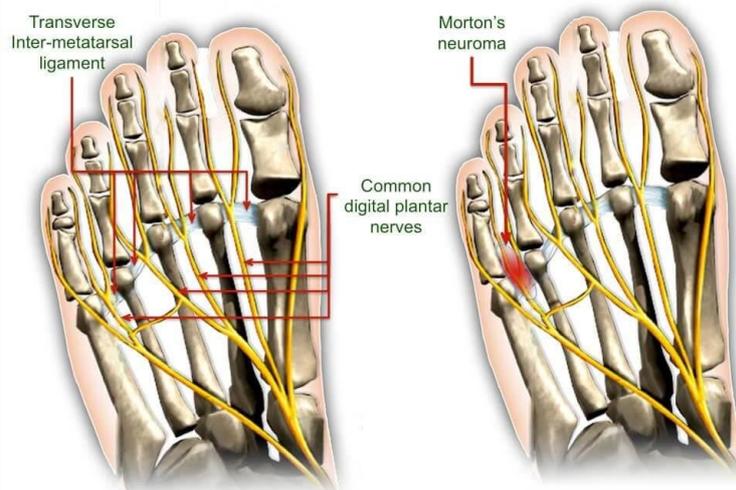


MORTON'S NEUROMA

What Is a Neuroma?

A neuroma is scarring / thickening of nerve tissue that occurs in the foot. The most common neuroma in the foot is a Morton's neuroma, which occurs between the third and fourth toes. It is sometimes referred to as an interdigital neuroma.

The thickening or scarring of the nerve is the result of trauma and irritation of the nerve. Recurrent irritation creates enlargement of the nerve, eventually leading to permanent nerve damage.



Causes:

Anything that causes compression or irritation of the nerve can lead to the development of a neuroma. One of the most common offenders is wearing shoes that have a tapered toe box or high-heeled shoes that cause the toes to be forced into the toe box. People with certain foot deformities—bunions, hammertoes, flatfeet or more flexible feet—are at higher risk for developing a neuroma. Other potential causes are activities that involve repetitive irritation to the ball of the foot, such as running or court sports. An injury or other type of trauma to the area may also lead to a neuroma.

Symptoms:

If you have a Morton's neuroma, you may have one or more of these symptoms where the nerve damage is occurring:

- Tingling, burning or numbness
- Pain
- A feeling that something is inside the ball of the foot
- A feeling that there is something in the shoe or a sock is bunched up

The progression of a Morton's neuroma often follows this pattern:

- The symptoms begin gradually. At first, they occur only occasionally when wearing narrow-toed shoes or performing certain aggravating activities.
- The symptoms may go away temporarily by removing the shoe, massaging the foot or avoiding aggravating shoes or activities.
- Over time, the symptoms progressively worsen and may persist for several days or weeks.
- The symptoms become more intense as the neuroma enlarges and the temporary changes in the nerve become permanent.

Diagnosis:

A good history and examination will often point to a neuroma. There are certain manipulations of the foot that will exacerbate the symptoms.

An ultrasound is usually indicated for confirmation. Xrays won't show a neuroma but can point to other problems in the foot giving forefoot pain.

Treatment:

Treatment approaches vary according to the severity of the problem.

For mild to moderate neuromas, treatment options may include:

- **Padding.** Padding techniques provide support for the metatarsal arch, thereby lessening the pressure on the nerve and decreasing the compression when walking.
- **Icing.** Placing an icepack on the affected area helps reduce swelling.
- **Orthotic devices.** Custom orthotic devices provided by your foot and ankle surgeon provide the support needed to reduce pressure and compression on the nerve.
- **Activity modifications.** Activities that put repetitive pressure on the neuroma should be avoided until the condition improves.
- **Shoe modifications.** Wear shoes with a wide toe box and avoid narrow-toed shoes or shoes with high heels.
- **Medications.** Anti-inflammatories can help to reduce the inflammation
- **Injection therapy.** Treatment may include injections of cortisone, local anesthetics or other agents.
- **Surgery.** Should conservative measures fail, surgery is the option. This will entail complete removal of the neuroma. The caveat of surgery is that the patient will have a numb sensation between the toes where the neuroma was removed.

References:

www.foothealthfacts.org

www.aofas.org

Pictures: Google images