

The Flat Feet Solution: Part I

Practical methods to resolve this common problem

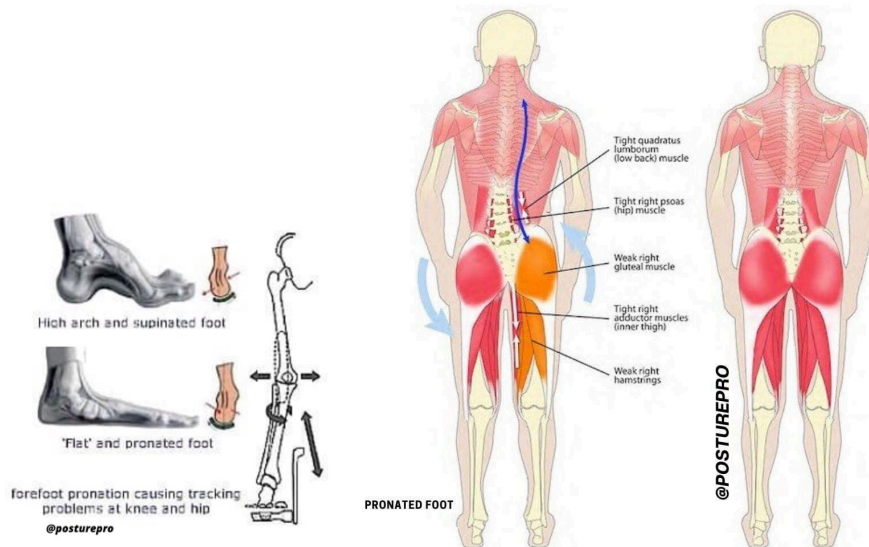
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If you believe a pricey pair of shoes is the secret to athletic success, think again. What's more, one of the most severe effects of neglecting the lower extremities is arches that collapse inward, a condition commonly referred to as flat feet. Let's take a closer look at what flat feet is, why it's a problem, and what you can do about it.

Let's start with some terminology. Fallen arches are technically referred to as valgus, and the degree the arches fall is based on a scale of one to three. A rating of three is the most severe and fulfills the classic definition of flat feet. Why is this a bad thing?

A valgus foot causes internal rotation of the lower limbs, and this faulty alignment increases the risk of ankle strains, sprains, and knee injuries. Excess internal rotation increases the curvature of the spine, which increases muscular tension in the lower back and increases the risk of disc injury because the spine loses much of its shock-absorbing ability. If one foot is more valgus than the other, this imbalance can place excessive stress on the knee, hamstring, and adductor muscles, increasing the risk of injury.

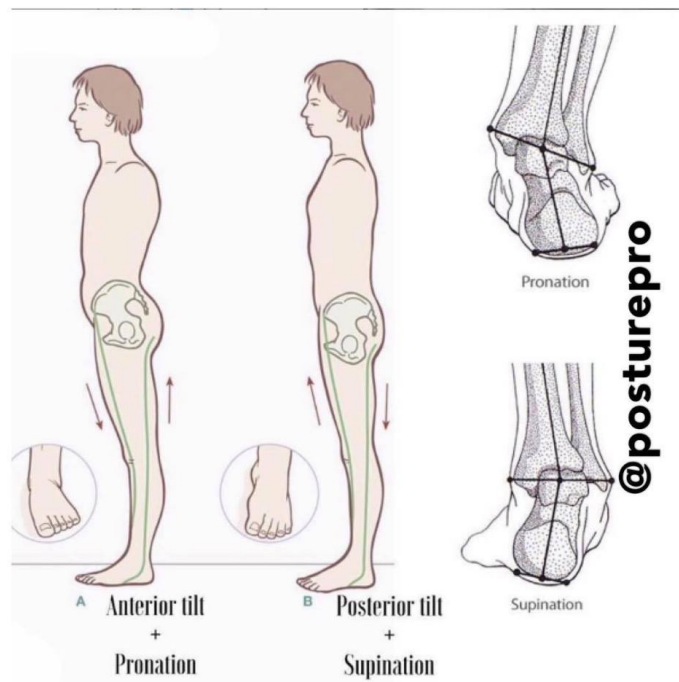
PRONATED FOOT AND BODY



A complete collapse of the foot arch is commonly referred to as flat feet.

Flat feet are increasingly common among today's athletes because of, interestingly enough, higher-quality shoes. Shoes with soft, foam-like support decrease the sensitivity of the skin on the bottom of the foot. The nerves in the skin provide postural information to the brain about the body's orientation in space. Then there is the issue with excessive arch support.

