



On-Site Solutions
PHYSICAL THERAPY



Dealing with
**PLANTAR
FASCIITIS**

What is Plantar Fasciitis?

Plantar Fasciitis is a common and painful condition that affects upwards of 2 million Americans per year. It is characterized by a gradual but progressive onset of heel pain with weight bearing. People often suffer with symptoms for 10-12 months before seeking help, as the pain may be intermittent and progress gradually. Don't let this be you! There are many simple and effective ways to manage these symptoms and encourage healing.

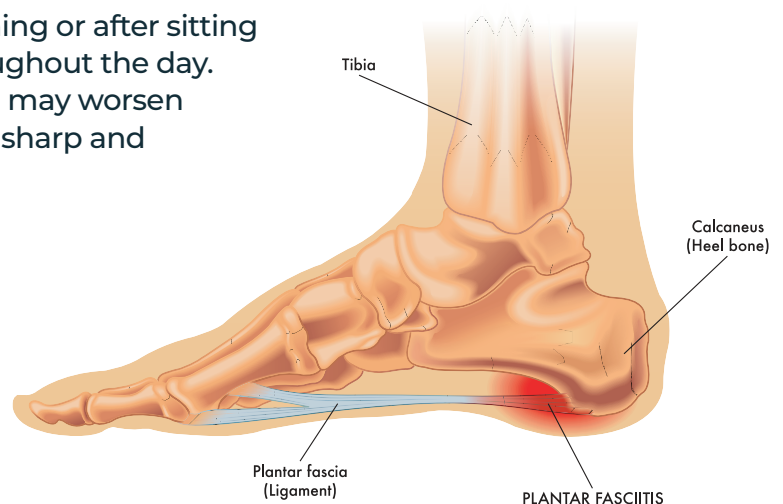
LET'S LOOK AT THE SITUATION:

The plantar fascia is a thick band of tissue on the bottom of the foot. Its job is to support the arch of the foot and absorb shock as the foot hits the ground. This condition occurs when the plantar fascia is overused or overworked which causes degeneration at the attachment on the heel bone. This can sometimes be accompanied by the formation of a "bone spur" but it is the soft tissue injury that typically causes pain.

What does plantar fasciitis feel like?

Severe pain along the arch of the foot or the bottom of the heel. It is worst with your first few steps in the morning or after sitting for a prolonged period and may improve throughout the day. The heel might feel sore to the touch and pain may worsen when barefoot. If untreated, pain can become sharp and constant with every step.

Even minor injuries or incidents can have a hard time healing because we are constantly stressing the foot with walking activity.



Who gets plantar fasciitis?

Anyone can experience this condition. If you put too many demands on the plantar fascia too fast, the tissue can't handle the pressure which results in pain.

Common factors that stress the plantar fascia:

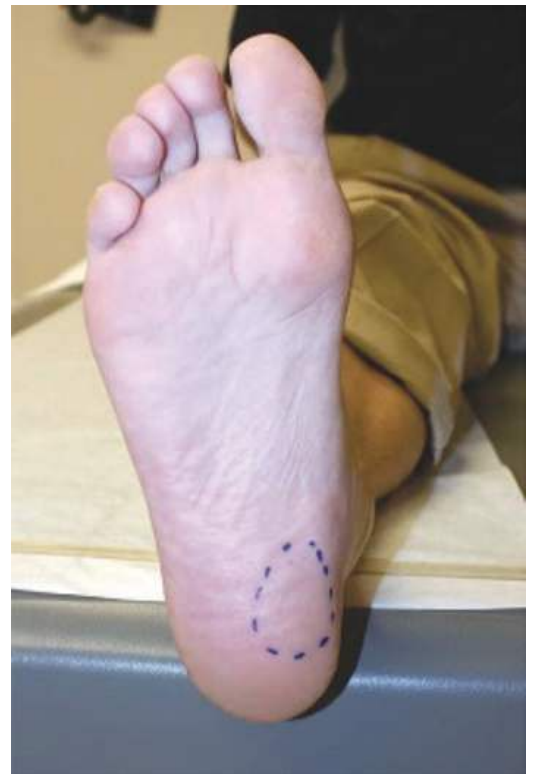
- Work changes that increase the amount of walking, running or high impact exercise
- Job changes which require standing or walking
- Rapid weight gain
- New shoes with poor support or cushioning
- Wearing worn out shoes
- Changing the walking surface such as walking on sand during a vacation

What can we do about it?

