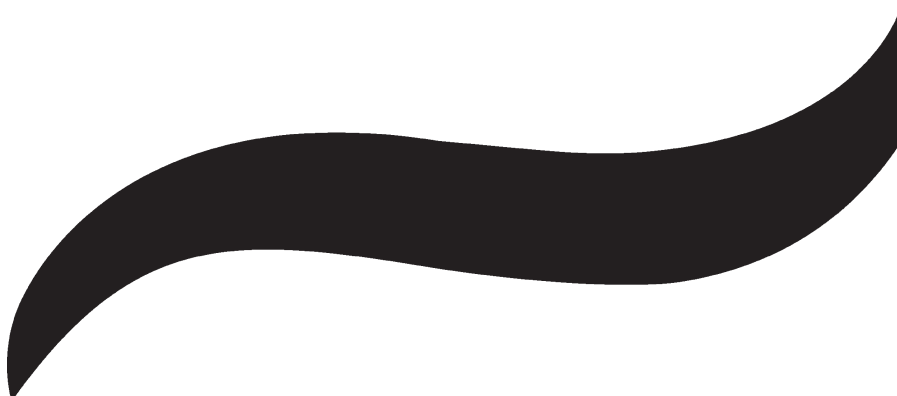




Plantar Digital Neuroma (Morton's Neuroma)

Information for patients
Podiatry

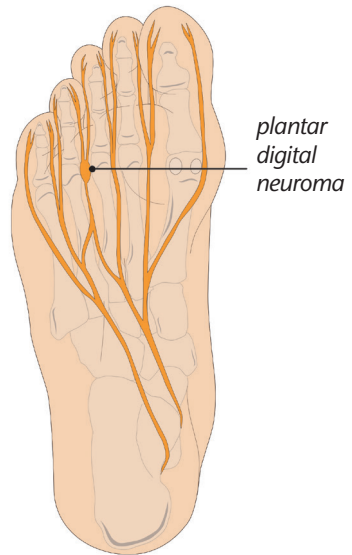


Morton's neuroma can be a painful condition that affects the nerves that runs between your toes in the ball of the foot. People between the ages of 35 and 60 are more prone to developing this condition but it can happen at any age, affecting women more than men.

It develops because of irritation and thickening in the nerves that supply your toes, triggering pain and numbness. Treatment for Morton's neuroma usually begins with self-care.

WHAT IS MORTON'S NEUROMA?

Morton's neuroma is a thickening of one of the plantar digital nerves in your foot. The plantar digital nerves run between the long bones (metatarsals) in your feet and provide sensation in your toes. The nerves most commonly involved are the ones that supply the 3rd and 4th toes but any of the plantar digital nerves can be affected. These nerves can experience a significant amount of stress and pressure which could result in damage and thickening to happen. Unfortunately, as the nerve thickens, the pressure around the nerve can increase resulting in pain and numbness in your fore foot and toes.



Bottom of foot

The pain usually starts in the ball of the foot and can spread into your toes. Burning, tingling or numbness between the affected toes may also be felt. Some people describe the pain like they are walking on a pebble or have a lump on their foot. Symptoms will be aggravated when wearing tight fitting footwear. Removing your shoes and massaging the area can often help relieve the pain.

Classic signs and symptoms:

- ❖ Sensation of walking on a ‘pebble’ or ‘lump’
- ❖ A sharp, stabbing, burning or tingling sensation affecting the ball of the foot and into the toes
- ❖ Pain more commonly affecting the 3rd and 4th toes, can affect all other toes
- ❖ Pain on walking, aggravated when putting on or wearing ill-fitting footwear
- ❖ Relieved by removing footwear and massaging foot

What causes a neuroma?

The exact cause of Morton’s neuroma is not known. It is thought to develop due to increased stress and irritation on one of the plantar digital nerves. This increased stress may cause the nerve to be compressed, rubbed, or stretched. Ill-fitting footwear is a well-known cause in aggravating your symptoms.

Other contributing of factors

- ❖ Ill fitting footwear that is too narrow or has a thin sole i.e. high heeled shoe
 - ❖ Being overweight
 - ❖ Foot deformities such as hallux valgus (bunion), hammer toes
 - ❖ Inflammatory conditions i.e. rheumatoid arthritis, psoriatic arthritis etc
 - ❖ Previous foot trauma i.e. metatarsal fracture, nerve injury
 - ❖ Weakness in the muscles within your foot or leg
 - ❖ Tightness in the muscles up the backs of your legs may cause you to load more through your forefoot
 - ❖ Wearing unsupportive footwear such as shoes or sandals which have a low heel
 - ❖ Spending long periods standing, walking or running, especially with a sudden increase in these activities
- What causes a neuroma?**

What causes a neuroma?

