Patient Information
OR24

NHS Golden Jubilee

Hallux Rigidus
(stiff and painful arthritic big toe)

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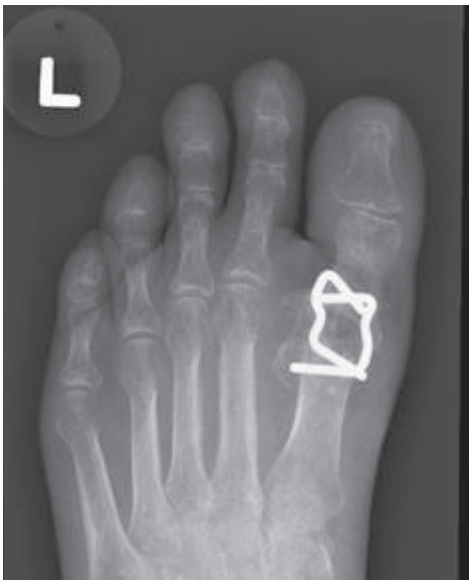
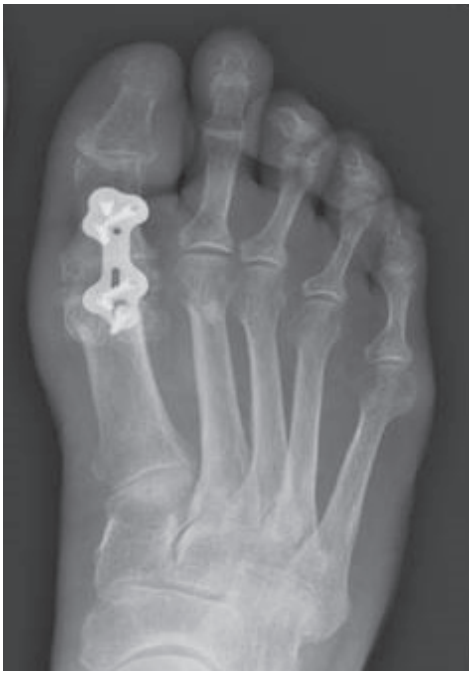
Version 2

About this leaflet

This leaflet provides information about Hallux Rigidus (stiff and painful arthritic big toe). It tells you about treatment of the condition and explains the risks and the benefits of the surgical options and what you can expect when you come to hospital.

About Hallux Rigidus





The knuckle at the base of the big toe takes considerable load during standing, walking, tip-toeing and running.

Initially, the smooth cartilage (lining of the joint) at the surfaces of the joint undergoes wear and tear and becomes thin and roughened. This may from time to time lead to pain and swelling. As the process advances there may be bony lipping or bone-on-bone arthritis which manifests as stiffness and a bony bump (osteophyte or spur).

The pain in the big toe can cause some people to walk on the outside of the foot, which can lead to pain in the ball of the foot or the outside border. X-rays can diagnose and assess the severity of the arthritis.

Causes

In many cases it is not clear why this happens. It can be due to injury, overuse, arthritis, gout or altered foot mechanics.

Occasionally the condition begins in early life, even in the teens. The reason for this is unknown but it does not always get progressively worse.

Many people can live comfortably with Hallux Rigidus for life.

Treatments

Non Surgical

You do not need surgery if your foot is not painful.

If your toe is painful, you should initially use non-surgical treatments to ease the pain:

- Avoid wearing high heels and tight, pointed or restrictive footwear
- Wearing accommodative shoes which are extra deep and wide enough to accommodate the forefoot. Shoes with laces or straps are best; soles should be stiffer, inflexible where the big toe bends, or rocker-shaped to limit the big toe bending back during walking. You will know if your shoe is sufficiently stiff if, when you hold it in your hands, it is difficult to bend in half.
- Taking painkillers to reduce pain and inflammation. Seek advice from your GP or Pharmacist.
- Maintaining a healthy weight and keeping fit and active.
- Using a special insole to limit painful movement of your big toe.

These modifications may be all that you need to ease your symptoms and should always be tried first.

If the above non-surgical treatment does not work, your GP may refer you to Podiatry/ Orthotics/ Surgical appliance services for footwear modification/insoles. You may also be able to refer yourself to Podiatry.

Surgical

The above management options should always be tried first. If non-surgical treatment does not work, your doctor may refer you to Orthopaedics to discuss possible surgical options.

