

Big toe joint fusion surgery

Information for patients

What are the benefits of big toe joint fusion surgery?

The potential benefits from surgery are:

- A reduction in pain
- The bulkiness of the joint is removed therefore footwear is more comfortable.

An improvement in these factors may also have a positive impact on your mobility and function.

What are the risks?

There are no guarantees regarding surgery. The majority of patients are satisfied with the outcome of surgery- the success rate of 1st MTP (first metatarsophalangeal or big toe) joint surgery is about 80%. However not all patients are satisfied with the outcome and a small number of patients are worse off (e.g. pain, stiff joint, negative impact on activities). There are specific **risks** with this type of operation and the outcomes are not always as expected. These **risks** have been detailed within this document and it is important that you read over these carefully before requesting an operation.

There is a lengthy **recovery** following this type of surgery. It will be at least 3 months before you return to usual activities. You will need to wear a special shoe for six weeks, you will be off work for six weeks and you will be unable to drive for at least six weeks. Feedback from patients tells us it can be as much as one year after surgery before things settle down fully.

Lastly, it is important for you to know that big toe joint fusion surgery may impact on some of your activities. Footwear limitations will continue despite surgery and you will not be able to wear high heels after surgery.

Are there alternatives to the surgery?

If you decide not to have an operation, you can manage your symptoms by altering your activity levels, using painkillers and changing footwear. Shoes with a firm sole are best and a rigid in-shoe foot support can also help. You should **avoid high heels and shoes with a narrow toe.**

Can I do nothing?

In general, this is not a life or limb threatening condition and surgery is **not** essential. Doing **nothing** is an option. Surgery can be done at anytime and we can continue to monitor your symptoms.

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1. Introduction

As a patient you have the right to make choices about your own health and care. This booklet provides information on what to expect when you have big toe joint fusion surgery. The information will help you to decide whether the planned treatment is the best option for you at this time. You will get the best outcomes by taking an active role in your care, by talking with your healthcare team and planning ahead. Every individual is unique and this booklet provides general information. It is a guide so that you can have an informed discussion with your surgical team. You, your family and friends should read this booklet carefully before surgery and refer to it during your healing process. You should consider the options available to you, including non-surgical management. Ask your surgical team to explain anything you do not understand. This will help if you are feeling a little worried.

What is arthritis of the big toe joint?

The medical name for arthritis in the big toe is **hallux rigidus**. It is caused by loss of the cartilage (the material that allows the two bones in the joint to move smoothly) this is known as **arthritis**. Arthritis causes the bones to rub together and causes inflammation and pain. When arthritis affects the big toe, the joint can become painful, stiff and bulky. Pain is usually worse with activity, such as walking, but it can also be painful at rest. Sometimes a bump forms on the top of the joint. If the bump is large, it can rub on footwear and the skin can become reddened, inflamed and swollen (see photograph below). With arthritis of the big toe, the toe usually remains straight (unlike a “bunion” where the toe is at an angle).

Photograph of arthritis in the big toe with a large bump on top



2. Non-surgical treatments

You can manage your symptoms by altering activity levels, using painkillers and changing footwear to extra width or special footwear possibly with a cushion-pad or in-shoe foot support. A robust shoe with a firm sole generally helps with big toe joint pain whereas a flimsy heel will make your pain worse. **Avoid high heels and shoes with a narrow toe.**

Painkillers: such as paracetamol or a non-steroidal anti-inflammatory drug, such as ibuprofen (if suitable). These drugs can be bought in the chemist or the supermarket.

Pads: You can try self-care treatments for symptomatic relief, such as bunion pads (available over-the-counter at the pharmacy) to stop footwear rubbing. Insoles and toe spacers can also help, although they will not straighten out your toe or take away the bump.

Podiatry: A podiatrist can help with your symptoms and issue pads/insoles/orthoses which can improve foot posture and pain in the joint. You can self refer to a NHS podiatrist or seek care privately.

Gout

Sometimes pain and swelling in the big toe joint is caused by gout. Gout is a reaction to crystals forming in the joint. Gout is treated with medication (Allopurinol and anti-inflammatory drugs), not an operation. A blood test can help with the diagnosis of gout.

