Ankle Fusion (Arthrodesis)

Introduction

Following your examination and investigations you have been diagnosed with ankle arthritis and advised to have an ankle fusion surgery. This section aims to give you additional information about your condition and the treatment. It is designed to give you some general details about the recovery from surgery if necessary and the common risks and complications. This section is not for self-diagnosis. Please ask your surgeon if you have any further questions.

What is ankle fusion?

This is an operation to "fuse" or stiffen the ankle joint by joining the bones in the ankle.

Why is it performed?

Ankle fusions are performed for two main reasons:

- Ankle arthritis, a previous injury that has damaged the joint, a generalised condition such as osteoarthritis or rheumatoid arthritis or because the joint is just wearing out for some other reason.
- Severe deformity of the rear part of the foot such as a flat foot, high arched or "cavus" foot, a club foot or other deformity in which the ankle joint is also deformed, unstable or damaged.

We can now treat some arthritic ankle joints by replacing the joint the same way arthritic hips and knees are replaced. This is only suitable in older patients without major foot deformities or those with rheumatoid arthritis or similar diseases. It would not be suitable if:

- You are young (usually under 45) or very active.
- You have a severe foot deformity.
- Your ankle is very unstable.
- You have had infection in the ankle or the bones around it.
- The bone under the ankle (the talus) has collapsed.

Here, an ankle fusion would be advised. If you have a severe foot deformity, you may be advised to have this corrected at the same time as your ankle fusion by fusing other joints and/or breaking and realigning the foot bones. This would be discussed at the same time as your ankle fusion. We have other information sections giving information about major foot fusions.

It is not possible to change an ankle fusion to an ankle replacement later because the foot becomes too stiff for an ankle replacement to work.

We often inject local anaesthetic or steroid into damaged joints, before any surgery is considered, to see if this eases the pain. For some, this removes the pain and surgery is not necessary. For others, pain relief does not last but, the results of the injection help us to decide which joints to fuse.

What is involved?

Ankle fusion can very often be performed by an arthroscopic technique. This involves inserting a camera into the ankle. By using specialised instruments we can remove the joint surface to allow the two bones to heal together. The bones are held rigidly by two screws inserted from the inner aspect of the leg just above the ankle joint. The operation involves 4 small cuts of approximately 1cm around the ankle.

Some people with foot deformities have a tight achilles tendon ("heel cord") or weak muscles or both. The achilles tendon may be lengthened during surgery by making three small cuts in the calf and stretching the tendon.

How long would I be in hospital?

Most reasonably fit people can come into hospital on the day of surgery, having had a medical check-up beforehand. After surgery, your foot may swell. If this happens, you will need to rest with your foot raised to help the swelling go down. This may take anything from 2 days to a week.

Will I have to go to sleep (general anaesthetic)?

The operation can be performed under general anaesthetic (asleep). Alternatively, an injection in the back can be given to make the foot numb while you remain awake. Local anaesthetic injections do not always work. In that case, you may need to go to sleep if

the operation is to be performed. Your anaesthetist will advise you about the best choice of anaesthetic for you.

In addition, local anaesthetic may be injected into your leg while you are asleep to reduce the pain after the operation even if you go to sleep for surgery. You will also be given pain-killing tablets as required.

Will I have a plaster on afterwards?

You will need to wear a plaster or brace from your knee to your toes until the ankle has fused - which usually takes 3-4 months.

What will happen after I go home?

When you go home, you will have mastered walking on crutches without putting weight on your foot. You should go around like this for 2 weeks.

14-17 days after your operation you will be seen by your surgeon. Your plaster will be removed and the cuts and swelling on your foot checked. If all is well, you will be put back in plaster or a brace. You should continue walking with your crutches, but you can begin putting a little weight through your foot. You will need to have your plaster changed 6-7 weeks after surgery.

You will have further x-rays after 3 months. If the x-rays show that the joint is fused sufficiently to take your weight, the plaster will be removed and you can start walking without it. Some people need to stay in plaster longer than 3 months.

How soon can I ...

Walk on the foot?

You should not walk on the foot for at least 2 weeks after your ankle fusion surgery. Your surgeon will advise you when you can start taking some weight on it. When you start putting weight on your foot, we will give you a special shoe that you can wear over your plaster.

Go back to work?

If your foot is comfortable, you can keep it elevated and work with it in a special shoe, you can go back to work within 3-4 weeks of surgery. In a manual job with a lot of dirt or dust around and a lot of pressure on your foot, you may need to take anything up to 6

months off work. How long you are away from work will depend on where your job fits between these two extremes.

Drive?

Most people prefer not to drive until the plaster is off, they can wear a shoe and are able to fully weight bear. Drive short distances before long ones. If you cannot safely make an emergency stop your insurance will not cover you in the event of an accident. If only your left foot is operated on and you have an automatic car, you can drive within a few weeks of the operation, when your foot is comfortable enough and you can bear weight on it.

Play sport?

After your plaster is removed you can start taking increasing exercise. Start with walking or cycling, building up to more vigorous exercise as comfort and flexibility permit. Your foot will be stiffer after surgery and you may not be able to do all you could before. Many people find that, because the foot is more comfortable than before surgery, they can do more than they could before the operation. Most can walk a reasonable distance on the flat, slopes and stairs, drive and cycle. Walking on rough ground is more difficult after an ankle fusion because the foot is stiffer. It is rare to be able to play vigorous sports such as squash or football after an ankle fusion.

Risks

- The most important potential problem is infection in the bones of the ankle.This only happens in less than 1 in 100 people, but, if it does, it is serious as further surgery to drain and remove the infected bone and any infected screws or pins will be necessary. You may then need more surgery to encourage the ankle to fuse in a satisfactory position. The result is not usually as good after such a major problem as if the ankle had healed normally.
- About 5-10 in 100 ankle fusions do not heal properly and need a further operation for the bones to fuse basically another ankle fusion.
- Minor infections in the wounds are slightly more common and normally settle after a short course of antibiotics.
- Research shows that 1 in 10 ankle fusions do not heal in exactly the position intended, either because the position achieved at surgery was not exactly right or because the bones have shifted slightly in plaster. This does not usually cause any problem, although the foot may not look “quite right". Occasionally, the position is a problem and further surgery is needed to correct it.

- Sometimes the screws become loose as the bone heals and cause pain or irritate your skin. If this happens, they can be removed - usually a simple operation which it is often possible under local anaesthetic. We find that about 1 in 10 of our patients needs the screw taken out.