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# Metatarsalgia Foot Pain

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## Introduction

The purpose of this leaflet is to provide you with some general advice about Metatarsalgia, how to manage your pain and some simple exercises. You may be sent this leaflet while waiting for your physiotherapy appointment.

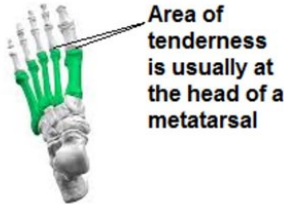


## What is Metatarsalgia?

Metatarsalgia is a general term used to refer to any **painful foot** condition affecting the **metatarsal** region of the foot. Traditionally the term tends to refer to pain under the balls of the feet or “metatarsal heads”. However there are a range of specific conditions that exist under the umbrella term of “metatarsalgia”.

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## What causes Metatarsalgia?



This is a common foot condition where one or more of the metatarsal heads (balls of the foot) becomes inflamed and are therefore painful. The most common cause of Metatarsalgia is excessive pressure on the bones at the front of the foot.

Pain and inflammation of the joints at the ball of the foot can develop for several reasons:

- As the result of a bunion (excessive bone growth on the outside of the big toe) that is putting pressure on the smaller toes.
  - In people who are very active and take part in high impact sports resulting in overuse / pressure on the balls of the feet.
  - In older people:- As we age the fat pad under the balls of the foot becomes thinner and this can contribute to pressure at the front of the foot.
  - High arched feet:- People with this foot shape are more likely to develop Metatarsalgia because their foot is less flexible causing a tight Achilles Tendon. Muscular tightness in the calf muscles results in greater pressure at the front of the foot with each step. This can exacerbate Metatarsalgia.
  - Due to either Arthritis, Gout or Diabetes.
  - Previous surgery to the foot.
  - Stress fracture of the metatarsal bone/s. If your pain is worsening see your GP or visit your local Walk in Centre.
  - Claw foot (pes cavus)
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## Being Overweight

This can put extra stress on the feet in general. Think about what your goals are and how you can achieve them without overdoing things for your feet e.g. if you are exercising to lose weight and your feet have developed metatarsalgia, consider the above advice on footwear plus use low impact exercise as well as diet to lose weight e.g. swimming or cycling.

“Challenge the clock” by swimming or cycling at an increased speed that you can comfortably cope with to raise heart and breathing rate – this helps to burn the calories and helps you to lose weight without overloading the feet.

If you walk/run certain distances spread the volume across a greater number of days.

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### Footwear

Wearing high heeled shoes can put extra stress on the metatarsal heads.

Footwear that is poorly fitting or too tight can also be a cause.

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## What are the symptoms of Metatarsalgia?

- Pain in the ball of the foot.
  - Some people describe this as being like walking on pebbles.
  - Others describe a general aching under the ball of the foot.
  - The symptoms can be localized i.e. under one or two metatarsal heads or can be general and felt under all the metatarsal heads.
  - The symptoms can be made worse by standing, walking or running and may affect both feet.
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## How is this condition diagnosed?

Metatarsalgia is usually diagnosed by a doctor or physiotherapist on physical examination. X-rays are not usually needed unless there is a suggestion of a possible fracture following an injury or stress fracture (worsening pain / swelling).

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## Initial treatments for Metatarsalgia?

Thankfully Metatarsalgia can usually be treated through activity modification, addressing certain footwear, better weight management where appropriate and exercise. The majority of patients are treated non surgically but occasionally surgery is required.

The physiotherapist may also need to address any lower limb alignment problems that may be contributing to your foot pain.

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## Relative rest and modification of activity:

- Metatarsalgia can be caused by **overuse** which can cause some mild inflammation in the metatarsal heads and nearby joints e.g. in runners or sports that involve jumping may also put extra stress on the metatarsal heads and lead to inflammation and pain.
- If you experience this discomfort you can protect from further injury by relative resting e.g. reduce the amount of non-essential exercise such as running, jogging, aerobics, Zumba.
- Try if possible to avoid or minimize long periods of unnecessary standing/walking.



Well padded shoes possibly with soft gel inserts will help reduce the pressure on the metatarsal heads.

If it is essential to wear smart dress shoes e.g. dress code for work – consider wearing wider, deeper shoes outside work e.g. trainers. This should help to reduce the amount of discomfort you are experiencing with your metatarsalgia.

Replace worn out footwear as this footwear will have less shock absorbing ability and may compromise your foot 'biomechanics' further prolonging the symptoms of metatarsalgia.

## Padding

Padding using materials such as fleecy web, fleecy foam, felt or gel covers can help alleviate symptoms of metatarsalgia.

## Having a stiff ankle or Achilles tendon

This can affect the way that pressure is distributed across the foot and may lead to extra stress on the metatarsal heads.

You might consider using a heel raise in your shoe.

Gentle calf stretches can help. (see below)

### [Video](#)



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Stand in a walking position with the leg to be stretched straight behind you and the other leg bent in front of you. Take support from a wall or chair.

Lean your body forwards and down until you feel the stretching in the calf of the straight leg.

Hold for 20-30 seconds or as pain allows then relax. Stretch the other leg.

Repeat 10 times.

## [Video](#)



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Stand with the leg to be stretched behind the other leg.

Push your heel down while bending the knee to stretch the achilles tendon.

Repeat   10   times.

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If this regime is too much then try to do the exercises at least once as a minimum.

**You may feel some mild discomfort during these exercises but if you feel an increase in pain then seek advice from the physiotherapist before continuing.**

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## For further information

Please email [ghnt.newcastlegatesheadtims@nhs.net](mailto:ghnt.newcastlegatesheadtims@nhs.net), ring on **0191 2138800** or visit our website at: [www.tims.nhs.uk](http://www.tims.nhs.uk) which provides online guidance and support on managing your musculoskeletal (MSK) condition effectively.

The NHS website also provides trusted online information and guidance on all aspects of health and healthcare to help you manage your condition and/or inform your choices about your health: [www.nhs.uk](http://www.nhs.uk).

## Useful links

The Patient Advice and Liaison Service (PALS) can offer on-the-spot advice and information about the NHS. You can contact them on freephone **0800 032 02 02** or e-mail [northoftynepals@nhct.nhs.uk](mailto:northoftynepals@nhct.nhs.uk).



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## Tyneside Integrated Musculoskeletal Service

TIMS is a partnership between Newcastle upon Tyne Hospitals NHS Foundation Trust and Gateshead Health NHS Foundation Trust

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