



### ***PLANTAR FASCIITIS – Healing heel pain.***

Plantar fasciitis is an injury that causes heel pain and is a common problem in runners. The plantar fascia is a tight band of tissue that runs from the heel to the toes. It provides support to the arch of the foot. Generally injury occurs with overload or an increase in training intensity or mileage. In recent times the term plantar fasciitis has been less accurate. Whilst in the early phases there may be some inflammation, it is thought that as the injury progresses there is a breakdown of the fascial tissue as it runs into the heel bone. Therefore, as opposed to an inflammatory condition that “fasciitis” implies terms such as plantar fasciopathy may be used.

Clinically patients tend to complain of heel pain with walking or running. In lesser cases, this may go away once the athlete warms up yet will tend to return significantly upon cooling down. As the injury progresses, it can become painful with all weight bearing activity. Often pain is notable upon the first few steps in the morning out of bed or the first few steps upon walking after prolonged sitting.

Biomechanical faults can contribute to this problem. A foot that overpronates (rolls inwards) too much can cause additional stress on the plantar fascia by overloading (stretching) it upon landing, as can a supinated foot (high arch or decreased rolling) as there is less ability to shock absorb. Tight calf muscles are a common finding in runners and can also lead to decreased shock absorption and increased loads on the plantar fascia and associated injury. As mentioned in other articles, weakness of the core or a decrease in pelvic control can lead to increased loads further down the kinetic chain and cause this injury also. Weakness in the calf muscles (gastrocnemius and soleus) and arch muscles in the foot can also cause this injury as there is less control of the shin and foot upon landing leading to increased plantar fascia loads.

Footwear is another large problem we see in this clientele. Old footwear is a huge problem. Most shoes only have a lifetime of 600-800km. You also need to be in the correct shoe for your foot mechanics which is best advised by a sports physiotherapist or podiatrist. Minimalist running may help with plantar fasciitis by reducing impact forces but this must be a gradual process otherwise it can lead to injury including plantar heel pain. To make a full transition may take in the vicinity of 3-6 months.

Treatment is geared at correcting the predisposing factors.:

- As always load management is important. Biking and swimming are still generally fine but often a reduction in running is required. This may mean completely, or at least to a level short of symptom aggravation. The 24-48 hour response to exercise is a good way of gauging suitable loads and whether they are increased or reduced.

- Ice and anti-inflammatories can be used to settle the acute pain.
- Stretching of the calf muscles or foam rolling them, and stretching the plantar fascia are both often useful as is rolling a golf ball or spikey ball under the arch of the foot.
- A strassburg sock worn at night to provide a prolonged stretch to the foot and ankle can be helpful especially with reducing morning symptoms.
- Strengthening of the calf muscles and arch muscles can help as can gluteal strengthening and stabilising exercises for hip and knee control higher up the chain as indicated.
- Taping the foot to control it and support the arch can be very effective in the short to medium term and may mean an orthotic insole may well help. However in the medium to long term working on arch and calf strength may be a more suitable solution.
- Gel heel cups may help absorb shock if impact on the heel is an issue, and footwear review as aforementioned is imperative.

Plantar fasciitis can be a difficult condition to treat but will usually resolve conservatively. If dealt with promptly it can resolve in 6-8 weeks, however leaving it and continuing to train aggressively on it may lead to symptoms of greater than 6-12 months. In stubborn cases cortisone injection may be useful but is not always a guaranteed solution and if successful is usually in conjunction with correcting the faults present as mentioned above.

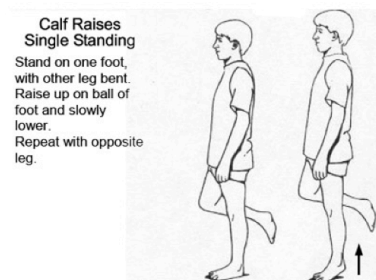
Happy racing!

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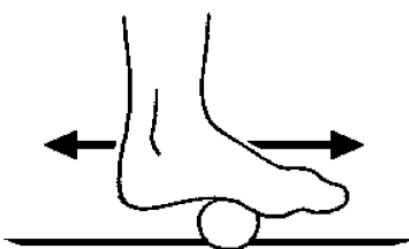
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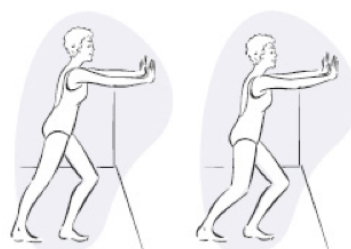
Plantar fasciitis



Calf strengthening



Plantar fascia arch ball rolling



Calf stretches for gastrocnemius and soleus



Strassburg sock