
FOOT PAIN
RELIEF
&
RECOVERY
GUIDE



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Introduction

Foot pain is common – estimated to affect around 1 in 5 adults. Foot pain can be extremely frustrating, particularly when it interferes with work or hobbies, but there are a number of things that **you** can do, alongside treatment, to speed up your recovery from foot pain.

This guide, backed by the latest scientific research, will teach you what to do and what not to do for a faster, more complete, recovery.

How to use this guide

This guide provides **general** information for patients with foot and ankle pain. Pick and choose what is suitable for your current situation and stage of recovery. Your practitioner will provide you with **specific** recommendations and exercise once they have completed a full examination.

Active Rest

One of the most important things to do after injury is to keep mobile. Movement is key for proper healing and has been shown to:

1. Accelerate tendon, ligament, muscle and bone healing [1].
2. Increase strength of recovering tissues [2].
3. Induce more rapid and intensive blood vessel growth into the injured area leading to enhanced blood flow and improved healing [3].

However, excessive or uncontrolled movement will disrupt tissue repair and may cause further damage. We need to limit the strain on the foot enough to reduce pain and sensitivity but keep it moving sufficiently to encourage proper healing = **active rest**.

The intensity of movement must be scaled according to the type, degree and stage of injury.

With acute injuries we can use the traffic light system as a guide:

RED (Pain >7/ 10)

- Stop!
- Modify the activity or stop completely.

ORANGE (Pain 4-6/ 10)

- Caution
- We generally want to avoid straying into the Orange Zone with acute injuries.
- Modify the activity and if that doesn't reduce your pain stop the activity entirely.

GREEN (Pain <3/10)

- Keep moving!
- No need to modify activity.



Mobility exercises

Specific mobility exercises can also be incorporated to help safely mobilise the foot and ankle, aiding recovery.

Calf Stretches

- Stand and place the ball of your foot on a wedge (e.g. yoga block, thick book).
- Keeping the heel down on the floor and the knee straight, move your body forwards, stretching the calf and Achilles.
- Do not allow the knee or foot to collapse inwards.
- Hold for 1-2 minutes.
- Repeat the stretch with your knee bent.



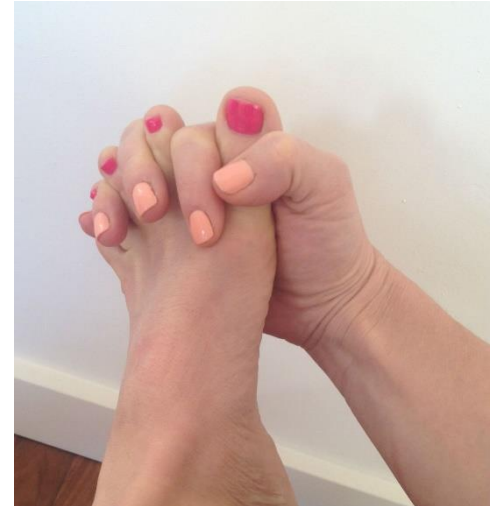
Alphabet drawing

- Sit or lay down comfortably.
- Slowly draw the capital letters of the alphabet with your ankle.
- Draw the letters as largely as you can with no / minimal pain (<3/10)
- Perform every time you sit or lay down.



Toe Mobilisation

- Sit comfortably in a chair
- Grasp your foot with the opposite hand and interlink your fingers between your toes as deeply as possible.
- The goal is to get the web of your fingers to the web of your toes (this may take weeks-months to achieve).
- With your fingers as deep as possible, spread your fingers as wide as you can and repeat the following movements for 20 repetitions:
 1. Flex and extend the foot and toes.
 2. Rotate the foot and toes.
- Repeat this process 3-5 times, wiggling your hand a little deeper between rounds.



Summary

- Active rest is key for complete healing and recovery from foot pain.
- We can use the **'traffic light system'** as a guide to stay within our optimal active rest window.
- Specific **mobility exercises** such as calf stretches, the toe spread mobilisation and alphabet drawing, can be added to your active rest routine.

Foot Sparing

In the early stages of injury, when your foot may not be able to tolerate much load, we can use activity modifications and orthotics to help offload the foot during day-to-day activities.

Activity Modification

- Ask for more sitting duties at work.
- If you having to stand for extended periods e.g. with cooking – place your affected foot on a step.
- If you need to walk a dog – try throwing ball vs walking.
- For activities that cannot be modified:
 - Take regular sitting breaks
 - Use supports such as orthotics or taping to help offload the foot (see below).

Orthotics

Orthotics are a shaped insert you place in your shoe to help support your foot.

Orthotics help to support the arch on the instep of the foot and can lessen the strain on the foot.

Several studies show that orthotics can effectively help to reduce foot pains such as plantar fascia pain [5, 6].



You can get two different types of orthotic –

1. Generic premade “over-the-counter” types
2. Custom orthotics which have been specifically built for your foot.

For plantar fasciitis, custom orthotics were found to be no better than ‘off the shelf’ or premade orthotics [7]

The other important thing to be aware of, is when support the foot with an orthotic you also reduce the demand on the stabilising muscles of the foot which can then result in weakness from disuse.

In fact, a recent study showed that muscle size of the intrinsic muscles (the small stabilising muscles in the feet) decreased by **10-17%** with just 12 weeks of orthotic use [8].

