

Tibio-Talo-Calcaneal Arthrodesis (Hind Foot Fusion)

What is the problem?

Like all joints, the ankle and subtalar joints can be affected by various types of arthritis. With the passage of time and with wear and tear arthritis leads to increasing pain, swelling and stiffness resulting in a hind foot that does not function well

Tibio-talo-calcaneal arthrodesis (fusion) is a very effective surgical option for relieving pain associated with arthritis affecting both the ankle and subtalar joints. The aim of surgery is to fuse the affected joints to reduce pain and deformity and improve the overall function of the foot and ankle.

The aim of surgery is to fuse the affected joints to reduce pain and deformity and improve the overall function of the foot and ankle. The fusion is achieved using a specialised nail that passes through the calcaneus (heel bone), talus and into the tibia. The nail holds the bones securely in position while the joints heal and fuse together.

What's involved?

There are a number of steps to tibio-talo-calcaneal fusion surgery. These include:

- General anaesthetic and intravenous antibiotics
- An incision over the front and outer aspect of the ankle
- Removal of remaining cartilage from the joints
- An incision over the side of the heel.
- Harvesting of bone from heel bone (calcaneus) for grafting
- Insertion of bone graft and other cells into fusion sites to stimulate fusion
- Insertion of specialised nail through the base of the foot
- Fixation with screws into the tibia, talus and calcaneus
- X-ray to check satisfactory alignment and fixation
- Closure of the wounds with stitches (sutures)
- Infiltration of local anaesthetic to assist with post operative pain
- Application of back slab plaster

What are the possible risks?

All surgical procedures carry some risk. Fortunately, the risk of complications following tibio-talo-calcaneal fusion surgery is low. Possible complications include:

- Infection
- Problems with wound healing
- Nerve injury causing numbness, tingling or pins and needles
- Scarring
- Non-union of the big toe fusion — the bones do not successfully fuse together
- Deep vein thrombosis (DVT) or pulmonary embolism (PE). The risk of DVT increases with smoking, the oral contraceptive pill and hormone replacement therapy, immobility and obesity)
- Anaesthetic complications
- Drug allergy

- Ongoing pain

What can I expect after surgery?

Rest and elevation

- You will have a cast on your leg. Keep foot elevated as much as possible, especially for initial 72 hours.
- Keep dressings dry and intact until post operative appointment.
- Mobilise short distances as pain allows, aim to remain in your own home for the first few weeks limiting long periods of standing or mobilising.
- Do not bear weight for the first six weeks.

Pain relief

Pain relief may be required for up to six weeks. Depending on your other medications and individual circumstances, this may include:

- Regular paracetamol.
- Anti-inflammatory medication.
- Breakthrough opioid medication if required.
- A regular blood thinning medication will also be prescribed for 2 weeks.

Driving

Your ability to drive safely will depend on which foot has been operated on, your mobility, footwear and your ability to safely control the vehicle.

- Right foot or both feet: you should not drive for a minimum of 6 weeks.
- Left foot: if you drive an automatic vehicle, driving may be possible, but Dr Phegan recommends waiting a minimum of 2 weeks before attempting to drive.
- Driving while wearing a cast or boot may be hazardous.

Driving any vehicle while wearing a cast or boot may be hazardous. You should consider this before returning to driving

Follow up

Your first post-operative appointment will be arranged by Dr Phegan's rooms. A confirmation SMS will be sent with the date and time.

Keep all dressings dry and intact until your post-operative appointment.

Stitches (sutures) are typically removed at your first post-operative appointment with Dr Phegan and his in-house therapists, usually 10–14 days after surgery. Occasionally, some sutures may need to remain in place for longer to allow adequate wound healing.

Typical recovery milestones

Time after surgery	Expected milestones
2 weeks	Wound review and removal of sutures, change from cast to boot.
2-6 weeks	Wound management, swelling reduction techniques, pain management
6 weeks – 3 months	Work on swelling reduction, scar massage and mobility. Progress weight bearing.
6-12 months	Full recovery is expected for most patients.

These timeframes are a guide only. Every patient's recovery is individual and depends on the severity of the injury and the complexity of the surgery.

When should I seek help?

If you have concerns about your recovery, please contact your treating team.

During office hours

Dr Phegan's office

Phone: **(07) 5671 1120**

Email: info@drphegan.com

After hours

Please contact the hospital where your surgery was performed or attend your local GP or emergency department.

If you experience a medical emergency, seek urgent medical attention or call 000.

Important information

This information sheet provides general information about your surgery. Your individual treatment and recovery may differ.

Please follow the specific instructions provided by Dr Phegan and your treating medical team, particularly regarding weight-bearing, medications, wound care, follow-up and driving.

If you are unsure about any aspect of your recovery, please contact the practice for advice.