

# What Treatment Works Best for Plantar Fasciitis

The search for pain relief from plantar fasciitis continues. In this study, a podiatrist reports on the results of comparing four different treatments for plantar fasciitis. One hundred patients received either ultrasound, orthotics (shoe inserts), injections, or arch supports.

Plantar fasciitis is a painful condition affecting the bottom of the foot. The plantar fascia (also known as the plantar aponeurosis) is a thick band of connective tissue. It runs from the front of the heel bone (calcaneus) to the ball of the foot.

This dense strip of tissue helps support the arch of the foot by acting something like the string on an archer's bow. It is the source of the painful condition plantar fasciitis. Plantar fasciitis is the correct term to use when there is active inflammation.

Plantar fasciosis is more accurate when there is no inflammation but chronic degeneration instead. Acute plantar fasciitis is defined as inflammation of the origin of the plantar fascia and fascial structures around the area. Plantar fasciitis or fasciosis is usually just on one side. In about 30 per cent of all cases, both feet are affected.

Treatment is usually with conservative (nonoperative) care. The physician might prescribe antiinflammatories for an acute case or analgesics (pain relievers) for chronic problems. Other possible medical treatments include cortisone (steroid) injection, shock wave therapy, or BOTOX injections.

A Physical Therapist might use ultrasound (a deep heat treatment), stretches, splinting at night, taping, and orthotics. If all efforts at pain relief are unsuccessful with conservative care, then surgery may be considered.

As you can see, there are many different ways to treat plantar fasciitis. Often patients are treated with multiple treatments at once. If it works, no one really knows why, which treatment combinations are best, or even which one treatment is most effective. That's what makes this particular study so important.

By comparing patient results with one treatment approach at a time, it was possible to rate them against each other. In terms of before and after pain, the group that got the most consistent pain relief was in the ultrasound treatment group. Eighty-one per cent (81%) of the patients in this group had less pain. After that the next best treatment for pain relief was injection (72 per cent) orthotics (64 per cent), and over-the-counter arch supports (35 per cent).

The results were also measured by looking at how many patients in each group were completely pain free after treatment. When ranked this way, the best treatment methods were: orthotics (most number of patients who were pain free after treatment), then ultrasound, injection, and arch supports (least number of patients who had no pain).

These outcomes confirm why many patients end up receiving multiple different treatments for painful plantar fasciitis. It seems to take a number of different approaches to really get the desired results.

The results of this study also raise some interesting questions. For example, why do arch supports help some people while others do better with deep heat treatments? Or for that matter, why do some people need custom designed orthotics while others respond to a simple over-the-counter support? Why are multiple treatments needed and what should those be?

These are questions that have yet to be answered. In the meantime, when we look at possible causes of plantar fasciitis, there is one common factor among all the patients in this study and that is body weight. Being overweight seems to be a consistent pattern. And having plantar fasciitis makes it difficult to exercise in order to lose weight.

After 35 years of practice in podiatry and conducting various studies like this one, the author suggests the following treatment approach for most people with plantar fasciitis. First, ultrasound treatment along with arch supports. If foot or heel pain persists, then a single cortisone injection is given. When every treatment possibility and combination has been tried without success, then surgery is the final treatment approach.

Reference: Gerald T. Kuwada, DPM, NMD. A Prospective Randomized Trial Using Four Treatment Modalities for the Treatment of Plantar Fasciitis. In *The Foot and Ankle Online Journal*. August 2011. Vol. 4. No. 8.