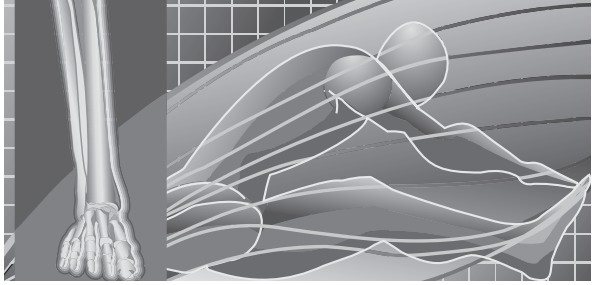


EGOSCUE METHOD INJURY PREVENTION

"Shoe fit alone is just another quick fix until the running, on an unbalanced body, really causes you some high intensity pain."

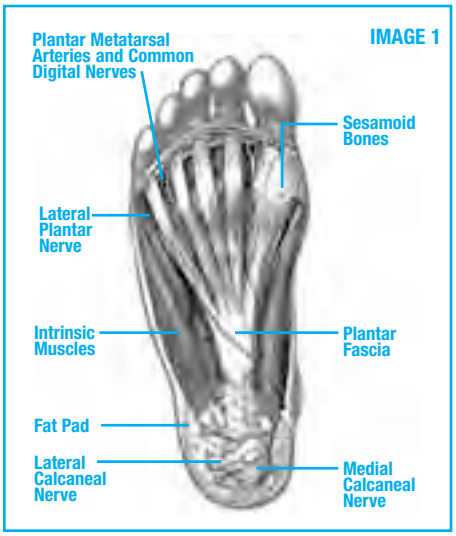
Realign Your Body & Cure Your Plantar Fasciitis Pain

by Brian Bradley - The Egoscue Method

In my series of articles, I have detailed a process designed to help you rediscover, restore and return your body to its original pain-free blueprint without the use of drugs, surgery and/or manipulation. This puts your health back into your control. You will be provided with personalized exercises that will retrain your muscles, realign your posture, reduce your pain, and increase your running efficiency! These simple exercises will also alleviate pain associated with knee injuries, shin splints, Plantar Fasciitis, IT Syndrome and more. Today, we'll focus on Plantar Fasciitis and you'll discover why the most common cause of heel pain stems from your plantar fascia. More importantly, you'll uncover 8 vital exercises that can help prevent, treat and cure your plantar fasciitis and heel pain for good.

WHAT IS PLANTAR FASCIITIS?

The plantar fascia is a fibrous, tendon–like structure that extends the entire length of the bottom of your foot, beginning at the heel bone and extending to the base of your toes. Its main purpose is to support the arches of your feet. During activity, your plantar fascia can become irritated, inflamed and may even tear which leads to an injury known as Plantar Fasciitis - a persistent pain located on the plantar (bottom) of your heel and the medial (inside) of your foot. The pain resulting from this injury is most noticeable in the morning when you take your first few steps and usually subsides with prolonged walking.



Likewise, during your running the pain will be most intense in the beginning and will diminish as you continue.

INSPECTING YOUR FEET

In the scope of things, your feet are quite small compared to the rest of your body, but they're not weak or fragile. What they lack in physical stature, they make up for with a very intelligent design. I say intelligent because they're held together with a multitude of soft tissues that are responsible for transferring information to and from your central nervous system. This efficient crossover of information is what keeps you balanced and upright.

Each foot is a strong, complex structure (as seen in image 1) comprised of 26 bones, and together your feet have almost one-quarter the total number of the bones in your entire body. Each foot has 33 joints and around 20 intrinsic muscles to provide the remarkable mobility and stability. To assist with the transfer of information to and from your foot, and to assist in holding it all together, your foot has more than 100 ligaments. One of those ligaments, the long plantar fascia ligament, whose purpose is to support the arch of your foot, could very well be the strongest in your entire body.