Unfortunately, there is no quick or easy fix and your symptoms will not improve overnight. We would advise you follow the advice below for Morton's neuroma in the first instance. The advice is aimed at reducing the pressure and inflammation from around the affected nerve. The main focus is on footwear and decreasing any tightness in the calf muscles. Tight calf muscles can increase the pressures through your fore foot. Your pain should improve but may take time to get better.

It is important to note that if you have any of the below contributing factors, you will need to consider making the necessary changes to your lifestyle to help aid your recovery.

The one person who can help you get better is you!

WEIGHT MANAGEMENT

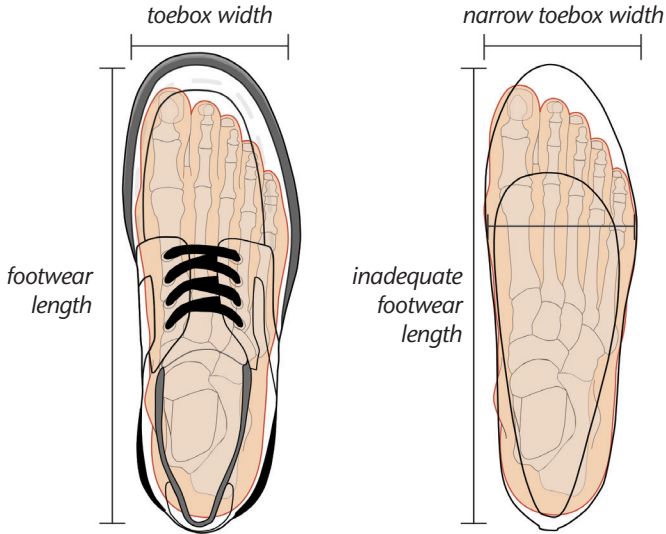
Increased weight will place extra stress on your joints and soft tissues in your feet. Losing even a small amount of weight will make a big difference to this especially when walking, running, or going up and downstairs.

If you need help with weight-control, you can find information, advice and groups you can join to help you manage your weight better. To access the NHS BMI Calculator go to: www.nhs.uk/live-well/healthyweight/bmi-calculator/ or otherwise open your camera on your smartphone or tablet and hold it up to the code and the link should appear on your screen, press this link and you'll be taken to this web address. This guide will help you on whether you should consider weight management.



FOOTWEAR

With Morton's neuroma it is important to make sure that your footwear fits you well and are not too tight across the fore foot. Narrow footwear will increase compression on the nerves. Shoes with a deep and wide



toe box are preferable. Avoid high-heeled, narrow or pointed-toe shoes as these could further increase the pressure on the nerves. Footwear that have thin, hard soles should also be avoided as these will not provide enough cushioning or shock absorption that can also increase the pressure on your nerves. Shoes with laces or adjustable straps are best.

PAIN MANAGEMENT

Pain medication can help reduce your symptoms, allowing you to move more comfortably which will aid your recovery. Your community Pharmacist can provide guidance on specific medication or other methods of pain relief (always read the label and manufacturer's guidelines).

Strengthening and stretching exercises

Current evidence based strengthening and stretching exercises for the muscles in and around your foot and ankle can help to improve your heel pain.

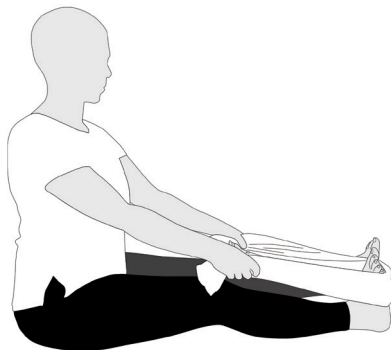
1. Calf towel stretch

This exercise is designed to stretch the muscles in the back of your leg. Start by placing a towel around the ball of the painful foot keeping your heel in contact with the ground and avoid bending your knee.

Pull the towel towards you until you feel a stretch along the bottom of your foot and the calf muscles in the back of your leg.

