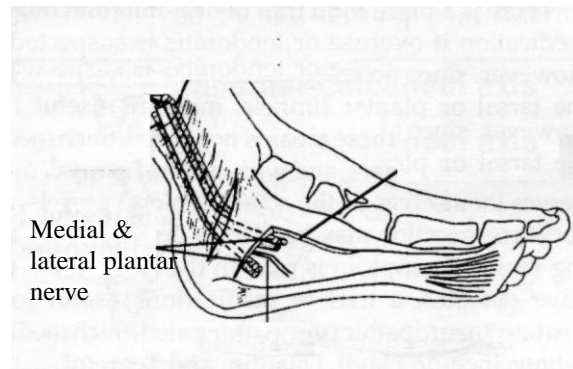


TARSAL TUNNEL SYNDROME

Tingling and numbness to the sole of the foot can be caused by tarsal tunnel syndrome, although other problems can also cause similar symptoms to your feet. It is important to have the correct diagnosis and identify the level of compression or type of nerve disease so that your symptoms can be effectively treated.

Tarsal tunnel syndrome refers to the condition where pressure on the tibial nerve in the region of your ankle causes tingling and numbness to the sole of your foot and in more severe cases changes to the small muscles in your foot. The tibial nerve comes off the sciatic nerve in the thigh and then continues behind the knee to the inside ankle (medial malleolus) where it goes through a tunnel and then divides into the calcaneal nerve and the medial and lateral plantar nerves. The medial and lateral plantar nerves go through separate tunnels in the foot and each tunnel can put more pressure on the nerve.



At first, the symptoms of tingling and/or numbness may come and go and then as the pressure on the nerve increases, these feelings may last for longer periods of time. If untreated, over time your symptoms will likely increase with increased pressure on the nerve through the tarsal tunnel.

Non-operative Treatment

Non-operative treatment of nerve compression involves decreasing the pressure on the posterior tibial nerve. Because you weight bear through your feet when you walk or stand,

it is difficult to stop putting pressure through your feet. Shoe orthotics are recommended for some patients and this will often successfully relieve symptoms. Altering lifestyle habits including weight loss may be helpful in relieving symptoms of tarsal tunnel syndrome. Anti-inflammatory medications or nerve type medications such as Neurontin may be used. Conditions that may increase your symptoms such as rheumatoid arthritis, hypothyroidism, diabetes and other conditions that may increase swelling to your feet should be treated to see if that helps your symptoms. Other causes of tingling/numbness to your feet such as peripheral neuropathy and lumbar radiculopathy should be ruled out. Tarsal tunnel syndrome may also be associated with or confused with plantar fasciitis or heel spurs.

Surgery

When non-operative treatment fails to relieve your symptoms, surgical release of the tarsal tunnel may be recommended. The surgery requires an incision behind your ankle extending down to the arch of your foot. The ligament over the tibial nerve in the region of the tarsal tunnel is released. The nerve is followed in the foot and the tunnels for the medial and lateral plantar nerves are also released. The calcaneal branch frequently has its own tunnel which is also released. A long acting anesthetic is used to help with postoperative pain and because of this anesthetic you will likely feel more numbness following surgery. A soft bulky dressing is applied and it is removed two to three days following surgery. To control swelling, it is important to keep your foot elevated whenever possible and moving your toes will help to decrease swelling. When you are walking, you may put as much weight through your foot as you feel comfortable with. A cane or crutches may be used at first to help decrease weight bearing through your foot.

Postoperative Management

After the dressing is removed, you may begin range of motion exercises of your ankle

and an ace wrap may be used to help control swelling in your foot. Also you may shower and wash over the stitches with soap and water. The stitches are removed 2 to 3 weeks following surgery depending on your wound healing. You may progress to full weight bearing as you feel comfortable and may use crutches or a cane for your comfort. In some cases with delayed wound healing, prolonged swelling or decreased ankle strength/range of motion, you may be sent for physical therapy.

Complications

Complications from this surgery include bleeding, infection and delayed wound healing. As the feeling comes back to your foot, you may feel more tingling or burning sensations as normal sensation returns. Other complications

from surgery include injury to the small sensory nerves in the region or the main nerve.

Recovery

Initially after surgery, you may notice an improvement in the tingling into your foot. If you have had numbness for a long period of time before surgery, it may take many weeks or months before you notice improvement in the sensation in your foot. The nerve grows back slowly at the rate of an inch a month and as the feeling comes back you may feel more burning tingling into your foot. Similar to when the feeling is coming back after your foot has “fallen asleep”, you may have those kinds of feelings as the nerve is regenerating and the sensation is coming back to your foot.

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