3. Surgical treatment

Big toe joint fusion surgery is one of the most commonly performed foot and ankle procedures. It may help relieve pain and improve the alignment of the toe in most people; however, there is no guarantee that the foot will be perfectly straight or pain-free after surgery. Overall, about 80% (8 out of 10) patients will have a good outcome from big toe joint fusion surgery.

Indications for surgery

Surgery may be needed if the above measures have been tried and failed. The decision to go ahead with surgery is usually made based on the following symptoms:

- Pain is considerable
- There is significant disruption to your lifestyle or activities
- The bump is painful and worsening

Referral for big toe joint fusion surgery is needed only for pain and is **not** performed for cosmetic purposes. Pain, discomfort and failure of conservative measures to relieve symptoms and meet lifestyle needs should be the major considerations for surgical correction.

- You should be aware that recovery from big toe joint fusion surgery can be lengthy and there are no guarantees regarding the outcome
- Surgery is not carried out for cosmetic reasons and surgery is not carried out “prophylactically” (preventative surgery – to avoid problems that are not yet present)

The options for surgery

There are three main surgical options:

- A. Joint fusion (the joint is made solid)
- B. Cheilectomy (the joint is “cleaned up” and bone is trimmed from the joint)
- C. Implants (metal or plastic implants are used to keep the bones separated).

A. Big toe joint fusion surgery (or arthrodesis)

Joint fusion is the **preferred** surgical treatment for more severe cases of arthritis of the big toe. The bones in your big toe are stuck together to create one bone. The toe will be less painful but stiff and it will limit your choice of heel height. Your big toe will be “set” in one position (although the joint in the middle of the toe can still bend and so the toe is not completely “rigid”). You can still walk comfortably with the big toe stiffened. It may impact on some of your activities, such as running. Recovery takes about 6-8 weeks

B. Trimming/shaving of the joint (Cheilectomy)

A “lesser” operation to fusion of the joint is trimming of the joint edges- this is called a **cheilectomy**. A cheilectomy may be possible with mild to moderate arthritis but is not suitable for severe arthritis. The extra bone (osteophytes) that forms around the joint is removed. This may help the joint move better and possibly with less pain. It also helps with the bump that rubs on your shoe. However it does not remove the underlying arthritis and you may continue to have problems with pain and stiffness in the joint. You may therefore eventually require further surgery (likely to be fusion of the joint). There may be no benefit at all from the cheilectomy operation or the benefit may be short lived (months or years) or it could wear off after a longer period of time. The recovery from surgery is quicker than joint fusion and typically you will require about 3-4 weeks to recover.

C. Implants

Implants are aimed at improving pain whilst preserving the joint and movement in the toe. Outcomes tend to be less reliable than the above procedures.

4. Aims of big toe joint fusion surgery

- To reduce pain and deformity
- To remove bumps that form around the joint
- Make footwear more comfortable
- To improve the function of your foot
- To improve your general mobility.

We will not offer surgery to improve the appearance of your foot.

The recovery period for surgery to the big toe can be long and frustrating. However, if you feel your toe is problematic enough and significantly affecting your activities of daily living, surgery may be an option for you.

5. On the day of your operation

The operation is done on a **day case basis** where you come in to hospital and go home on the same day. The operation is usually performed under a **general anaesthetic** so you are asleep for the operation. You will receive more details about your anaesthetic in an information booklet "*You and your anaesthetic*" when you attend the preoperative assessment clinic. You can find more information about having an anaesthetic at <https://rcoa.ac.uk/patientinfo>. You will be given a local anaesthetic (an "ankle block") at the time of your operation so that your foot will be numb and pain free when you wake up after your operation.

The operation takes about one hour, although you will be in the **Day Surgery Unit** for most of the day (you may want to bring a book or magazine to read – please do not bring any valuables with you).

About your operation

A cut is made on the top of the joint. The operation involves removing the extra bone that has formed around the joint. The remaining cartilage from the worn joint is removed from both sides of the joint. The two bone surfaces are then brought together, the toe is placed in the correct alignment and "fixed" with some metalwork: screws or a plate or staples (see photograph on page 5).

The skin layers are stitched together with stitches that dissolve (clear stitches). Sometimes the knot is tied on the **outside of the skin**. This can be **trimmed flush with the skin** by the nurse at your first review appointment at about 10 days after your operation. There is no need for the stitch material to be removed completely. Occasionally, you may need non-dissolvable stitches that need to be removed after 10 days (blue or black stitches).

