

Healing the Heel

A reader recently inquired about the problem of heel pain in hikers.

Although heel pain rarely causes early termination of treks (as opposed to sprained ankles, which are the number one cause of this), it is a frequent complaint and can be very bothersome.

There is a host of possible causes of pain in the heel, so a full review would be outside the scope of this column. Thus, I will limit the discussion to the most common: *plantar fasciitis*.

The foot is a very complicated structure, comprised of twenty-six bones. The arch of the foot is secured by a very thick connective tissue called the plantar fascia. The plantar fascia is on the sole, extending from the front of the heel bone (the *calcaneus*) to the bones of each of the toes. If it were not for the plantar fascia, there would be no arch to the foot. Indeed, the plantar fascia is critical to the proper working of the foot. As one can imagine, prolonged standing or walking, especially if one has a generous body weight, puts enormous strain on this mechanism.

Although stress can damage the plantar fascia in any place, it most commonly affects the spot where the fascia attaches to the heel bone. Inflammation of the fascia in that location is plantar fasciitis.

The major symptom of plantar fasciitis is heel pain. It is often local-

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ized to the bottom of the foot, in front of the calcaneus. This is about where the "ball" of the foot is located. There is no real laboratory or x-ray testing for plantar fasciitis; the diagnosis is usually made by history and physical examination.

Typical patients with plantar fasciitis report that their symptoms began after an increase in their usual activity—often running, hiking, or dancing. They may wear shoes without firm support. Interestingly, their pain is often most severe upon awakening and putting weight on the feet for the first time in the morning.

On examination, it may be possible to elicit pain by pressing over the spot on the sole where the plantar fascia attaches to the calcaneus while stretching the fascia by lifting the toes upward.

The good news is that plantar fasciitis typically gets better within a year or so, no matter what one does. Sturdy shoes with a gel insert (available in many drug or running stores) may help the problem. Rest and ice are useful during severe flares. Non-steroidal anti-inflammatory drugs such as ibuprofen (Advil® or Motrin®) also are helpful.

Exercises, generally involving foot stretches, help to prevent plantar fasciitis in those prone to it. A physical therapist can help with these. Physical therapists can also demonstrate a technique of taping the foot that also stabilizes the plantar fascia.

Severe cases of plantar fasciitis sometimes lead to health care providers suggesting steroid or other medication injections, shock wave

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therapy, or even surgery. I would seek a second opinion before entertaining any of these.

While most pain that follows the pattern I describe here can safely be considered plantar fasciitis, there are a large number of rare causes of heel pain, some of which can be very serious. If the pain follows a fall or other injury, for example, another cause is much more likely. If there is any numbness of the foot, a more detailed investigation is needed. Redness, swelling, or fever are also worrisome, and should prompt physician evaluation. Finally, pain in any other joints should lead to consideration of some form of arthritis.

If a flare of plantar fasciitis occurs during a trip, it is generally possible to "walk through it" with ibuprofen and occasional rest.



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