



Lesser Toe Deformity

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Version 2

> About this leaflet

This leaflet provides information about Lesser Toe Deformity. It tells you about treatment of lesser toe deformities. It explains the risks and the benefits of surgery and what you can expect when you come to hospital.

> About Lesser Toe Deformity

The lesser (or small) toes refer to all toes except for the big toe. The small toes become deformed when the pressures on the toe are stronger than their joints can resist. This may be because the joints are weak, the pressures strong, or both.

Some joints can become weak or deformed due to damage or arthritis. For others, the pressure on the toes can be influenced, for example, by bunions, longer or shorter individual toes, ill-fitting footwear or any conditions that can affect the position of the lesser toes. Ultimately this leads to an overall imbalance of forces across the small joints of the toes resulting in curled deformity.

Pressure from a shoe gradually causes the toe to buckle. The joint at the base of the toe bends up and the next joint to it bends down. The end joint at the tip of the toe may bend down (claw toe), stay straight or bend up (hammer toe). The toe may even curve over the next toe and rub on it. Sometimes the whole toe does not bend, except for the tip of the toe, which may just bend downwards itself while the rest of the toe remains straight (mallet toe).

Other lesser toe deformities may occur, and these can be present from birth as a genetic abnormality. If they do not cause problems, they should be left alone.

Ultimately toe deformities can lead to prominence, rubbing from a shoe and broken skin on top where the toe is bent, or pressure, callouses and pain under the ball of the foot (metatarsalgia) where pressure builds with walking. Over time, the involved toe joints can develop further pain and stiffness.



Treatments

Non Surgical

You do not need surgery if the toe(s) are not painful.

Even if they are painful, you should initially try non-surgical treatments to ease pressure, pain and prevent callouses and broken skin.

- Wear comfortable, well-fitting shoes which are extra deep and can accommodate the forefoot (extra deep and extra wide if the forefoot is also broad, for example if there is also a bunion).
- Avoid wearing high heels and tight, narrow footwear.
- Having regular Podiatry or Chiropody care to remove corns and callouses.
- Using insoles, toe-sleeves and/or toe-pads to relieve pressure at the knuckle and ball of the toes.
- Your GP can refer you to the Podiatry/ Orthotic/ Surgical appliance department for footwear modification/insoles if you are unable to achieve comfort with your own shoes. You may be able to refer yourself into local Podiatry services.

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

Surgical

The above management options should always be tried first. If non-surgical treatment does not work, you may be referred to an Orthopaedic Specialist to discuss possible surgical options.

The aim of surgery is to help reduce pain and deformity; 60-80% of the patients are satisfied with the result.

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:

Recurrence of the deformity	This may happen if there is failure of the repair/fusion. You may notice that the toe does not sit flat on the ground – “floating toe”.
Ongoing pain or swelling or stiffness	Any pain or swelling usually settles over time. Very regular high elevation of your foot will be of benefit to reduce swelling. Sometimes pain may persist indefinitely.

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.
Damage to nerves or blood vessel	This is an uncommon risk. 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/tip of the toe feels slightly different from usual or is sensitive.
Problems with your bone healing	This is an uncommon risk. If we cut a bone during surgery, it needs to heal in the same way as any broken bone. Sometimes, the bone can slip out of position (“malunion”) or it does not heal (“non-union”). Rarely, the circulation to the bone is badly affected leading it to weaken or crumble (“avascular necrosis”). Problems with bone healing are much more common in people who smoke and can lead to ongoing pain and arthritis of the nearest joint.
Metalwork loosening	This is an uncommon risk. Protruding pins (designed to temporarily hold the operated toe straight during early recovery) can come loose or be accidentally removed or bumped, for example if you stub your toe during early recovery or catch the pins in your bedsheets. Contact your surgical team if a pin has loosened or has come out. Rotating of the pin while in the toe is common and does not present a risk to your surgical recovery.
Transfer Metatarsalgia (pain under the balls of the lesser toes)	Surgery may alter the biomechanics of your foot and result in a shift of load across the toes resulting in pain in other areas that are not used to taking the load. This usually settles with time. If it does not, we may recommend an insole.
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.
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 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. If you develop chest pain, shortness of breath, dizzy spells, and/or coughing up blood, please go to your local Accident and Emergency Department urgently.

