



Ankle Arthrodesis

What is ankle arthritis and how is it caused?

Osteoarthritis ("wear and tear arthritis") is less common in the ankle than it is in the hip or knee. In the ankle it often occurs following a severe fracture, dislocation or ligament injury in the past. Other causes of ankle arthritis include very high-arched (cavo-varus) feet, Rheumatoid arthritis or other "inflammatory" forms of arthritis, Avascular necrosis (Osteonecrosis) or Neuromuscular conditions.

What are the symptoms?

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

- Pain and swelling, which are worse during or after weight-bearing activity
- Loss of movement/flexibility in the ankle
- Difficulty walking on stairs and inclines

What treatments are available?

Non-operative measures, which are often effective include weight loss and activity modification, anti-inflammatory painkillers and sometimes bracing or splints. Surgery is only advised after the failure of these or other conservative measures. Arthritis progresses in stages, and in the early stages, arthroscopic (keyhole) surgery may be appropriate. However, when the arthritis is more advanced, the options include Ankle Replacement or Ankle Arthrodesis ("Fusion"). Your surgeon will discuss the surgical options with you.

What does the operation involve?

The operation is carried out under general anaesthesia, often supplemented with a local anaesthetic block for pain relief. There are two techniques for ankle arthrodesis – open or arthroscopic (keyhole) and your surgeon will discuss which technique is suitable in your case. In both cases, the ankle joint cartilage is completely removed and the joint compressed together with large screws, allowing the joint to "fuse" together over the following weeks and months. The arthroscopic technique is not suitable in all cases, but allows slightly faster rehabilitation afterwards.

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 2-3 days after the operation, but it is sometimes possible to go home the following day. 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 10-14 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. 11 am, 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 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 4 – 6 weeks, you will be allowed “protected weight-bearing” in a special removable walker-boot. The usual length of time until unprotected weight-bearing after an ankle arthrodesis is 10 – 12 weeks.

Patients having had the left ankle 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. If on the other hand you do manual work, you will need at least 12 weeks off work.

After ankle arthrodeses the ankle is stiff, but often patients are very stiff prior to surgery, and loss of movement is seldom noticed. Golf, walking and even running short distances are all possible after a successful ankle arthrodesis.

What can go wrong?

All operations have an in-built risk and complication rate. The risks for ankle 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.