

Surgical Correction of Hallux Valgus (bunion deformity)

We expect you to make a rapid recovery after your operation and to experience no serious problems. However, it is important that you should know about minor problems, which are common after this operation, and also about more serious problems that can occasionally occur. The section **“What problems can occur after the operation?”** describes these, and we would particularly ask you to read this. The headings from this section will also be included in the consent form you will be asked to sign before your operation.

What is a hallux valgus correction surgery?

The aim of the surgery is to reduce pain and restore normal function by correcting the deformity. It is achieved by cutting the involved bones and shifting them into the correct position, together with rebalancing the soft tissues around the big toe joint.

What is a bunion?

A bunion is a bony lump on the inner side of the big toe, caused by sideways drifting and angulation of the big toe. It is caused by angulation of the bones in the foot. The deviation of the big toe in conjunction with a bunion is known medically as Hallux Valgus. The second toe can become so crowded that it crosses over the big toe. Hallux valgus may be painful due to pressure on the inner border of the big toe. Occasionally there may be an unpleasant numbness along the inner border of the big toe. This is due to pressure or irritation of a nerve that sits close to the bunion. Hallux valgus is a very common problem, mostly

occurring in females. It may worsen as we get older due to increasing deformity and pain.

Your doctor will make a diagnosis by listening to your symptoms, examining your foot and assessing a recent x-ray.

What causes hallux valgus deformity

There are several causes. Often there is a family history of bunions. It means that someone can be genetically coded to be prone to develop the deformity. Tight shoe wear can also be an important contributory factor that “helps” to develop the deformity. Other causes of hallux valgus include injury, arthritis and muscle imbalance.

Alternative treatments

Non-operation management of your bunion is based upon wider shoes, softer leather shoes, and sandals in summer, custom wider box shoes and silicon spacers between the first and second toes and anti-inflammatory medication. If you have a flat foot as well (a recognized association) a medial arch support may also help. These will not treat the underlying problem but may make your symptoms tolerable. There is no evidence that any of these treatments will correct or stop the deformity, but they can help with symptoms.

Some people worry that if things are left, and they get worse, nothing can be done. The answer is that an operation will be able to correct the deformity in the future – it is best to leave the bunion alone until it becomes a problem.

Surgical treatment

Surgical correction may become necessary if conservative management fails. The decision on operative treatment is made on the basis of the level of your pain and functional limitation caused by the bunion or second toe. Hallux valgus correction surgery is not performed for cosmetic reasons or if the bunion is pain free. The right time for surgery is when your symptoms are interfering with your every-day life, work and physical activities.

There are many different operations available to achieve correction of hallux valgus. The aim of any surgery is to reduce pain and restore normal function by correcting the deformity. For most deformities we use an operation known as a Scarf osteotomy. In cases of significant wear and tear in the big toe joint a corrective fusion can be performed instead, and the more severe deformities are treated by a more powerful corrective surgery called the Lapidus fusion. These procedures are discussed in separate information leaflets.

What does the Scarf osteotomy involve?

This technique involves a cut on the inner border of the foot and a shorter cut in between the big toe and the 2nd toe to release the tendons and ligaments tethering the big toe in its deviated position. Correction is achieved by cutting (osteotomy) the metatarsal bone and moving it to the correct position and holding the bones together with small screws. This allows the bone to heal together, like a fracture. At the same time the lump on the inner side of the toe is trimmed, and sometimes we need to make a cut in the toe bone (phalanx) to give extra correction – this is called an Akin osteotomy, and is held with a small staple. The screws and staples do not normally need to be removed.

What about the anaesthetic?

Hallux valgus correction is best performed under general anaesthetic. Your anaesthetist will also discuss with you a technique of regional anaesthesia (numbing a specific area) with local

anaesthetic which may reduce your pain levels and keep you comfortable for up to 24 hours after your operation. On occasions this block may not fully numb your foot but you will be sent home with appropriate medicines to keep you comfortable. It is helpful to begin your pain killer medication on the evening of your operation to start working while the regional block wears off.

Before the operation

You will be already advised about the time of the last meal and drink that you can have before your surgery by the preoperative assessment team. Please arrive with a clean foot and remove nail polish. On the day of surgery you will be seen on the ward by the operating surgeon who will discuss your surgery and sign the consent form with you. You will also be seen by the anaesthetist to discuss your anaesthetic. This is a good opportunity to discuss any concerns you may have with the anaesthetic such as nausea or vomiting. The foot and ankle specialist practitioner will discuss the important things to remember following your discharge after surgery. During your stay on the ward or Daycase Unit you will be assigned a nurse who will look after you until you are ready to leave. If at any stage of your visit you have any questions or concerns please feel free to ask any member of staff for help.

