

# Metatarsalgia

## What is it?

Metatarsalgia is a general term to describe a pain at the ball of the foot. Typically, someone suffering from metatarsalgia will report that pain is worse when bearing weight and may feel like there is a stone in the shoe. There may be some callus formation at the site of the pain.

## What causes it?

With this condition one or more of the metatarsal heads become painful and/or inflamed, usually due to excessive pressure over a long period of time. Ball-of-foot pain is often caused from poorly fitting footwear, most frequently in women's dress shoes and other restrictive footwear. Footwear with a narrow toe box causes the ball-of-foot area to be squeezed into an unnatural shape. This restricts the movement of the bones of the forefoot and can lead to extreme discomfort.

Other factors can cause excessive pressure in the ball-of-foot area that can result in metatarsalgia. These include shoes with heels that are too high, or participating in high-impact activities without proper footwear and/or orthotics. Also as we get older, the fat pad in our foot tends to thin out, making us much more susceptible to pain in the ball-of-the-foot. Arthritis can also cause symptoms similar to metatarsalgia.

## How can a pedorthist help to treat it?

Footwear is the first consideration in treating metatarsalgia. If the footwear is inappropriate (if it has a hard sole, is high heeled or has an inappropriate shape in the toe box) it must be changed in order to relieve pain. Footwear designed with a high, wide toe box (toe area) and a rocker sole are ideal for treating metatarsalgia. The high, wide toe box allows the foot to spread out while the rocker sole reduces stress on the ball-of-the-foot.

Unloading pressure to the ball-of-the-foot can be accomplished with orthotics or modifications to the inside of your shoes. Orthotics designed to relieve ball-of-foot pain usually feature a metatarsal pad. The orthotic is constructed with the pad placed behind the ball-of-the-foot to relieve pressure, and redistribute weight from the painful area to more tolerant areas.

