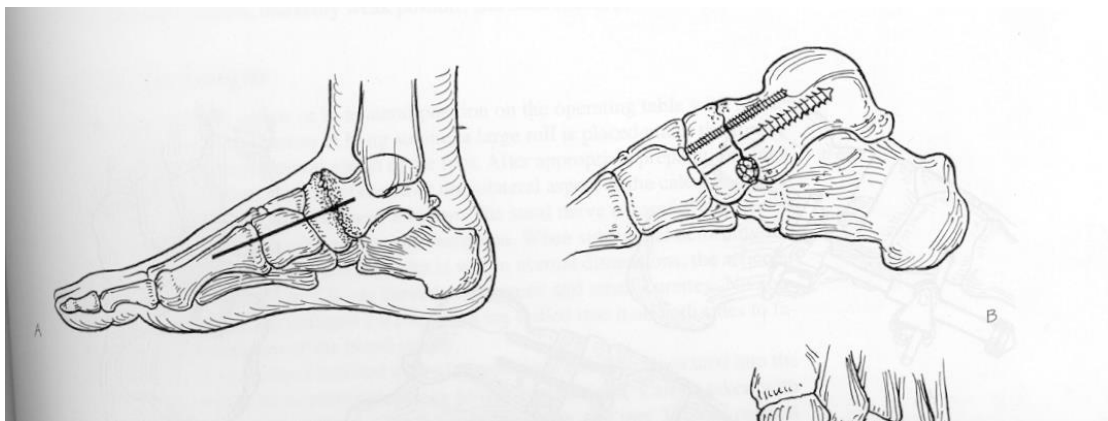


Patient Information

Talonavicular Fusion



Orthopaedic and Fracture Clinics

What is it?

This is an operation to "fuse" or stiffen a joint in the middle part of the foot. It fuses together two bones, the *talus* and the *navicular* bone - hence "talonavicular fusion"

Why would it be done?

Talonavicular fusions are done for two main reasons:

- arthritis of the joints, because of a previous injury that has damaged the joints, 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 foot, such as a flat foot, a club foot or other deformity. Sometimes these can be corrected by breaking and reshaping the bones, but in other cases it is best to stiffen the joints in the corrected position, particularly if the joints are already stiff or the foot is weak

We sometimes inject local anaesthetic or steroid into damaged joints, before any surgery is considered, to see whether this helps the pain. In some people, this gets rid of the pain and surgery is not necessary. In others, pain relief does not last but the results of the injection helps us to decide which joints to fuse.



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What does it involve?

A cut is made on the inner side of the foot, about 4-5 cm long. The joint is opened up and the joint surfaces removed and, if necessary, reshaped to correct a deformity. The joint is then put in the correct place and fixed together with screws, plate or staples passed through the main cut.

It is sometimes necessary to put some extra bone into an fusion to get it to heal and to fill any gaps in the fusion left by correcting deformity. Often this extra bone can be obtained from the bone that is cut out to prepare the fusion. Sometimes there is not enough bone from this and artificial bone graft may be used.

Some people who have 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.

Weak muscles may be compensated by moving the tendons of normal muscles to do the work of the weak ones. This might be done at the same time as a fusion, or it may be best to do it at another operation. These "tendon transfer" operations are planned individually and your surgeon and physiotherapist will discuss this with you.

Some people with deformities of the foot also have deformed toes. Again, these may be corrected at the same time or at a later operation.

How long would I be in hospital?

Most people who are reasonably fit can come into hospital on the day of surgery, having had a medical check-up two to three weeks beforehand. At the end of the operation a plaster back-slab (half-plaster) is put on your leg from your toes to just below your knees before you wake up. After surgery your foot will tend to swell up quite a lot, especially if you have had extra surgery such as a tendon transfer or toe straightening procedure. You will therefore have to rest with your foot raised to help the swelling to go down. This may take anything from two days to a week. If you get up for too long at a time this may cause problems with the healing of your foot.

Once you are comfortable enough you can get up with crutches and go home. The physiotherapist will teach you how to walk with crutches. We will get you up as soon as possible! Some people are in hospital for two to three days, but many people can go home the same day as the operation. This would be planned for in advance.

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

The operation can be done under general anaesthetic (asleep). Alternatively, an injection in the back can be done to make the foot numb while the patient remains awake. Your anaesthetist will advise you about the best choice of anaesthetic for you.

