Patient Information:
Ankle Replacement Surgery

Aintree University Hospital NHS
NHS Foundation Trust

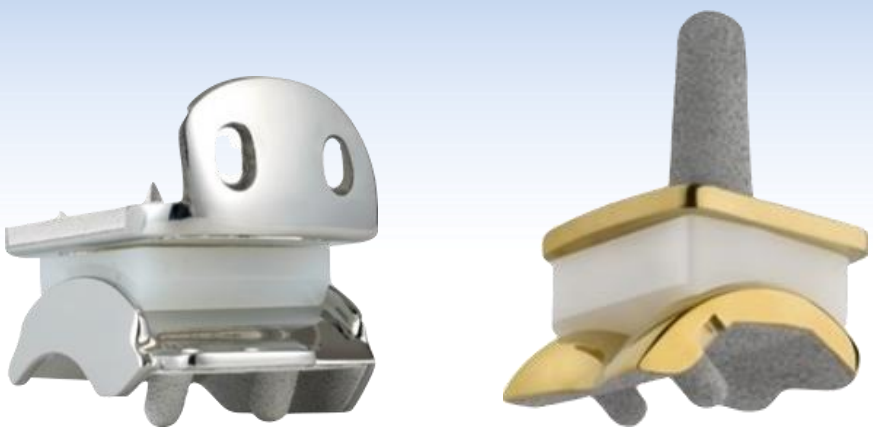
What is ankle arthritis?

Arthritis is an umbrella term for a number of conditions that damage the cartilage in a normal joint. This can occur in any joint of the body although it is more common in joints that you walk on. Almost half of people in their 60s and 70s have arthritis of the foot and/or ankle. Almost half of people in their 60s and 70s have arthritis of the foot and/or ankle. The level of symptoms can vary hugely.

There are many different types of arthritis. They can broadly be divided into mechanical or chemical. The most common type, osteoarthritis ('wear and tear arthritis') comes from damage to joint cartilage that comes with age or after injury. Sometimes a traumatic injury will result in arthritis in the injured joint even though the joint received proper medical care at the time of injury.

The cartilage can also be damaged by inflammatory arthritis. Types of these include rheumatoid arthritis, gout, lupus, ankylosing spondylitis, psoriatic arthritis and joint infection.

The result of ankle arthritis is inflammation, redness, swelling and pain in the joint.



* Images of typical ankle replacements (prostheses)

What is an ankle replacement?

A total ankle replacement is an operation where the surfaces of the ankle joint are replaced. This involves cutting out the joint and replacing both sides of the it with metal components with a specialised plastic bearing between them to allow movement (see pictures above). The reason for the replacement is to reduce pain whilst keeping some movement of the ankle.

The operation takes approximately two hours and is usually performed under general anaesthesia. Around a 15 cm incision (cut) is made over the front of the ankle. The arthritic surfaces are removed The artificial joint is then inserted and the wound closed.

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What can I expect postoperatively?

Following your operation you will remain in hospital for usually 2 to 3 days. When you arrive back on the ward from theatre your leg will be in a back slab (half plaster cast) from toe to knee and elevated to reduce swelling. Your foot should be numb due to the local anaesthetic block, which is given to reduce pain. This will gradually wear off over 12 hours. It is important to start taking pain relief prior to the block wearing off.

A Physiotherapist will teach you how to walk with crutches without putting the leg to the ground (non weight bearing). You will be non-weight bearing for 2 weeks in this back-slab. At 2 weeks you will have your stitches removed and be put into a large boot. You will likely continue to need your crutches for the first 6 weeks. The boot will be able to be unlocked by your physiotherapist

The foot and ankle will normally be swollen for around 6 months after the operation. Some patients can have permanent swelling. In this case whatever swelling present after 1 year will usually be permanent

What activities can I do?

Foot and ankle exercises can begin once the wounds have healed and plaster removed (see below). General exercise progression is from non-weight bearing and non-impact (cycling and swimming – once wounds have healed) to low impact (stepper, elliptical/cross trainer, walking) to higher impact activity (jogging, exercise classes and sports).

You will be referred to Physiotherapy help with getting movement back but the general rule is to 'listen to your body'. You will tend to have good and bad days but it should gradually improve. Each new level of activity achieved will usually mean a temporary increase in pain. Symptoms are often related to the amount of swelling

Work, Driving and Flying:

You can wiggle your toes as soon as able (which can help prevent blood clots). We will tell you when you can put weight through the foot. You can sometimes return to office work after 6 weeks. For those patients who cannot get into work /do more standing / manual may need 3-5 months off work.

You can drive as long as the ankle is comfortable and you are out of the walking boot. It is imperative that you are safe making an emergency stop, and therefore practicing before embarking on a drive is wise. Return to driving may be possible earlier if the car is automatic and the left ankle has been operated on. More information available at www.dvla.gov.uk

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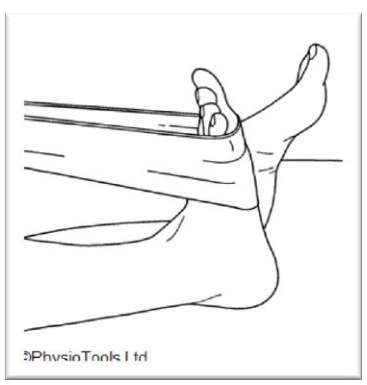
According to the Department of Health flying should be avoided for 8 weeks after surgery. For further information see below: www.nhs.uk/chg/Pages/2615.aspx?CategoryID69

This operation is designed for less active individuals, as high level activity can lead to early failure of the ankle replacement.