Gangrene or Amputation of toe	Rarely, correction of a longstanding or severe deformity may impair the circulation to a toe so badly that the whole toe dies and has to be amputated.
Limitations in footwear	For example, inability to wear tighter or pointed fashion shoes.

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 again.

Assessment before surgery

Before your operation you will need to have a pre-op 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, 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:

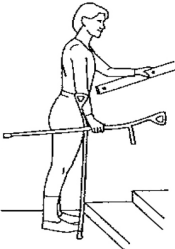

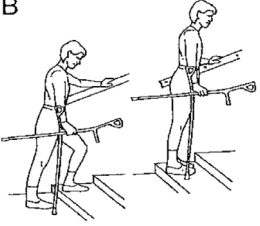
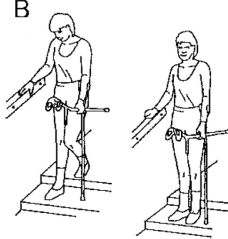
- when to stop eating and drinking in the hours before your operation
- whether and when you should stop taking your usual medications such as HRT, Warfarin, Clopidogrel or drugs for inflammatory arthritis before going into hospital,
- what to bring with you into hospital.

You will attend 'Foot School' where you will be seen by the Physiotherapy team who will fit you with your special post-operative 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.



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

➤ Walking up and down stairs

Walking up stairs		Walking down stairs	
<p>A</p> 	<ul style="list-style-type: none"> • Stand close to the stairs. • Hold onto the handrail with 1 hand and the crutch/crutches with the other hand. 	<p>A</p> 	<ul style="list-style-type: none"> • Stand close to the stairs. • Hold onto the handrail with 1 hand and the crutch/crutches with the other hand.
<p>B</p> 	<ul style="list-style-type: none"> • 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. 	<p>B</p> 	<ul style="list-style-type: none"> • 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, 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

Surgery usually takes about 15-30 minutes per toe. If you are having combined surgery for big toe and smaller toe corrections, it will take longer.

You will have this surgery under either a general or spinal anaesthetic, as well as a local anaesthetic in your foot, to help keep you comfortable when you wake up.

A tourniquet is placed around the calf or thigh of the operated leg and the leg is cleaned with antiseptic solution.

The aim of surgery is to relieve pressure by straightening the toe(s).

There are a number of different operations which can be used, depending on the shape of your toes and how stiff they are:

- Lengthening of tendons and releasing tight soft tissues causing the deformity
- Re-routing tendons which curl your toes to the top of the toe to help keep it straight
- Stiffening the toe at the deformed knuckle into a straight position permanently (fusion)
- Breaking the bone, shifting, and resetting the ball of the toe to relieve pressure (an “osteotomy”)
- Occasionally, an amputation of the lesser toe may be required

Any of these operations may also need to be held straight with a temporary metal pin inserted into the toe for up to 6 weeks. This pin sticks out at the tip of the toe and is later removed when healing is sufficient.

Sometimes, an internal screw may be needed to hold the cut bones. This is left inside permanently. As the screws are put within the bone, you will not be able to feel them under the skin. Stitches are used to close up your wounds. The foot is wrapped in sterile bandages.

After surgery

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

This procedure is 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.

Heel weight bearing shoes



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.

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 as you may be advised to postpone circulatory exercises if you have temporary pins or have had additional surgery, in which case continue to use high elevation. If you are not allowed to do circulatory exercises with the operated leg then do them 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. If temporary pin(s) has been put in the smaller toe(s), this will stay in for another 4 weeks (i.e. a total of 6 weeks).

If you have a pin you must keep this dry at all times. **Please be mindful of the protruding pin(s) so that you don't catch it in your clothes, bed sheets, or furniture.**

We will then review you again about 6 weeks after surgery. If we have used any temporary pins for smaller toe corrections, we will remove them in the outpatient clinic at this time without anaesthetic. You will begin to wean off wearing the special shoe and walk with full weight on the foot.

Getting back to normal

It usually takes about 12 weeks for the swelling to ease but it may take much longer. If your foot continues to swell you should elevate it when you can to try and control this.

When the swelling has reduced enough, you can wear enclosed, supportive shoes such as trainers.

Driving: You may usually start driving again when you can comfortably wear a normal shoe, control the clutch and brake and do an emergency stop. This is usually 6 to 12 weeks after surgery but please check with your 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.

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

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.

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