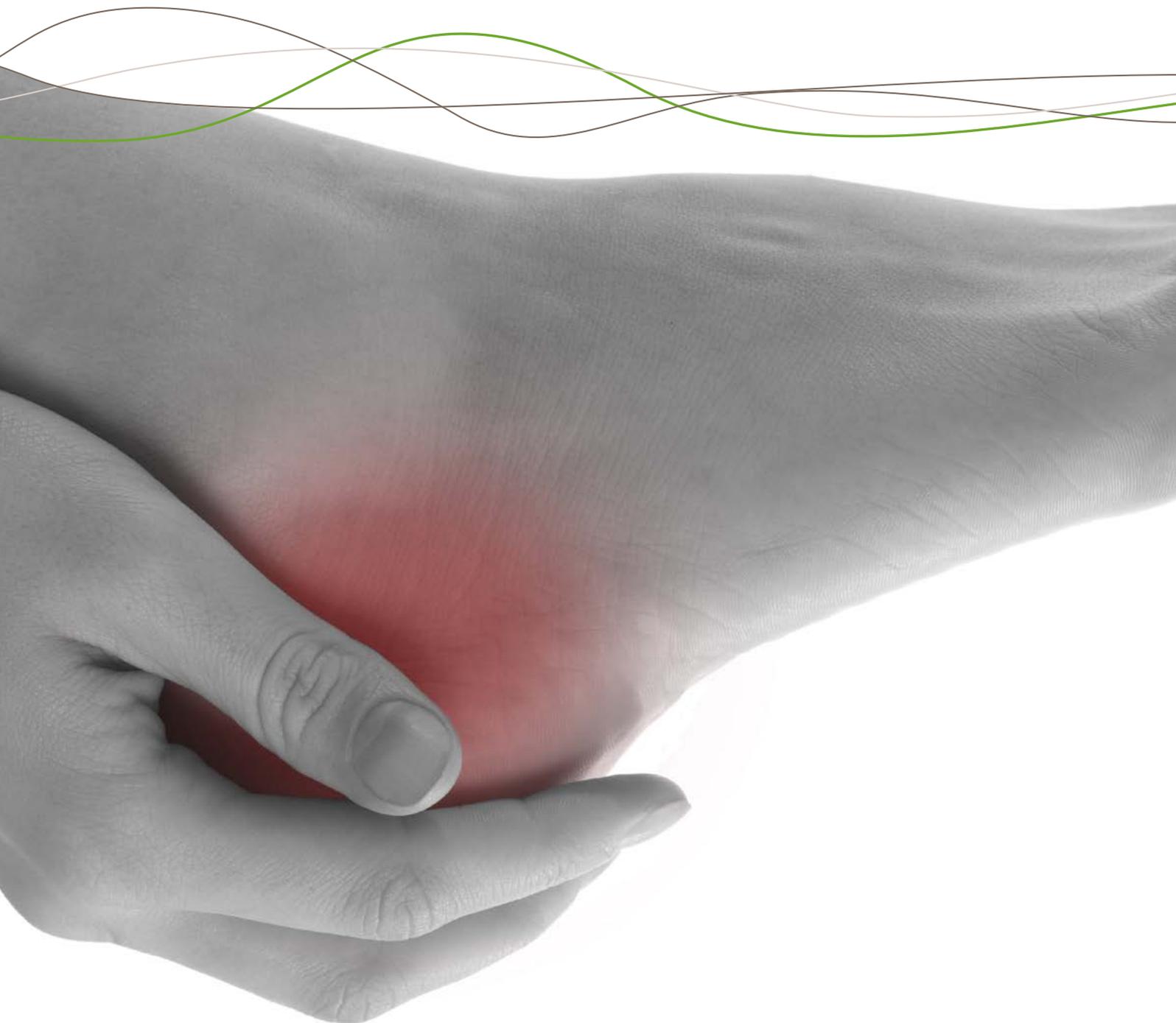


Managing Musculoskeletal Complaints **Foot Problems**



FOOT PROBLEMS

Foot problems account for 5% of the patients accessing Physio Med services from our clients.

