

TARSAL TUNNEL SYNDROME

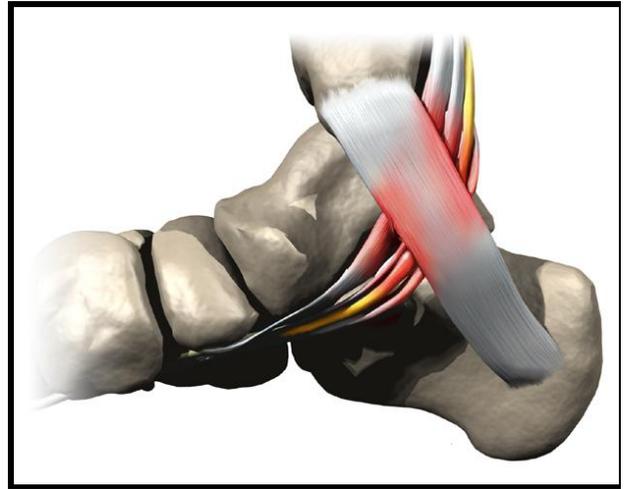
WHAT'S THE PROBLEM?

Most commonly, a compression neuropathy of Posterior Tibial Nerve. Tarsal tunnel syndrome is a chronic injury caused by compression or squeezing of the nerve that provides sensation to the bottom of your foot. This nerve is called the Posterior Tibial Nerve and passes through a fibrous tunnel located behind the bone on the inside of your ankle, known as the Tarsal Tunnel. This syndrome is similar to Carpal Tunnel Syndrome, a painful condition which affects the wrists of so many computer typists.



HOW DOES IT FEEL?

This nerve is very sensitive to pressure once it becomes compressed or squeezed and can cause a variety of sensations or feelings. Often times, the feeling of "pins and needles", burning or numbness may be felt. Pain may be felt when the area behind the medial ankle is pressed. The feeling of pain and numbness may also be felt when running or standing for long periods of time or even wearing tight shoes. These painful feelings or sensations are often worse at night. In addition to pain directly over the nerve, patients often experience pain, tingling, burning or other unusual sensations



through the arch, around to the bottom of the foot or radiating to the toes.

LET'S DO A TEST!

Tarsal Tunnel Syndrome may be diagnosed by a careful history and physical examination by your podiatrist. They may touch the course of the nerve with a vibrating tuning fork, or tap the nerve gently with a rubber percussion hammer. If a tingling or shooting pain is felt moving towards the toes, this is called a positive Tinel's Sign and is a positive indication that a nerve compression is present. Your podiatrist may refer you for more sophisticated tests to help determine if you have this syndrome. Such tests may include a Nerve Conduction Velocity Test (NCV) that measures the speed of conduction of nerve signals as they pass through the tunnel. In the case of Tarsal Tunnel Syndrome, the nerve impulses pass through the tunnel more slowly than normal. Magnetic Resonance Imaging (MRI) may also be done, to provide an accurate image of the nerve in the tunnel.

HOW DID THIS HAPPEN?

The Posterior Tibial Nerve, along with the artery and vein, course behind the inside ankle bone, in a tunnel formed by bone (your heel bone) and a fibrous band (the Flexor Retinaculum). This tunnel is called the Tarsal Tunnel. Since the Posterior Tibial Nerve is very sensitive, especially to pressure, it can become compressed within

this tunnel. Tarsal Tunnel Syndrome may occur after an injury to your foot or ankle. Such injuries include ankle sprains or fractures of certain foot bones. The compression of the Posterior Tibial Nerve may also occur with certain illnesses such as diabetes or rheumatoid arthritis. Varicose veins in the Tarsal Tunnel may also compress the nerve. An excess of a certain otherwise normal motion of your foot, called pronation, where your feet roll towards each other, stretch and flatten, may also compress or stretch this nerve.

WHAT CAN I DO FOR IT?

Rest and over the counter anti-inflammatory medication, like ibuprofen, may help calm the inflamed nerve. Orthotics may also help control any excessive motion of your foot that is contributing to the injury. Avoiding certain types of shoes that may be too tight or too flimsy may also help.

WHAT WILL MY PODIATRIST DO FOR IT?

Your podiatrist will carefully examine the cause of compression of the nerve and direct the treatment accordingly, to reducing or eliminating it. Your doctor may give you prescription strength anti-inflammatory medication or a cortisone injection may also be given to provide relief. If the cause is abnormal motion of the foot, custom molded orthotics may be provided. If all conservative treatments fail, then surgery may be recommended to release the Posterior Tibial Nerve.