Hold the stretch for 30 seconds and repeat three times with a small period of rest in between stretches.

It is particularly useful to perform this stretch first thing in the morning and after periods of rest.



If you feel this stretching exercise is making your pain worse then focus on the strengthening exercises.

2. Standing Calf stretch

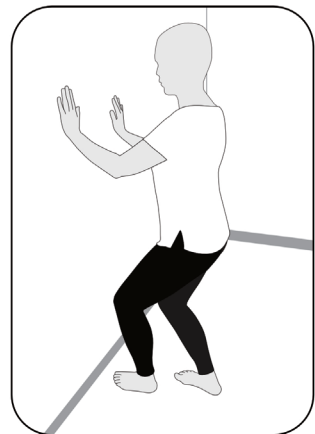
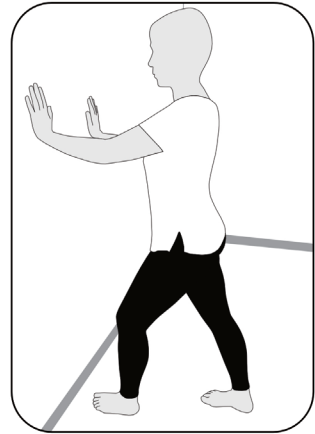
This exercise is done in two parts. First support yourself by placing both hands shoulder height and width apart against the wall. Once supported take a step back with your painful foot. Make sure your heels are in contact with the ground and remain like this throughout this exercise with both feet also pointing forwards towards the wall.

Now slowly begin to bend your front knee whilst moving your upper body towards the wall until you feel a stretch in the calf muscles in the back of your leg.

Hold the stretch for 20 seconds and repeat three times with a small period of rest in between stretches.

The second part of this exercise is designed to stretch the soleus muscle which is one of your calf muscles. Starting in the same position as before slide your painful foot towards the front foot as being demonstrated. Now when bending the front knee also bend the knee of the back leg until you feel a deeper stretch in the calf muscle. Like the other stretches make sure your heel is in contact with the ground throughout the exercise.

Hold this stretch for 20 seconds and repeat three times. **If you feel this stretching exercise is making your pain worse then please focus on the strengthening exercises.**

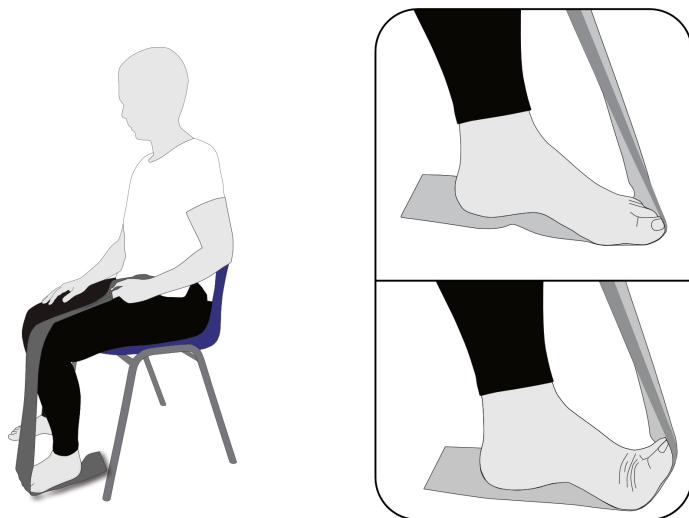


3. Intrinsic foot exercises (Theraband)

This exercise is designed to strengthen the small muscles in the foot. This exercise is performed in a seated position making sure your back is straight and leg bend comfortably at 90 degrees with your painful foot placed on a strip of Theraband.

Pull the end of the Theraband over your knee towards you which in turn will pull your toes up into a flexed position. Anchor the band on your thigh maintaining a good level of tension throughout the exercise. Hold the band tight and begin to slowly push your toes down towards the ground against the resistance of the band.

When your toes reach the ground allow them to slowly raise back to their starting position. You are aiming to do three sets of around 10-15 repetitions. You can adjust the difficulty of the exercise by creating more or less tension on the Theraband. Make sure your heel stays in contact with the ground throughout the exercise.