Before and after surgery (X-rays showing metal staples in place)



6. Recovery after surgery – the postoperative period

Recovery from surgery can be lengthy and it may be as much as a year before your post-operation symptoms have settled down completely. Pain and swelling is to be expected for many weeks and months after your operation.

During your recovery period, you will need to limit your normal daily, family, work and driving commitments. You will be able to look after yourself (for example: going to the toilet and simple cooking). In agreeing to progress with surgery, you are expected to comply with post-operation instructions. Please follow the advice below for several weeks after your surgery:

- No household chores (cleaning, standing to cook, ironing etc)
- No shopping
- No dog walking
- No looking after young children or elderly relatives
- No driving (until 6-8 weeks after surgery)
- You should take time off work for at least six weeks even if you have a sitting job as you must be able to raise your foot. You should also consider how you will travel to work and whether you will be standing or walking at work. If possible work shorter or fewer days or arrange to work from home.

You must have a competent adult at home for the first night after your surgery in case you experience any difficulties during the first night. If this is not the case you will need to stay in the hospital overnight. Your foot will be bandaged. You must use the special shoe and the crutches- these will be given to you by the hospital. At home, it is important to raise your foot when sitting and rest over the first few weeks to help the swelling and the pain to settle. You must keep your bandage dry. The bandage should not be changed until your first clinic appointment, about two weeks after your operation. You will be given instructions on the day of your operation in case you have problems.

If needed, you will be given a sick note for your employer.

You will be provided with some pain killers to take home (you will be given more information about **post-operative instructions** on the day of your operation).

7. Post-operative care

First 2-4 days

This is the worst time for pain but you will be given painkillers to help. You must rest completely for 2-4 days.

You will be able to stand and take weight carefully (using crutches) after the operation, but you must rest with your feet up (above hip level) as much as possible. You will be able weight bear in the special shoe (see below) but you should restrict your walking to going to the bathroom. A physiotherapist will show you how to use your crutches. You can move about a little more after 3 days.

4 – 14 days after surgery

After about 4 days, your pain should start to improve. You may start to do a little more within your pain limits. Pain means you are doing too much.

The dressing must be kept dry. **LimbO** water proof protectors are useful and are obtainable online at limboproducts.co.uk or by telephone on: 01243 573 417. These are not supplied by us so you will have purchase one yourself, but they will allow you to shower after your operation. The cost is about £10 plus postage.

At two weeks after surgery

You will need to arrange an appointment with your practice nurse after about 10 days to check on the progress of your recovery. The bandage will be removed, the wound will be cleaned and any sutures removed (if applicable). A light dressing will be applied to cover your wound. You should no longer need a bandage at this stage. You can now get your foot wet, providing your wound has healed satisfactorily. You should no longer need to use the crutches but you will need to continue to wear the special shoe for a further **4 weeks**. You can gradually increase your level of activity gently. You will still need to rest between your activities.

Between 2-6 weeks after surgery

- The wound should be healing
- Your foot will still be quite swollen, especially at the end of the day and this is quite normal at this stage
- Your foot will still be quite painful, particularly around the joint and movement will be uncomfortable. Again this is quite normal
- Some redness is to be expected at this stage. Sometimes the colouration comes and goes (for example, it may appear more red after a shower)
- You will require a review appointment at 6 weeks (at the Royal Infirmary of Edinburgh). An x-ray will be taken
- You can stop wearing your special shoe at six weeks after the surgery
- **Work** - You may return to work **after** 6 weeks but may need longer if you have an active job. For certain jobs, this could be an unrealistic expectation
- **Driving** – allow six weeks before returning to driving. You must check with your insurance company before driving again
- **Sports** - Whilst normal activity will be resumed, sport should be avoided until 12 weeks after surgery.

Please note

When you attend for your 6 week review appointment following your surgery:

- You will still have pain in the joint
- You will still have some swelling in your foot
- You will still have some redness
- You will still be putting your weight onto the outside of your foot

These features are all entirely normal at this stage and are to be expected.

Between 6-12 weeks after surgery

Your foot should continue to improve and begin to feel normal again. There will be less swelling. You may return to driving if you can perform an emergency stop. You must check with your insurance company before driving again. Sport can be considered after 3 months depending on your recovery.