- **Cheilectomy**

  Surgery aims to reduce pain. In the early stages of arthritis, an operation to reduce pain and sometimes improve movement by removing the extra bumps of bone (**cheilectomy**) may be considered.

  A cut is made on the top of your big toe knuckle, the joint is opened, extra bony bumps are removed and any tightness of the joint released with the aim of improving the range of movement of the knuckle. It is successful in up to 80% of patients and the improvement may last up to 5 years. Recovery from cheilectomy surgery takes 6 to 12 weeks.

- **Fusion**

  In the advanced stages of arthritis, or if cheilectomy fails because of recurring stiffness, pain or progression of arthritis, an operation to permanently stiffen the knuckle of the big toe (**fusion**) is an option.

  A cut is made on the top of your big toe knuckle, the joint is opened, the damaged cartilage and bone bumps are removed, the ends of the bones are scraped to create a raw surface which then begin to heal together, the big toe is realigned and held securely in place using plates, screws or pins to produce a stiff joint. The bones eventually fuse together permanently.

It is important to understand that this joint will not move again. For example, you may not be able to wear high heels again. However, the aim is that the toe will become pain free. The big toe may appear slightly shorter as a result. It is successful in 90% of the cases. Recovery from fusion usually takes 3 to 4 months, but can take up to 1 year.

Initial orthopaedic appointment

Your first appointment will take place either by video technology or face to face. Your surgeon or orthopaedic specialist will examine you and will then discuss the nature of your foot problem. If you have tried non-surgical treatments, then you will discuss surgical options if they are appropriate, before agreeing to the surgical procedure involved. Information about surgical risks, benefits, recovery expectations and milestones will be discussed at this time, along with information on your overall recovery following your operation.

Risks of surgery

Smoking, Diabetes, and some medications like steroids increase the risks considerably.

Surgical risks include:

Nonunion	This is an uncommon risk of fusion surgery when the bone ends do not heal and cement together. The risk is about 5%, but is **significantly higher in smokers**. We would advise you seek help to stop smoking **before** considering surgery. If the toe is painful and non-union has occurred, revision surgery which has less successful outcomes, may be required.
Malunion	This is an uncommon risk of fusion surgery. We take utmost care to put the big toe in a functional position at the time of surgery. If this is not achieved and the toe is bent inward, outward, up, or down, it may rub against footwear. If this is not acceptable, secondary surgery may be necessary to change the position.
Developing arthritis in the next small joint down towards the tip of the big toe	This is a risk following fusion surgery but is not always troublesome.
Ongoing pain or persistent swelling	This is a risk of cheilectomy or fusion surgery. Any pain or swelling usually settles over time. You may need to wear a larger size of shoe temporarily until the swelling settles which can take months. Very regular high elevation of your foot will still be of benefit during this time.
Damage to nerves or blood vessels	This is an uncommon risk after cheilectomy or fusion surgery. Great care is taken to avoid damage to the nerves in your foot during the local anaesthetic and your operation. You may notice a small patch of your skin around the scar or big toe may feel numb, sensitive or slightly different from usual. This is common and usually slowly improves; it should not affect your recovery.
Infection	This is a potentially serious risk after any operation but it is not common after this type of surgery. Symptoms to look out for include increasing pain and redness around your wound and a foul-smelling discharge from your wound. If you think your wound has become infected, please contact us straight away. You may need antibiotics.

Scar problems or hypersensitivity	Scar formation is an inevitable consequence of surgery. Usually the scar will heal and fade until it is barely noticeable. Uncommonly, the scar might heal excessively thick, raised or discoloured. This may also be itchy, tender or painful. Some people have a natural predisposition to this type of scarring. It usually fades over time but sometimes a distinct scar will remain. If you have concerns or known scarring problems, please ask for advice. Hypersensitivity is an uncommon risk after any operation involving a scar. Please contact us and we will discuss how to manage this as we can show you simple desensitisation exercises which are usually very effective.
Metalwork prominence or failure	This is an uncommon risk of fusion surgery. We do not routinely remove any of the metalwork, but if the metalwork is protruding and rubbing against footwear, or if there is a break in the metalwork causing problems, it can be surgically removed. Rarely, we may have to leave some of the metalwork inside at the time if it has broken and is entirely embedded within the bone. This should not cause any problems.
Complex Regional Pain Syndrome (CRPS)	This is a very rare condition caused by damage to, or malfunctioning of, the nervous system in relation to the surgery. This can cause prolonged or excessive pain, extreme sensitivity and changes in skin colour, temperature and/or swelling in the foot and ankle which does not settle down. If this happens you may benefit from referral to a pain specialist.
Blood clots in your leg (DVT) or lung (PE)	This is very rare in foot surgery. Because blood thinning medications themselves have serious risks, we do not routinely give such medication in patients with low risk. We will assess your individual risk before surgery, and if thought to be high (such as previous clots, family history of clots, hormone replacement therapy or oral contraceptives, obesity, smoking, and/or cancer), we may give you blood thinning injections or tablets. If you develop chest pain, shortness of breath, dizzy spells, and/or cough up blood, please go to your local Accident and Emergency Department urgently.
Limitations in footwear	For example, inability to wear high heels is expected after fusion surgery.

