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# Tarsal Tunnels Syndrome

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**DELLON INSTITUTES FOR PERIPHERAL NERVE SURGERY®**

1122 KENILWORTH DRIVE, SUITE 18, TOWSON, MARYLAND 21204 T410 337 5400 F410 337 5520 [dellon.com](http://dellon.com)

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#### YOUR COMPLAINTS ARE

Numbness and tingling in the toes, ball of the foot, arch of the foot, or the heel.

There may be cramping or curling of your toes.

The complaints worsen during the day, worsen with work, and may keep you up at night.

#### WHAT CAUSES YOUR COMPLAINTS?

At the inside of your ankle, a nerve divides into branches, and crosses from the leg into the foot through a series of tunnels.

This nerve is called the *Tibial Nerve*, and it branches the MEDIAL and LATERAL PLANTAR, and the CALCANEAL NERVES.

The nerve is the thickness of a pen.

When the ankle moves, the nerve gets pressed.

When the nerve gets pressed, blood flow to the nerve slows, blood flow decreases, and the nerve sends a message of numbness and tingling, or buzzing of the foot/toes.

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#### TREATMENT WITHOUT SURGERY

See your medical doctor to be sure your feet are not swelling, or, if both feet are numb, to learn if you have a neuropathy that can be medically treated, like diabetes. (See the *Neuropathy* brochure for more information.)

See your foot doctor to learn if you need shoe inserts (orthotics) to keep your foot from rolling too much to one side or the other (either pronating or supinating).

Modify your daily walking or exercising activities.

#### WHEN SHOULD I HAVE SURGERY?

When your feet or toes are numb most of the day.

When your foot or feet disturb your sleep every night.

When you have trouble feeling the floor, or the car gas or break pedals.

When you begin to lose your balance.

When there is pain associated with the numbness.

When neurosensory testing with the Pressure-Specified Sensory Device™ (see the *Neurosensory Testing* brochure for more information) demonstrates that sensory nerves to your big toe pulp or heel are degenerating.

## WHAT IS THE SURGERY LIKE?

The surgery takes about one and one-half hours.

The surgery is performed as an outpatient.

The surgery is performed with general anesthesia.

An incision is made about four inches long, inside the ankle.

The tibial nerve is identified by releasing the thin ligament forming the roof of the tarsal tunnel. The branching pattern of the tibial nerve is then identified.

Each of the three main branches of the tibial nerve has its own fibrous tunnel that must then be released.

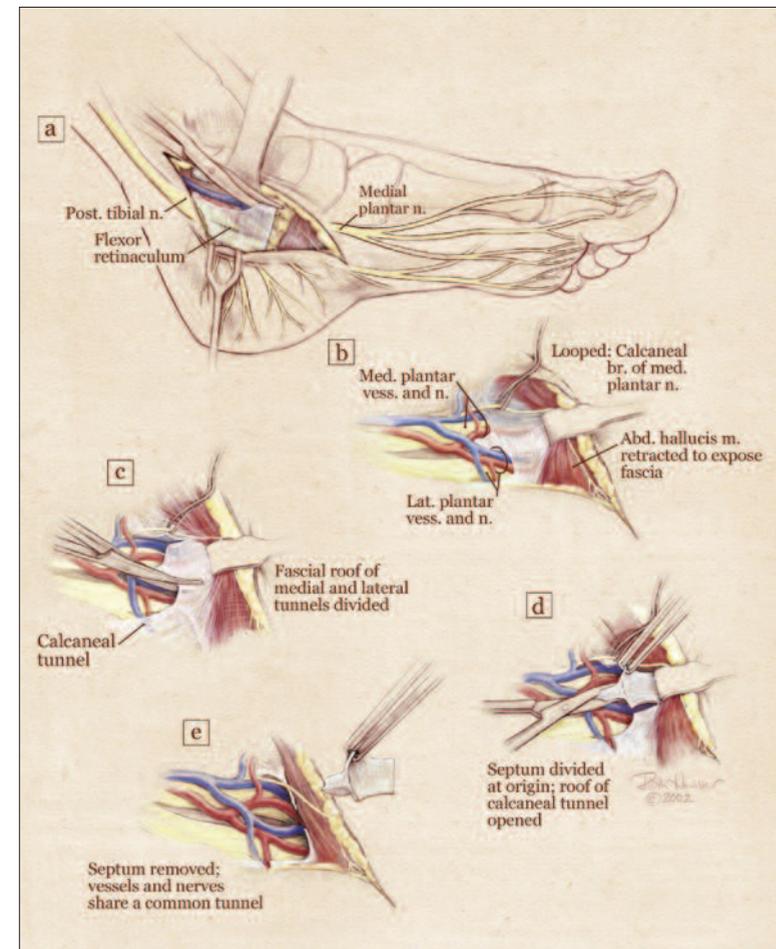
Scarring within the nerves in each tunnel can then be removed with microsurgery (internal neurolysis).

Local anesthesia is placed into the skin, so the toes and bottom of the foot may be numb for a few hours, but there will be little pain after the surgery.

A large cotton bandage is put on your foot. You can walk using a walker immediately after surgery.

This bandage is removed after one week. You will continue using a walker for three weeks, which is when the sutures are removed.

## SURGERY ON THE TARSAL TUNNELS



The steps in decompression of the four medial ankle tunnels for treatment of tarsal tunnels syndrome.

A. Tarsal tunnel is opened.

B. Roof of medial plantar tunnel is open.

C. Roof of lateral plantar tunnel is open.

D. Septum between tunnels is divided and calcaneal tunnel is opened.

E. Septum is removed to create a large tunnel, completing decompression of the tarsal tunnels.

**WHAT ARE THE RISKS OF SURGERY?**

The published outcomes of the Dellon-approach to the treatment of tarsal tunnels syndrome offer the best chance for success for relief of your symptoms. There are risks associated with every surgical procedure, such as the risk of anesthesia, bleeding and infection. Complications unique to decompression of the four medial ankle tunnels are:

- Unpredictable nature of the healing process (scar formation).
- Painful scar due to entrapment of a nerve to the skin.
- Walking after surgery can cause sutures to break.
- Wound healing can take longer if you are a diabetic.
- There may be remaining numbness in the toes or heel.
- Nerve regeneration can be painful.
- It may take up to one year to achieve maximum relief.

**WHO SHOULD DO THIS SURGERY?**

Surgeons from the *Dellon Institutes for Peripheral Nerve Surgery*® have the most advanced training and experience doing this surgery, which offers you the best chance for success.

**BEING ACADEMIC IN PRIVATE PRACTICE<sup>SM</sup>**

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