

Plantar Fasciitis in runners

What is the plantar fascia?

The plantar fascia is like a strong elastic band that runs from the ball of your foot to your heel. It helps support your foot arch when you run, walk or stand. Some studies say that it carries 14% of the total load of the foot. It can also act as a spring to help during push off in walking and running.

If there is added strain on this band it can become inflamed and painful. Usually at the point of insertion at the heel and occasionally under the arch of the foot. The pain is usually a sharp, stabbing pain with walking and running that is generally worse in the mornings or after rest (post activity). It can feel better once you walked around a bit and it's "warmed up". However in advanced cases pain can be exacerbated by activity.



Why is it a weak spot for runners?

When you run, you land on a single leg with 2.5 x your body weight. This is a lot of force that your foot, lower limb and pelvis have to absorb compared with walking or standing. Your plantar fascia is one of the structures that will have to absorb this additional force.

Biomechanical problems can also make you prone to this injury. This can include over-pronation, flat feet, high foot arches and tight calf muscles.

What can you do about it?

Prevention

As with most sports injuries this is the first rule. Remember your aerobic system (lungs and heart) will adapt and become much fitter much sooner than your musculoskeletal system (joints, tendons, ligaments). If your plantar fascia is not used to the additional strain of running you can find yourself with inflammation and pain. Making sure you progress your mileage and speed gradually (rule of thumb is 10% per week), wearing appropriate running shoes, stretching tight calf muscles etc. can go a long way to preventing plantar fasciitis.

Treatment

Should you start to experience heel pain or pain under the arch of your foot the following things may help stop its progress and help get you back on the road. If you have advanced plantar fasciitis and these tips don't help you may need a comprehensive evaluation by a medical professional.

1. Relative rest: drop mileage and speed until you recover. Stay away from hills and road cambers.
2. Strengthening the small muscles of the foot. e.g. pull your toes towards your heel to work the arch of your foot.
3. Ice massage: fill a 500ml coke bottle with water and freeze it. Rub it under your foot arch.
4. Stretch calf muscles if tight.
5. Anti-inflammatory medication: is effective for some but not all cases.

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