Plantar fasciitis can seem like a never ending and debilitating condition. The good news is that over 75% of people will respond to conservative measures if performed consistently. *The trick is to figure out how YOU put stress on your feet every day and what are the ways you could change that stress.*

Even small changes can make a big difference over time. Remember, this problem does not happen overnight. It takes time and some steady work to make it better. The following pages will highlight strategies that have been helpful for people with plantar fasciitis. Pick one from each category, try them out for a few weeks and see if you feel less pain. If things aren't getting better, switch things up.

If you have questions or need help figuring out what to try first, see your OSSPT provider. They have answers, advice and additional treatment ideas.



RISK FACTORS FOR PLANTAR FASCIITIS:

High body mass index
> 5.5 lbs. per ft²

Excessive running

Foot intrinsic and
calf muscle tightness

Leg length discrepancy

Occupations requiring
prolonged standing or walking

Pes cavus (high arch)

Pes planus (flat feet)

Reduced ankle dorsiflexion

Sedentary lifestyle

Recent changes in amount
of running or walking

STRETCHING ACTIVITIES:

1. Ball Rolling:

Using a racquetball or tennis ball, roll the bottom of the foot and heel while sitting down. Complete 30-60 seconds immediately before standing or walking. This will help reduce pain with 1st steps and “loosen” the tissue of the plantar fascia. It must be done regularly to see long-term benefits.



INCORRECT



CORRECT

2. Calf Stretching:

Stand with hands on the wall and affected foot behind you. Make sure the foot is pointed straight ahead and the arch is lifted. Hold for a minimum of 30 seconds, 2-3x per day for several repetitions.



3. Soleus Stretch:

Stand in front of a chair or wall for support, with one foot slightly in front of the other. Bend the back knee, shifting your weight to the back foot and keeping the heel on the floor until a stretch is felt in the low calf near the ankle. Hold for 30 seconds, 2-3x/day for several repetitions.

4. Plantar Fascia Stretch:

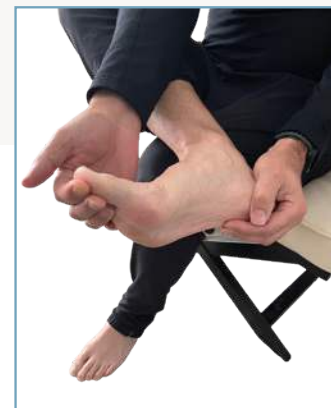
Hold the big toe in the palm of your hand. Bend the ankle upward and pull on the big toe to stretch the bottom of the foot. You could also massage the plantar fascia in this position. Do this 2-3 x per day and hold for 30 seconds.



START



END



ALTERNATIVE OPTION

STRENGTHENING ACTIVITIES:



1. Towel Crunches:

Sit with foot flat on the floor, toes (not the whole foot) resting on the edge of a small towel. Curl the toes down, pulling the towel toward you. Feel your arch raise. Repeat for 30-60 seconds, or until your arch feels tired.



2. Towel Swipes:

Increase the work of the posterior tibialis (the muscle that lifts and supports your arch) by completing a towel crunch plus rotating the ankle inward.

- Keep the big toe in contact with the ground as you slide the foot inward
- Complete on a hard surface floor
- Perform repetitions until fatigue is felt in the arch or inside of the ankle

3. Arch Lifts:

Sit with foot flat on the floor. Tighten the middle of the foot and slightly rotate outward to raise the arch. Hold this contraction for 5-10 seconds. Progress to standing to lift more "weight" and most advanced stage hold arch lifted while balancing on one leg for 20-30 seconds.



