HEALTH BASICS

Exercises to reduce plantar fasciitis

These stretches and strengthening exercises may reduce plantar heel pain and improve walking

WHAT IT IS
Stretching and strengthening movements for plantar heel pain

WHERE IT COMES UP
After a plantar fasciitis diagnosis or recurring heel pain

WHY IT MATTERS
May reduce pain and improve walking tolerance

WHAT IT IS NOT
Not a diagnosis or guaranteed cure

WHO TO ASK
Physiotherapist, podiatrist, or primary care clinician

HOW IT IS CHECKED
Pain and function tracked during walking and first steps

Overview

This article is about exercises used for plantar fasciitis. The exercises are not a disease or a diagnosis.

Plantar fasciitis is a common cause of pain under the heel. It involves the plantar fascia, a strong band of tissue that runs from the heel toward the toes and helps support the foot's arch. Despite the ending "-itis," which usually means inflammation, long-lasting plantar fasciitis often involves changes caused by repeated strain rather than inflammation alone.

Pain is often most noticeable during the first steps after getting out of bed or standing after a rest. It may ease as the foot warms up and return after longer periods of standing, walking, or running. Other conditions can cause similar pain, so exercises should not be used to diagnose the problem.

Plantar fascia and calf stretches can reduce pain and improve function. Strengthening the calf, foot, and ankle may also help the tissues handle everyday loads. Exercise works best when it is gradual and matched to your current ability.

How it works

The plantar fascia tightens when you raise your heel and bend your toes during walking. Tight calf muscles or limited ankle movement can increase the load passing through the heel and plantar fascia.

Stretching aims to improve movement in the plantar fascia, calf, and ankle. Strengthening aims to increase the amount of force these tissues can manage. The goal is not to force the fascia into a painful stretch or "break up" tissue.

Plantar fascia stretch: Sit and cross the painful foot over the opposite leg. Hold the toes and gently pull them toward the shin until you feel tension along the arch. You may be able to feel the tightened plantar fascia with your other hand. The stretch should feel controlled rather than sharp. It can be useful before taking your first steps after rest.

Straight-knee calf stretch: Face a wall and place the affected leg behind you. Keep the back knee straight and the heel on the floor. Lean forward from the ankle until you feel a stretch in the upper calf. Keep the back foot pointing mostly forward rather than letting it roll outward.

Bent-knee calf stretch: Use a similar position, but slightly bend the back knee while keeping the heel down. This shifts the stretch toward the deeper calf muscle, called the soleus. That muscle is active during standing and walking.

Heel raises: Stand near a stable support and slowly lift your heels, then lower them with control. This strengthens the calf and foot. Some rehabilitation plans progress from both legs to one leg or place a rolled towel beneath the toes. These changes increase the load and should be introduced gradually.

Foot-strengthening movements: Exercises such as lifting the arch without curling the toes, spreading the toes, or controlling the big toe separately may improve foot control. Evidence is stronger for a broader programme that includes calf and ankle resistance training than for any single small-foot exercise.

There is no one exercise schedule that suits everyone. The number of repetitions, resistance, and rest time should reflect your pain, strength, activity level, and other health conditions. A physiotherapist or podiatrist can provide a specific progression.

Why it matters for your health

Plantar heel pain can affect walking, work, exercise, and sleep. Avoiding all activity may reduce pain briefly, but it can also reduce calf strength and make it harder to return to usual activities.

A planned exercise programme provides a way to rebuild capacity. Improvement may be

gradual rather than immediate. Tracking function can be more useful than judging the result of a single exercise session.

Useful measures include how painful your first steps are, how long you can walk comfortably, and whether you can complete a controlled heel raise. Record these measures once a week rather than repeatedly checking throughout the day.

Exercise is only one part of care. Supportive footwear, temporary changes to activities, taping, foot orthoses, or a night splint may be considered in some situations. Orthoses are shoe inserts. They are not usually treated as a replacement for stretching and strengthening.

