

Morton's Neuroma (Intermetatarsal Neuroma)

What's the problem?

There is a small nerve that runs between two toes. **Morton's neuroma** is when there is swelling or scar tissue built up on this small nerve.

How does it feel?

Neuromas frequently start as a numbness or tenderness in the ball of the foot. The ball of the foot is the area just behind the base of the toes. As the swelling increases around the small nerve, pain and strange sensations such as numbness, burning and tingling, in the area can spread out into the toes or back into the foot. The area may also feel hot or swollen. At first, the pain is only present when standing or walking. As it gets worse you may feel 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 a tight ligament (connective tissue between bones) that connects the toes. 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, pulls, or puts extra pressure on the nerve will aggravate the condition. Wearing the wrong shoes can irritate the nerve and cause more pain. For example, shoes with a higher heel push your toes up from the rest of the foot and cause the nerve to tighten and pull harder against the ligament. Shoes with a higher heel also cause you to put more of your body

weight on the ball of your foot, and this puts more pressure on the injured nerve.

Narrow shoes are also wrong to wear when you have a neuroma. The tight toe of the shoe squeezes the foot where the nerve normally travels out to your toes. This squeezing puts more pressure on your painful nerve and does not allow the nerve to heal.

How is it diagnosed?

Your doctor will make the diagnosis relying on your history, description of the problem, and a 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. If the diagnosis is unclear, your doctor may order a soft tissue imaging technique called an MRI or an ultrasound to see the neuroma.

How will my doctor care for me?

The doctor may apply special padding inside your shoe 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 anti-inflammatory medication, physical therapy treatments, or orthotics (arch supports) to help control the pressure put on your neuroma.

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