



Hindfoot Arthrodesis

What is hindfoot arthritis and how is it caused?

Pain in the hindfoot (below the ankle joint) is sometimes due to osteoarthritis in the 'Triple' (Sub-talar, Talo-navicular and Calcaneo-cuboid) joints. The commonest causes of arthritis in these joints are altered foot biomechanics, previous injury, Rheumatoid arthritis or neuroarthropathy. People with unusually high arches or flat feet are particularly prone to hindfoot arthritis. One, two or all of the triple joints may be affected.

What are the symptoms?

Most people with hindfoot arthritis complain of one or more of the following:

- Pain in the back of the foot and the ankle
- Swelling, which is worse during or after weight-bearing activity
- Difficulty with footwear.
- Deformity of the foot and ankle

What treatments are available?

Initial management of arthritis includes weight loss if needed, pain medication, health supplements such as glucosamine/chondroitin sulphate, alteration or modification of activities, change in footwear and insoles. X-ray guided injection of steroid and local anaesthetic is often performed for diagnostic or treatment purposes. If these measures fail or if the pain is severe and affecting your quality of life then surgery may be necessary.

What does the operation involve?

The operation is carried out under general anaesthesia, often supplemented with a local anaesthetic block for pain relief. One or two incisions are made on the foot, the affected joints are removed, and then compressed together with metal screws, staples or plates. One, two or all three of the joints ('Triple arthrodesis') may be operated upon. Sometimes bone graft is needed, and can be taken from above the ankle, below the knee or the hip bone. The joints are then allowed to "fuse" together.

What about pain?

Whilst you are in hospital you will be monitored and the medical staff will give you painkillers as required and prescribed. You will be given painkillers and instructions on management of the pain by the nursing staff before you leave hospital.

How long does recovery take?

Most patients remain in hospital for about 1-2 days after the operation. You will have a temporary cast below the knee, and will be required to non-weight bear with crutches initially.

Your temporary cast and wound dressings will be changed and stitches removed (if applicable) at the clinic during your follow-up appointment, which is usually about 10 days after the operation.

Swelling is quite common after foot and ankle surgery and this is best managed by elevating the foot at regular intervals. You are advised to elevate the operated foot/ankle on a pillow every night and during the day on three separate occasions, e.g. 11am, 3pm and 6pm for about one hour each time. The above measures will help to reduce swelling of the ankle. These instructions should be followed for at least 10-14 days.



After 10–14 days, you will be placed in a definitive below-knee cast, but will not be allowed to weight-bear at that stage. You must keep this cast dry. The length of time until weight-bearing is permitted varies with the operative technique used, and you should ask your surgeon about this before the operation. After 6 weeks, you will usually be allowed “protected weight-bearing” in a special removable walker-boot or weight-bearing cast. The usual length of time until unprotected weight-bearing after a midfoot arthrodesis is 10 – 12 weeks.

Patients having had the left foot operated on will be able to drive an automatic car within 2-3 weeks (short distances only to avoid swelling). Those who have had an operation on the right side will be able to drive after about 12 weeks.

You are advised not to fly after surgery for about six weeks.

If you have a desk job and are able to get to work, you should be able to return to work with your foot up in the boot or plaster after 2-4 weeks. Otherwise you will need at least 12 weeks off work.

After hindfoot arthrodeses the foot is stiffened slightly, and in particular ‘side to side’ movements of the foot are much stiffer. ‘Up and down’ movements are only minimally affected. Golf, walking and even running short distances are all possible after a successful hindfoot arthrodesis.

What can go wrong?

All operations have an in-built risk and complication rate. The risks for hindfoot arthrodesis are as follows:

- Infection
- Prolonged swelling
- Nerve or blood vessel injury
- Stiffness of the ankle
- Deep vein thrombosis (clot in vein)
- Pulmonary embolus (clot in lung)
- Delayed union or Non-union (failure to fuse)
- Malunion (fuses in an imperfect foot position)
- Post-operative pain (including complex regional pain syndrome)

The above complications are rare but can occur.