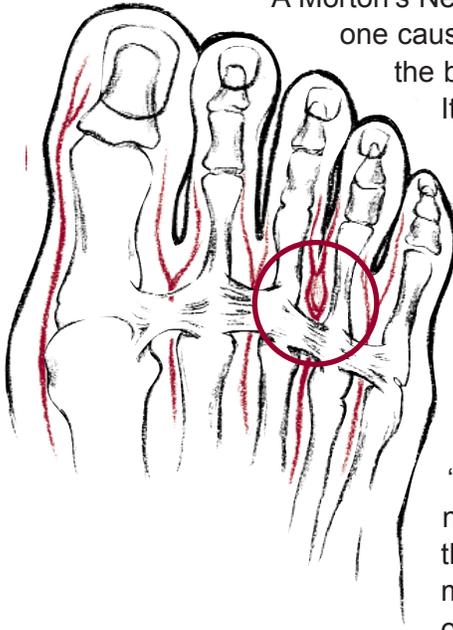


## What is a Morton's Neuroma?



A Morton's Neuroma is one cause of pain in the ball of the foot.

It is inflammation of a nerve that supplies sensation to the toes. This inflammation causes enlargement of the nerve with the end result being pain. "Neuroma" means nerve tumor, but in this case is simply means enlargement of the nerve, not malignancy.

## Causes

Entrapment of the nerve between the metatarsal heads causes repeated injury when standing, walking, or running. This causes inflammation of the nerve and subsequent enlargement. The bigger the nerve becomes, the more likely it is to become irritated.

- This problem most often occurs with high heels, narrow shoes, and thin hard soles.
- The aging process can also contribute by relaxing the arch across the ball of the foot, increasing the likelihood of pinching the nerve between the metatarsal heads.
- The neuroma usually develops between the 3rd and 4th toes but less commonly occurs between the 2nd and 3rd toes.

## Symptoms

Intermittent pains in the ball of the foot that may radiate to the toes, top of the foot or up to the ankle. It may feel like a marble or stone on the ball of the foot. The pain is usually burning, tingling, or cramping but may also be sharp in nature. It is usually relieved by rest and removing the shoe. Numbness of the affected toes is often present.

- Usually the neuroma affects just one foot but it can occur in both.
- This problem is more common in females and runners.

## Treatment

- Avoid shoes that are narrow or pointed in the area of the ball of the foot (toe box).
- Wear extra wide shoes with lower heels and thicker, softer soles.
- Metatarsal pads (or orthotics) in the shoes will reduce the weightbearing forces and help take pressure off the neuroma.
- Anti-inflammatory drugs or cortisone injections may reduce inflammation and pain.
- If the neuroma has been present for a long time (i.e., over 3 months) the conservative treatment above may relieve some symptoms but will probably not cure the underlying problem.
- Surgery to remove the neuroma can be performed when necessary. It is successful around 80-90% of the time. This surgery is usually done on an outpatient basis. Since the nerve is removed, there is numbness between the toes which usually improves with time.