



Royal Orthopaedic Hospital NHS Foundation Trust Patient Information

Cavo Varus Foot Correction (high arch foot / claw toes)

Welcome to the Royal Orthopaedic Hospital (ROH). For further information please visit www.roh.nhs.uk

Following your consultation with a member of the Foot and Ankle team you are considering a correction of your foot shape. This leaflet 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 leaflet is not for self-diagnosis. Please ask your surgeon if you have any further questions. If anything changes before the operation please let your surgeon or their secretary know (e.g. skin problems, infections, injuries).

What is it?

This describes an operation to improve the function and shape of your foot. Some people, for many reasons, have a foot shape which includes high arch and/or turned in hind-foot and/or clawing of toes; this is often called a 'cavovarus' foot. This is often, but not always, due to a neuromuscular problem (nerves not working properly). This can damage parts of the foot and the shape often worsens with time leading to pain, ankle instability and callouses.

Why would it be performed?

Cavovarus foot correction operations are performed for two main reasons:

- Failure of conservative treatment for cavovarus foot shape – physiotherapy and orthotics can often treat the problem in the early stages. Rest in a boot/cast and injections may be used.
- Severe or worsening deformity and instability

For some people, the deformity is very severe or the joints of the foot become arthritic. These patients may be better off having a fusion of their hind-foot joints (subtalar fusion or triple fusion). Steroid injections or special scans can help us to decide which joints to fuse.

What does it involve?

There are usually many parts to the operation. One part is to correct the shape of the hind-foot by moving the heel bone (*calcaneum*) and fixing it with a screw. Usually two cuts are made, one along the outer side of the foot and one on the inner side. These are about 10 cm long. The operation is sometime done using

'keyhole' surgery. Other bones and tendons can be re-positioned or moved to balance the foot. The 'first metatarsal' is often broken, re-positioned and fixed with a staple. *Tibialis posterior* tendon (on the inner or 'medial' side of the foot) is often lengthened or moved across to the outer (lateral) side of the foot. *Peroneus longus* tendon is usually transferred to *peroneus brevis* to help pull the foot into a better position. 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 small cuts in the calf and stretching the tendon. Most people who are reasonably fit can come into hospital on the day of surgery, having had a medical check-up 2-6 weeks before. After surgery, your foot will tend to swell up quite a lot. You will therefore have to rest with your foot raised in bed to help the swelling to go down. This may take anything from 2 days to more than a week. If you get up too quickly, this may cause problems with the healing of your foot. Generally you should keep the foot elevated as much as possible. You will not be able to put weight through the foot for 6 weeks. Usually a plaster cast will be put on at the end of the operation. The plaster is often re-enforced before you can get up with crutches and go home. The physiotherapist will show you how to walk with crutches. We will get you up as soon as possible! Most people are in hospital for 1-4 days.

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

The operation can be done under general anaesthetic (asleep). Alternatively, an injection in the back, leg or around the ankle can be given to

make the foot numb while you remain awake. Local anaesthetic injections do not always work and, in that case, you may have 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 or foot while you are asleep to reduce the pain after the operation even if you go to sleep for the 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 from your knee to your toes until the heel bone has knitted back together. For the first 6 weeks you should not put any weight on your foot as it may disturb the healing bone. (Occasionally 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 2 weeks. 14-17 days after your operation you will be seen again by a nurse in the clinic. Your plaster will be removed and the cuts and swelling on your foot will be checked and stitches removed. If all is well you will be put back in plaster. You should continue walking with your crutches but only partial weight bearing. This means resting your foot on the floor for balance at most and to make walking easier but not putting full weight on the foot. 6 weeks after your surgery, your plaster will be removed and an aircast boot is often

fitted. After this, you can put your full weight on your foot with crutches. Increase the weight you put through your foot gradually as pain and swelling allow. If you are in a removable boot, take this off when safe at home and move your foot and ankle about gently. Physiotherapy will begin shortly after coming out of plaster.

How soon can I...

Walk on the foot?

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

Go back to work?

If your foot is comfortable and you can keep your foot up and work with your foot in a special shoe, you can go back to work within 4--6 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 will depend on where your job fits between these two extremes.

Drive?

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 through it. Most people prefer to wait till the plaster is removed and they can wear a shoe. 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.

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. The 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 people can walk a reasonable distance on the flat, slopes and stairs, drive and cycle. Walking on rough ground can be difficult. It is unusual to play vigorous sports such as squash or football after major foot surgery.

Risks

- The main problem is the swelling of the foot, which may take many months to go down fully. 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 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 you may be concerned that something has gone wrong. If you are worried about the swelling of your foot, ask one of the foot and ankle team (your physiotherapist, nurse or surgeon) whether the amount of swelling you have is reasonable for your stage of recovery.
- The most serious possible problem is infection in the bones of the foot. This only happens in about 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 foot to heal in a satisfactory position. The result is not usually as good after such a major problem as if the foot had healed normally.

- Minor infections in the wounds are slightly more common and normally settle after a short course of antibiotics.
- Sometimes the cuts, especially the one on the outer surface of the foot where the blood supply is not so good, are rather slow to heal. This usually just requires extra dressing changes and careful watching to make sure the wound does not become infected.
- Research shows that 5--10 in 100 operations 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 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, especially the screw through the heel, become loose as the bone heals and cause pain or rub on your shoe. If this happens they can be removed - usually by a simple operation.
- Deep vein thrombosis/Pulmonary Embolus (blood clot in your legs or lungs)
- The plaster can rub on bony areas causing sores

What can I do to help?

Most patients find that simple measures can make a **big difference** to the outcome of surgery. The evidence from studies and our experience supports this:

Take simple Vitamin C and vitamin D tablets or multivitamins – needed for healing. STOP smoking – smoking slows down healing and is linked to increased complications. Keep fit and **a healthy weight** – many foot problems are improved by losing weight

Further information

The figures for complications given in this leaflet have been taken from information produced by the British Orthopaedic Foot Surgery Society using audits from all areas of the UK. The British Orthopaedic Foot Surgery Society web site is available at:

www.bofas.org.uk

NHS Constitution. Information on your rights and responsibilities. Available at www.nhs.uk/aboutnhs/constitution

www.footcaremd.com—Designed for patients and run and maintained by the American Orthopaedic Foot and Ankle Society.

<http://www.aofas.org/footcaremd/treatments/Pages/Cavus-Foot-Surgery.aspx>