantar fasciitis takes time to heal and resolve and a *gradual* return to increased levels of activity should occur. 75% of people recover in 6 months and 98% within 1 year. Make it a habit to continue the stretching protocol!