Of the foot patients seen:

Domestic: 66%
Work aggravated: 31%
Accidents at work: 4%

The foot is a very stable area, more often than not protected by the footwear surrounding it. However that inherent stability and protection can each have negative effects if they are compromised in any way.

Key facts

- Foot problems in the general population are very common
- Many foot problems are postural and develop slowly over time
- Treatment methods like stretching and strengthening often are not effective
- Many foot problems resolve over time, but this period of time can be very variable, ranging from months to years
- Correct support of the foot almost always makes problems feel better
- There are pro-active steps you can take to prevent most foot problems

Most foot problems are either created by an issue in the foot itself (often called an intrinsic problem) or by factors in the environment working on the foot (like footwear choice), known as extrinsic factors.

For example, a runner has naturally flat feet (which is an intrinsic problem) but then runs on concrete (a bad extrinsic factor). Their choice of footwear can then affect either factor. For example, supportive footwear decreases the intrinsic factor, but old supportive footwear makes the impact on the concrete harder, so increases the extrinsic factor. Unfortunately, these factors go on and on and can be very involved.

Intrinsic problems:

The big toe:

Degeneration of the big toe joint is a common problem often referred to as bunions (hallux valgus). It is believed that half of the UK population suffers from this problem to some degree.

It normally starts as a lump on the side of the big toe joint.

This can then become painful and/or swollen with redness and heat in the later stages.

Many clinicians believe that narrow, high heeled shoes contribute to this problem as women have more incidence of bunions than men.



Self-help:

Footwear - The right shoes are critical if you have a bunion, or if you want to prevent one. High heels push your foot forwards in your shoe affecting the position of your toes. Narrow shoes squeeze your toes together. Try to wear flat shoes with a wider front section that allows some give (not patent leather), so your toes can freely move.

Bunion pads are cheap and readily available over the counter at the pharmacist or in the supermarket. Place one over the painful area to give it some protection from the side of your shoes.

A podiatrist (or chiropodist) can make you a custom shoe insert which can be individually moulded to your foot, reducing the pressure and inflammation.

Ice can help with pain relief by controlling swelling (if there is any), and limiting the amount of heat in the joint by moderating the inflammatory process. Anything from the freezer can be used to apply ice. Frozen peas are the most popular as they mould to the area well but ice cubes in a towel or an ice pack can also be used. **DO NOT** apply any ice directly to your skin, apply the ice through your socks (this is because ice can stick to skin). Ice should be applied to the foot for approximately 15-20 minutes no more than once in any hour. Apply as many times as possible until the symptoms of pain/swelling/heat go away. Ice can also be applied as an ice foot bath by placing water and ice cubes in a bowl then immersing your foot in the bowl. Most people find five mins of an ice bath is the equivalent of 20 mins of peas (five mins of an ice foot bath can be very hard to tolerate due to the pain).

Exercises:

As with all exercises some are harder than others and some suit some people and not others. The general rules for exercise are:

- If an exercise hurts, **stop**
- Can't get the exercises to work for you? See a physiotherapist for specific advice!

Toe stretches – you can gently mobilise your own big toe. Remember this might make it feel better but will not cure the bunion.

Hold your big toe and pull it up. Do not pull into any pain. Hold for 5-30 seconds, longer is harder. Repeat five times. Perform up to five times per day.



Calf tightness (stiff ankle)

This problem normally manifests itself first thing in the morning as you get out of bed, go up the stairs or go uphill.

Self-help:

Footwear – Once again, heels can be a major factor in this problem. High heels keep the ankle pointing down all of the time, tightening the calf muscles and making the front of the ankle stiff. Try to wear flat shoes whenever possible.

Stretches – there are two simple calf stretches that are effective for this problem:

Stand at a wall and lean against it with your hands. Put the tight ankle/calf back and keep the knee straight. Place your other leg nearer the wall and bend the knee.



Keeping your back leg straight and your heel on the floor, lean forwards to feel the stretch in the back leg. Hold for a count of 30. Relax and repeat five times. Do this five times per day (these are most effective just as you get out of bed and just before you go to bed).