Each foot gets support from 2 very simply designed arches. One, the transverse arch and two, the longitudinal arch. Arches, as any architect can tell you, are very stable and have tremendous strength. These arches support the entire weight of your body and simultaneously allow it to stay upright as it moves across varied terrain, balancing your load as it shifts. This balancing act involves two essential steps: (1) Your plantar fascia ligament must help your arches maintain their shape, and (2) Your foot must strike the surface of the earth in a way that allows your arches to flex and function properly. Almost any foot pain you experience will occur due to the absence of one or both of these prerequisites.

WHEN YOUR ARCHES DON'T MAINTAIN THEIR SHAPE…

When your plantar fascia can no longer support your arch, your foot loses its arch, and the sole of your foot, comprised of short muscles, small bones, tendons, and ligaments, comes in direct contact with the ground. Without its arch, your foot has no shock absorbing capacity, which creates an unforgiving, painful pounding of your heel and foot. This also means that as your dysfunctional foot strikes the ground, instead of cushioning the impact waves, it sends them right up the bones of your lower leg to the knee and beyond.

As we mentioned earlier, the bones, muscles, and nerves of your sole also form an intricate mechanism for transmitting data to your central nervous system. Just as the fingers and palms of your hands are able to evaluate a surface to determine whether it's rough or smooth, hot or cold, healthy arches react in subtle and minute ways to changes in the terrain beneath them. While the transfer of information is being sent back and forth, your foot is accomplishing a small liftoff maneuver by expanding and contracting its muscles to prepare itself for takeoff and landing.

"The body walks, runs and moves as a unit. Consequently, when it breaks down, it breaks down as a unit."

In a foot with injured plantar fascia or fallen arches, the muscles of your sole stay in permanent contraction. When these foot muscles are "clenched", they make little or no adjustments in terms of takeoff, landing and their response to the terrain. Deprived of a functional sole, the muscles of your calf, knee, hip, and low back must take over the jobs of orchestrating load distribution, carrying out foot strike, and performing surface evaluation and response. Unsuited to footwork, however, these muscles and joints sacrifice the nuances of essential foot function to the crude necessity of keeping your body on its feet and moving forward. This leads to an awkward foot strike, which is the 2nd precursor to plantar fasciitis.

WHEN YOU HAVE AN AWKWARD FOOT STRIKE…

An average healthy foot strike bears the impact across a surface area of 8-10 inches long by 4-5 inches wide, depending upon the size of the individual foot. A foot that is turned out or abducted out from the body's mid-line may lose two-thirds or more of this surface area, along with the all-important assistance of the knee and hip and their associated musculature. This unequal loading can cause breakdown of your "fat pads" on the bottom of your feet. Fat pads are "cushions" composed of pockets of interconnected fat tissue and their primary job is to protect the bones, nerves, and blood vessels of your feet. With an awkward foot strike, postural imbalances, or improperly fit shoes there is a shear force or tearing process that occurs in the fat pads of your feet during normal walking and running on any surface. When this tearing process occurs over long periods of time, your fat pads become worn down. The loss of your protective padding in turn creates more pain and less stability in your feet.

"IT'S NOT THE SHOES"

So, picture this! You look down at your feet and you see that they're pointed outward and probably aren't symmetrical. What does this mean? What you shouldn't do is force them to point straight ahead when you run. This will have a whole set of its own negative consequences. Your feet pointing outward or inward from the normal straight ahead position is an unnatural deviation from the correct postural blueprint. Any pattern of foot strike that deviates from that blueprint and the natural heel-ball-toe gait is a symptom of dysfunction in the load-bearing joints that will eventually lead to pain. The structures of your foot are not designed to handle alternatives.

