

Triple fusion (foot)/ hindfoot fusion

What is a triple fusion?

A triple fusion is an operation to fuse or stiffen three joints in your foot – subtalar joint, talonavicular (TN) joint and calcaneocuboid (CC) joint. These joints allow most of the side-to-side movement in the back part of your foot. This operation is suggested when there is arthritis or severe deformity in your hindfoot/midfoot e.g. severe flatfoot deformity with arthritis or high arched/'cavo-varus' foot deformity. A triple fusion is NOT an ankle fusion. The ankle joints will still move up and down normally following a triple fusion.



The three main bones of the rearfoot are fused together in a triple arthrodesis

NON-OPERATIVE MANAGEMENT

Non-operative treatments before needing surgery include:

- Pain killers (analgesia) and/or anti-inflammatory tablets
- Injections
- Restricted activity
- Insoles
- Adjusted footwear especially boots that lace above the ankle
- Walking aids such as a stick or crutches

When these measures are not helping enough then surgery can be considered.

OPERATIVE MANAGEMENT

What does the operation involve?

There will be two cuts, one on each side of your foot. The joint surfaces are removed and the bones held together with screws and/or small plates. You will be given a general or spinal anaesthetic. Bone graft may be required. This can be taken from the side of the heel bone or pelvis, but often donated bone graft can be used to avoid this - (the bone graft comes in 'packets' and is fully sterilised/processed and is safe, there is no possibility of 'rejection', it provides extra 'scaffolding' to the bones.)



RECOVERY

The average hospital stay is for 2-3 nights, depending on pain and swelling.

Strict rest and elevate foot for the first 2 weeks. Keep your foot up at least 90% of the time.

Wriggle your toes often each hour and do some deep breathing exercises, stretch your knee and other body parts to keep blood circulating.

It is important to drink plenty of clear fluids, tea or coffee.

Eat healthy whole foods, vegetables, fruit.

Increase your protein intake. Minimise sugar and highly processed foods. Increase your fibre intake + laxatives for constipation (side effect of painkillers).

You will usually be prescribed aspirin daily for blood clot prevention.

Vitamin C for wound healing and to reduce nerve sensitivity.

Vitamin D for bone healing.



RECOVERY TIMES (cont.)

Triple fusion (foot) recovery times	
Hospital stay	2-3 nights
Rest & elevation	14 days post-op
Plaster backslab (non- weight bearing)	2 weeks post-op
Fibreglass cast/boot (non- weight bearing)	4 weeks post-op
Cam Walker boot (progressive weight bearing)	6 to 12 weeks post-op

You will be non-weight bearing for the first 6 weeks after surgery, then over the following 6 weeks you will begin walking in a Cam Walker boot.

It generally takes 12 weeks for the bones to heal following fusion surgery.

A further x-ray will be taken three months after surgery and hopefully you will be able to start walking again and 'ease' out of the boot.

The ankle / foot will feel a bit stiff and there will still be some swelling present. It will take 6-12months for this swelling to subside and full recovery.

When can I drive?

Unless you have surgery on your left foot and you drive an automatic car, you will not be insured to drive until you are out of plaster or your boot.

RISKS AND COMPLICATIONS

- Swelling - this is normal and noticeable when three joints are fused.
- Infection
- Numbness or tingling – temporary changes are NORMAL due to swelling. Some residual permanent changes can occur but these usually improve over 2-4 months.
- Non union (bones not fusing together – 3-10% risk)
- DVT (deep vein thrombosis).
- Stiffness

Smoking dramatically increases the risk of the bones not fusing together (non- union) and slows down wound healing. Please try to stop smoking before your surgery. If you need help with this, please speak to your GP or Quit line.

Obesity increases anaesthetic risk and surgical infection and other risks. If this can be worked on to improve weight control before surgery, this will help your recovery.

The wound on the outer side of your foot may be slower to heal as the blood supply is not as good to this area. If the bones do not heal fully you may need another operation with further bone grafting.

You will be seen two weeks after your operation to check your wound/s and remove your stitches. A further plaster cast or boot will be applied.

Approximately six weeks after your operation you will be seen again for an x-ray check and to update weight bearing instructions, boot use, etc. Some gentle physiotherapy may be prescribed.

These notes have been prepared by orthopaedic surgeons at OrthoSport Victoria. They are general overviews and information aimed for use by their specific patients and reflects their views, opinions and recommendations. This does not constitute medical advice. The contents are provided for information and education purposes only and not for the purpose of rendering medical advice. Please seek the advice of your specific surgeon or other health care provider with any questions regarding medical conditions and treatment.