



What is the Plantar Fascia:

The plantar fascia is the fibrous connective tissue which supports the arch of the foot. It originates at the heel bone (calcaneous) and fans out towards the toes to attach to the metatarsal bones at the ball of the foot.

What is Plantar Fasciitis:

1. Plantar Fasciitis develops from excessive stress on the plantar fascia from either over use of the foot without proper arch support, or from biomechanical faults that cause abnormal pronation.

Both men and women suffer with the condition, but women who wear high heels often suffer most. The reason, most high heels are tight and offer no arch support, the arches strain to stretch and flex and pressure is also increased on the forefoot. Since the heels are high, the calf muscles are forced to remain in a shortened position for long periods of time creating a condition of shortened calf muscles which persists even after the shoes have been removed. This places tension on the achilles tendon when the person is flat footed, causing pain in the heel and foot.

2. Plantar fasciitis is painful and debilitating condition that is typically easy to resolve with simple home remedies, lifestyle changes, and non-invasive techniques. Plantar fasciitis, can eventually cause heel spurs if not treated promptly. Plantar Fasciitis is the most common foot ailment that I see in the office.
3. Plantar Fascia pain is experienced mainly in the heel and achilles. Pain is worse upon rising in the morning, but improves throughout the day.
4. It is commonly associated with long periods of weight bearing or sudden changes in weight bearing or activity.
 - Jobs that require a lot of walking on hard surfaces
 - shoes with little or no arch support
 - a sudden increase in weight and
 - over activity are also associated with the condition.

Treatment of Plantar Fasciitis and Foot Pain

1. Massage – professional and self massage
 - a. Professional Massage – Massage is very effective at relieving foot pain. Massage will deeply stretch the plantar fascia at its attachments, stretch the calves, and improve blood circulation. If the foot is very tender and inflamed the massage should be done slowly, incrementally stretching the fascia, muscles and tendons; and should be followed by lymphatic drainage massage to reduce swelling and speed-up healing. Depending on the severity of the foot condition or plantar fasciitis therapeutic massage can take anywhere from 2 to 6 weeks to resolve most



of the pain. Sessions are usually done twice a week for 30 minutes each or 1hr sessions once a week, but relief is typically experienced after the 1st session.

- b. **Self Massage** –
 - Ice Massage** - Freeze water in a paper cup and roll foot over the ice for up to 15 minutes. This method provides a stretch and an ice massage simultaneously.
 - Golf Ball or Omni Foot Fantasy** – roll ball under foot and work on tight, painful areas, slowly until you gradually feel release. Do this several times a day. Even while you are at work.
 - c. **Professional Massage** – Massage is very effective at relieving foot pain. Massage will deeply stretch the plantar fascia at its attachments, stretch the calves, and improve blood circulation. If the foot is very tender and inflamed the massage should be done slowly, incrementally stretching the fascia, muscles and tendons; and should be followed by lymphatic drainage massage to reduce swelling and speed-up healing. Depending on the severity of the foot condition or plantar fasciitis therapeutic massage can take anywhere from 2 to 6 weeks to resolve most of the pain. Sessions are usually done twice a week for 30 minutes each or 1hr sessions once a week, but relief is typically experienced after the 1st session.
2. **Ice**
Each night an ice pack should be applied to the plantar aspect of the heel 15 to 20 minutes before going to bed.
3. **Rest**
Keeping off the foot as much as possible, especially the balls of the feet
4. **Soak Feet in Epsom Salts**
Epsom Salts – Soak feet in warm Epsom Salts and then massage with cream – very relaxing!
5. **Exercise**
Stretching the Achilles tendon and Plantar Fascia is very beneficial. Although in adults the plantar fascia and achilles tendon are not connected, there is still an indirect mechanical relationship between them. Thus stretching the achilles tendon will increase the tension in the plantar fascia, stretching it in the process.

Instructions for stretching and exercising your feet –

- Stand facing a wall with one foot in front the other; with one foot approximately 6 in from the wall and the other foot about 2 ft from the wall, and then lean toward the wall while keeping both heels on the floor. This exercise stretches the leg that is farthest from the wall. Alternate legs and perform the stretches for two minutes each, up to five times a day.
- Stretch the calves by hanging your heels off of a stair. To do so, place your toes along the edge of the step, allowing your heels to hang over the edge of the step. Then relax your calves and allow your calves to stretch as your heels hang off of the stair.



- At the end of a long day on your feet stretch the muscles of your feet by placing firmly rolled cotton between your toes and allowing the cotton to spread and relax the muscles of your feet. Do this for several minutes everyday.
- Exercise your feet – for a few minutes everyday use your toes to pick up and move small objects to a container (or even use a sand box full of sand). This helps to exercise the foot muscles and relieve pain
- Toe Clenches - Place firmly rolled cotton between your toes and squeeze.
- Toe spreaders. Put a thick rubber band around all of your toes. Spread toes, holding for 5 seconds.
- Ankle circles to stretch and relax your calves and ankles.

6. **Night Splints**

Maintain the foot in a flexed position while sleeping, stretching the calves to keep the muscles flexible and preventing the contraction of the plantar fascia to improve morning pain and stiffness. Can be found in any pharmacy.

7. **Orthotics**

See a podiatrist to build arch support, heel lifts, and receive taping. Or go to the pharmacy and buy gel arch supports. They are not as good as those custom made to suit your specific needs, but they will help alleviate pain.

8. **Shoes**

Wear only shoes with excellent arch support. A permanent change in footwear is required to ensure that the pain does not return. On the other hand good orthotics can be inserted into your current shoes improving support and comfort.