

# Metatarsalgia

## When The Big Toe Lets You Down

### What is it?

Metatarsalgia is a term used to describe a painful foot condition in the area just before the small toes (more commonly referred to as the lesser balls of the foot). The condition is characterized by pain and inflammation under these “lesser balls” of the foot, which are the bulbous ends of the long bones in your foot called metatarsals (hence “metatars - algia”. The soft tissues under these bones are usually inflamed and painful from too much compression during walking and standing.

Once the inflammation is established, the inflammation and pain is aggravated by any activities on your feet. Metatarsalgia can affect anyone who spends significant time on their feet and frequently affects runners and other athletes who participate in high-impact sports. Although generally not considered a serious condition, the pain can sideline you whether you are an Olympic athlete or a weekend warrior.

Besides pain on the balls of your foot, other symptoms can include numbness and tingling in the toes, sharp pain that worsens when you flex your feet, and a feeling that you have a bruise in your foot or are walking on a stone.

### How did I get it?

As with many conditions of the foot, metatarsalgia is commonly caused by improper function related to loss of arch height and a flat foot posture. When you have a flexible, flat foot too much weight is shifted to the 2nd, 3rd and 4th metatarsal heads. A flexible, flat foot causes the loss of normal big toe function, so the smaller heads get stuck with the load. Unlike the large ball of the foot behind the big toe, these smaller heads are not designed to take such repetitive excess loads, so they may inflame as in any overuse injury.

As in most other foot problems, other contributing factors can include: an increase in activity or training, excess weight, length of time one must be on their feet in a day, and poorly fitting shoes.



### How is it treated?

The first step in the treatment of metatarsalgia is to determine the cause of your pain. Different cases may require different treatments but your doctor is likely to recommend a conservative approach first including:

**Anti-Inflammatory Agents:** These may include ice and oral anti-inflammatory medications. These may provide some temporary relief from the pain of inflammation, but are not helpful in addressing the underlying cause of your condition.

**Exercises:** A regular calf stretching routine should be a part of any treatment regimen.

**Footwear:** Advice that focuses on taking the pressure off the metatarsals should also be followed. Unloading the pressure on the ball of the foot with a reduced heel height shoe may be helpful.

**Injections:** Depending on the cause of your metatarsal pain, this intervention may be considered. It involves the injection of a medication that blocks the transmission of pain through the nerves of your foot. Risks include permanent numbness in areas of your foot so be sure to discuss the indications and risks for this treatment with your doctor.

**Surgery:** In cases that do not respond to

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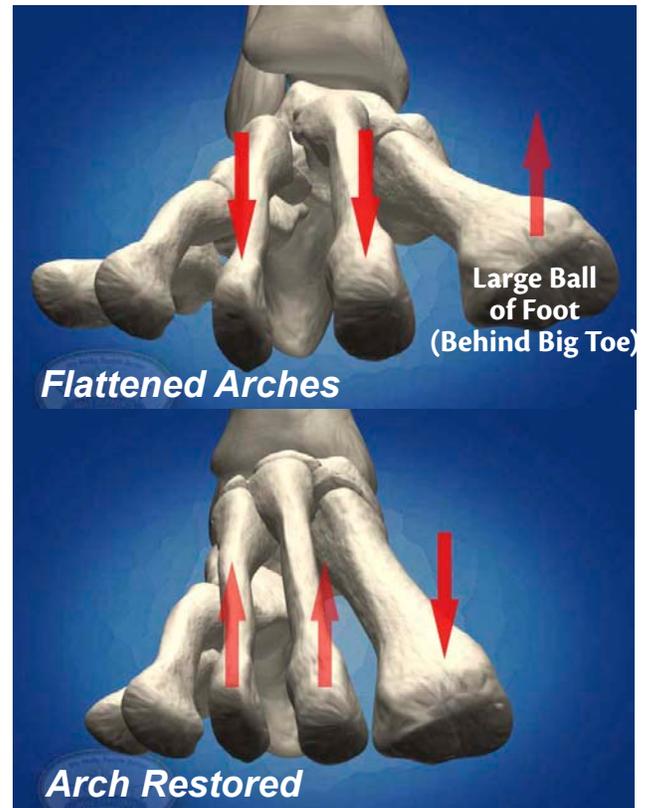
conservative measures, your doctor may recommend surgery. This may include realigning the bones of your feet. Parts of the bone may be removed and ligaments or tendons may be cut in an effort to reduce weight bearing on the metatarsal heads. If you are considering surgery, talk to your doctor carefully about the benefits and risks.

**Foot Orthotics:** Since the primary cause of metatarsalgia is loss of normal foot function, the best solution is restoring function by means of the right custom foot orthotics. A *Sole Supports™ orthotic*, unlike typical custom orthotics, is designed to completely support the restored arch of your foot, determined by a unique way of capturing your optimal foot posture. Abnormal joint stresses are reversed, allowing affected tissues to heal and normal joint function to be restored. In this way *Sole Supports™* provide both primary treatment and preventative care by restoring normal weight bearing function to your big toe and first metatarsal. When this is done, the cause of your pain is being addressed rather than just the symptoms.

### What can I expect from treatment?

With a proper diagnosis, and a well-rounded treatment plan including orthotics, the prognosis is excellent. With *Sole Supports™* foot orthotics you can expect 50-70% relief the first month, 70-90% the second month and 90-100% the third.

*This handout provides a general overview on this topic and may not apply to everyone. To find out if this handout applies to you and to get more information on this subject, talk to your health care provider.*



*With flattened arches, the large ball of the foot behind the big toe takes a holiday -it can't take its normal share of the load. The lesser balls are forced to take up the slack and grind unnaturally into the ground. Restoring the arch restores normal function.*

*This video demonstrates how the repetitive splay of the forefoot during walking eventually leads to a bunion. The foot gradually assumes a permanently deformed shape that mirrors the shape it assumed due to poor function.*