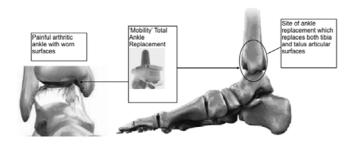
# **Total Ankle Replacement**



This operation replaces the painful arthritic joint with an artificial metal and polyethylene joint. The joint will remain mobile and ideally painfree. Following surgery, you should be able to walk 'normally', in very much less pain or painfree, and motion in the ankle joint is usually at least as good as before surgery (unlikely to be very much more range movement than prior to surgery)

Modern designs of ankle replacement have not yet been in use for sufficiently many years for there to be information on long term outcome (unlike hip and knee replacement) but short term data is encouraging. As such, I inform patients that this type of surgery has to be considered somewhat experimental although several hundred of the ankle replacements have now been implanted throughout Europe. In other words, whilst we expect the design to perform well in the longterm, we do not yet have data to confirm that this is the case and hence it is sensible to expect that an ankle fusion might be required sometime in the future if the implant needs to be removed (in the event that it becomes problematic and no longer functioning correctly)

The surgery is performed through an incision of approximately 15 cm over the front of the ankle. The arthritic joint surfaces are excised (cut out) and the tibia and talus shaped to receive the new joint components. The implants are locked in place and are uncemented i.e. the bone grows into them. The operation takes approximately 2 hours.

After surgery, your leg will be immobilised in a backslab (half plaster) for 2 weeks during which time you will not be allowed to take weight through it (crutches used). Elevation of the foot (above the pelvis) over the first 10 days is vitally important to help prevent infection.

After 2 weeks the backslab will be removed and the stitches take out, here in clinic. If all is well, you can begin weight bearing at that stage in a removable boot for a further 4 weeks with the aid of crutches.

### **General Recovery Facts:**

- You will not be able to walk on the leg for 2 weeks and then 4 more weeks of restricted weight bearing
- There will be a plaster (cast) on the leg for the first 2 weeks (sometimes longer) and then a removable boot for a further 4 weeks
- You will not usually be able to drive for the first 2 months following surgery
- Exercises to regain range of motion in the ankle begin at 2 weeks post surgery (including use of a swimming pool if possible)
- There will be moderate swelling of the ankle for approximately 6 months following surgery
- There will still be some soreness and aching discomfort in the ankle for up to 12 months following the surgery
- The aim is to return the patient to an active lifestyle, including leisure walking, cycling, gymn, swimming and golf. It is not recommended that you run or undertake impact sports (skiing may be possible in some circumstances)

### **Alternatives to surgery**

Your surgeon may have discussed the following with you:

- Oral analgesics (pain relieving medication)
- Activity modification (reducing activity which brings on symptoms)
- Custom orthotics (insoles)
- Modified footwear
- · Ankle foot orthosis (AFO) brace
- Steroid injection

### **Total Ankle Replacement**

## **Main Risks of Surgery**

**Swelling** - initially the foot will be very swollen and needs elevating. The swelling will disperse over the following weeks and months but will still be apparent at 6-9 months.

**Wound Problems** - Wounds in this area of the body are very fragile and healing can be problematic on occasions. If this occurs then the risk of infection increases and this is a serious problem. Rarely, such wound problems can require plastic surgery to achieve healing and hence prolonged recovery.

**Infection** - this is the biggest risk with this type of surgery. Smoking increases the risk 16 times. You will be given intravenous antibiotics to help prevention. However, the best way to reduce your chances of acquiring an infection is to keep the foot elevated over the first 10 days. If there is an infection, it may resolve with a course of antibiotics. Rarely it can be severe, requiring further surgery or even rarely temporary or permanent removal of the implants.

Nerve damage - alongside the incision are two nerves - the superficial peroneal and the saphenous nerves. They supply sensation to the side and the top of the foot and toes. They may become damaged during the surgery and this will leave a patch of numbness, either at the side of the foot or over the top of the foot and toes. This numbness may be temporary or permanent. There is approximately a 10% chance of this happening. Rarely another nerve at the back of the ankle (tibial nerve) can be injured which could (rarely) leave permanent numbness in the sole of the foot.

### **Total Ankle Replacement**

### **Main Risks of Surgery**

(Premature) failure of the replacement - the metal / polyethylene joint has an unknown lifespan at present. When it fails, it is sometimes due to subtle infection which can loosen the components or wear of the components (usually the polyethylene). This usually takes several years; we do not have an average lifespan for the replacements yet. Once the joint wears out, further surgery is normally required to fuse the joint together. Hopefully, this never becomes necessary, but a 10-15 year period is a reasonable estimate for the expected survival of the ankle joint. In 80% of patients.

