



# Everett Foot Clinic

## Plantar Fascitis

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Plantar fascitis is an inflammation of the plantar fascia. "Plantar" means the bottom of the foot, "fascia" is a type of connective tissue and "it is" means "inflammation." The plantar fascia encapsulates muscles in the sole of the foot. It supports the arch of the foot by acting as a bowstring that connects the ball of the foot to the heel. While walking, at that moment the heel of the trailing leg begins to lift off the ground, the plantar fascia endures tension that is approximately two times the body weight. The moment of maximum tension is increased and "sharpened" (it increases suddenly) if there is lack of flexibility in the calf muscles. A percentage increase in body weight cause the same percentage increase in tension in the fascia. Due to the repetitive nature of walking, plantar fascitis may be a repetitive stress disorder (RSD) not unlike carpal tunnel syndrome and very similar to tennis elbow. All three conditions benefit greatly from **rest, ice, and periodic stretching**, but may also be treated with non-steroidal anti-inflammation pills (NSAIDs), mechanical splints or straps, and injections (except for carpal tunnel) before considering surgery (which is a last resort).

The classic sign of plantar fascitis (which is often confused with or considered the same as a heel spur) is heel pain with the first few steps in the morning. If this symptom is not present, then

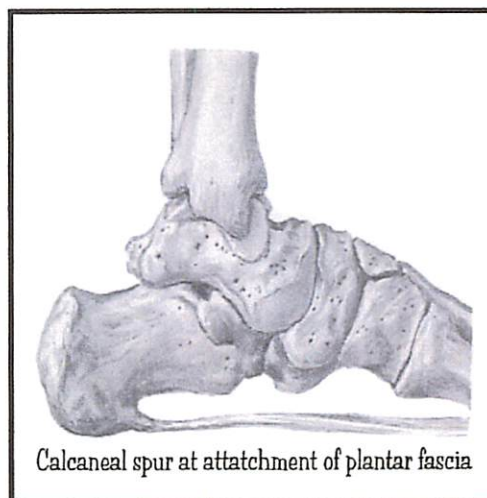
the diagnosis of plantar fascitis has to be checked more carefully. The pain is usually in the front and bottom of the heel, but the definition of "plantar fascitis" indicates it can be over any portion of the bottom of the foot where the fascia is located. Patients often report that the pain "moves around" to different areas of the bottom of the foot. The pain can be mild or debilitating. It can last a few months, become permanent, or come and go with every other full moon. The heel may hurt or the condition may become worse from the heel striking the ground, but **plantar fascitis is not caused by the heel striking the ground**. Every year, about 1% of the population seeks medical help for this condition.



### Causes:

The condition is usually caused by a change or increase in activities, no arch support in the shoe, lack of flexibility in the calf muscles, being overweight, a sudden injury, using shoes with little cushion on hard floors or ground, using

shoes that do not easily bend under the ball of the foot, or spending too much time on the feet.



### Some successful treatments

- **Rest**
- **Ice**—applying ice after activity or injury is very important.
- **Stretching the calf muscles**—without re-injuring the fascia 3 times a day and especially before getting out of bed in the morning.
- **Tape**—can be used to give the fascia a rest without reducing activity.
- **Arch support/ orthotic device**
- **Eliminating morning heel pain**—use shoes with mild heel and massage the bottom of the foot and calf muscles before walking in the morning.
- **Losing weight**
- **Anti-Inflammatory medication**—aspirin, Aleve or Ibuprofen (not Tylenol).
- **Better shoes**—with arch support, more cushion, raised heel, and good flexibility under the ball of the foot.
- **No walking on toes and avoid stair climbing**

Bottom view of plantar fascia

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