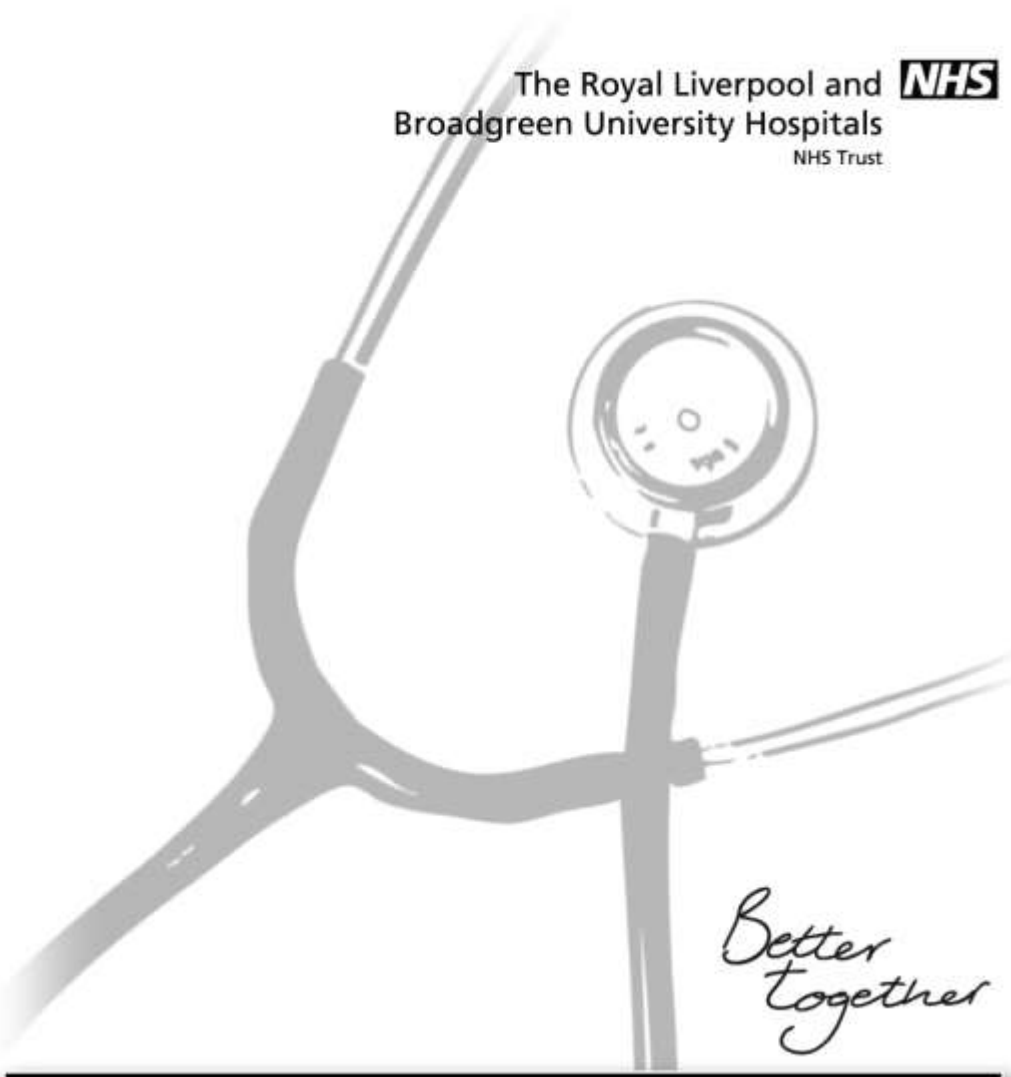
The Royal Liverpool and Broadgreen University Hospitals NHS Trust



Patient information

Calcaneal Osteotomy (Heel Bone Realignment Surgery)

Trauma and Orthopaedics Directorate

Royal Liverpool Hospital and Broadgreen Hospital PIF 9001

Your consultant has advised you to have a calcaneal osteotomy (heel bone realignment surgery). The aim of this surgery is to correct your foot and ankle deformity in order to help reduce pain, improve function and mobility (walking). For example, a calcaneal osteotomy can be carried out to help to correct flat or high arch foot deformities where conservative treatments (e.g. special insoles / footwear modifications) have failed to improve pain symptoms and function.

How and why is it done?

The surgery involves making a guided cut into the heel bone to allow it to be repositioned and then fixed internally, using surgical implant / screw(s). These are inserted in order to maintain the corrected heel position and to allow the bone to heal and stiffen (fuse) into a solid structure.

Your surgeon will discuss with you the specific details of your proposed surgery i.e. whether your heel bone needs to be shifted more towards the inside of your foot (medially) or outside of your foot (laterally) and this depends on your individual presenting foot problem / condition. Also, it may be necessary to carry out additional surgical procedures along with your calcaneal osteotomy surgery and your surgeon will discuss these with you, if appropriate.