Consent

We must by law obtain your written consent to any operation and some other procedures beforehand.

Staff will explain the risks, benefits and alternatives before they ask you to sign a consent form.

If you are unsure of any aspect of the treatment proposed, please do not hesitate to speak with a senior member of the staff.

Assessment before surgery

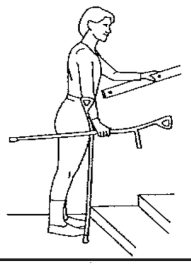
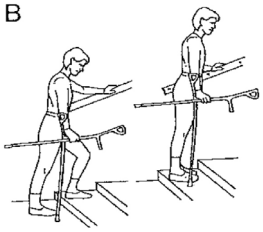
Before your operation you will have a pre-operative assessment appointment. This may take up to 4 hours to carry out, and could be on a different day to the appointment with your surgeon. You will have some screening tests which may include blood tests, MRSA swabs and an electrocardiogram (ECG). You will be asked questions about your health, medical history and your home circumstances. Please bring with you details of any medication you are currently taking.

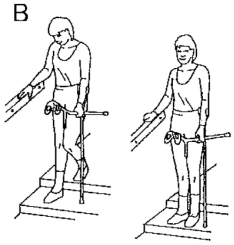
You will be given information such as:

- when to stop eating and drinking in the hours before your operation
- whether and when you should stop taking your usual medications such as HRT, Warfarin, Clopidogrel or drugs for inflammatory arthritis before going into hospital
- what to bring with you into hospital.

You will attend 'Foot School' where you will be seen by the Physiotherapy team who will fit you with your special postoperative shoe and help you practice with a walking aid (usually elbow crutches). This will prepare you for the short term mobility restriction and practical limitations that may be expected after this surgery. If you have stairs at home, you will also be shown how to go up and down stairs safely using your walking aid.

Walking up and down stairs

Walking up stairs	
A 	• Stand close to the stairs. • Hold onto the handrail with 1 hand and the crutch/crutches with the other hand.
B 	• First take a step up with your healthy leg. • Then take a step up with your affected leg. • Then bring your crutches up onto the step. • Always go 1 step at a time.

Walking down stairs	
A 	• Stand close to the stairs. • Hold onto the handrail with 1 hand and the crutch/crutches with the other hand.
B 	• First put your crutch 1 step down. • Then take a step with your affected leg. • Then take a step down with your healthy leg onto the same step as your affected leg. • Always go 1 step at a time.

Preparing for surgery

It is a good idea to get things organised for when you get home from hospital.

You will need help with household tasks, you should ensure your food cupboards are stocked up in advance, pre-arrange help with shopping, help with care of children, pets and relatives, and arrange for someone to bring you to and from the hospital.

If you are a smoker, we **strongly urge you to stop smoking before, and for at least 3 months after, your surgery** to reduce postoperative risks and allow the healing to progress. Please contact your GP or smoking cessation service to assist you in this matter.

Surgery

A cheilectomy usually takes 20-30 minutes whilst a fusion usually takes 50-60 minutes. If you are having combined surgery for smaller toe corrections, it can take longer.

You will be given a spinal or a general anaesthetic for this procedure, as well as a local anaesthetic in your foot or ankle, to help keep you comfortable when you wake up.

A tourniquet is placed around the calf or thigh to reduce bleeding and your leg is cleaned with antiseptic solution.

The operations are as described in the Surgical Treatment section of this booklet.

After surgery

You will go back to the day ward for at least 1 hour to recover from your anaesthetic.