STRENGTHENING ACTIVITIES *(continued)*:

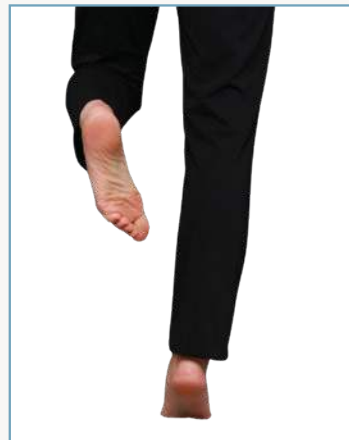


4. Front Lunge with Arch Lifted:

Step forward, landing on affected foot keeping the arch in a lifted position. This trains the arch muscles to support the foot during dynamic activity as well as introduce some repetitive impact to the heel.

5. Calf Strengthening:

Stand and raise up on to toes, lower heels back to the floor slowly. Make sure to try to hold the arch up as your heel comes back to the floor. Progress to going up using both feet and back down using one foot. The hardest option is to go up and down using one leg only.



SYMPTOM MANAGEMENT:

TREAT INFLAMMATION:

Reducing inflammation will be your first target to reduce the sharp pain. This includes:

- **Ice/Cryotherapy:** Ideally 2-3x throughout the day. This could include:
 - **General Ice Pack:** Wrap the heel and ankle for 8-10 min.
 - **Ice Massage:** Take an ice cube and rub directly on the affected area for 2-3 min.
 - **Ice Bottle Roll:** Freeze a water bottle and roll the foot and heel on it for 3-5 min.
- **Use of OTC anti-inflammatory medications:** Ibuprofen (Advil) or naproxen sodium (Aleve) will decrease pain and inflammation.



REDUCE STRESS:

If you walk or stand a lot at work, or run for exercise, reducing your foot strikes each day can lessen foot stress and promote healing. If that is not an option for you, here are other ideas:

- **Support that arch!**
 - **Arch Support Inserts:** Filling in the arch can prevent over-flattening and decrease the pronation force to the foot. The insert should fit the arch of your foot when you stand on it and should be made of semi-firm material.
 - **Supportive Shoes:** Many shoes are made to provide better arch support or to control pronation. In running shoes, these fall into the category of stability shoes. In sandals, they will have a thicker, formed foot bed with an arch.
- **Don't walk barefoot:** Walking barefoot increases impact stress to the heel and allows for overpronation to occur. Find a supportive pair of sandals to wear around the house.
 - **Work on improving flexibility and strength with the above exercises.** The more movement and control we have with our muscles; the less stress is transmitted to the heel.
 - **Night Splints:** Use a soft or rigid splint/brace while you sleep to keep your foot in a neutral position. This acts to increase ankle mobility and decrease calf tightness which takes pressure off the plantar fascia. *Research shows better effectiveness with regular use of a rigid splint for at least 4 weeks.*

Where people sometimes go wrong —don't let this be you!

Plantar fasciitis can be treated in different ways, so people may get frustrated when they try something and don't feel better right away. Common pitfalls to avoid:

1. Trying only 1 or 2 things:

Plantar fasciitis comes on for a variety of reasons and is affected by daily activities and situations. We often need to approach it from different angles to make a real impact. For instance, using inserts and tape may provide some relief, but incorporating stretches and strengthening exercises leads to a significant reduction in pain.

2. Being inconsistent with treatment:

Consistency is key. If we need to stretch the tissue before walking, we must do it every time we stand up. If not, we risk injuring it with each step we take without stretching. It's all about helping it heal, and everyone's approach may vary.

3. Abandoning management strategies too quickly:

Pain may lessen with certain treatments, and we may stop too early. Since plantar fasciitis involves tissue breakdown, it takes time for tissues to heal and become strong enough for daily walking. Stick to your treatment plan for a few weeks after your foot feels better.

