



## Plantar Fasciitis: Your heel's worst enemy By Jordan Metzl, M.D.

**T**he symptoms of plantar fasciitis are easy to recognize. The pain generally starts as an ache in the heel that hurts with the first several steps out of bed in the morning. Like many injuries, if the pain is ignored, it worsens quickly. By the time patients with plantar fasciitis come to see their doctor, the pain has often become debilitating; they are often hobbling around in the morning and enduring a pain that limits their ability to run and sometimes even walk.

So what do you do if you begin to suffer this way? The pain from plantar fasciitis has brought many a grown man and woman to tears—it hurts. Plantar refers to the bottom surface of the foot; fascia is the medical term for a thick strand of collagen that runs between two structures. The plantar fascia connects the calcaneus (the heel bone) to the metatarsals. It serves to support the arch, and helps give shape to the bottom of the foot. When working properly, the fascia helps to accentuate the lever action of the foot and gives more stability to the foot strike and push off phases of running.

More than almost any part of your body, however, your plantar fascia needs both your respect and love.

Respecting the plantar fascia means understanding that despite a funny sounding name, if you injure this thin band of collagen, the pain and suffering can last many months. My youngest brother Josh, in fact, was sidelined for 10 months with a painful plantar fascia, and many patients in my office come in with similar stories.

The most common injury to the fascia is

termed fasciitis, inflammation which usually occurs at origin of the fascia on the bony bump on the bottom of the heel called the calcaneal tuberosity. Injury to the fascia generally results from excessive tension, both from the muscles above and from the shape of the foot below.

The calf muscles, the gastrocnemius and the soleus, attach to the back of the calcaneus via the Achilles tendon. When these muscles are tight, the tendon pulls on the bone from the top, which stretches the fascia and creates more strain. In addition, some people are built with very high arched feet which pull the fascia from below, and are especially prone to plantar fascia injury if they are not supported with orthotics (the over the counter brands are usually sufficient to start with).

Once inflamed, the fascia is more likely to develop microtears, a consequence of inflammation, and mild pain can quickly progress to rapid and debilitating pain within a period of days. Respecting the fascia means understanding the potential severity of injury to this small structure.

So this brings us to love: love your plantar fascia. Of course, there are two kinds of love, preventive and reparative. The best way to prevent plantar fasciitis is to never go there.

This can be accomplished with good stretching of the Achilles tendon complex and the calf muscles. The best way to stretch is to put your foot against a step with the heel on the ground and slowly lean forward, feeling the stretch at the top of the calf and then repeated with a bent knee, feeling the stretch lower in the leg. This stretches both

muscles—holding each stretch for 15 to 20 seconds, several times in each position—and will lessen the stress on the tendon and fascia. Ideally, this is done daily, before and after exercise.

The second type of love, reparative love, happens when you mess something up and it's time to make amends (it would be much easier if we could buy our plantar fascia a box of chocolate to say sorry, but it doesn't work that way). The best advice for plantar fascia pain is get it checked out early! Don't wait until you are hobbling. The injury to the fascia is often done by that point. If it hurts, have it evaluated, including x-rays of the foot that check for an osteophyte (bone spur) that can indicate part of the discomfort.

Treatment often includes a period of rest from any offending activity, good stretching, night splints, physical therapy, sandals with an arch next to the bed for the first steps in the morning, and sometimes an injection of corticosteroid at the calcaneal tuberosity. Surgery is required rarely, except in extreme cases which don't respond to non-operative care.

So if your heel hurts in the morning, if you find yourself hobbling to the shower, puh-leeze get it checked out early. As it the case with most injuries, the longer you wait, the tougher it is for us to fix you. s

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