Calcaneal osteotomy is usually carried out under general anaesthetic and you should expect to be in hospital for one to two nights post-operation.

The surgery is normally carried out via an incision (cut) made through the outer border of your foot. This wound may be closed with dissolvable or undissolvable sutures (stitches), depending on your surgeon's preference.

A temporary plaster cast will be applied in theatre, on completion of your surgery, and this cast is designed to allow for any post-operative swelling, which is normally expected (plaster-of-paris material with a section at the front of the cast, running from toe to knee, where there is no casting material).

Depending on your consultant, this cast may need to be changed to a light-weight full cast, i.e. all the way round your leg with no soft channel, at day one or two weeks post-op. Your cast will be from just under your knee to toe level, and allows for frequent knee bending and toe movement exercises (regular exercises are recommended to aid circulation, reduce swelling and help to prevent knee joint stiffness).

What are the risks of having a calcaneal osteotomy?

All surgical procedures carry risks of wound infection and delayed wound healing. Damage to the small nerves around the operated area can also happen, which may result in numbness and / or painful scarring.

Procedures are often undertaken to try to improve your pain, but this is sometimes unsuccessful and pain may continue and may even increase.

There is also a risk that you do not produce enough new bone to make the fusion solid. The surgical implant used to hold the bone surfaces together, whilst the bone heals, might loosen or fail.

If you are a smoker, we strongly advise you to stop smoking at least one week before your surgery and for the duration of your treatment. By doing this you are not only lessening the risk of developing a clot after surgery but you are also helping towards the success of your surgery. Wound healing and bony fusion is greatly affected even if you smoke one cigarette.

To help avoid complications, it is also very important that you do not put any weight through your operated leg until your specialist is happy for you to do so.

Are there any alternative treatments available?

If you decide not to proceed with surgery, your surgeon may advise you to continue conservative treatment in the form of special orthotics and/or footwear to help you to control your symptoms.

What will happen if I don't have any treatment?

If you decide not to receive treatment, it is likely that your symptoms and condition will continue to worsen.

What sort of anaesthetic will be given to me?

You will be given a general anaesthetic. A general anaesthetic is drug-induced unconsciousness: an anaesthetist, who is a doctor with specialist training, always provides it.

A general anaesthetic can cause side effects and complications. Side effects are common, but are usually short-lived: they include nausea, confusion and pain.

There is a risk of damage to teeth, particularly caps or crowns and veneers. Your anaesthetist will take every care, but occasionally damage can occur.

Serious complications are very rare, but can cause lasting injury, including paralysis and death.

The risks of anaesthetic and surgery are lower for those who are undergoing minor surgery, and who are young, fit, active and well.

For more information, please ask for a copy of the leaflet **"You and Your Anaesthetic"** (PIF 344).

You will be given an opportunity to discuss the anaesthetic and associated risks with your anaesthetist before your surgery.

If you are worried about any of these risks, please speak to your consultant or a member of their team before you are due to have this treatment.

Getting ready for your operation

- You will be able to discuss the operation with a doctor at your clinic consultation. You will be asked to sign a consent form to say that you understand the procedure, what the operation involves and that you are happy to proceed. At any time you can decide to withdraw consent, even if you have signed the consent form.

- You will usually be seen in the pre-operative clinic following your consultation on the same day, depending on appointment availability. If not, you will receive a pre-operative assessment appointment scheduled on an appropriate date, before your admission to hospital. There you will be assessed by a nurse to see if you are fit for the anaesthetic and you will be asked routine questions about your health, the medicine you take at the moment and any allergies you may have. The staff will give you clear instructions regarding which medication to take. They will also discuss any medication that needs to stop before your operation and when to stop.

- You will then have some blood tests, sometimes a heart trace and possibly a chest X-ray, if appropriate.

- You will be also given instructions on when to stop eating and drinking before the surgery and your admission letter will also provide instructions about this.

- A separate pre-operative therapies clinic appointment may also be required to enable an assessment to be carried out with regard to your present condition, home environment and ability to non-weight bear (hop), using crutches or other suitable walking aids. You will also be advised on the importance of keeping the rest of your joints moving to prevent them from becoming stiff following surgery.

The day of your operation

- You are normally able to come into hospital on the day of your operation. This depends on your general health and, in some cases, it may be necessary for you to be admitted the day before your surgery.

- Please bring any medication you are taking into hospital. Your anaesthetist will review and assess you and also discuss your post-operative pain management. You will have opportunity to ask any questions you may have.

- Please leave all cash and valuables at home. If you need to bring valuables into hospital, these can be sent to General Office for safekeeping. General Office is open between 8.30am and 4.30pm Monday to Friday. Therefore, if you are discharged outside these times we will not be able to return your property until General Office is open. The Trust does not accept responsibility for items not handed in for safekeeping.

- You will be asked to remove jewellery - plain band rings can be worn but they will be taped.

- Please leave body piercings at home. False nails and nail polish will also need to be removed if worn.

