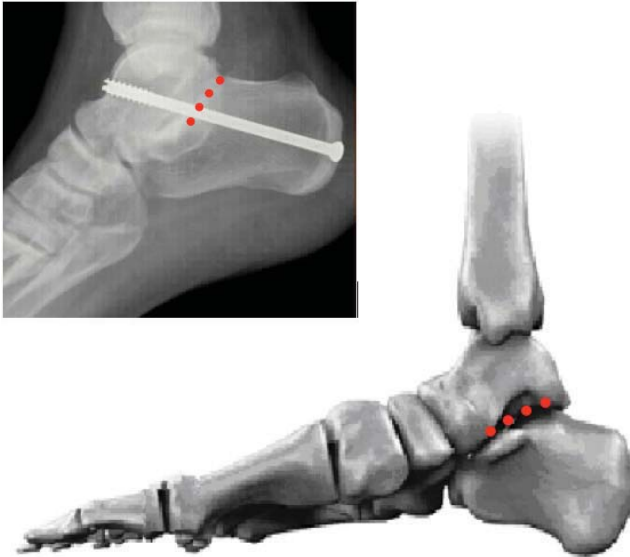


# Subtalar Fusion



*View of the foot showing the location of the subtalar joint (in red) and the positioning of the screw used in the fusion operation*

*The subtalar joint is below the ankle joint and allows side-to-side or tilt movements of the heel.*

This operation removes the painful arthritic joint surfaces and fixes the joint together, with the aim that bone will grow across and fuse (arthrodesis) the joint (glue the two surfaces together). Screws are used to compress the prepared joint surfaces and stabilise the joint to assist in achieving fusion. Once fusion has occurred then the screws are redundant but are rarely removed. Once fusion has occurred then the joint will be rigid and this usually results in abolition/substantial improvement in painful symptoms. This surgery does not typically affect the up/down movement of the ankle. Walking will not be altered on flat ground, only on uneven surfaces, when the ankle will feel a less flexible.

The surgery is performed through a 5 cm incision over the outer side of the ankle. The arthritic joint surfaces are excised (removed) and the joint fixed together with a screw through the heel. The operation takes approximately 1 hour. Sometimes bone graft is required and this taken from the area just below the knee (through a 4 cm incision) if required.

After surgery, your leg will be immobilised in a backslab (half plaster) for 2 weeks. Elevation of the foot (above the pelvis) over the first 10 days is important in helping to prevent infection. No weight must be taken through this leg for 6 weeks.

The total time in plaster cast / removable boot is normally 12 weeks.

## 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

## Subtalar Fusion

### Main Risks of Surgery

**Swelling** - initially the foot will be very swollen and need elevating. The swelling will disperse over the following weeks and months but will remain evident for up to 6-9 months.

**Infection** - The risk of deep infection occurring is approximately 1%. You will be given intravenous antibiotics to help prevent this. It is important to keep the foot elevated over the first 10 days to reduce the swelling and risk of infection. If there is an infection, it may resolve with a course of antibiotics but may result in failure of the fusion.

**Mal position** - ideally, the fusions are performed in a position that also optimum function and gives the best appearance. I take great efforts to judge the best position at surgery, but as you are asleep and lying down, it is not always possible to achieve this 'best' position. If the position is not optimal following surgery, this can usually be accommodated by custom insoles and footwear. Rarely is further surgery required.

**Non-union** - this is when the joint fails to fuse and bone has not grown across the joint. We won't know whether this is the case for 6-12 months. The risk of this is approximately 5%. Smoking increases this risk 16 times. If a non-union does occur and is painful, then further surgery is usually needed.

**Nerve damage** - alongside the incision are two nerves; the superficial Peroneal and sural nerves. They supply sensation to the sides and the top of the foot and toes. They may be damaged during the surgery and this may 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 5% risk of this happening.

**CRPS** - This stands for complex regional pain syndrome. It occurs rarely (1%) in a severe form and is not properly understood. It is thought to be inflammation of the nerves in the foot and it can also follow an injury. We do not know why it occurs. It causes swelling, sensitivity of the skin, stiffness and pain. It is treatable but in its more severe form can take many months to recover.

## Subtalar Fusion

# Main Risks of Surgery

**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.

For the first 2 weeks 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.

*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.*

## Sick Leave

In general 4 weeks off work is required for sedentary employment, 12 weeks for standing or walking work. We will provide a sick certificate for the first 2 weeks; further certificates can be obtained from your GP.

## Driving

If you 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 3 months post surgery.

*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.*

## Post Operative Course

# Subtalar Fusion (Arthrodesis)

## Day 1

- Below knee cast (backslab plaster) applied at end of surgery
- Expect some numbness in foot for 12-24 hours
- Pain medication and elevation of foot
- Blood drainage through cast expected

## Day 2

- An xray may be obtained
- Elevation of leg as much as possible for first 2 weeks
- Mobilisation non-weight bearing with physiotherapist (crutches / frame)
- Discharge home day 2-3 usually possible
- No weight bearing on operated leg for first 6 weeks

## 2 Weeks

- Outpatient review of wounds and removal stitches
- Application of new cast /removable boot
- May shower/bath if wounds healed
- Allowed to weight bear on operated leg when standing only
- No weight bearing on operated leg when walking for 6 weeks
- May return to driving at this stage ONLY IF left leg surgery and automatic vehicle - otherwise unable to drive until 3 months post surgery

## 6 Weeks

- Outpatient review and allowed to partial weight bear in removable boot (~40% body weight)
- To remain in boot until 3 months following surgery
- Using crutches/frame until 3 months post surgery

## 12 weeks (3 months)

- Outpatient review with xray on arrival
- Usually the boot can be removed at this stage if xrays satisfactory
- Begin physiotherapy and rehabilitation program
- Gradually increase activity level as symptoms dictate
- May return to driving at this stage
- Begin physiotherapy strengthening / rehabilitation regime
- Strength improves over the first 9 months after surgery
- Expect some aching discomfort intermittently for the first 4-6 months

## 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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