What can go wrong

A stretch may cause temporary pulling or mild discomfort. Sharp pain, worsening pain that continues after the session, or a steady loss of function suggests that the exercise or load may be too demanding. Reduce the load and arrange routine clinical advice if the problem continues.

Heel pain is not always plantar fasciitis. Related conditions include:

A heel spur is a bony growth that may appear on an X-ray. Its presence does not prove that it is causing the pain, and exercise cannot remove it.

Arrange routine follow-up if pain is not improving, keeps returning, affects both feet, or limits normal walking. Earlier assessment is also sensible if you have diabetes, reduced sensation, circulation problems, inflammatory arthritis, or a recent change in medication that affects tendons or bones.

Seek urgent assessment after a sudden pop with bruising, marked swelling, or difficulty bearing weight. A hot, red, rapidly swelling foot, especially with fever or a wound, also needs urgent care.

Call emergency services for severe shortness of breath or chest pain, particularly if accompanied by new calf swelling. These symptoms are not typical of plantar fasciitis.

- Calcaneal stress fracture: a small crack in the heel bone, sometimes linked to a rapid increase in running or impact activity
- Plantar fascia tear: a partial or complete tear that may cause sudden pain, swelling, or bruising
- Achilles tendinopathy: pain involving the tendon at the back of the ankle

- Nerve irritation or tarsal tunnel syndrome: nerve problems that can cause burning, tingling, or numbness
- Inflammatory arthritis: joint inflammation that may affect both heels or occur with prolonged morning stiffness
- Loss of the heel's fat-pad cushioning: pain directly under the centre of the heel, often worse on hard surfaces

What you can do

Choose one or two gentle stretches and practise the technique before adding more resistance. Use a wall, counter, or sturdy chair for balance. Wear supportive shoes if exercising barefoot increases pain.

Do not try to force through sharp pain. For strengthening, begin at a level you can control without bouncing, twisting the ankle, or dropping the heel suddenly. Increase resistance or move to single-leg work only when the current version is manageable.

Keep a short record of:

If you need help, ask a physiotherapist or podiatrist: "Which tissues appear to be involved, and how should I progress calf and foot loading?" You can also ask whether your footwear, work demands, training changes, or other health conditions should alter the plan.

No scan or blood test is needed to check whether an exercise is working. Progress is usually assessed through pain, walking ability, strength, and physical examination. Imaging may be considered when the diagnosis is uncertain, symptoms are unusual, or another condition such as a stress fracture is suspected.

- First-step pain after rest
- Comfortable walking time or distance
- Exercises completed and any later pain increase
- Changes in work, running, footwear, or other activity

Common questions

Should I stretch before getting out of bed?

A gentle plantar fascia stretch before the first steps may help people whose pain is worst after rest. Stop if it causes sharp pain, cramping, or new numbness.

Can exercises cure plantar fasciitis?

No exercise guarantees a cure. Plantar fascia and calf stretching, together with progressive strengthening, can reduce pain and improve function for many people.

Should I use a ball or frozen bottle under my foot?

Rolling may feel soothing, but it is not the same as progressive stretching and strengthening. Avoid hard pressure if you have reduced sensation, bruising, or unexplained swelling.

Is some discomfort acceptable?

A mild stretch or muscle effort can be expected. Sharp, electric, or steadily increasing pain is not the goal. Pain that changes your walking or remains clearly worse after exercise is a reason to reduce the load.

Can I keep running or walking for exercise?

You may not need to stop all activity. A temporary reduction in distance, speed, hills, or impact may help if symptoms increase during or after activity. A clinician can help plan a graded return if ordinary walking is painful or you are training for an event.

How long should I continue the exercises?

There is no single schedule for everyone. Follow the plan provided with the exercise and judge progress by weekly changes in pain and function. Seek routine review if you are not improving or cannot progress safely.

Sources

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