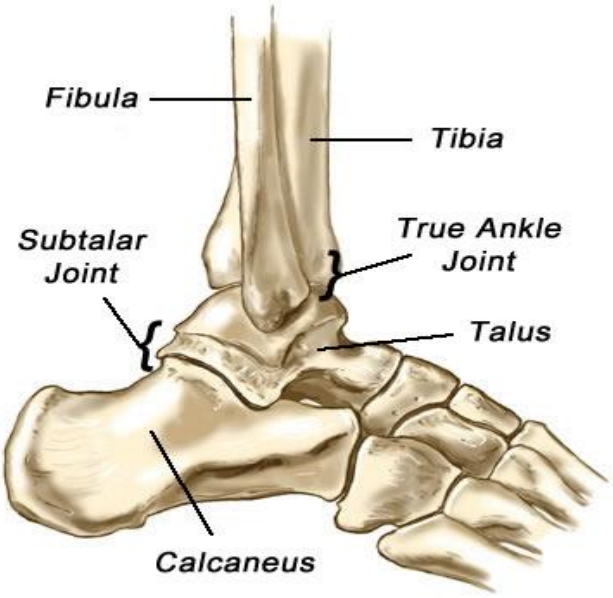
West Suffolk NHS
NHS Foundation Trust

PATIENT INFORMATION

Ankle Arthritis

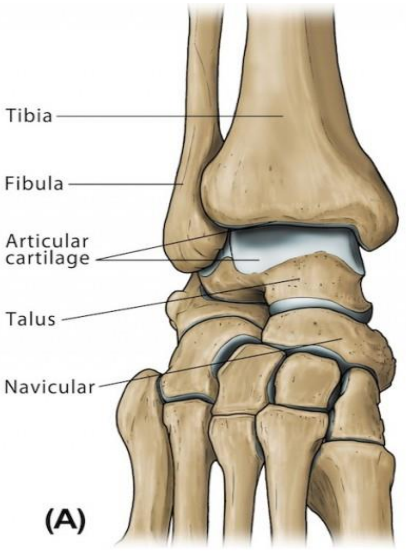
The ankle joint

The ankle is a very complex joint. It is actually made up of two joints: the true ankle joint and the subtalar ankle joint. The ankle joint consists of three bones held together by cartilage and ligaments. The tibia forms the inside of the true ankle joint. The fibula forms the outside of the true ankle joint. The talus is the underneath part of the true ankle joint. The true ankle joint allows you to move your foot up and down. The subtalar joint consists of two bones, the talus on top and calcaneus on the bottom. The subtalar joint allows you to move your foot from side to side.

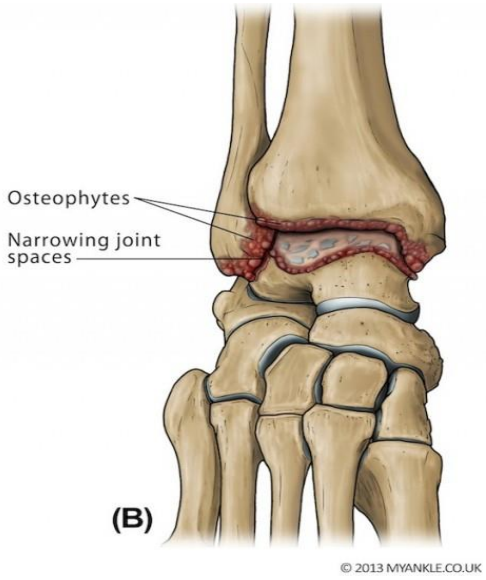


What is ankle arthritis?

Most ankle arthritis is caused by wear and tear which reduces the shiny cartilage that lines the joint causing bone to rub on bone which is painful. (However, there are other forms of arthritis that affect the ankle, for example, rheumatoid arthritis.) Early symptoms of ankle arthritis are pain and perhaps swelling and stiffness, especially after prolonged activity including standing or walking, or after high impact activities, for example running. If you have ankle arthritis, pain, swelling and stiffness can become more frequent as the disease progresses. Eventually you will probably feel pain most of the time, even when you are not active.



Healthy ankle joint



Arthritic ankle joint

Osteoarthritis is often secondary to damage to the joint, for example as a result of a previous fracture, repeated sprains of the ankle, malalignment of the joint or infection.

'Bow legs' or 'knock knees' are examples of malalignment, which can affect the ankle. Malalignment of your leg may alter the way the ankle is loaded and cause it to wear unevenly, and more quickly. Being overweight can overload a joint and worsen the symptoms of arthritis. Every extra kilogram of body weight is multiplied by 5 to 7 times when it is carried by the ankle.

Who gets ankle arthritis?