After the operation

When you wake up your foot should be largely free of pain, due to the use of local anaesthetic which numbs the foot. You will be given a course of pain killers and anti inflammatory tablets. Your foot will be in a bandage, it will be kept elevated, and you will be shown by a physiotherapist how to mobilise using the post-operative shoe, and crutches. You will eat and drink as soon as it is safe.

Discharge from hospital

Bunion correction is performed as a day-case procedure but sometimes an overnight stay may be necessary. On discharge it is important to keep the operated leg elevated as much as possible, preferably above hip height, to minimize swelling in the foot, to allow wounds to heal and to reduce pain. This is especially

important for the first 2 weeks after surgery. Rest is equally important for good recovery. Keep your ankles and legs moving to minimize the risk of blood clots to develop. You can stand and walk on your operated foot from day one, but your **POST-OPERATIVE SHOE MUST BE WORN AT ALL TIMES**. Frequent (max. hourly) but short (max. 10 minutes) walks are preferable. You are suggested to use your crutches for safety and stability. You will also be given pain killers to keep you comfortable while you recover. After your discharge you will be seen regularly in the foot clinic by a member of the team.

What can I do after my operation?

Below is a guide to the key steps and expectations following your operation. Items highlighted in **bold** are essential to ensure you achieve a good recovery during your patient journey. These notes are intended as a guide and some of the details may vary according to your individual surgery or because of special instructions from your surgeon.

Hospital stay	0 or 1 night
Shoe wear	
<ul style="list-style-type: none"> ■ Surgical shoe 6 weeks ■ Wide shoe/ open sandal 7-12 weeks ■ High heels after 3 months 	
Weight bearing	full weight bearing in protective (surgical) shoe
Crutches	1-2 weeks
Activity level	
<ul style="list-style-type: none"> ■ Rest and elevation 2 weeks ■ Walking, standing 3-6 weeks ■ Working, every-day activities after 6 weeks ■ Recreation, sport after 3 months 	
Review in clinic	
<ul style="list-style-type: none"> ■ Suture removal 2 weeks 	

<ul style="list-style-type: none"> ■ X-ray 6 weeks ■ Discharge 6 weeks 	
Bandage on foot	
<ul style="list-style-type: none"> ■ Bulky bandage 2 weeks ■ Big toe splint 3-6 weeks 	
Shower/ wash foot	after 2 weeks
Time off work	
<ul style="list-style-type: none"> ■ Seated 4-6 weeks ■ Standing 6-8 weeks 	
Driving	6-8 weeks
Exercises (these are shown below)	
<ul style="list-style-type: none"> ■ Move ankle 2 weeks ■ Move and massage big toe 2-6 weeks ■ Regular big toe exercises after 6 weeks 	

Range of movement exercises

These exercises are designed to help minimize the stiffness in your big toe joint before you return to normal footwear. They need to be performed regularly **in a seated position without putting pressure or force on the forefoot**. People are able to do these movements to different levels. Please do not be put off if you are only able to move your toe a little. Over time the movement will improve. Only move your toe to where you feel the joint stretch. If you feel pain at any time you may have pushed the toe too far. If, at any time, you feel these exercises are causing lasting discomfort, take a break.

The first exercises to perform are to get some small movement back in the metatarsal-phalangeal joint (MTPJ). With one hand stabilize the your foot at the metatarsal, and with the other gently hold the big toe and move the toe back and forth as shown in pictures A and B. These will be performed from weeks 2 to 6 of your post-operative recovery.

Once you have had your post-operative x-rays that show you are recovering well you may progress to the next stage in mobilization. Sit in a comfortable position with your foot resting on the floor. In position (C) pull your big toe up toward you. Try to hold the stretch for 10 – 20 seconds. Relax your

toe into the resting position. Then pull your toe to the ground in position (D), hold the stretch then relax back into resting position. Finally raise your foot into a half tip-toe position using the ground to hold the toe still and use the foot to bend the joint in position (E). Do not put force through the forefoot in this exercise.

Where patients have had lesser toe correction these exercises will be difficult to accomplish. It is equally important to keep these toes in a corrected position. Position (F) is the best exercise to perform to move the big toe and protect the lesser toe corrections. Sit with your leg crossed into "figure-four" position. Using your finger, pull the toe into a stretched position and hold. Relax then push the toe in the other direction.

Position (A)



Position (B)



Position (C)



Position (D)



Position (E)



Position (F)



What problems can occur after the operation?

Bleeding

It is normal for the wound to ooze within the first two days. Elevation reduces the risk of bleeding. If the bleeding comes through the dressing please contact the foot and ankle team for advice and/or dressing review. Relevant important telephone numbers can be found at the end of this leaflet.