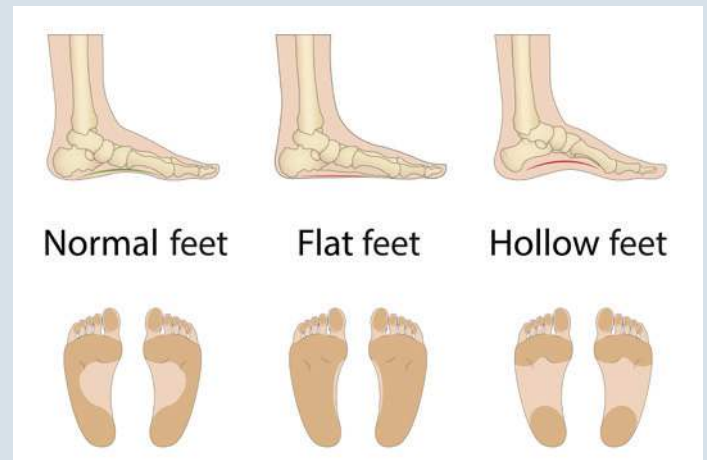
4. Increasing stress or load too quickly:

For some people with plantar fasciitis, the right treatment plan may involve reducing walking or running for a while. When you resume activity, do so slowly and gradually to prevent setbacks. Conditioning or progressive loading exercises can be helpful in this process.

INSOLES:

Insoles can also be helpful to decrease foot pain. The key is picking the insole that matches your arch height.

To figure out what kind of foot you have, wet the bottom of your feet and stand on a paper grocery bag or a dark towel, then match the outline of your foot to the guide on the right.



Helpful Links:

Ice Packs/Cold Therapy:

www.elastogels.com/

www.activewrap.com/collections/heat-and-ice-wraps/products/foot-ankle-heat-ice-wrap

www.orthozone.com/Shop-By-Body-Part/Cold-Therapy1/

Arch Supports/Inserts:

www.superfeet.com/en-us/insole-fit-finder

www.theinsolestore.com (Check out the Form and the Powerstep collections)

Supportive Shoes/Sandals:

www.aetrex.com/home

www.vionicshoes.com

Massage/Stretching Tools:

www.amazon.com/Penn-551402-Ballistic-2-0-Racquetballs/dp/B009O1RQRQ/ref=sr_1_12?keywords=racquetball&qid=1707407722&sr=8-12&th=1

www.amazon.com/THERABAND-Massage-Fasciitis-Treatment-Reliever/dp/B0027J20YQ/ref=sr_1_7?crid=V7PIFGEVRSTG&keywords=-foot+roller&qid=1707407973&s=hpc&sprefix=-foot+ro%2Chpc%2C389&sr=1-7

Night Splints:

www.amazon.com/Fasciitis-Orthotic-Improved-Effective-Tendonitis/dp/B07T9GY18F/ref=asc_df_B07T9GY18F&mcid=7ddb-19dacf4b3650b75084c4215838fe?tag=bing-shoppinga-20&linkCode=df0&hvadid=80608026541657&hvnetw=o&hvqmt=e&hvbmt=be&hvdev=c&hvlocint=&hvlocphy=&hvtargid=pla-4584207582431804&pssc=1

www.sourceortho.net/plantar-fasciitis-posterior-night-splint/?sku=63-103-2&msclkid=da02cc22405c162649eda9e6bae-7c7f5&utm_source=bing&utm_medium=cp-c&utm_campaign=All%20Products%20Sept%2023&utm_term=4585513252154283&utm_content=Ad%20group%201

Tape:

www.kinesiotape.com

Other brands include Strength Tape, Hampton, and OK tape – these can be found at various sites online

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Musculoskeletal injury bogging you down? On-Site Solutions Physical Therapy is here to help. In addition to our Self-Management Guide series, we have a number of ways to help you work smarter, not harder. Our expert physical therapists understand how the workplace can affect the body and are experienced in dealing with sprain strain injuries. OSSPT services — including on-site injury prevention, triage and management, body mechanics training, ergonomic assessment and education — have been proven to decrease injury rates. Our website, social media channels and video libraries provide additional resources and support. Contact us today for more information on how we can help.

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Company Information

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