- If you are on regular medication, you will have already received instructions from the pre-op nurse at your pre-operative appointment (written and verbal) on whether you will need to take some of your medications on the morning of your surgery and if / when you need to stop certain medication.

- You will be asked to put on a gown and disposable underwear.

- A bracelet with your personal details will be attached to your wrist.

- You may be prescribed some medication to take before your operation by the anaesthetist. A member of the nursing staff will give this to you.

- A porter will escort you to the operating theatre.

- Your dentures, glasses or hearing aid can stay with you.

- When you arrive in the theatre area, you will be asked to put on a disposable hat.

- You will be taken to the anaesthetic room. Here a theatre nurse will check your details with you.

What should I expect after my operation?

- After your operation you will be kept in the theatre recovery room before being transferred back to your ward.

- You will have a plaster cast in place, which is applied in theatre while you are still under the anaesthetic. This will be a temporary cast, which allows for some normal post-operative swelling expected after your surgery.

- This swelling can be minimised by ensuring that your leg is elevated (raised) so that the level of your heel is higher than your hip level. This cast is normally in place for around one day or up to two weeks, depending on your consultant.
  If you require change of cast, you will visit the clinic area for a new lightweight full cast. A check X-ray may also be carried out following your cast change.

- A nurse will check your pulse, blood pressure, and breathing rate regularly. **It is important that if you feel any pain you must tell the nursing staff, who can give you painkillers to help**.

- The nursing staff will also advise you when you can start taking sips of water. Anaesthetics can make some people sick. If you feel sick we advise you not to drink until this feeling has passed. The nursing staff may offer you an injection to help this sick feeling go away.

- The first time you get out of bed, please make sure you ask a nurse for assistance as you are not allowed to put any weight through your operated foot. The physiotherapist will assess your ability to hop on your unoperated foot, using a Zimmer frame at first and then crutches.

- You need to carry out frequent knee bending exercises to both knees and ankle exercises to your unoperated ankle to help to prevent deep vein thrombosis (blood clots).

- Once you have been assessed as safe to mobilise without supervision, you will need to take regular short walks and this should continue on discharge, remembering to highly raise your leg again when sitting.

- You will need to continue to wear your anti-embolic stocking on your unoperated leg and this should only be removed for a very short time for hygiene purposes.

- While you are non-weight bearing (hopping) and have a cast in place you normally receive a course of blood thinning injections (heparin-based) to also help to prevent blood clot formation. The dose is normally one injection per day for however long you remain non-weight bearing for (up to six weeks). You are encouraged to learn how to administer these yourself and you will be provided with supervision and full instructions on how to do this correctly (as well as be provided with a sharps container for safe storage of used needles / syringes). Once the sharps box is no longer needed you can seal it as instructed and bring this with you to clinic appointment.

Going Home

You may be discharged once your cast has been changed, on day one following your surgery. This will depend on your ability to mobilise safely non-weight bearing with walking aids and it may be necessary for you to remain in hospital for a further night. If you have stairs at home, you will also need to be assessed by the physiotherapist climbing and descending stairs to ensure you are safe to be discharged home.

You will need to continue to highly elevate your leg on sitting so your heel is above your hip level and this will help to reduce your pain, swelling and also aid circulation.

Further Appointments

You will be given an outpatient follow-up appointment for up to two weeks following your surgery, when you will have your cast removed, wounds checked and sutures (stitches) removed. A further cast will then be reapplied and you will be reviewed in a further four weeks and have an X-ray when you arrive in clinic, following cast removal.

Once your specialist has reviewed you with the X-ray at this stage (six weeks after your surgery) you may then be able to go into a special walking boot (looks like a ski boot) or another cast, which allows you to put some weight through and this is in place for six weeks. After this time, a further check X-ray will be carried out (three months after surgery) and you may be able to go into a form of splint or special sandal, before eventually returning into normal footwear.

Pain relief and medication

The nursing staff will advise you about painkillers before you leave the hospital. Please tell the nurses what painkilling tablets you have at home. You should elevate your leg highly when sitting to help reduce post-operative swelling and pain.

Returning to work

You can self-certify for the first seven days of sickness. Before you are discharged, a medical certificate (fit note) may be given by your hospital doctor to cover the expected time off you will need.

Your Consultant will inform you how long you are likely to need off work. This will depend on your occupation.

Further Information

If you have any queries or concerns following your discharge, please contact the ward or the specialist nurse below.

Orthopaedic Specialist Nurse for foot and ankle surgery
Tel: 0151 282 6000 and ask for bleep 4634
Text phone number: 18001 0151 282 6000

Lisa and Jenny, Foot and Ankle secretaries
Tel: 0151 282 6813 / 6746
Text phone number:18001 0151 282 6813/6746

https://www.ortho-care.eu/en/treatments/foot
www.nice.org.uk/ guidancecg92 — section 1.6.3 lower limb casts (DVT)

Author: Trauma and Orthopaedics Directorate
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All Trust approved information is available on request in alternative formats, including other languages, easy read, large print, audio, Braille, moon and electronically.

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