

Foot Loose and Injury Free

A game plan for fighting Plantar Fasciitis

By Mackenzie Lobby

As featured in the Web Only issue of Running Times Magazine

Running is 90% mental, right? Not always. Sometimes it doesn't matter how badly you want to run, your body just won't let you do it. Elite master's runner [Stephanie Herbst-Lucke](#) is a classic example.

After collecting five national championships at the University of Wisconsin-Madison, she left the world of competitive running to work and have a family. Then, after running several standout races in her early 30s, she decided to make a comeback. She returned to Madison to train with a group of Nike-sponsored elites, and all factors indicated her joining the ranks of the top runners in the country.

"There were great runners out there to train with, great workouts and a great coach. There was nothing that should have inhibited me," Herbst-Lucke remembers. "But, I had chronic foot problems." Fighting multiple bouts of plantar fasciitis for five years, she was unable to race even once during that time. At 35, she hung up her running shoes once again.

She certainly wasn't the first runner to surrender to plantar fasciitis. A nagging injury that causes intense pain, the rehabilitation and prevention procedures are complicated. It wasn't until she reached 40 that Herbst-Lucke finally figured out what she needed to do to manage her plantar fascia issues and compete again. As she discovered, the key to overcoming plantar fasciitis appears to lie in the ability to persevere through the trial and error process. Discovering the most effective combination of healing and prevention methods requires commitment.



The first step out of bed in the morning is often the worst if you suffer from plantar fasciitis

Painful Steps

The human foot is comprised of hundreds of muscles, ligaments and tendons, as well as 26 bones and 33 joints. Considering the fact that most runners take between 1,000-1,500 steps each mile, it's no wonder why so many have plantar fascia injuries. A connective band of tissue on the bottom of the foot, the plantar fascia acts like a ligament that helps support the arch of the foot when you run. Interestingly, it isn't the ground reaction forces that cause plantar problems, but rather the transference of weight and energy as you go from heel to forefoot, propelling yourself forward.

Podiatrist and running shoe expert, [Dr. Paul Langer](#), explains the issue, saying, "If the plantar gets overloaded, it'll initially get inflamed and then will start to get micro tears. When it gets overloaded, it gets thicker and less elastic, and that starts to compound the problem."

While the term "fasciitis" is used colloquially, because of the degenerative nature of the injury, it is

referred to in medical literature as “plantar fasciosis.” As a result of this degeneration, the plantar fascia loses its elasticity and can tear with each step, causing pain on the arch or inside edge of the heel, and debilitating a runner.

A Winning Combination

A cocktail of measures and methods is usually the key to healing plantar fascia injuries. Those that rise to the top are: scaling back your mileage, changing your shoes, using an arch support or orthotic, stretching and strengthening.



Stretch the fascia: Sit in a chair with your ankle resting on one knee, reach down with one hand, and pull your toes back towards your ankle to create a little tension or stretch in your arch

1. Training alterations are oftentimes necessary if plantar fasciosis has become a chronic issue. “When someone has the symptoms already, first we have to manage the pain and calm down the acute component of it,” says Dr. Langer. Although he does his best to keep runners running and protect their feet during activity rather than limiting it, he says that in some cases a reduction in mileage is essential.

2. Shoe choice can be integral to the healing and prevention of plantar fasciosis according to Dr. Langer. If your sneakers have 500 plus miles on them, it’s time to trade them in for a new model. Simply wearing the wrong type of shoes can also aggravate your plantar fascia. In general, plantar fasciosis sufferers tend to need more stability to support the foot. Herbst-Lucke says that the stiffer shoes she ran in during the early years of her career were best suited for her feet. When she began wearing a softer, more flexible shoe, the injury immediately flared up. “Even though I’m a neutral striker, I need a lot of motion control. It makes a big difference for me,” she says.

3. Arch supports or orthotics have been proven to be effective in treating plantar fasciosis. A [study](#) published in 2006 in *Foot and Ankle International* showed a significant improvement in function, as well as a reduction in pain. “If you support the arch better, the plantar fascia gets a chance to heal itself,” Dr. Langer explains. He usually recommends trying a store-bought version

before dumping a chunk of your monthly mortgage payment into a pair of custom-made orthotics. Simple arch supports were an important part of Herbst-Lucke's comeback plan.

4. Stretching is a commonly prescribed solution by Dr. Langer. He suggests a specific foot stretch based on [research](#) out of the *Journal of Bone Joint Surgery*. "You do that stretch from a seated position, reach down with one hand, and pull your toes back towards your ankle to create a little tension or stretch in your arch." He recommends repeating one set of 10, holding the stretch for 10 seconds each time, three times daily. Although it sounds simple, the research showed a marked improvement both long term and short term in patients who had previously struggled with chronic plantar injuries.

5. Strengthening can also be a part of your defense against plantar fasciosis. While the standard recommendations are to scrunch up a towel on the floor with your toes or drop marbles into a bucket using your feet, Dr. Langer advocates simply walking on grass or sand with minimal shoes, or barefoot. The stronger the intrinsic muscles are in the foot, the better supported the plantar fascia.

"The solutions that I found are more lifestyle solutions that I can live with," Herbst-Lucke says. Dr. Langer agrees: "80 percent of people can resolve plantar fasciosis by doing the conservative things like supporting the foot, doing some stretches and doing some icing."

He stresses that an early response to symptoms is the best way to combat the injury. "The longer you've had plantar fasciosis, the harder it is to get rid of it," he says. Regardless of where you are at in the injury cycle, Herbst-Lucke encourages runners to be vigilant in their search for healing. "If you take time off and just keep everything else the same, that injury is going to keep coming back. You have to change what you're doing," she says. Whatever your healing combination is, most plantar fasciosis sufferers learn that once they determine the optimal response, the game plan can be called upon time and again to keep them up and running.