Anyone can get ankle arthritis. Osteoarthritis tends to become commoner as we get older; nevertheless ankle fractures, repeated sprains, and inflammatory arthritis can cause arthritis to occur at a younger age.

What are the symptoms?

Pain: Pain is the commonest and most troublesome symptom. This is usually made worse by walking. It may disturb sleep.

Stiffness: With osteoarthritis stiffness, or reduced movement, is common. With inflammatory arthritis stiffness can often be worse first thing in the morning.

Cracking/popping: There may be little pieces of loose cartilage or bone caught within the joint causing this sensation.

Giving way: This may be due to looseness of the ligaments, or secondary to pain.

Swelling: Swelling may be as a result of extra bone, or fluid within the joint. The soft tissues can also inflame and swell.

How is ankle arthritis investigated?

X-rays of the ankle are taken whilst you are standing. This simple test will give the most information on whether the ankle is worn or not. Blood tests are sometimes used to investigate inflammation, or gout. Occasionally special tests are needed to determine the extent of the arthritis, or exactly which joint is involved. An MRI scan can give a lot of information on the thickness of the cartilage lining the joint, and whether there are small areas of wear and loose cartilage. CT and bone scans may also be used to investigate ankle arthritis.
Arthroscopy is an operation, (there is a separate information sheet regarding this subject) which allows the surgeon to see the amount of wear within the joint.

Arthroscopy can sometimes be used to washout the joint, and help in the treatment of arthritis.

Treatment

With any form of arthritis there are two forms of treatment. The first is without an operation, and the second is with surgery. Most arthritis can be treated without surgery, and only in severe arthritis will surgery be considered.

Non operative treatments

Non-surgical treatments include non-steroidal anti-inflammatory tablets, reducing high-impact activities, maintaining an appropriate weight for your age and height - a good, lightweight, stiff walking boot may also be useful in relieving the symptoms of an arthritic ankle. The most important and effective non-operative treatment is weight loss.

For many people the arthritis can be controlled by support of the ankle. Supports take 2 forms. Ankle braces, which can be bought from many sports shops. These may be bandages, lace up braces, or even individualised plastic braces that can be made for your leg.
Physiotherapy and hydrotherapy can help with pain and stiffness.

Patients with inflammatory arthritis are usually looked after by a rheumatologist. Disease modifying anti-rheumatoid drugs (DMARD's) are used to treat these conditions, in conjunction with painkillers and NSAID's.

Operative treatments

Injection into the ankle joint

Injecting a local anaesthetic and steroid into the ankle joint can reduce symptoms of pain and inflammation. This can often be performed as an outpatient. Benefit is experienced within a few days if successful, and can last for months, but can be as short as 2-3 weeks of symptom relief. Injection is not a cure for ankle arthritis but can reduce symptoms.

Ankle arthroscopy *(see separate leaflet for full details)*

Ankle arthroscopy is also known as keyhole surgery or minimally invasive ankle surgery. Ankle arthroscopy involves using very small incisions to gain access with a camera into the ankle joint. Under an anaesthetic a telescope is inserted into the joint through 2 or 3

small incisions on the front of the ankle. The ankle is washed out with fluid and the loose bits of 'gristle' and bone are removed. If there are any bony spurs which block movement, these can be removed at the same time.

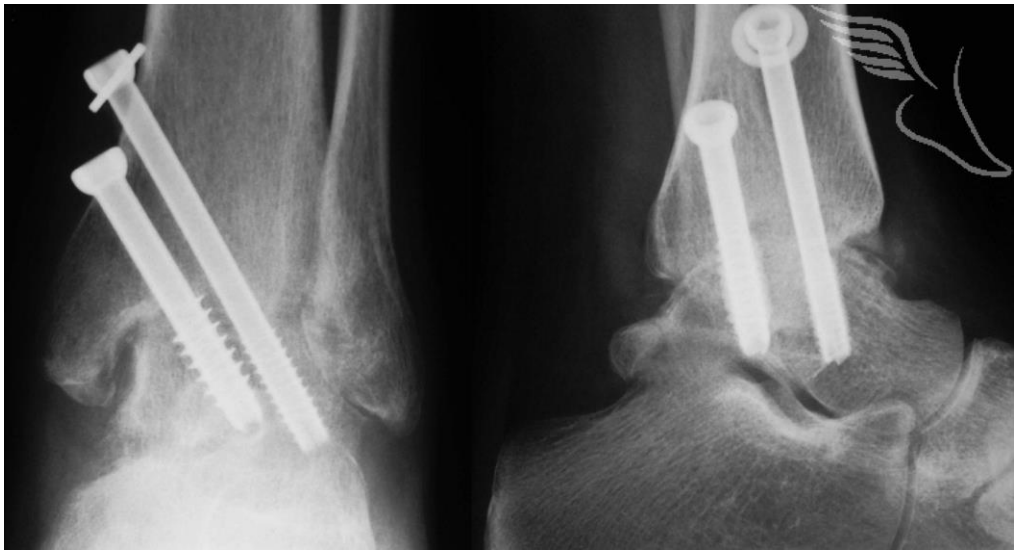
Common disorders in which ankle arthroscopy is useful

