Total Ankle Replacement

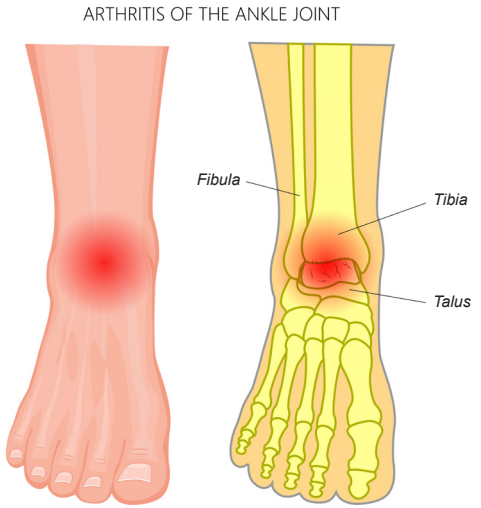
Ankle arthritis

Ankle arthritis occurs when the cartilage (lining) of the ankle joint deteriorates. This causes inflammation within the joint which manifests as pain, swelling and stiffness. The pain is initially activity related but as the disease progresses and more cartilage is lost, the pain occurs at rest also. Osteophytes (bone spurs) may form around the joint and restrict the amount of motion in the ankle. Ultimately most, if not all of the cartilage lining the joint is lost and the underlying bone is exposed. Bone then articulates against bone. The pain and disability at this stage usually interfere with quality of life.

Ankle arthritis is not as common as hip or knee arthritis. It more commonly occurs as a result of trauma such as recurrent ankle sprains or fractures. Repetitive heavy loading of the ankle, such as manual labour can also be a cause. It can also occur in the presence of systemic inflammatory disorders, such as rheumatoid arthritis.

The initial management is non-operative. This involves simple analgesia such as paracetamol and anti-inflammatories, activity and footwear modification, weight loss, low impact exercises such as swimming, stationary cycling or walking on a treadmill and injections such as cortisone. These treatments do not reverse the injury to the cartilage but can delay the progression of arthritis. The use of stem cells is not supported by the current scientific literature.

Once non-operative measures have been tried and failed, surgery can be considered.



Ankle arthritis

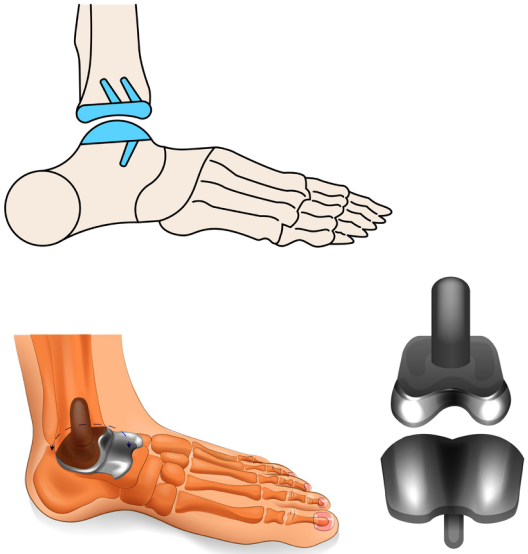
Debridement

In the earlier stages of the disease, the stiffness and pain that arises from the impingement of osteophytes around the joint may respond to a resection of these spurs. This usually can be carried out via arthroscopy (key-hole surgery). This can be performed as a day surgery procedure. It is done under a general anaesthetic. Ambulation begins immediately after surgery in an aircast boot. Physiotherapy commences straight away and the boot is discontinued as soon as comfort allows. This form of surgery is a temporizing measure, as it does not stop the progression of arthritis and does not treat the cartilage loss.

Total Ankle Replacement

Ankle arthrodesis (fusion) is still generally considered to be the gold standard in the treatment of end-stage ankle arthritis. In certain patients, an ankle replacement may be considered. Although ankle replacements have been carried out for over 3 decades, they are generally still not considered to be as reliable as hip or knee replacements. The main issue is longevity with failure rates in general being much higher. However, in patients who have significant arthritis in adjacent joints, where fusing the ankle will accelerate the deterioration in these joints or in patients who are elderly with lower weight and demands, an ankle replacement may be a good option.

Ankle replacement xray



Ankle replacement

The operation is performed under a general anaesthetic, augmented with a local anaesthetic block. It usually requires 2-3 nights stay in hospital. Through an incision along the front of the ankle usually, the remaining cartilage is removed from the ankle joint. A saw is used to make cuts in the tibia (shin bone) and the talus (ankle bone) to receive the metal implants. There are 2 metal components, inserted on either side of the joint. A polyethylene (plastic) liner is then inserted between the 2 pieces of metal. Often, tight ligaments will have to be released or lax ligaments reconstructed to stabilize the ankle joint. This is done at the same time as the ankle replacement. A half cast is applied at the end of the procedure. This is changed to a boot at 2 weeks. Physiotherapy and gentle exercises start at 2 weeks. Crutches and / or a knee scooter will have to be used for 6 weeks after surgery. A blood thinning injection, known as Clexane, will need to be self-administered daily for 6 weeks. Weight bearing commences in the boot at week 6 and the boot stays on for 4-6 weeks.

Although the operation will be performed with the utmost care, complications can occur. These include intraoperative fracture, infection, blood clots, numbness and early implant failure. Dr Lau closely monitors these implants for several years after surgery to identify and promptly address any problems.