So, if you are to use orthotics it is important to use them in conjunction with foot strengthening exercises.



Pain Relief Strategies:

1

Contrast therapy

Contrast therapy involves applying alternating hot and cold to the injured tissue. It is a simple, safe and cheap method of aiding recovery and reducing pain. Heating and cooling helps to stimulate blood circulation and has a positive effect on inflammation. Cooling also has an analgesic effect and therefore contrast therapy can be a useful aid to reduce pain prior to performing mobilisation exercises.



Hot and cold can be applied in a variety of ways. With foot pain it is usually most effective to perform with two buckets – one with cold/ice water, the other with hot water. However, you can also use a shower or [hot / cold packs](#). If using hot / cold packs make sure you wrap them in a tea cloth to avoid contact burns.

- Apply heat to the foot for 1-3 minutes. Remove.
- Apply cold to the foot for 1-3 minutes. Remove.
- Repeat the process 3-5 times.
- For best results perform gentle mobilisation exercises (see above) after each bout of ice and heat.

2 Anti-inflammatory medication

Anti-inflammatory medication (NSAIDs) can be an effective option for short term pain relief in cases of muscle and joint injury, however research suggests that they should be used with caution.

Inflammation is commonly seen as “bad” and something that needs to be eliminated as quickly as possible. However, the reality is that acute inflammation is a vital first step in the healing process. When any tissue of the body is injured healing occurs in three phases:

1. The inflammatory phase.
2. The repair phase.
3. The remodelling phase.

Each phase of healing is necessary for the subsequent phase. In fact, it has been said that “Inflammation can occur without healing but healing cannot occur without inflammation”.

Research shows that minimising the inflammatory stage of healing with the use of anti-inflammatory medication likely has some negative long-term consequences:

- “ the use of these medications [NSAIDs] inhibits ligament healing, and thus, leads to impaired mechanical strength” [4]
- “NSAIDs appear to have a positive effect on the evolution of an acute ligament injury... **However**, in the long term, this rapid return is likely to be at the detriment of good healing [5]”
- “We do not recommend their [NSAIDs] use for muscle injuries, bone fractures (also stress fractures) or chronic tendinopathy.” [5]

In summary, anti-inflammatory medication will likely decrease pain in the short-term but they may do so at a cost to complete tissue healing. If you do choose to take NSAIDs, you should take the minimum effective dose for the shortest possible time.

3

Gel cups



Gel cups or 'heel cups' are soft pads placed under your heel. They are most useful for heel pains such as plantar fasciitis.

Gel cups help to reduce heel pain by softening the impact of the heel when walking. They also raise the height of the heel which is thought to lessen the strain on the Achilles and thereby the plantar fascia. However, studies show that this will only occur if the heel is raised least **18mm** so they may need to be used in conjunction with a heel lift.

Reactivation

Foot pain often results in inhibition (shutting off) of specific foot and lower quarter stabilisers which is part of the reason why patients often complain they feel weak or that their foot feels vulnerable. Reactivation exercises are important to 're-start' those key stabilisers helping to further reduce pain, improve movement and prevent re-injury.

NB: Reactivation exercises should be pain free and 'felt' in the targeted muscles. If the exercise causes pain or you are unsure whether you are performing it correctly, stop and check with your practitioner.



Foot Alignment



Positioning of the foot is very important. The better aligned your foot is the better muscle activation you will achieve. With all the following standing exercises try and start with a strong, well aligned foot posture:

1. Evenly spread your weight between your heel and the base of your 1st and 5th toes.
2. Spread and lengthen your toes.
3. Don't allow you toes to curl.

Ski Jumper



- Set up in a standing position with feet shoulder width apart.
- Spread, lengthen and push your toes towards the floor.
- Lean forward from your ankles as far as you can before your heels start to lift.
- Stay tall without bending at the waist, arching the back or jutting the chin.
- Pause for a moment before pushing back off your toes to return to normal standing.
- Try to avoid curling your toes.
- You should feel your feet and buttocks working hard.

Heel raises



- Set up in a standing position with feet shoulder width apart.
- Bend your knees slightly, spread and press your toes firmly into the floor and slowly lift your heels.
- Its normal for the weight to shift towards the big toe but make sure the base of the 5th toe stays in contact and you continue to press all of your toes to the floor as you lift.
- Pause at the top of the movement before slowly lowering to the floor.
- Avoid curling the toes, bending at the waist or leaning forward.
- You should feel your feet and calves working hard.
- If needed you can perform the exercise next to a wall and use your fingertips to help with balance but try and use as little support as possible.

Toe Taps



- Stand with feet shoulder width apart.
- Spread, lengthen and push your toes towards the floor.
- Lift one leg and reach it forward tapping the floor in front and then reach it backwards tapping the floor behind you
- Reach as far as you can keeping the supporting leg straight (or only slightly bent).
- As you reach focus on maintaining good support and alignment in the standing foot.
- This exercise can be made more challenging more performing on a foam mat.

Extra Advice:

Nutrition

Pro-inflammatory diets (increased sugar, increased refined oils & decreased fruit & veg) and nutrient deficiencies can decrease tissue repair exacerbating current pains and predisposing to future injury. For more information, take a look at our [Nutrition Resources Page](#).

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Let food be thy medicine & medicine be thy food - Hippocrates

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