



**Royal National
Orthopaedic Hospital**
NHS Trust



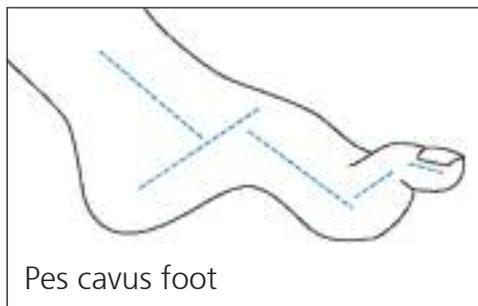
A patient's guide to

Post-Operative Advice Following Pes Cavus

The Foot and Ankle unit at the Royal National Orthopaedic Hospital (RNOH) is a multi-disciplinary team. The team consists of three specialist orthopaedic foot and ankle consultant surgeons (Mr Singh, Mr Cullen and Mr Welck), specialist doctors in training, a physician assistant, clinical nurse specialists, orthotists, physiotherapists and occupational therapists. All team members are specialised in foot and ankle care and work together to provide and deliver a quality service.

Pes cavus

Pes cavus is a high arch of the foot that does not flatten with weight bearing. Sometimes this can lead to other problems in the foot including clawing of the toes, altered position of the heel bone, pressure areas on the outside and ball of the foot, areas of hard skin or callosities and ankle instability. This can lead to pain and difficulties with function.



Common causes

In some cases a high arched foot can be the result of an underlying medical condition such as:

Neurological – some disorders can lead to muscle weaknesses and imbalance, contributing to altered positions of the foot, for example Charcot-Marie-Tooth.

Trauma – injury including fractures, burns and compartment syndrome.

Residual clubfoot – as a result of ‘talipes equinovarus’ (clubfoot), when a foot deformity is present at birth.

Idiopathic – no obvious cause found.

There are ways of reducing the symptoms, for example, by taking painkillers (paracetamol, anti-inflammatories), restricting activity, using orthoses (braces or insoles), footwear adjustments and walking aids such as crutches or a walking stick.

Reasons for surgery:

- To prevent further deterioration/deformity
- Pain and decreased function not responsive to simple treatments
- Instability of the ankle (giving way)

Surgical technique(s)

Operations to correct the position of your foot include:

- Calcaneal osteotomy – the heel bone can be shifted to bring your heel back under your leg and the position fixed with a screw or plates and screws
- First metatarsal osteotomy – the bone leading to your big toe can be shifted and repositioned

Operations to rebalance the pull of the muscles in order to prevent the deformity returning include:

- Peroneal tenodesis – re-positioning and strengthening of the peroneal muscles (which turn your foot outwards)
- Tibialis posterior transfer – one of the muscles in your lower leg (called the tibialis posterior), which causes the foot to turn inwards (and cause deformity) is transferred to the outside of the foot to assist the weak muscles that turn the foot outwards

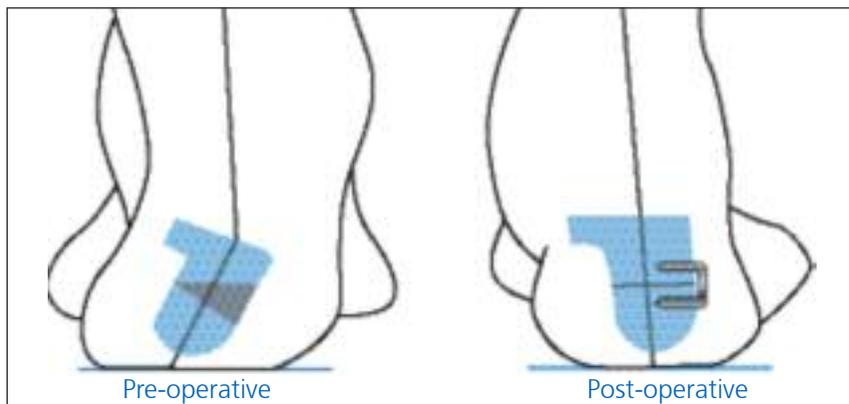
However, surgery may also include one or more of the following:

Soft tissue releases, other tendon transfers, other bone procedures and joint fusions.

X-ray after surgery



Right heel bone shifted and placed in a better position



Expected outcome:

- Stable foot in a neutral position
- Improved function/mobility
- Less pain
- Improved walking – able to walk with fewer aids and orthotics (insoles)
- Improved muscle balance
- Decreased callosities (hard skin)/pressure areas
- Maintenance/improvement of range of movement
- Full recovery may take up to twelve months

Before your operation

You will see a pre-admission nurse to check you are medically fit and prepared for surgery. It is important to mention any medications that you are taking, either prescribed or non-prescribed, including over-the-counter medications, herbal remedies or aspirin, warfarin, hormone replacement therapy (HRT), the contraceptive pill or medications for high blood pressure.