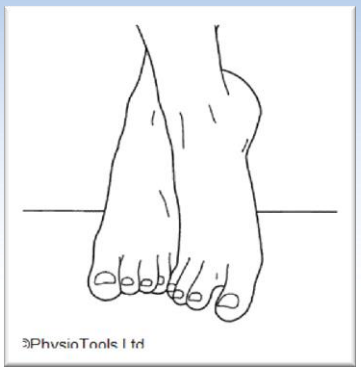
Exercises: 2-6 weeks

1. Whilst lying down, circle your ankle in both directions as much as you can comfortably. Repeat for 1-2 minutes.

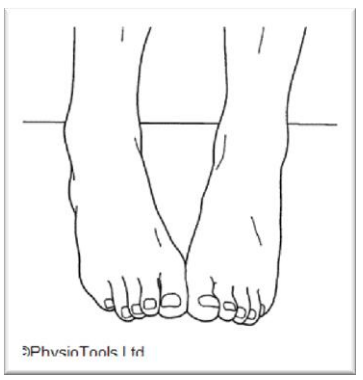
2. Pump your ankles up and down and wiggle your minutes .



3. Wrap a towel around the ball of your foot and gently full up . Feel a stretch in your calf or the front of the ankle. Hold for 20 seconds and repeat 5 times.



4. Cross your legs over at the ankles. Push inwards with each leg equally. Hold for 10 seconds and repeat 5 times.



5. Place your big toes against each other and push inwards with each leg equally. Hold for 10 seconds and repeat 5 times.

Exercises: 6-12 weeks

6. With your operated leg behind; knee straight and toes pointing forwards, lean against a wall or chair. Keep your back leg straight and heel down. Hold 30 seconds; repeat 5 times.

7. Repeat as above with back knee bent and toes pointing forwards. Keep the heel down. Hold for 30 seconds; repeat 5 times.

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What are the more common risks of surgery?

Infection – About 1-2% of patients will have a wound that is slow to heal. The rate of superficial (skin) infection within our department is 1%, the majority of which will respond to oral antibiotics. The risk of deep infection is less than 1 in 200.

Failure – The overall survival rate in the literature of total ankle replacements at 10 years is around 85%. The national joint registry shows an annual failure rate of ankle replacements of 3% (i.e. of 100 replaced at a given time, 3 will fail each year).

Stiffness – The ankle is unlikely to have greater movement following surgery. Some patients can form bone or scar tissue around the ankle replacement which can lead to it being stiffer than before the operation.

Thrombosis – The risk of getting a clot in your leg following ankle ligament surgery is small. Some patients may be at an increased risk. Your surgeon will advise on clot prevention therapy to yourself based on any noted risks. We advise that you drink plenty of water and move around as much as is sensible to reduce the chances of a clot.
Please be aware of symptoms of thrombosis, including:

- Significant swelling – you will have some swelling due to the nature of the surgery.
- Increasing calf tenderness.
- Heat and redness compared to the other leg.
- Shortness of breath or chest pain when breathing in.

If any concerns regarding these, please seek medical attention urgently

Ongoing pain
Some patients will have permanent pain after any operation. For ankle replacements this is reported in between 25 and 75% of patients. Usually this as at a low level, especially compared to before the operation. Sometimes it can be more severe. This can due to reasons such as scar tissue or extra bone formation, it not being in an ideal position, early failure, other arthritis and fracture. Usually a cause and treatment can be given for it but this is not always the case

Nerve injury – Loss of feeling /altered feeling on top or sides of the foot can happen due to the nerves be stretched or damaged during the operation. Sometimes the scars can be sensitive / painful after the operation if nerve fibres grow into them.

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Fracture – Fracture has been reported in up to 5% of total ankle replacements, and can occur during the operation or after. Sometimes the fractures need to be fixed. This doesn't normally affect the replacement but can cause it to fail earlier than expected

Complex regional pain syndrome - Some patients develop nerve pain due to the nerves working in a not normal way after the operation. This can happen after any injury /operation. Usually this settles with simple treatment but can occasionally be long-term (probably less than 1 in 100). Some research has shown this can be reduced by taking normal over the counter Vitamin C a few days before the operation.

Further Information

The figures for complications given in this leaflet have been taken from the most up to date publications on this subject (as of October 2014).

For further reading:

- The British Orthopaedic Foot Surgery Society web site is available at: http://www.bofas.org.uk/PatientInformation.aspx (accessed May 2014).
- Zaidi, R et.al. The outcome of total ankle replacement. A SYSTEMATIC REVIEW AND META-ANALYSIS. Bone Joint J 2013;95-B:1500–7.
- The foot and ankle hyperbook: www.foothyperbook.com (accessed May 2014).
- Mann, R. Coughlin, M. and Saltzman, C. Surgery of the Foot and Ankle 8th edition, Elsevier, Philadelphia. 2008
- Myerson, M. Foot and Ankle Disorders. Saunders, Philadelphia. 2000
- NHS Constitution. Information on your rights and responsibilities. Available at www.nhs.uk/aboutnhs/constitution

- **What if I need to contact someone?**

Fracture Clinic –
Tel: 0151 529 2554 (Monday – Friday)
Please leave a message on the answer machine stating your name and contact number and a member of staff will return your call.

Ward 17a – (always open for advice)
Tel: 0151 529 3511

If you require a special edition of this leaflet

This leaflet is available in large print, Braille, on audio tape or disk and in other languages on request. Please contact:

Tel No: 0151 529 2104

Email: interpretationandtranslation @aintree.nhs.uk

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