The foot arch was not meant to be in constant contact with a surface, or only for brief periods. Think of the arch as a biological spring that flexes to help absorb shock and redirect that energy. Shoes with insoles that press against the bottom of the arch create a “reflex reaction” that causes the arches to collapse even further – in effect, the muscles of the arch become lazy. An orthotic with a hard support that presses against the middle of the foot will undoubtedly mold the foot to its optimal position, but the arch collapses when the shoes are taken off.



Flat feet increase the curvature of the lower spine, reducing the body’s ability to absorb shock. Such a posture may cause back pain and make you more susceptible to injury.

I don’t mean to suggest that orthotics have no value. Many medical conditions require the continual use of orthotics — check out a few of the challenges faced on the Hulu program, “My Feet are Killing Me!” Some sports require shoes or boots with additional support, such as hockey and weightlifting. You don’t want to be performing max clean and jerks in running shoes that encourage the foot to pronate.

If custom-made orthotics are not a solution to fixing most cases of flat feet, what are your options? I’ll give you two: postural insoles and corrective exercises.

Building a Better Arch

Postural insoles will cause the arch to reform by stimulating the nerves on the bottom of the feet, stimulating several muscles of the feet to reform the arch. With many of my athletes, these insoles often completely resolve valgus feet. Standing on vibration platforms provide a similar effect as the postural insoles, and much of the pioneering research that led to the creation of postural insoles used vibration platforms. The issue is that vibration platforms are not a practical solution as they can be quite pricey.



An orthotic (left) and a postural insole (right). Postural insoles help correct flat feet by stimulating the nerves on the bottom of the feet.

Many muscles help form a proper arch, and there are specific exercises you can perform to strengthen them. Let's start with the big toe.

The primary muscle that lifts the big toe is the extensor hallucis longus. Those with valgus feet need to strengthen this muscle because it creates a lateral tension on the foot, thus creating an arch. One simple way to strengthen this muscle is to stand on one leg barefoot, lift the big toe, and then twist your body towards your toe. You can use a medicine ball to increase the resistance. Another exercise for the extensor hallucis longus is a step-up, performed barefoot with the big toe up of the working leg.

The next step would be to strengthen the two major calf muscles, the soleus and the gastrocnemius. These muscles are often atrophied in those with valgus feet. To strengthen the gastrocnemius, you can perform calf raises with your legs straight; to strengthen the soleus, you can perform calf raises with the knees bent. Performing these exercises in bare feet increases the effectiveness of the exercises, so consider performing your first set without shoes before adding weight and using heavier weights.

For variety, when performing calf raises, it's a good idea to change the position of the feet, such as pointing the feet inward or outward. Pointing your feet inward works the outside (lateral) part of the calf, while feet outward works the inside (medial) part of the calf. Also, because the soleus is more of a slow-twitch-fiber muscle group and is therefore designed for endurance, higher repetitions should be performed. For example, you could perform straight-leg raises for 15 reps and seated calf raises for 25 reps.

Finally, because the calf muscles are often shortened in those with flat feet, it's essential to stretch. Standing on an angled surface offers a simple, effective way to stretch both calf muscles. To stretch the gastrocnemius, stand on the surface with your knees straight. To stretch the soleus, you stand with your knees bent. These stretches and strengthening exercises are also effective in helping to prevent shin splints, which are especially common in those with flat feet.

Again, for some individuals, postural insoles are enough to correct valgus/flat feet. Others need to use insoles and perform exercises to help reform the arch. In Part II of this series, I will provide you with specific workouts to help you put more spring in your step by correcting valgus feet.

{A seminar on postural correction that discusses the use of postural insoles will be held on May 15-16 at the Strength Sensei Training and Education Center in Colorado Springs. Follow this link for more information: <https://education.posturepro.co/collections/all-programs/products/posturepro-colorado>}

About the Author



Through his knowledge of postural correction and elastic strength training, Paul Gagné helps athletes achieve physical superiority while reducing their risk of injury. For the past 38 years, Coach Gagné has trained athletes at all levels, including an Olympic champion in mogul skiing, world champions in ice dancing, pro golfers, and over 100 NHL players. He has made presentations in 25 countries and is the presenter for the Strength Sensei *Breathe Better Webinar*. For more information, follow this link: <https://strengthsenseiinc.com/product/live-breath-better-webinar-with-paul-gagne/>