So, as a result, you head off to your local running expert and try to find that "special shoe" that is going to help you with this posture deviation and your associated foot pain, whether it be heel pain, plantar fasciitis or general foot fatigue. What you find is that they recommend the "best" shoe on the market and to your surprise, your foot pain continues or gets worse. What do you do now? To answer this question, and any question you have regarding injury, just keep this in mind, "The site of your pain is rarely the site of your problem." Let me give you a real life example. Take a look at an actual subscriber who e-mailed me on the *Peak Running* Hotline and took me up on my offer to help with her pain.

Hi Brian,

Late June '05, after successfully running in about every neutral shoe on the market, I took the advice of a highly touted "shoe expert" online and tried a new running shoe. I am a 5'5" female, 120lbs and 44 years old. I previously was running in shoes that the online store didn't have in my size, so when I asked advice from their shoe fit expert, I was told another shoe would be perfect for me. I ran in the new shoe 3 days back to back, 6 miles each. After the first day I noticed that my arches hurt, and I wish to God I would have stopped and shipped them back that minute, but I thought, well, I'll give it another run or two. After the 3rd run, I could hardly walk. I've had incredible heel pain in my right heel ever since.

*To this date, I have seen orthopedics, chiropractors, and Podiatrists multiple times to no avail. I have tried massage therapy, cold laser therapy, rolled it on foot logs, frozen soda bottles, ordered custom orthotics, slept in awkward stretching devices, worn magnets, and have even had acupuncture. I've laid off running for bouts of 5 and 8 weeks a few times over the past year, but the minute I run again, **BOOM**, that heel pain is back. It's on the interior side where the plantar fascia attaches to the inside heel bone. I cannot seem to shake it. Everyone's answer is to "stop running." But you probably know, "that ain't gonna happen."*

Any other quirky remedies you might recommend?

"The long plantar fascia ligament, whose purpose is to support the arch of your foot, could very well be the strongest in your entire body."