Six to twelve months after surgery

The swelling should now be slight and you should be getting the full benefit of surgery. If you are still having pain at this stage it may be that there is a delay in the bone uniting (non-union) or it may be that the metalwork is causing some symptoms.

Twelve months after surgery

It can take as long as twelve months for post-operative pain, swelling and stiffness to settle completely. The foot has stopped improving, healing is complete.

Please note: if a complication arises, such as infection, your recovery may be delayed.

It is expected that, in consenting to proceed with this operation, you agree to comply with the above post-operative instructions.

It is important to be aware that it can take **many months** for you to recover fully from your operation. Post-operative pain and swelling can persist for 6 months or longer after surgery. This may have no adverse consequences for day-to-day activities, but can affect your ability to wear tight shoes, **heels** or fashionable women's shoes.

If you have any concerns following your operation and you would like to speak to a member of our team please contact **0131 536 3720** during business hours. In an emergency contact your GP, NHS 24 or attend your nearest Accident and Emergency.

Example of special shoe to be worn for six weeks after surgery



8. Risks of big toe joint fusion surgery

Complications happen with any operation and big toe joint fusion surgery is no exception.

Complications after 1st MTP (big toe) joint fusion surgery may include non-union of bone, infection, transfer pain (pain under the ball of the foot), damage to the nerves, and continued long-term pain.

The following list of risks is intended to give you as much information as possible. This will help you to make an informed decision as to whether you wish to go ahead with surgery or not. Please take a few minutes to read over the following list of potential complications. You may also find it helpful to discuss these with friends and family. If there are any items that you are not clear about, or that you don't understand, please discuss these with staff when you attend for your **Preoperative Assessment Clinic**.

Some risks are more likely to occur than others. We have tried to give you an indication as to the likelihood of each complication listed, namely: those that are likely to happen, those that happen from time to time, happen only very occasionally and those that are unlikely and very unlikely to happen. The risk of complications following your surgery is increased with pre-existing medical conditions such as: diabetes, peripheral vascular disease, if you are immunocompromised, if you take immune-suppression medication (e.g. steroids or rheumatoid medication) and if you are a smoker.

Likely to happen

Post-operative pain, swelling, bleeding and bruising

These are to be expected. Pain is at its worst over the first 24-48 hours. We will give you painkillers to help with your pain but you must rest and keep your leg elevated and do minimal walking, especially for the first few days. Bleeding can happen, usually in the first day or two and bruising is common. We will give you more information about these aspects on the day of your surgery.

Post-operative pain and swelling can persist for some months after your operation. It may be as much as one year, or more, before you fully recover from your operation.

Joint stiffness

Your joint will be stiff after your operation. This should not impact on your day-to-day activities but may affect more strenuous activity such as running. Having a stiff joint can negatively impact on your ability to perform yoga and pilates that focus on joint mobility. It will affect your ability to wear fashionable women's shoes, especially heels. **You will not be able to wear a high heel.** A modest heel may be possible.

Can happen from time to time

Non-union of bones (about 10% risk)

This is one of the main risks with this operation. Non-union of bone is when the bones do not heal together after surgery. The risk of this happening is about 10%. If the bones do not heal together, you are likely to be left with some movement in the joint and therefore pain. However, non-union does not always result in continued pain. Sometimes a second operation has to be carried out to try to get the bones to unite. Some patients are more at risk of this than others. People with osteoporosis and people who smoke are more at risk.

Numbness

Sometimes the nerves to your toe become damaged during the operation. This may leave you with some numbness in your toe which should eventually recover. However nerves repair very slowly and it may take some time for the sensation to return to normal. If the nerves fail to recover fully, you may be left with some permanent numbness in your toe. Infrequently, the skin or scar may become hypersensitive and tender.

Infection

Infection is a risk with any surgical procedure and this does happen from time to time with big toe surgery. The risk of wound infection is about 5-10%. However, although the risk may be relatively low, when it does occur infection can be extremely serious and the risk of infection should not be taken lightly.

If your wound becomes infected we may prescribe you antibiotics but unfortunately, from time to time, infection can be more invasive and, on occasions, it spreads to the deeper tissues and even bones or joints (osteomyelitis / septic arthritis). This is much more difficult to treat and may require “stronger” antibiotics for a longer period and sometimes a stay in hospital is required, often for **intravenous antibiotics** (where the antibiotics are given through a thin plastic tube which is injected into your vein).

