

Tarsal Tunnel Syndrome



The tarsal tunnel is a narrow space that lies on the inside of the ankle next to the ankle bones. The tunnel is covered with a thick ligament that protects and maintains the structures contained within the tunnel—arteries, veins, tendons, and nerves. One of these structures is the posterior tibial nerve, which is the focus of tarsal tunnel syndrome.

Tarsal tunnel syndrome (TTS) is a compression, or squeezing, on the posterior tibial nerve that produces symptoms anywhere along the path of the nerve running from the inside of the ankle into the foot. Tarsal tunnel syndrome is similar to carpal tunnel syndrome, which occurs in the wrist. Both disorders arise from the compression of a nerve in a confined space.

Patients with tarsal tunnel syndrome may start with a chief complaint of mild tingling (like an electrical charge) in the sole of the foot. Other symptoms include burning and shooting pain with paresthesia (or a “pins and needles” pricking sensation), weakness and numbness.

Symptoms are typically felt on the inside of the ankle and/or on the bottom of the foot. In some people, a symptom may be isolated and occur in just one spot. In others, it may extend to the heel, arch, toes, and even the calf.

Sometimes the symptoms of the syndrome appear suddenly. Often they are brought on or aggravated by overuse of the foot. Other causes can include:

- **Pronation** – Rolling your feet inward when walking or running, which can alter normal biomechanics.
- **Swelling of the flexor tendons** – These tendons, which run down the inside of the ankle and under the foot to the toes, allow you to move your toes.
- **Inflammatory arthritis** – Inflamed joints cause pressure and swelling, and thus can negatively affect the tibial nerve.
- **Venous stasis edema or swelling** – This malfunction of the venous circulatory system causes blood to back up and pool in the tissue, putting pressure on the tibial nerve.

If conservative therapies fail surgical nerve decompression may be indicated.