

[Bone-Surgeon.co.uk](http://Bone-Surgeon.co.uk)

**Patient Information:  
Ankle Fusion**

### **What is an ankle fusion?**

An operation is done to remove the cartilage (a tough elastic tissue) from between the bones of your ankle. Bone grafts taken from the hip bone are then put between the surfaces of the bones which then stick (fuse) together. Ankle fusion is also known as ankle arthrodesis.

### **Why do I need this?**

This procedure is done for a painful arthritic ankle joint, where other treatment options like joint replacement is not suitable and more conservative treatments such as

anti-inflammatory medication, anaesthetic injections and arthroscopy have been tried without success. The overall aim is to reduce the pain caused by the arthritis.

The ankle joint is made completely stiff, but you will still be able to move the joint below the ankle and the joints in the foot.

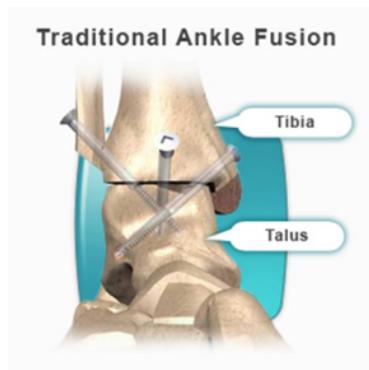
### **How is it done?**

This is done either by opening the ankle joint or through keyhole operation, depending on the individual circumstances.

Fusion is done through keyhole operation does not require bone graft. An incision (cut) is made over the front and lateral of the ankle. The damaged joint surfaces are prepared and packed with bone graft.

The joint is then held together with screws.

The operation takes about 1½ to 2 hours.



The procedure is usually performed under general anaesthesia but may be carried under spinal or epidural anaesthetic with sedation. You will have an opportunity to discuss these options with your anaesthetist and specialist before your operation.

You will be admitted on the day of operation and kept in for 1 or 2 nights depending on the pain control and mobility.

### **After the operation**

You will have moderate to severe pain to the scale of 8/10 and will be given adequate painkillers. You will need some painkillers for the first few days. You need to keep the foot elevated for the first few days until the swelling settles.

Your leg will be in plaster or a boot for 6 to 12 weeks. You will be on crutches without putting any weight on the operated leg for a period of 6 to 12 weeks.

You will then be followed up in clinic in 10 to 14 days to check the wound and change the plaster and again at 6 weeks and 12 weeks to assess the healing. The foot needs to be protected until the bones have fused which sometimes takes longer than 12 weeks.

You may need 12 weeks of time off work depending on the nature of your job. You won't be able to drive until you can do an emergency stop without any pain in the foot.

## Possible risks/complications of surgery

### Common but minor risks can include:

**Pain** – This can be worse in the first few days after surgery but responds to the prescribed painkillers. As time passes and your body starts to heal, this pain will reduce and you will only need simple painkillers (like anti-inflammatories or Paracetamol) until the pain settles completely.

**Swelling** – Operated feet tend to swell and this can last for 8–12 months.

**Infection** – as with all invasive procedures there is the risk of infection, more so in those patients who are diabetic, suffer from rheumatoid disorders or smoke.

**Scarring** – any type of surgery will leave a scar, occasionally this will be painful and inflamed.

**Blood or fluid leaking from the wound** – This is common and usually stops after a day or so.

**Bruising or discolouration** – This is almost inevitable after surgery. However, if you get a lot of bleeding, a white toe or a black toe, let the team know.

**Minor redness around the wound** – as with all surgery there is the risk of infection and some minor redness of the wound can happen and the wound edges take longer to heal fully. You may need antibiotics to get this to settle. Risks are higher if you are diabetic, suffer from a rheumatoid condition or smoke.

**Prominent metal work** – In some cases the screws or plates (if used during your operation) can become prominent under the skin and you will need to have them removed at a later date.

**Numbness** – After surgery you are likely to have some minor numbness and tingling around the scar due to damage to small nerves.

If you are a smoker and are about to undergo surgery, we strongly advise you to stop smoking for at least one week before surgery and for around six weeks after your surgery. By doing this you will find the healing process similar to that of a non-smoker.

### Less common but more significant risks:

Failure of the bone to unite – this may occur in operations where the bone is fused.

Some people heal slower than others and those who smoke are at a greater risk of this occurring. The surgeon may decide not to perform surgery unless you refrain from smoking.

**Deep Infection** – Although the operation is performed under sterile conditions and all precautions are taken to prevent this, a deep infection may happen and if the wound does not settle on antibiotics, you may need further operations.

**Blood Clots** – because you won't be able to move around as much after surgery, you can get blood clots in the veins (deep vein thrombosis or DVT) which can lead to pain and swelling of the calf or thigh. In very rare cases these blood clots can travel to your chest (pulmonary embolism) and can be fatal. Your surgical team will probably discuss whether you should have thromboprophylaxis (drugs to reduce, but do not completely eliminate the risks of blood clots).

**Thick (keloid) scar** – Scars which grow excessively can occur in some people and cannot be predicted although you are at greater risk if you have previously keloid scar. Special dressings, injections into the scar or rarely surgery may become necessary to improve the appearance.

**Delayed healing of the bone** – This may happen if your bone is cut or fused. Some people heal slower than others and those who smoke are at a greater risk of this happening. If the bones don't seem to be knitting together, you may have to take weight off the area for longer or need more surgery.

**Bone healing in a wrong position** – This can sometimes happen and you need more surgery.

**Persistent or recurrent symptoms** – In some cases, you may continue to suffer pain and the foot may be deformed. You may need surgery or other measures.

**Broken bone or metalwork** – A bone could fracture or a metal pin or screw could break during or after surgery and you may need another operation. The screws usually stay in for life but very occasionally metalwork may need to be removed in the future.

**Developing secondary problems** – This can include overloading areas close to the ones operated on. In other words, surgery on your big toe may lead to pain transferring to the second toe or unusually, an overcorrected bunion may lead to a reverse deformity.

A fused ankle joint can cause an overload of the surrounding hind foot joints and cause pain. Surgery to the newly affected areas may be needed.

**Chronic pain** – This is rare but a syndrome (such as chronic regional pain syndrome CRPS) can cause swelling, stiffness, pain and colour and temperature changes to the foot. Treatment includes medication and physiotherapy and it could take several months to improve. Doctors are still not sure exactly what causes this syndrome.

**Toe deformities** – In surgery to the toes, a toe can become floppy or stiff or heal in an abnormal position which might need further surgery.

**Damage to the blood vessels** – If the blood supply to part of the foot is damaged, it could lead to an area of permanent damage which needs surgery, but this is rare.

**Nerve injury** – If a larger nerve supplying the foot becomes damaged or caught in scar tissue, it could lead to on-going pain, numbness and tingling. This damage often doesn't last and the sensation usually returns over a period of time. However, in some cases it can be long-lasting or permanent and need further surgery.

**Amputation** – In very rare cases, part of the foot or lower leg may need to be removed if there is severe infection or blood-vessel damage or uncontrolled pain.

**Death** – This also is extremely rare for foot and ankle surgery but can happen if you have other medical conditions such as heart problems.