Potentially, deep or spreading infection can be **limb or even life threatening** and further surgery may be essential on a **non-elective** basis and this might involve the removal of the infected bone or tissue, which may have long term consequences.

Residual pain

It is possible that you may continue to be troubled with pain in your joint despite the operation. Occasionally, patients may have increased pain following their operation.

Bad alignment of the toe

Unfortunately, despite our best efforts, your toe may be set in a bad position, such as your toe sitting elevated in relation to the other toes or your toe pointing in or pointing out.

Happens only very occasionally

Transfer metatarsalgia (pain in ball of foot)

Fusion of your big toe joint may upset the balance of pressure in the front of your foot. This may lead to overloading on the ball of your foot, which may be painful and may also lead to thickening of the skin (corns/callous). You may have a greater tendency to walk on the outside of your foot which may cause pressure pain or hard skin.

Altered gait

Change of how you walk (your gait pattern) can cause pain in other joints and sometimes cause muscular pain.

Prominent metalwork

Occasionally the metal work we use to fix your bones becomes prominent and uncomfortable in your shoes. Metalwork may have to be removed. This would require a further, small operation.

Need for further surgery

Sometimes further surgery is needed- for example: removal of prominent metalwork or if your bones fail to join up after surgery (non-union of bone). In such instances, a repeat operation may be needed. The affects of deep infection may also need another operation.

Tender (hypersensitive) scar

Scars can become tender or hypersensitive. If this happens, hopefully it is only temporary and will eventually improve with time. Usually, simple measures can help improve this (see instructions on page 16 regarding massaging the scar). Only very rarely does this become a lasting problem.

Hypertrophic scarring or keloid scarring

Very occasionally, the scar tissue produced is excessive. This may lead to a reddened and unsightly scar but is not likely to give you any pain. Some people are more likely to develop this problem than others.

Fracture

You need to protect your foot with the special trauma sandal (or forefoot off loading) shoe supplied to you. You will need to wear this at all times when weight bearing for at least six weeks.

Complex regional pain syndrome

Complex regional pain syndrome (CRPS) is caused by damage to, or malfunction of, the nerves, usually after an injury or surgery. CRPS is characterised by prolonged or excessive pain and mild or dramatic changes in skin colour, temperature, and/or swelling in the affected area. Most cases are mild and individuals recover gradually with time.

Unlikely to happen

Avascular necrosis

Avascular necrosis is the bone dying and crumbling after injury to the blood supply. We rarely see this happen but it is a theoretical risk.

Deep Vein Thrombosis (DVT)/Pulmonary Embolism (PE)

A deep vein thrombosis is a blood clot in your leg. If this happens it can be very serious and can be life threatening if the clot moves to your lungs (**pulmonary embolism**). However, it is very unlikely to occur with this procedure and measures will be taken to guard against this happening. If you are at higher risk from DVT, additional measures such as blood thinning medication will be given to you after your operation.

(A further Patient Information Leaflet is available which explains DVTs in more detail).

Very unlikely to happen (1 in 10 000)

Amputation

Severe infection or other complications of surgery may lead to loss of toe(s) or foot or leg. The risk of amputation as a result of your operation is increased with pre-existing medical conditions such as: diabetes, peripheral vascular disease, if you are immuno-compromised, if you take immune-suppression medication (e.g. steroids or rheumatoid medication) and if you are a smoker.

Death

Death may arise as a result of complications of your operation or anaesthetic (such as: blood clots or severe infection). The risk of death as a result of your operation is increased with pre-existing medical conditions such as: heart disease, lung disease and kidney disease.

Elective surgery in the context of COVID 19 pandemic

A recent study in *The Lancet* published on 29th May 2020 concluded:

“Postoperative pulmonary complications occur in half of patients with perioperative SARS-CoV-2 infection and are associated with high mortality. Thresholds for surgery during the COVID-19 pandemic should be higher than during normal practice, particularly in men aged 70 years and older. Consideration should be given for postponing non-urgent procedures and promoting non-operative treatment to delay or avoid the need for surgery.”

