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## Information Sheet

### ANKLE FUSION

#### What is an Ankle Fusion?

This is a surgical procedure to fuse the bones that form the ankle joint – the tibia and talus. A number of different techniques can be used to expose the joint (see below). Any residual cartilage, that lines the bones, is removed, and the bone ends freshened. The joint is then placed in the correct position and a number of different techniques can be used to stabilise the fusion until the bones heal.

#### Why might I need an ankle fusion?

Almost always, the reason this procedure is carried out is to relieve the symptoms of painful arthritis, which can be either osteoarthritis (wear and tear) or an inflammatory arthritis (such as Rheumatoid arthritis). It also allows the correction of any deformity at the ankle that has occurred with the arthritis.

#### What are the different types of fusion?

- Open fusion – This is the traditional method for performing an ankle fusion. It involves the use of a large incision, either on the front or at the side of the ankle. Its advantage is that it allows excellent exposure of the joint, with the ability to correct large deformities. It can be stabilised either with metal screws, or in the most severe cases with a metal pin, known as an intramedullary nail, which is inserted through an incision on the sole of the foot.
- Arthroscopic fusion – This is now the latest method of performing an ankle fusion and is our preferred technique. The joint surfaces are prepared using keyhole surgery, by inserting power burrs and shavers into the joint to roughen the bone. The joint is then stabilised with two metal screws (see right). The advantage of arthroscopic versus open fusion is that there is a significantly reduced risk of complications, in particular wound problems and infection, as well as the risk of non-union (see below).



#### What is the recovery like?

In general, patients are in hospital for two or three days. You will be in plaster for at least six weeks after the surgery, and will need to keep your weight off the foot for that time. The wound is checked at two weeks, and X rays taken at two weeks, six weeks and three months to ensure the fusion is progressing. In general, you will not be able to drive for three months from the time of surgery, and it can often take six to twelve months for swelling and general aches and pains to settle.

#### Are there any potential complications?

There are risks with all surgical procedures. Risks of severe complications are increased in heavy smokers, and if there is significant deformity in the ankle. Surgery is performed under a general anaesthetic. With modern techniques, the risk from the anaesthetic itself is now very low. There are also general risks of the surgery, which include infection, pain, swelling, stiffness, blood clots, fracture of the bones around the ankle, nerve and blood vessel damage and a risk that the surgery may not fully cure the pain. As the ankle is fused, you will also lose some of the muscle bulk from the calf, and of course the ankle will not move up and down.

Specific to the fusion is the risk that the fusion will not take – this is known as a non-union. If this is symptomatic, it may require more complex surgery to repeat the fusion, often with bone graft taken from the top of the pelvis. The risk of non-union is significantly higher in smokers. There is also the risk that the surrounding joints may have to work harder as a result of the ankle being fused, and after a few years they too may become arthritic. This can be treated if necessary.