Take a look at image 2. Does she look level or balanced to you? Does she

IMAGE 2

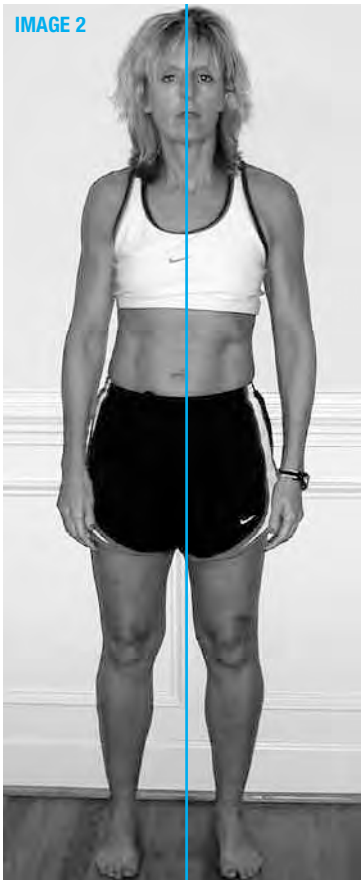


Table 1

TRY THIS ON FOR SIZE

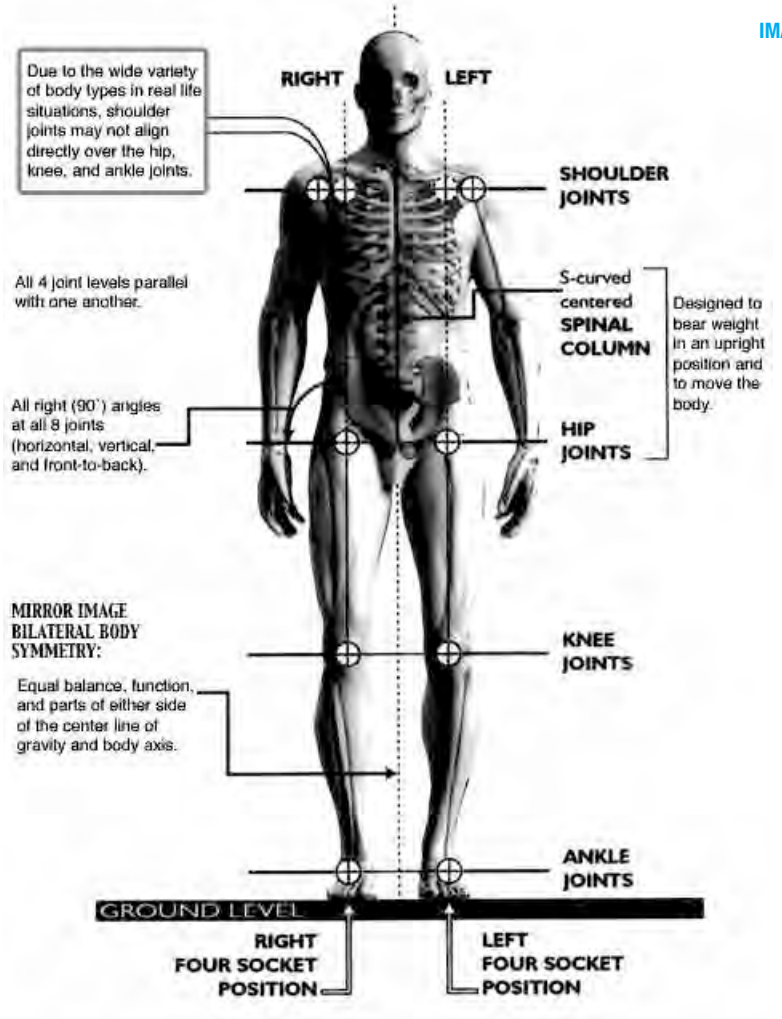
The goal of properly fit footwear is to provide protection and create a positive sensation of comfort. Proper fit means that your shoe is large enough to accommodate the natural range of your foot's motion in walking or running. This range of motion includes your foot getting longer and wider when it contacts the ground and a normal expansion of the foot due to increased circulation during running. Proper fit helps promote optimal foot temperature when running, reduced pressure point pain, reduced shear stress, reduced foot fatigue, and improved endurance.

look happy, in this photo, to you? Well, she definitely doesn't look balanced and due to her pain and her lack of ability to run, I think it's safe to assume that she is not very happy either. Her arms are not symmetrical from one side to another. Her knees and thigh bones are not symmetrical, which is a direct reflection into her hip and pelvis disparity…which explains her foot symptoms. The body walks, runs and moves as a unit. Consequently, when it breaks down, it breaks down as a unit.

You can see that this *Peak Running* subscriber tried about everything to ease her pain. However, what she tried focused on her symptoms instead of going after the actual movement/balance "problem." While it is perfectly ok to ice/heat, roll your plantar fascia on a tennis ball, and wear sleeping devices at the onset of your pain, know that these will only offer temporary relief. The exercises at the end of this article focus on the heart of your problem and offer a permanent cure.

Also unknowingly to her, the culprit has absolutely nothing to do with her

IMAGE 3



"What your feet lack in physical stature, they make up for with a very intelligent design."

choice in shoes. It's not the "shoe experts" fault for her chronic pain. It's her highly compromised postural position in which she takes to the act of running every time she cruises down her favorite trail or road. Don't get me wrong, proper shoe fit is critical to halting skin shearing forces and actually adding to foot stability (see table 1), especially on uneven surfaces, but shoe fit alone is just another quick fix until the running, on an unbalanced body, really causes you some high intensity pain.

SO WHAT DO YOU DO?

So how do you know if you are tilted, twisted or off-balance? Your mirror or a trusting running partner can tell you all you need to know. Just stand in a normal, relaxed posture and look to see if your feet are pointed straight, your knees are pointing in the same direction (i.e. both straight, in or out), your shoulders are level, your pelvis is level, and your head is centered (see image 3 for example of perfect alignment). This is usually more easily observed with minimal clothing on so that you can see your body's joints.