This is a variation of the above exercise but it stretches the lower muscle deep in the calf and is equally as useful. Stand in the step standing position. Put the tight ankle/calf back but now keep the knee bent. Place your other leg nearer the wall and bend the knee. Now bend both knees, keeping your heels on the floor, until you feel the back one stretch. Hold for a count of 30. Relax and repeat five times. Do this five times per day (these are most effective just as you get out of bed and just before you go to bed).

Pain under your heel/foot:

Pain under the heel bone and/or extending down the inside arch of the foot is extremely common (and is medically called plantar fasciitis).

Symptoms of plantar fasciitis include pain along the inside edge of the heel near the arch of the foot. The pain is normally worse when weight is placed on the foot. This is usually most pronounced in the morning when the foot is first placed on the floor.

Prolonged standing can increase the pain. It may feel better after activity but most patients report increased pain by the end of the day. Pressing on the affected part of the foot normally causes tenderness/pain. Pulling the toes back towards the face can be very painful.

Self-Help

Ice can help with pain relief, controlling swelling (if there is any), and limiting the amount of heat in the area by moderating the inflammatory process. Although anything from the freezer can be used to apply ice and frozen peas remain the most popular method (as you can simply place your foot on them), probably the most effective way to apply ice to the bottom of the foot is to use a frozen bottle.



Take a small water bottle and fill it two thirds full. Freeze it then place it on the floor. Now roll your foot over the bottle so it goes up and down the foot (movement stops the ice from sticking). Do this for one-20 mins as tolerated and as often as you can - but not more than once an hour.

If you are using peas, ice cubes in a towel or an ice pack, DO NOT apply the ice directly to your skin (this is because ice can stick to skin). Apply the ice through your socks to the foot for approximately 15-20 minutes but not more than once in any hour. Apply as many times as possible until the symptoms of pain/swelling/heat go away.

Ice can also be applied as an ice foot bath by placing water and ice cubes in a bowl then immersing your foot in the bowl. Most people find five minutes of an ice bath is the equivalent of 20 minutes of peas (five minutes of an ice foot bath can be very hard to tolerate due to the pain).

Pain Killers: Many people find they need pain relief just to walk around and your pharmacist can offer advice on this. Try not to fully mask the pain though, as you may well be doing more damage to the area. DO NOT use pain relief to allow yourself to play sports or perform hobbies like distance walking - this is not good for the foot.

Anti-inflammatories: Many of the problems of the foot respond very well to anti-inflammatories, but remember that long term use can slow the healing process in some structures and so should be used judiciously.

Relative rest is advised, especially from standing, high impact or repetitive activities/exercises involving the 'push off' action of the foot. This may include modifying your work duties for a determined period of time (with the agreement of your manager) to include short periods of sitting down, or using a trolley / vehicle to reduce any loads you may be required to carry.

Being overweight (increased Body Mass Index) is a very significant contributing factor.

Reduce stress on the foot by losing weight. Please seek medical /professional advice if you feel that you need dietary advice. Undertake gentle, reduced weight-bearing activity to aid weight reduction, such as swimming or walking waist deep in a swimming pool, or undertake an upper limb work out while seated, for example.

Extrinsic

Shoes – Not everyone can have a choice of shoe because they have to wear specific footwear. A good example is safety shoes/boots at work. But some general principles apply to choosing footwear. Avoid heels! Choose shoes that provide good support and shock absorption. Trainers or rubber soled shoes are good options. Choose footwear that does not put pressure on the painful area and avoid shoes which do not fasten securely to your feet, such as flip-flops or sandals without a heel strap / support.

Specific footwear - some activities require specific forms of footwear which, if chosen incorrectly, can lead to problems in the foot. A specific example here would be jogging trainers, walking boots, or tennis/rugby/football boots/shoes. In activities where covering larger distances is involved (like those listed above), protecting your feet is vital. In these situations, specific footwear should be worn but there are different versions of each of these types of footwear.

From an injury prevention perspective, the most important thing to bear in mind with these types of footwear is whether you need any internal support for your foot (that is, support within the shoe). There are three common foot types (postures) which shoe manufacturers make different internal arrangements to accommodate for. Medically they are known as 'posted' shoes. That means they have support built in for a particular foot posture. The most common foot posture is 'neutral'.