**Dislocation** - this is very rare and would require relocation of the joint under anaesthetic.

Deep Vein Thrombosis (DVT) - This is a clot of blood in the deep veins of the leg. The risk of a clot occurring is reported as less than 1% after foot and ankle surgery which is generally substantially lower than after hip or knee surgery. Suspicion of DVT is raised if the leg becomes very swollen and painful. There are tests that can be performed to confirm / exclude the presence of a DVT. If confirmed, you will probably require treatment with a blood thinning agent (heparin preparation and / or warfarin). The main concern with regards a DVT is that rarely (<1:1000 chance with foot and ankle surgery) a piece of clot can break away in the leg and travel to the lungs which is much more serious and can be life-threatening. This is called a pulmonary embolus and signs of this include chest pain and shortness of breath.

Whilst in hospital following surgery it is likely that you will be treated with a blood thinning agent (LMWH - low molecular weight heparin injections) to minimise the risk of DVT/PE but this does not afford total protection and exercises to keep the toes and knee moving are advised, as well as remaining generally mobile. You are also likely be fitted for a compression stocking to be worn on the unoperated leg after surgery.

If you are concerned that the leg has become more swollen and painful (some swelling always occurs after surgery), or if you experience chest pain/shortness of breath, then you should contact the hospital, general practitioner, or accident and emergency department immediately.

These notes are intended as a guide and some of the details may vary according to your individual surgery or because of special instructions from your surgeon.

### **Total Ankle Replacement**

### **Post Operatice Course**

### Day 1

- Ankle will be in plaster of Paris cast (below the knee)
- You will have the leg elevated in bed
- Whilst immobile in bed you will be given daily heparin injections to reduce the risk of a thrombosis (clot in the leg)
- Blood drainage through the cast or bandaging is expected
- The pain is controlled with various intravenous pain killers

### **Days 2 -3**

- The pain usually settles over the first few days
- Whilst immobile in bed you will be given daily heparin injections to reduce the risk of a thrombosis (clot in the leg)
- Postoperative xrays taken
- Regain mobility with physiotherapist (crutches / frame)
- No weight through the operated limb (non-weight bearing)
- Usually discharged from hospital after approximately 2-3 days once safe
- At home keep the operated leg elevated most of time(above level of pelvis)
- . Do not interfere with the cast or dressings\*
- Keep the cast/dressings dry

#### 2 Weeks

- Outpatient department review for wound review & removal stitches
- A removable boot is then applied (or sometimes a new cast)
- Instructed to begin movement out of the boot (physiotherapist) 3 times a day
- Begin partial weight bearing on operated leg
- You can shower/bath once wound healed (usually by 2 weeks post surgery)

#### 6 Weeks

- Further review in outpatient department with xray on arrival
- Begin full weight bearing out of boot
- Continue physiotherapy

Further outpatient review at 3, 6 and 12 months and yearly thereafter.

\*if concerned then contact the hospital (or your GP in the first instance who can speak to my team if necessary)

#### **Sick Leave**

In general 4-6 weeks off work is required for sedentary posts, 12 weeks for standing or walking posts and 16 weeks for manual/labour intensive posts. We will provide a sick certificate for the first 2 weeks; further certificates can be obtained from your GP.

### **Driving**

IF have an AUTOMATIC VEHICLE and ONLY LEFT leg surgery then it is likely you will be allowed to drive after your outpatient review at 2 weeks post surgery. IF you have a MANUAL VEHICLE or RIGHT leg surgery then you will NOT be able to drive until 8 weeks post surgery.

### sussexfoot&anklecentre

The Sussex Foot & Ankle Centre was founded in 2005 by two orthopaedic surgeons, David Redfern and Stephen Bendall, with the aim of providing a high quality specialist service for the diagnosis and treatment of all foot and ankle problems. Both orthopaedic surgeons are specialists in problems affecting the foot and ankle and have many years of experience. They operate the service with outpatient clinics at the Brighton and Haywards Heath Nuffield Hospitals.

The sussex foot and ankle center strives to provide the best advice and treatment for all foot and ankle problems. This includes sports injuries and trauma, bunions, metatarsalgia, and arthritis. Both surgeons have particular interests in minimally invasive surgery and are at the forefront of developing such techniques in this country.

Both surgeons are also academically very active and have appointments within the national (BOFAS) and international (EFAS) professional foot and ankle surgery societies.

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