If you notice any deviation, you can safely assume your foot strike is off. As mentioned, the musculoskeletal system works as a unit, and if one of your components fails, other components suffer. This chain reaction of dysfunction complicates the reversal process. However, the reversal process is still possible! By performing the 5 exercises below and the additional exercises at www.egoscue.com/htdocs/pperformance/footankle.asp, you can begin the process of improving your standing posture, which will help eliminate your plantar fasciitis and heel pain for good! If possible, perform these exercises daily, preferably before you run.

SITTING CHAIR TWIST

Sets: 1
Duration: 1 Minute each side

How to Perform this E-cise™:
Sit in a chair with your pelvis rolled forward to place an arch into your lower back. Be sure to keep your feet pointed straight ahead. Remain sitting straight and reach behind you with one arm as the other arm is resting on the side of your hip. Twist in that direction and HOLD. REPEAT on the other side.

What this E-cise™ does:
This exercise mobilizes the lumbar, thoracic & cervical spine along with the rib cage. The stabilizing comes from the deep pelvic and spinal musculature and the scapulae movers.

SITTING CATS & DOGS

Sets: 1
Reps: 10

How to Perform this E-cise™:
Sit in a chair with your feet pointed straight ahead. For the CAT position: Roll your hips backward to take the arch out of the back and drop your head. For the DOG position: Roll your hips forward to place the arch into your low back and look up. Repeat.

What this E-cise™ does:
This exercise promotes flexion and extension of the entire spine by initiating pelvic flexors and extensors.

PLANTAR FASCIA STRETCH

Sets: 1
Duration: 1 Minute each foot.

How to Perform this E-cise™:
Sit in a chair with one leg crossed over the opposite knee. Take your fingers and interlace them between the crossed foot's toes. Try to remain sitting straight up throughout the entire exercise. To do this, roll your pelvis forward to arch your lower back. There are 3 different motions. 1.) Using your hand, circle the foot OUTWARD, manipulating the toes purposly. 2.) Circle the foot INWARD, manipulating the toes purposly. 3.) Flex and extend the foot/toes using the hand to create the movement. When finished, switch legs.

What this E-cise™ does:
Due to the attachments of the plantar fascia, it is essential for the tiny structures of the foot and ankle to be mobile. This exercise re-establishes the natural joint play within the ankle and foot joints.

COWS FACE

Sets: 1
Duration: 1 Minute each arm.

How to Perform this E-cise™:
Stand with your feet pointed straight ahead. Take one hand over your shoulder as if you were scratching your upper back while the other hand goes behind your lower back. Try to bring your hands together and HOLD. It may be necessary to use a towel or a strap to help bring your hands closer together.

What this E-cise™ does:
This exercise promotes proper scapular rotation.

FLOOR BLOCK

Sets: 1
Duration: 3 Minutes

How to Perform this E-cise™:
Lie on your stomach with your forehead and nose flat to the floor. Place your hand straight ahead above your head and elevate them 4-6 inches just under the elbow joint. Use some type of pillow for this. Lock your arms out and point your thumbs toward each other in the golfer's grip. Rotate your thumbs to the ceiling with the movement coming from your shoulders. Move your arms out to 45 degrees and repeat and then move your arms out to 90 degrees and repeat. Keep your hips relaxed so that your heels remain dropped out.

What this E-cise™ does:
This exercise repositions the shoulder blade in relationship to the pelvis and lumbar spine.

Brian Bradley *is the Vice President of Therapy Protocol at the Egoscue Method world headquarters in San Diego, CA. Having treated the finest professional athletes such as Jack Nicklaus, Junior Seau (New England Patriots), and Abde Bile (Olympic Runner), the Egoscue Clinic is world renowned as "The Leader In Non-Medical Pain Relief." Brian basically sits in his office all day waiting for you to contact him with postural training questions or concerns at the email address and phone number listed below.*
Phone: 800-995-8434
Email: Bbradley@egoscue.com
www.egoscue.com