



Morton's Neuroma Intermetatarsal Neuroma

What's the problem?

A neuroma is a swelling or scarring of a small nerve that runs in between two of your toes and provides sensation to these toes.

How does it feel?

Neuromas frequently start as a numbness or tenderness in the ball of the foot. This is the area just behind the base of the toes. As the swelling increases, pain and strange sensations such as numbness, burning and tingling in the area can radiate out into the toes or back into the foot. The area may be hot or very swollen. At first, the pain is only present when standing or walking. As it gets worse you may feel spontaneous shooting pains, often like electric shocks, even when you're off your feet.

How did this happen?

The neuroma usually develops just under or beyond the tight ligament. To understand why imagine that the nerve is the bow of a violin and the tight ligament is the string. The constant pulling of nerve over the ligament irritates the nerve and causes the nerve to thicken and scar. The nerve can also get pinched between the two metatarsal bones that it passes between. A scarred nerve doesn't carry signals well and may send back strange signals to the brain such as burning, pain and tingling.

Anything that stretches and pulls the nerve will aggravate the condition. For instance, wearing high heels aggravates neuromas in three ways. First, the higher heel will push the toes up from the rest of the foot and cause the nerve to tighten and pull harder against the tight ligament. Second, the tight toe box

squeezes the front of the foot together leaving less space between the metatarsal bones for the nerve to rest. Finally, the body weight is put more on the ball of the foot increasing the pressure on the nerve. All 3 are bad news for you and your neuroma.

How is it Diagnosed?

Your doctor will make the diagnosis relying on your history and description of the problem and the physical examination. The doctor may do an x-ray to see if there are any other problems present. The nerve and neuroma are soft tissue and don't show on a standard x-ray. However, the doctor can tell if the metatarsals are close together and if the toes are spread apart-both signs of a neuroma. If the diagnosis is unclear, your podiatrist may order a soft tissue imaging technique called an MRI or an ultrasound to see the neuroma mass.

How will my Doctor Care for me?

The doctor may apply special padding to the foot to take the pressure off the area. An injection of an anti-inflammatory medicine (cortisone) mixed with numbing medicine (xylocaine) may be put into the area surrounding the nerve to calm it down. The doctor may also prescribe a an anti-inflammatory medication, physical therapy treatments, or dispense orthotics to help control the abnormal mechanical structure of your foot.

Disclaimer: This document contains information and/or instructional materials developed by the University of Michigan Health System (UMHS) for the typical patient with your condition. It may include links to online content that was not created by UMHS and for which UMHS does not assume responsibility. It does not replace medical advice from your health care provider because your experience may differ from that of the typical patient. Talk to your health care provider if you have any questions about this document, your condition or your treatment plan.

Author: Crystal Murray Holmes, DPM

Patient Education by [University of Michigan Health System](#) is licensed under a [Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License](#). Last Revised 01/2016