Patient dissatisfaction

Lastly, there are no guarantees regarding the outcome of this type of surgery. We will do our best to improve your situation, but you should be aware that there is a risk that you may not be satisfied with the outcome of your surgery. **Not everyone is satisfied with the outcome of big toe joint fusion surgery.**

The above list has tried to include most complications that potentially may arise as a result of joint fusion surgery- however, it is impossible for us to cover all eventualities.

Some of the above complications may need further surgery.

Additional operations which may be carried out at the same time

Toe straightening operation- proximal interphalangeal (PIP) joint fusion

Very commonly, arthritic big toes/ bunions cause problems with the other toes and lead to deformity (hammer toes). This usually affects the second toe (toe next to big toe) but can also affect the middle toe and even the fourth. Sometimes it is necessary to straighten these deformed toes at the same time as your joint fusion operation. This involves removing the small joint in your toe (**PIP joint fusion**) and a temporary metal wire is then inserted down your toe. The wire will protrude from the tip of your toe by about 1cm. The wire will be removed at your outpatient clinic appointment after about six weeks. This is not painful to do and does not require an anaesthetic.

The risks of this operation are covered in the risks detailed above in section 8 (Risks of surgery). The metal wires can sometimes become infected and the wire has to be removed sooner than planned. Very occasionally the wire can break leaving a fragment remaining in the toe. These fragments of wire rarely give problems. Sometimes the wires move and protrude more from the end of the toe. If this happens we may remove the wire. Lastly, a very unlikely risk is damage to the blood vessels that could cause loss of the toe.

Morton's neuroma surgery

Sometimes big toe arthritis can cause irritation to the nerves in the foot and this can give rise to a swelling on the nerve called a **neuroma**. Surgery to remove the neuroma is done at the same time as your joint fusion operation. This will involve another cut on the top of your foot. The risks of this operation are covered above in section 8 (risks of surgery), but you should also expect to have permanent numbness in your toes. Surgery to remove a neuroma is not always successful and your pain may not be better afterwards (38% risk), you may have worse foot pain (8% risk) and neuromas may grow back (20-25% risk).

Weil's osteotomy

Pain, hard skin or corns commonly occur under the knuckle joints in the ball of your foot. This is because the stiffness in your big toe causes pressure under the knuckle. It is often necessary to tackle this with a **Weil's osteotomy**. A Weil's osteotomy involves a cut in the long bones in the front part of your foot (metatarsal) and the bone is realigned (shortened and lifted up) to reduce the pressure. The divided bone is then fixed with a small screw that will remain in your foot afterwards. This may be necessary on one or more of the metatarsal bones. The risks of this operation are covered above in section 8 (Risks of surgery). One common risk of this operation is stiffness in the knuckle joint. Sometimes if only one metatarsal is shortened it may lead to pressure on the other metatarsal bones and, in turn, these may require similar operations.

Your big toe fusion operation may be accompanied with one or more of the above operations, or another operation, which will be discussed with you before your surgery. Multiple operations may lead to a longer recovery time than detailed above.

Consent - asking for your consent

We want to involve you in decisions about your care and treatment. If you decide to go ahead with the operation, you will be asked to sign a consent form. This states that you agree to have the treatment and you understand what it involves. If you would like more information about our consent process, please ask for the "*Giving consent information booklet*".

Operating podiatrist/trainees

Your operation may be carried out by a **Podiatrist**. Podiatrists are **not** registered medical practitioners (medical doctors). The podiatrist is fully capable of performing this procedure to the highest standards and you will receive the same care as provided by a surgeon.

Surgeons/Podiatrists/Trainees

Another surgeon other than the surgeon taking consent may perform the operation. This may be an orthopaedic surgeon or a consultant podiatrist.

Part or all of your operation may be performed by a trainee under supervision. The trainee may be an orthopaedic trainee or a podiatrist trainee. They will have adequate training and supervision.

9. Frequently Asked Questions

When will my operation take place?

Unfortunately because of the current coronavirus COVID 19 pandemic, it is very difficult to say with any certainty when your operation will take place. It may be as much as six months- however it may be longer if further restrictions are required. We will endeavour to do your operation as soon as possible.

Where will my operation take place?

Your operation will take place in the Day Surgery Unit (DSU) at St John's Hospital in Livingston.

What is the recovery time?