Both procedures are normally carried out as a day case and you can go home the same day. Occasionally you may have to stay in hospital overnight after your operation.

If you go home on the same day, it is recommended that you have a relative, friend or carer who can escort you home and stay with you for the first 24 hours after your procedure. Please let them know that they may have to wait for you if you are not ready to leave. You will not be able to drive initially and should not take public transport home.

You will be given a special shoe to facilitate weight bearing on the heel and keep the pressure off your toes. You will need to wear this for 6 weeks after your surgery and will need to use a walking aid, such as crutches, to feel steady on your feet.

You will have a large bandage on your foot. This should stay on and should be kept dry until you are seen 2 weeks after surgery.

If you have had a local anaesthetic during your operation, it will temporarily numb your foot and ankle for several hours, then it will start to wear off and normal feeling will return. Local anaesthetic usually wears off within 24 hours. Occasionally there can be patchy numbness or tingling which resolves over several days.

As the numbness wears off, there may be some pain and you may need to take painkillers for the first couple of weeks. It is advisable that you start taking these painkillers on the day of surgery so that they are in your system before the anaesthetic wears off. Do not wait until the pain has already started as it can be harder to get in control of the pain. You will be given advice on what painkillers are suitable for you to take.

You will need to keep your operated foot in an elevated position (toes above nose level) as much as possible for 2 weeks following your surgery. During this time, you should only get up for essential tasks, such as going to the toilet.

Please scan this QR code to watch the video on heel weight bearing

Elevation

If you are allowed to move the ankle of your operated leg, it will help circulation and swelling by doing very regular ankle circulatory exercises. This involves bending the ankle/foot towards you then pointing it away from you briskly whilst the foot is elevated. Please ask your surgeon or a member of the Orthopaedic Team before commencing circulatory exercises to ensure they are happy for you to move the ankle. If you are not allowed to do circulatory exercises with the operated leg then continue to use high elevation with the operated foot and do circulatory exercises with the opposite, non-operated leg, as this will also help.

Follow-up appointment

You will be seen about 2 weeks after surgery to review your wound and for trimming of stitch ends. This will normally take place at your local health centre but occasionally we may arrange for you to return to the clinic at the Golden Jubilee University National Hospital (GJUNH).

A nurse will trim underneath the knots of the exposed stitches at either end of the wound to remove them. The rest of the stitches do not need to be removed and should dissolve.

If the wound has healed, you do not need a further dressing on it. We will then review you again about 6 weeks after surgery.

Getting back to normal

- **After cheilectomy**

  After cheilectomy, we would encourage you to start moving your big toe as soon as the wound has healed and stitches have been removed.

  Work: You may be able to return to work after 6 to 8 weeks, or sooner if your job is desk-based and does not involve a lot of walking.

  Driving: You can drive when you can comfortably wear normal shoes, walk unaided, control the clutch and brake and do an emergency stop. You should check with your motor insurance company before driving.

- **After fusion surgery**

  After 6 to 8 weeks, you can begin to wean off wearing the special shoe and gradually return to walking with full weight on the foot.

  When the swelling has reduced enough, you may wear enclosed, supportive shoes, such as trainers. It usually takes about 12 weeks for the swelling to ease but it may take much longer. If your foot swells, you should continue to elevate it to try and control this.

  Work: if your job is sedentary, you may be able to return to work at 8 to 10 weeks but if it is active or involves standing, you may require to be off for 12 weeks or longer.

  Driving: You can usually start driving again when you can comfortably wear normal shoes, walk unaided, control the clutch and brake and do an emergency stop but please check with your motor insurance company first. If you have had left sided surgery **and** drive an automatic car you may be able to drive 3 to 4 weeks following surgery.

  Exercise and Sport: At 6 to 12 weeks it may be suitable to resume low impact activities, such as using an exercise bike. At 12-24 weeks you may be able to return to low impact sports. Beyond this you may return to normal activity.

Contact

Please contact the Orthopaedic Outpatients Helpline on 0141 951 5521 if you have any issues after your surgery that you wish to discuss. This is an answering machine service that is regularly monitored Monday to Friday 8.30am to 4.30pm. Please leave your name, date of birth or CHI number if you know it, telephone number and a short message.

If your query is urgent and you require a response out of hours, please call the GJUNH switchboard on 0141 951 5000 and ask for the Orthopaedic ward.

Notes

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reviewed for plain English

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