



Ankle fusion surgery

This leaflet explains what surgery involves and outlines what to expect before, during and after your operation.

What is ankle fusion surgery?

An operation is done to remove the cartilage (a tough elastic tissue) from between the bones of your ankle (tibia and talus) and fuse them into one bone. This eliminates joint motion and reduces pain coming from the arthritic joint. Ankle fusion is also known as ankle arthrodesis.

Why do I need this surgery?

This procedure is done for a painful arthritic ankle joint, where other treatment options like joint replacement is not suitable and more conservative treatments such as anti-inflammatory medication, anaesthetic injections and arthroscopy have been tried without success. The overall aim is to reduce the pain caused by the arthritis. The ankle joint is made completely stiff, but you will still be able to move the joint below the ankle and the joints in the foot.

How is it done?

This procedure is usually performed under general anaesthetic and frequently combined with a nerve block for pain relief. Occasionally a spinal anaesthetic (you are awake but the area is numbed) may be recommended.

Surgery may be done either through a medium sized incision (~10cm) or through a keyhole operation, depending on the individual circumstances.

An incision (cut) is made over the front or side of the ankle. The damaged joint surfaces are prepared and packed with bone graft (if necessary), at the same time of this operation. The bone graft is taken either from the hip bone (iliac crest) or shin bone (tibia). The joint is then held together with screws/plate.

If you are suitable for a keyhole operation, it is done through small incisions around the ankle. The damaged joint surface is prepared using keyhole instruments and then held with screws. The operation takes about 1½ to 2 hours. You will be admitted on the day of operation and most patients can go home on the same day. However, you may need to spend one night in hospital if your operation is late in the day, you haven't recovered from the anaesthetic or you need more practice with using crutches.

How will I feel afterwards?

You will have moderate to severe pain to the scale of 6-8 out of 10 and will be given adequate painkillers. You will need some painkillers for the first few days.

Recovering from surgery

You need to keep the foot elevated for the first few days until the swelling settles.

Your leg will be in plaster or a boot for up to 12 weeks. You will be on crutches without putting any weight on the operated leg for the initial 6 weeks. After 6 weeks, you may start increasing your weight bearing through the plaster or boot.

You will have a follow up appointment in clinic 12 to 14 days after surgery to check the wound and change the plaster, and again at 6 weeks and 12 weeks to assess the healing. The foot needs to be protected until the bones have fused which sometimes takes longer than 12 weeks.

Preparing for surgery

In order to protect the fusion, you will need to be non-weight bearing. This means putting no weight through the foot. Hopping is very energy consuming and tiring. If you are young and fit, hopping with crutches and hopping up stairs may be possible. However, if you are older, frail or have other medical conditions that affect your balance or ability to hop on one leg, mobilising non-weight bearing will be very difficult if not impossible. If you struggle to mobilise even a short distance with a frame you will be unable to manage the stairs.

Mobilising on one leg severely curtails normal activities such as cooking, making hot drinks, washing and dressing. Prior to coming into hospital you should arrange where possible to have someone stay with you during your recovery period or to stay with friends or relatives. **Bear in mind that it maybe 3 months before you are allowed to fully weight bear through the foot.**

If you live in a house and you suspect stairs are going to be difficult you should arrange for a bed to be brought downstairs (this cannot be done by the hospital). If you have more than one step at the front or back door you may find that it is difficult for you to access your house and you may wish to consider staying elsewhere.

It might also be a good idea to stock the freezer with pre-prepared meals that can be reheated or microwaved. Bear in mind that you will not be able to carry anything while mobilising non-weight bearing so preparing an area close to the microwave/cooker where you can eat your meals may be a good idea.

As this is planned surgery the hospital does not provide equipment except walking aids. If you don't have a downstairs toilet and you think you won't be able to manage the stairs, then a commode is recommended. If you do have a downstairs toilet a glide-about commode (a commode on wheels) will allow a carer to push you to the toilet. A perching stool will also allow you to sit to have a strip wash, to clean your teeth, prepare and eat meals in the kitchen.

This equipment can be purchased from mobility stores or online from Amazon or Argos.

Please note: Community hospitals or community rehab teams do not accept patients who are non-weight bearing.

Leaving hospital

After your operation you will be discharged home. If a package of care is required to assist with personal care i.e. washing and dressing as you have no support at home this will be arranged prior to discharge. Depending on circumstances you may be expected to arrange and pay for this yourself.

If you work, you may need up to 12 weeks off, depending on the nature of your job.

You won't be able to drive until you can do an emergency stop without any pain in the foot. This is likely to be a few weeks after your boot or plaster is removed.

What risks are there involved in the procedure?

General complications of ankle surgery

- **Pain.** There will be post-operative pain. For most people the pain passes after 24-48 hours and is tolerable with regular painkillers (following dosage recommendations).
- **Swelling.** This is a normal outcome of any operation. The extent of post-operative swelling varies and cannot be predicted. In some people the swelling reduces within a matter of weeks and in others could take many months. It is usual for there to be persistent swelling after a fusion procedure for up to nine months but the level varies. Application of an ice pack greatly reduces the swelling.
- **Infection.** There is a small risk of infection with all surgery. If this occurs it will be treated with relevant antibiotics. Look out for redness and discharge from the wound.
- **Deep Vein Thrombosis.** Also known as Venous Thromboembolism (VTE), this is a rare complication of foot surgery. If you have had a DVT in the past, please tell your surgeon. Most patients are routinely prescribed injections to thin your blood for up to six weeks following surgery to reduce the risk of developing a blood clot.

Specific complications of the ankle fusion

- There will be **damage** to the local tendons and nerves and this may result in numbness and pain around the surgical site that could take months to resolve. In some people numbness persists but this is not usually troublesome.
- Fusing the joint increases the stress across other joints of your foot and can **increase the onset of arthritic changes**. This could take many years to develop.
- **Delayed union or non-union** of the fusion site can occur in this operation. Different researchers report between 3 and 12% of operations do not fuse and require further treatment (revision). This means that the bones do not knit together firmly. In some cases prolonged immobilisation in a cast solves the problem and other people may need to have more surgery. The risk of non-union is increased if you smoke.

If there is anything you do not understand or if you have any questions or concerns, please feel free to discuss them with your doctor or nurse.

Useful numbers and contacts

Adult Day Surgery Unit:	0118 322 7622
Redlands Ward:	0118 322 7484 / 7485
Pre-operative Assessment:	0118 322 6546
Occupational Therapy	0118 322 7560
Physiotherapy	0118 322 7812

Any concerns you may have during the first 24 hours following your discharge from hospital please telephone the ward you were on. After 24 hours please contact your GP.

To find out more about our Trust visit www.royalberkshire.nhs.uk

Please ask if you need this information in another language or format.

RBFT Trauma & Orthopaedics, March 2025. Next review due: March 2027.