Nerve injury

Small nerves in the operated area can be bruised, either directly injured by the surgery, or engaged in the scar. Resulting numbness or strange sensations may resolve with time or become permanent.

Wound problems

Delayed wound healing

Sometimes the wounds can be slower to heal and this does not usually cause a problem but needs to be closely observed for any infection occurring. It is more likely to happen in smokers.

Infection

Infection can be the biggest risk with this type of surgery. The risk of this occurring is approximately 1%. If it does happen you may be treated with special wound dressings and if needed, antibiotics.

Scarring

You will have a scar on your foot. This may be red, firm to touch, rubbery and may be tender for 6 – 8 weeks. We will advise you to massage the area when it has healed.

Swelling

Swelling always occurs after surgery. It is well controlled with elevation. The initial swelling will reduce over 6-8 weeks, but can remain for up to 6 months, and it can take up to a year for the foot to completely return to normal.

Stiffness

The big toe joint is almost always more stiff following the surgery, initially caused by swelling and then by scar tissue. Regular exercises will help to regain movements.

Recurrent deformity or overcorrection

Occasionally (5%) the bunion can recur. It is more likely to happen if the deformity is severe, or in patients who have lax ligaments. Sensible shoe wear with wide toe box helps to prevent this. Usually there is no need for further surgery as most of these feet remain non-symptomatic.

Overcorrection is very rare but may require further surgery.

Fracture of the operated bone

Very rarely the operated bone can fracture at the time of surgery or later as a stress fracture. It is more likely to happen in patients with weak osteoporotic bones, or if someone is not wearing the postoperative shoe as instructed. It usually heals with no further complications and without the need for further surgery, but will delay the full recovery.

Delayed union and non union

This means that the bones that are fixed together at the time of the surgery would take more time to join together or they would not heal together at all. The risk is approximately 5 % and further surgery may be needed. It is more likely to happen in smokers.

Deep Vein Thrombosis (DVT)

This is a clot in the deep veins of the leg, and the risk of this occurring following foot surgery is low. If you are at particular risk then special precautions will be taken to reduce the risk. Keeping your foot elevated, moving your legs and feet as soon as you can after the operation and walking about early will minimize the risk. It is sensible to avoid long flights and travelling in the first 4-6 weeks following surgery.

Pulmonary embolism (PE)

This is a clot in the blood vessels of your lungs, but the risk of this occurring after foot surgery is very low. If you are at particular risk then special precautions will be taken to reduce the risk.

Complex Regional Pain Syndrome (CRPS)

This condition can develop after surgery, and the exact reason is unknown. In mild forms the swelling on the foot, the sensitivity of the skin and discolouration is more than that is normally expected after surgery. More severe forms develop very rarely, but can cause significant pain and stiffness. Regular desensitizing massage of the area, pain killers and occasionally other prescription medication will help to resolve the

symptoms completely in time. However, the recovery time after surgery is usually delayed.

The risks of a general anaesthetic

General anaesthetics have some risks, which may be increased if you have chronic medical conditions, but in general they are as follows:

- **Common temporary side effects** (risk of 1 in 10 to 1 in 100) include bruising or pain in the area of injections, blurred vision and sickness, these can usually be treated and pass off quickly.
- **Infrequent complications** (risk of 1 in 100 to 1 in 10,000) include temporary breathing difficulties, muscle pains, headaches, damage to teeth, lip or tongue, sore throat and temporary problems with speaking.
- **Extremely rare and serious complications** (risk of less than 1 in 10,000). These include severe allergic reactions and death, brain damage, kidney and liver failure, lung damage, permanent nerve or blood vessel damage, eye injury, and damage to the voice box. These are very rare and may depend on whether you have other serious medical conditions.

What should you do if you develop problems?

If you have any problems following your operation please contact the surgical care practitioner on the number below. In the event of absence there is always a member of the foot and ankle team who can help you. Useful telephone numbers are given later in this booklet.

Who should you contact in an emergency?

Useful telephone numbers

- Surgical Care Practitioner to Foot and Ankle Team.

01392 403580/403598/403507

(Monday – Friday, 0900 – 1630hrs)

If you experience any problems with your mobility or foot exercises please contact:

- Aftercare Physiotherapy.

01392 403509

(Answerphone. Monday – Friday 0830 – 1600hrs)

If you experience any problems with your plaster or lightweight cast please contact:

- Fracture Clinic – Plaster Room.

01392 402269

For any **emergency out of hours** please contact your local GP or the emergency department (24HR)

- **01392 402309**

The Trust cannot accept any responsibility for the accuracy of the information given if the leaflet is not used by RD&E staff undertaking procedures at the RD&E hospitals.

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