Increasingly surgery is carried out with a regional block – the leg is numb below the knee by injections adjacent to the nerves behind the knee. You can choose to have sedation so that you sleep lightly during the operation. The block can last 24-48



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hours giving good pain relief, but you will also be given pain-killing tablets as required.

Will I have a plaster on afterwards?

You will need to wear a plaster/boot from your knee to your toes until the joints have fused - usually 12 weeks. For the first six weeks you should not put any weight on your foot as it may disturb the healing joints. Touching your foot to the ground for balance is ok but no more.

What will happen after I go home?

By the time you go home you will have mastered walking on crutches without putting weight on your foot. You should go around like this for six weeks. 10-14 days after your operation you will be seen again in the clinic. Your plaster will be removed and the cuts and swelling on your foot checked. If all is well you will be put back into a lightweight plaster. You should continue walking with your crutches.

Six weeks after your operation you will come back to the clinic for an X-ray. If this shows the joints are healing in a good position you can start putting your weight through the plaster/boot. You can gradually build up to taking your full weight through the plaster. Your surgeon will advise you when this is possible.

Twelve weeks after the operation the plaster cast will be removed and an X-ray taken. If this shows that the fusion is soundly healed then you can go free of plaster and just use an elastic support for the next few weeks. We usually give people a brace to wear at this point to give them some support as they get used to walking without the plaster. This is usually worn for about a month.

How soon can I....

Walk on the foot?

As explained above, you should not walk on the foot for six weeks after surgery. 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, and you can keep your foot up and work with your foot in a plaster, you can go back to work within two to three weeks of surgery. On the other hand, 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 six months off work. How long you are off will depend on where your job fits between these two extremes.

Drive?

If you have only your left foot operated on and 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 through it. Most people prefer to wait till the plaster is removed and they can wear a shoe.



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Play sport?

After your plaster/boot is removed you can start taking increasing exercise. Start with walking or cycling, building up to more vigorous exercise as comfort and flexibility permit. Obviously, the foot will be stiffer after surgery and you may not be able to do all you could before. However, many people find that because the foot is more comfortable than before surgery they can do more than they could before the operation.

Most people can walk a reasonable distance on the flat, slopes and stairs, drive and cycle. Walking on rough ground is difficult after a fusion because the foot is stiffer. It is unusual to play vigorous sports such as squash or football after a talonavicular fusion.

What can go wrong?

The main problem is the swelling of the foot, which may take many months to go down fully, and some people's feet always remain slightly puffy. You may find that only trainers are comfortable for several months. Keeping your foot up, applying ice, wrapped in a towel, or wearing elastic stockings may help to keep the swelling down. Swelling is part of your body's response to surgery rather than the operation "going wrong" but it is a nuisance to many people who may be concerned that something has indeed gone wrong.

The most serious thing that can go wrong is infection in the bones of the foot. This only happens in about 1% of 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 yet more surgery to get the foot to fuse in a satisfactory position. The result is not usually as good after such a major problem as if the foot had healed normally.

About 5% of talonavicular fusions do not heal properly and need a further operation to get the bones to fuse - basically another fusion. This is more common in smokers so we urge patients to stop smoking after surgery until the joint has fused.

Minor infections in the wounds are slightly more common and normally settle after a short course of antibiotics.

Sometimes the cuts are rather slow to heal. This usually just requires extra dressing changes and careful watching to make sure the wound does not become infected.

There is a small risk of developing a deep venous thrombosis (clots in the veins of the leg) after this type of surgery. We will assess if your individual risk is high enough for you to need blood-thinning (heparin) injections while you are in plaster.

Research shows that 5-10% of talonavicular 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. Usually this does not



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cause any problem, although the foot may not look "quite right". Occasionally the position is a problem and further surgery is required to correct it.

Sometimes screws or pins can be tender and painful. If this happens they can be removed - usually as a day-case under a brief anaesthetic. We find that about 20% of our patients need a screw taken out.

Smoking will not be permitted on any NHS site in England. Smoking will not be permitted within any of our buildings or anywhere outside on our sites. Smoking facilities will not be provided. Please be considerate of others when vaping in hospital grounds

This information sheet is available to order in other languages and formats. If you would like a copy, please contact us on 01793 604031 or email gwh.pals@nhs.net

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