This means the shoe is set to the middle position. But you may not have a neutral foot! Your foot may roll towards the inside as you walk and run, known as 'over pronating'. You would now be better in an anti-pronation shoe, or a medially posted shoe in medical terms (this is the second most popular foot posture). Fewer people roll out on their feet but it does happen. This is known as supinating. If you over supinate you would suit an anti-supination shoe, or laterally posted shoe (far fewer of these are produced).

So how would you know? Well, some people say you can tell by how your trainer wears down. Some people find out purely by trial and error (they find a running shoe etc. they like). The easiest way is to go to a specialist trainer/shoe shop and go on a pressure sensing treadmill which will tell you what will best suit you. These machines are not in every shop in every town, but they are readily available and are free to use in most stores (normally you will need an appointment). The ultimate way to correct your foot posture is to use a neutral shoe and insert an orthotic. It is recommended you do this under the supervision of a podiatrist who can give you off-the-shelf or custom-made orthotics (custom are best but more expensive).

Surfaces:

Take into account the surface you are standing/ exercising on and, if soft and unstructured like sand or loose soil, or hard like concrete or tiles, reduce the time spent stood/walking on the surface.

Carrying:

Walking whilst carrying a weight puts more pressure through the foot and can increase foot symptoms. Reduce carried loads by splitting into smaller batches or use a trolley/cart to transfer items without actually carrying them.

Pacing:

Try to take regular breaks. Try to sit for at least one minute in every 20 (the worse your foot is, the longer you will need to sit).

Healing

The healing of the plantar fascia is often slow when compared to other injuries. This is mainly due to its poor blood supply. Activities such as ice bathing, massaging and gentle stretching of the bottom of the foot and calf will help to promote blood flow. Some massages and exercises can help with this.

Plantar fascia massage:



Simply use your thumb to massage up and down the affected area. Use sufficient pressure to feel an effect without creating too much pain (be aware, in some cases there may be pain even with a light touch). Be sensible, if it feels like you are pressing too hard, you probably are. Perform for one-20 mins. Repeat up to three times per day.

As with all exercises, some are harder than others, and some suit some people but not others. The general rules for exercise are:

- Start with the easiest exercises and work your way up
- If an exercise hurts, **stop**
- If you can do an exercise easily, try a harder one
- Can't get the exercises to work for you? See a physiotherapist for specific advice!

Plantar fascia stretch (easy level):

This is similar to the toe stretch but now you stretch the whole foot.



Hold all of the toes and stretch the foot upwards. Use your common sense here - only stretch to the point of discomfort not pain. Hold for 30 seconds, relax, and repeat five times. Perform five times per day. As with all stretches, these are best performed first thing in the morning and last thing before bed.



Ball/roller stretches (intermediate level):

If you are not using the ice bottle method (as above) some self-stretching of the bottom of the foot can be effective. Place a tennis ball, rolling pin, drinks can or similar on the floor with the affected foot on top of it. Roll over the tennis ball from heel to toe. Gently press on the tennis ball as you do the movement. Start by doing this for one-two minutes and build up gradually to five minutes.

Wall stretch (intermediate level):



This is a variation on the calf stretch.

Start by placing your toes on the wall (as seen above) now move the knee on the same side towards the wall and you will feel the stretch. Once again, be sensible! Only stretch to the point of discomfort not pain. Hold for 30 seconds, relax, and repeat five times. Perform five times per day. As with all stretches, these are best performed first thing in the morning and last thing before bed.

Stair stretch (advanced level):

Standing with the balls of your feet on a step, gently lower the heel of the bad leg (use your other foot to take as much of your weight as needed).



You need to be very careful with this exercise as it is easy to over stretch. Only stretch to the point of discomfort, not pain. Hold for 30 seconds, relax, and repeat five times. Perform five times per day. As with all stretches, these are best performed first thing in the morning and last thing before bed.

Strengthening:

Using a towel under the foot curl your toes/foot to crumple the towel. Now go the other way to try to straighten the towel.



Repeat for up to two minutes or until the foot feels tired, whichever comes first. Repeat up to three times per day

Remember, if you try any of the things above and you feel they make you worse, NOT better, contact us for individual advice!

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