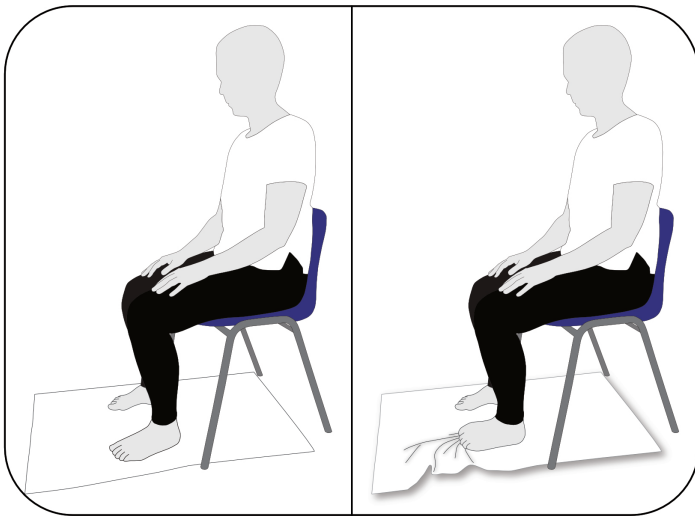


4. Intrinsic towel strengthening

This exercise is designed to strengthen the small muscles in your foot. Start by placing a small towel flat on the ground. This exercise is performed in a seated position making sure your back is straight and legs bent comfortably at 90 degrees.

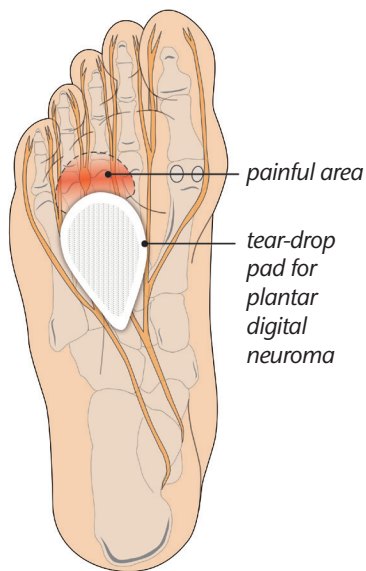
Place your painful foot on top of the towel and using your toes start scrunching the towel so that it is being pulled towards you. Do this in a slow controlled manner, making sure your heel remains in contact with the ground throughout this exercise.

When you have pulled the towel in as far as possible, flatten it back out and repeat the process between three and five times.



PADDING

Some people find benefit from wearing a metatarsal pad on the bottom of their foot or on an insole to help reduce the pressure on the nerve. A metatarsal pad is a soft pad which sits just behind the ball of your foot rather than directly underneath it. It is important to place the metatarsal pad in the correct position, ideally 5mm behind the metatarsal heads as shown in the diagram below. These pads help to reduce the pressure on the nerve and can be bought from the local pharmacy or online.



ICE

After periods of activity your pain may increase. It can be useful to apply ice to help reduce pain and inflammation. Using an ice water bottle can help reduce inflammation and also provide general manipulation that can also stretch and release the nerve irritation. You can also wrap crushed ice in a damp towel and hold it for 20 minutes every hour against the painful area.

PATIENCE

Have patience. Hopefully your symptoms should start to improve following the above advice.

WHAT ELSE CAN BE DONE?

The good news is that your pain should start to improve once you start following the above advice.

If you have any concerns that you are getting worse or notice any changes in the shape of your foot please contact your local MSK Podiatrist or email **PodiatryMSK@lanarkshire.scot.nhs.uk**.

FREQUENTLY ASKED QUESTIONS

The information below will answer many of the questions you may have in the early part of your treatment. We aim to ensure your specific needs are considered throughout. A shared decision making process is used by our teams. This means you will be informed about the treatment options open to you the risks and benefits of each option. You will be supported to make a choice about which treatment best meets your needs.

We hope the following questions that have been developed on the back of MSK focus groups, will provide you with some answers and information around your condition.

WHAT IS WRONG? WHY? WHAT IS THE CAUSE?

Morton's neuroma is a thickening of one of the plantar digital nerves in your foot. The plantar digital nerves run between the long bones (metatarsals) in your feet and provide sensation in your toes. The nerves most commonly involved are the ones that supply the 3rd and 4th toes but any of the plantar digital nerves can be affected. These nerves can experience a significant amount of stress and pressure which could result in damage and thickening to happen. Unfortunately as the nerve thickens, the pressure around the nerve can increase resulting in pain and numbness in your fore foot and toes.

WHAT IS THE POSSIBLE IMPACT ON MY HEALTH AND FUNCTION?