- Ankle arthritis
- Footballer's ankle (Anterior Ankle impingement)
- Unstable ankle
- Lateral ligament reconstruction
- Ankle pain following fracture
- Loose bodies within the ankle
- Osteochondral defects of the talus
- Diseases of the soft tissue (synovium)
- Undiagnosed ankle

Approximately two thirds of people obtain significant benefit from the surgery, but in one third the symptoms are largely unaltered, or deteriorate as a result of progression of the arthritis.

Fusion of the ankle joint (Arthrodesis)

The goal of ankle Fusion (also known as ankle arthrodesis) is to relieve pain and maintain or improve function for a patient with ankle arthritis. Pain typically is made worse with movement of an arthritic joint. Ankle arthrodesis aims to take the ankle bones and fuse them into one bone. This eliminates motion and reduces pain from the arthritic joint.



Fused ankle joint

Once the ankle has fused, it is quite durable. Many patients work physically demanding jobs, walk long distances, hike, cycle and ski on fused ankles. The fused ankle will never function exactly like a normal ankle, however. Patients are encouraged to discuss

specific hopes for return to activity with their physicians. Running and similar activities are not recommended

Fusion of the ankle is successful in about 95% of cases. The pain is much reduced as there is no joint remaining. There is no 'up and down' movement at the ankle after a successful fusion although approximately 30% of 'up and down' movement of the foot remains from movement at other joints in the foot.

Ankle fusion can be performed with an open incision or via an arthroscopic (telescope) approach. This will depend upon the severity of your ankle joint. Open procedures allow the surgeon greater availability to correct deformity, but requires a larger wound which is often slower to heal than arthroscopic incisions. The advantage of arthroscopy is that the incisions are much smaller with less healing complications; however, larger deformities cannot be corrected by this method.

Rehabilitation from ankle fusion is substantial. Patients will spend at least 12 weeks in a cast. After surgery, you will be seen in clinic at 2 weeks to have your stitches removed, and your plaster replaced. An x-ray is taken at a 6 week appointment to check if the joint is fusing. At this stage you may be allowed to begin putting weight upon the operated ankle. At 12 weeks, the plaster is finally removed and as long as the bones have healed you are allowed to weight bear on the unsupported foot. Following removal of the cast, the ankle is liable to swell and become a little more uncomfortable. It will be at least 6 months until the benefits of surgery become apparent. Swelling will gradually settle but may take a year to settle fully.

Total ankle replacement

Total ankle replacement (also called ankle arthroplasty) is a surgical option for patients with arthritis of the ankle. This operation can relieve pain and maintain motion in the arthritic ankle joint and is an alternative to arthrodesis (ankle fusion) which can relieve pain but eliminates motion in the joint. Although it does not have the same long-term track record of hip or knee replacement, shorter-term studies on ankle replacement look promising.

This is not an operation for the young, athletic patient to return him/her to "normality". It will restore some movement back to the ankle, and walking may improve; but only as a consequence of pain relief.

The principle of the operation is to remove the worn out joint and replace it with a metal surface on both the tibial and talar sides with a plastic liner sandwiched between them

Patients who are more suitable for replacement tend to be over 60 years old or have Rheumatoid Arthritis (or one of the other inflammatory arthritides). This is because ankle replacement is best suited to the less active patient with pain. Patients with arthritis of both ankles and other parts of the feet are also better suited to replacement.

If the ankle is very stiff replacement is less desirable as replacement does not necessarily increase the movement. Similarly if there is severe deformity or malalignment this may put extra strain on the replacement causing it to fail early.

Long term results for ankle replacements are not as good as those for hips or knee replacements. The British experience show that at 5 years over 90% are still doing well. The success of the procedure for relieving pain is about 80-90%.

Wearing out of the bearing occurs over several years, and is the usual cause of failure after 10 years or more. It can be treated by either replacement of the plastic bearing, or total revision of the replacement.

Further detailed leaflets addressing the above procedures are available.

Who can I call for help or advice?

Orthopaedic Practitioner Advice Helpline	01284713924
Pre-Admission Clinic	01284 712810
Physiotherapy Department	01284 713300
Occupational Therapy Department	01284 713560
Community Equipment Stores (OT)	01284 748826

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http://www.disabledgo.com/organisations/west-suffolk-nhs-foundation-trust/main