Before admission for your surgery, there are a number of issues that you need to think about, for example, can someone help you carry out basic every day tasks such as preparing and shopping for food? If you have stairs, how will you get up and down them? Do you have sturdy hand rails? If your toilet is downstairs, would it be easier to have your bed downstairs until you have recovered and able to negotiate the stairs safely?

The pre-admission nurse will discuss these with you and if they have any concerns about you coping at home after your operation, they may refer you to a physiotherapist and/or an occupational therapist. The therapist will telephone you to discuss your needs and it may be necessary to attend a more in-depth assessment. This will ensure that we plan for your discharge home safely and shorten your stay in hospital.

What to bring with you

Please ensure that you have a flat sturdy shoe to wear on the un-operated foot following surgery.

If you use a walking stick or crutches, please ensure you bring these with you too.

What to expect after your operation?

When you arrive back on the ward from theatre, your leg will be in a plaster cast back slab (half plaster) from toe to knee. You need to make sure that you **do not** get the plaster wet. You will have stitches or staples with a dressing covering the wounds.

It is important to keep your leg elevated to above groin level for 55 minutes in every hour for the first two weeks following the operation. This helps to reduce swelling. It is important that you continue to elevate your leg regularly over the next few weeks/months.

A physiotherapist will see you on the ward and teach you how to walk using a walking aid. If you have to use stairs at home, you will be taught the safest way to do this.

You will usually stay in hospital for approximately one to two days after your operation. You will not be allowed to put any weight through your operated leg for usually six weeks after the operation.

Outpatient review

After two weeks, you will have your plaster changed and stitches removed. You will normally come out of the plaster completely six weeks after the operation and you are likely to then have your foot in a supportive walking boot.

Once you are out of the plaster, if everything is progressing satisfactorily, you will be referred for physiotherapy to reduce swelling, encourage movement and regain strength, balance and function. Physiotherapy is aimed at strengthening and co-ordinating your muscle in its 'new' position and is an essential part of your treatment.

Getting back to normal:

- **Returning to work:** If your job is mostly sitting, you may be allowed back to work four weeks following surgery, provided you can keep your leg elevated. However, if your job is more physical and involves long periods on your feet then it may take longer.
- **Walking:** Most people aim to be walking independently by three months after the operation. However this depends on your walking tolerance before the operation.
- **Footwear:** It can take several months for ankle swelling to go down, but most people can wear normal footwear by six months.
- **Driving:** If you have an automatic car and undergone surgery on your left ankle, you can usually drive by two weeks after your operation. Otherwise, it may take about three months to be able to drive. In order to be safe to drive, you must be able to perform an emergency stop. You must inform your insurance company regarding the type of operation that you have undergone to ensure that your cover is valid.

- **Sport:** Resuming sporting activity depends on your operation and will be discussed with you. Generally you can return to low impact sports at approximately six months.

Things to look out for:

- **Swelling** – you should expect some swelling after your operation. If swelling persists or worsens and you are concerned, seek advice from a member of the foot and ankle team or from your GP.
- **Infection** – any operation is at risk of infection. Fortunately it is not common in this type of surgery but a small number of patients do get a wound infection and these normally settle after a short course of antibiotics. In rare circumstances, the infection may be more severe and require further surgery to remove infected tissue and you may need to take a longer course of antibiotics.
- **Blood clots** – Deep Vein Thrombosis (DVT) or Pulmonary Embolus (PE) are rare but can occur. Please inform the team if you have had a DVT or PE in the past or if you have a family history of clotting disorders. You will be given an anti-embolic stocking to wear on your other leg and daily blood thinning injections while your leg is in plaster.
- **Numbness or tingling** – this can occur at the surgical site(s) if fine, hair-like nerves are cut or more major nerves are stretched. This is normally temporary; however patchy numbness or sensitised areas may be permanent. In rare circumstances, the nerves can become

hypersensitive, which is a condition called 'Complex Regional Pain Syndrome'. This can lead to severe pain as well as colour and temperature changes in the foot. If this happens, your consultant will discuss treatment with you.

- **Wound healing** – if blood supply to the area is not good, wounds may be slow to heal. If this is the case, more frequent wound dressings may be required to ensure that the wound does not become infected.
- **Scarring** – any type of surgery will leave a scar. Occasionally this can cause pain and irritation. If this happens, please discuss this with your consultant.
- **Metalwork** – occasionally screws or plates can cause pain after surgery. If this is the case, please discuss your concern with your consultant as it may be possible to remove the metalwork once the tissues have healed.

REPORT SEVERE PAIN, MASSIVE SWELLING, CHEST PAIN, EXCESSIVE NUMBNESS OR PINS AND NEEDLES.

If you would like this leaflet translated into another language/large print, please contact the Quality Team on 020 8909 5439.

Royal National Orthopaedic Hospital NHS Trust
Brockley Hill
Stanmore
Middlesex
HA7 4LP

Email: rnoh.footandankle@nhs.net

Telephone: 020 3947 0500

www.rnoh.nhs.uk

Twitter: @RNOHnhs

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Author: Karen Alligan