

# Metatarsalgia (Forefoot Pain)

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## Symptoms

- Pain in the forefoot ("ball of the foot") is the primary symptom
- Pain is often located at the base of the second and/or third toe (Figure 1)

## Symptoms are increased by:

- prolonged standing and walking
- standing on hard surfaces with hard shoe inserts
- Activities with increasing load to the foot (ex. Running)
- Numbness in one or more of the toes may be present (due to a Morton's neuroma) An enlarged digital nerve (Morton's neuroma) can lead to metatarsalgia, but most metatarsalgia is NOT caused by a Morton's neuroma
- Some clawing of the 2nd and 3rd toe may be present



Figure 1:  
Main area of Pain  
(Right Foot)

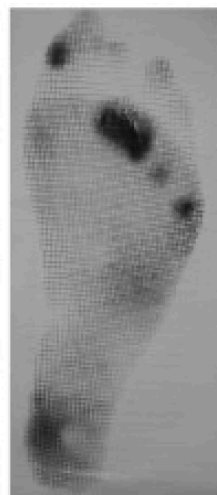


Figure 2: Harris Mat  
(Left Foot)

## Imaging Studies

X-rays of the foot will often demonstrate a relatively long 2nd (and/or 3rd) metatarsal. A Harris Mat (outlines foot loading pattern) will often demonstrate an acute area of overload that corresponds to the main area of symptoms (Figure 2).

## Treatment

Successful treatment of metatarsalgia involves;

1. Decreasing repetitive loading to the forefoot and
2. Dispersing the loading on the forefoot over a wider area.

## Non-operative treatment may include:

- Comfort shoes -gently curved stiff sole (but soft foot bed) that is well fitted.

- Metatarsal pads -Help disperse the force on the forefoot away from the area of prominence and discomfort provided they are positioned appropriately (Figure 3)
- Comfort orthotics -provides a soft foot bed for the forefoot. A recessed area under the main pressure point or an orthotic the molds to the pressure over time may help disperse force away from the area of discomfort
- Activity modification -Looking for ways to decrease standing and walking throughout the day as well as using exercises that involve less loading on the foot (ex. cycling instead of running) can help ease symptoms.
- Weight loss - In overweight patients losing even 5-10 pounds will decrease the force on the forefoot by 15-30 pounds.
- Calf stretching -Many patients with metatarsalgia have very tight calf muscles. Stretching the calf (with the knee straight) on a daily basis may help symptoms.
- Anti-inflammatory medications (NSAIDs) -May provide short-term pain relief.
- Corticosteroid injections -May provide some relief of symptoms by decreasing inflammation if injected in the involved toe joint or around a Morton's neuroma. Occasionally patients will continue to be symptomatic and surgery may be recommended.



**Figure 3: Metatarsal Pad**

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