It can restrict your day to day activities and limit your ability to walk or exercise, which in turn can lead to strains elsewhere in the body.

WILL I GET BETTER OR WORSE?

The good news is that your pain should start to improve by following the advice that is aimed at reducing the pressures on the nerve. It should be noted that it is normal to have periods of increased pain during activity through the recovery process.

IS IT CURABLE?

Unfortunately there is no quick or easy fix and your symptoms will not improve overnight. We would advise completing the self-help advice in the first instance. The advice above is focused on reducing the pressure and inflammation from around the affected nerve. Your pain should improve but it may take time to get better.

HOW LONG WILL IT TAKE TO GET BETTER?

There is no overnight cure for this condition however, your symptoms should start to improve within three months of following this advice.

WHAT ARE YOU (THE HEALTH PROFESSIONAL) ABLE TO DO ABOUT MY PROBLEM?

By using our self-help tool, we would like to help you to better understand your condition and provide you with the tools which should help support your recovery.

WHAT IS THE TREATMENT THAT IS MOST APPROPRIATE FOR ME?

Treatment protocols for Morton's neuroma almost always start with basic principles and we would encourage you to consider trying some self-help treatment before making a referral to your local Podiatry department.

WHAT CAN I DO TO HELP MYSELF TO ALLEVIATE IT?

We would encourage you to consider trying some selfhelp treatment in the first instance.

HOW CAN I REDUCE OR CONTROL MY PAIN?

Changing your footwear and activity along with ice and pain medication can help reduce your symptoms, allow you to move more comfortably which will aid your recovery. Your community Pharmacist can provide guidance on specific medication or other methods of pain relief (always read the label and manufacturer's guidelines).

HOW CAN I MAINTAIN MY FUNCTION AND DO THE THINGS I WANT TO AND NEED TO DO?

If you are in pain do not try and do all your normal daily activities such as housework, at once. Break the harder jobs down into smaller jobs and do something gentler in between. Extensive walking or standing should be avoided if it aggravates your pain. It is recommended to modify activities rather than to fully stop all forms of movement or exercise. Work out what you can do relatively pain free and use that as a starting point. Over time you can build up your activity. Track and write down your progress to keep you motivated.

WHAT ACTIVITIES CAN I DO AND HOW SHOULD I ADAPT THEM (E.G. SPORTS, WORK)?

Avoid high impact activities like running which will significantly increase load through the front of your foot. We would encourage you to take part in low impact activities like walking, swimming, cycling etc. until the pain is at a manageable level.

WHEN CAN I GO BACK TO SPORT?

The return to sporting activity is guided by your symptoms and the type of sport you like to do. We would advise a gradual return to your sport as you will have lost condition during injury and recovery.

HAVE I MADE AN IMPROVEMENT?

Most people's symptoms should start to improve within three months of following the self-help advice> You should notice that although you may still have episodes of pain they will becoming less frequent and severe.

WHY AM I NOT IMPROVING? WHERE HAVE I GONE WRONG? AM I DOING THE RIGHT THINGS?

There could be a number of reasons why your symptoms may not be improving. If you have followed the self-help advice for three months and your pain has not started to improve please contact your local MSK Podiatrist or email **PodiatryMSK@lanarkshire.scot.nhs.uk**.

CONFIDENTIALITY AND THE USE OF PATIENT INFORMATION

NHS Lanarkshire take care to ensure your personal information is only accessible to authorised people. Our staff have a legal and contractual duty to keep personal health information secure, and confidential. In order to find out more about current data protection legislation and how we process your information, please visit the Data Protection Notice on our website at www.nhslanarkshire.scot.nhs.uk or ask a member of staff for a copy of our Data Protection Notice.

NHS Lanarkshire - for local services and the latest health news visit www.nhslanarkshire.scot.nhs.uk
NHS Lanarkshire General
Enquiry Line: 0300 30 30 243

NHS inform - The national health information service for Scotland.
www.nhsinform.co.uk
Tel No: 0800 22 44 88

If you need this information in another language or format, please contact the NHS Lanarkshire General Enquiry Line on 0300 3030 243 or e-mail info@lanarkshire.scot.nhs.uk



www.careopinion.org.uk

Pub. date:	October 2020
Review date:	October 2022
Issue No:	01
Department:	Podiatry
Clinical lead:	Stuart McNeil

PIL.PLANTA.20_18463.L