Recovery following big toe joint fusion surgery can be lengthy and you need to be prepared for this. You must wear a special shoe for six weeks following your operation. You will then spend the next **six weeks** getting back to your usual activities. So you will need at least **12 weeks** to recover. However pain, swelling and reduced function are to be expected for many weeks and months after your operation. It can take up to one year or more before your post-operative symptoms have settled completely.

Will I have a general anaesthetic or a local anaesthetic?

Your operation will be done under a general anaesthetic, which means you are asleep for your operation. You will be required to fast for six hours before your operation.

How long will my operation take?

Typically your operation will take about 45-60 minutes. It will take longer if combined with other operations.

Will I be given a plaster cast or special shoe to walk in?

You will be given a special shoe (flat trauma sandal or forefoot offloading shoe) immediately following your operation and you must wear this at all times while you are weight bearing for the next six weeks. You can take it off in bed and to shower. There is no need for a plaster cast.

Will I need crutches?

Yes, you will need crutches. On the day of your operation, you will see the physiotherapist who will teach you how to walk in the special shoe with the crutches. This will involve walking up and down stairs with the crutches.

How long will I be off work?

You will need to be off work for about six weeks depending on the type of work you do. You will be off for longer if you do a manual job or spend a lot of time on your feet at work, and you will be off for less for more sedentary work or if you are able to work from home. Depending on circumstances, your employer may **not** allow you to return to work wearing the special shoe for Health and Safety reasons.

Will I receive a "sick note"?

If required, a "sick note" (or "fit note") will be issued on the day of your operation.

When can I drive?

You cannot drive for at least six weeks and you cannot drive with the special shoe on. You have to be safe to drive and you have to take responsibility for this. You have to be able to do an **emergency stop**. You should contact your motor insurance company to inform them you have had an operation before you start driving again.

If your **left** foot is being operated on and you have an automatic car, you should be able to drive quite soon after your operation but you should check this with your insurance company.

When can I fly after my operation?

There is a slightly increased risk of blood clots when flying soon after your operation. It is sensible to allow about six weeks before flying. However, if your flight is short (an hour or two), it should be safe to fly. Try to keep mobile during your flight, wear TED (Thrombo-Embolus Deterrent) stockings and be wary of pain and swelling in your calves. Seek medical attention if you are concerned. If you are going abroad, bear in mind that you may require medical attention as a result of your operation and this may be more difficult to access in a foreign country. You should inform your travel insurer that you have had an operation before travelling abroad.

Does smoking affect my surgery?

If you smoke, you should stop as soon as possible but at least two weeks before surgery and at least until your bone heals. Nicotine and other chemicals in cigarettes, e-cigarettes, chewing tobacco and marijuana narrow blood vessels in the foot and increase the risks of surgery- particularly the risk of **wound problems** and it has an impact on bone healing which is relevant to your operation. The risk of **blood clots** (DVT and pulmonary embolism) is also increased. We can help direct you to the *smoking cessation service* if you would like some help.

Will metal be used in the operation?

The bone will be fixed with screws, a plate but most often staples are used to fix the bones. These will stay in place. The plan is not to remove the metalwork but, very occasionally, they become troublesome (loose, prominent or infected) and have to be removed with a further operation.

Will the metalwork be detected on airport security?

This metalwork is very small and well embedded in bone. It is very unlikely that it will be detected by airport security scanners.

Will I have a scar?

The scar will be on the top of your foot. Eventually this will fade and will not be very noticeable. Very occasionally, some people produce excessive scar tissue (hypertrophic scarring or keloid scars) and this may give problems.

Where will my dressings be done?

Dressings will either be changed at the Royal Infirmary (**Lauriston Building**) or, more likely for this operation, your GP Practice Nurse clinic after about 10-12 days. If you are having your dressings changed at your GP practice, you will need to arrange this.

Can I shower after my operation?

The dressing must be kept dry. **LimbO** water proof protectors are useful and are obtainable online at limboproducts.co.uk or by telephone on: 01243 573 417. These are not supplied by us, you have to obtain them yourself, but they will allow you to shower after your operation. The cost is about £10 plus postage.

When can I go out after my operation?

We advise that you remain at home for the first week or so after your operation. You should do minimal walking for the first two or three days and limit your walking to trips to the bathroom only.

Why do I have to keep my leg elevated after surgery?

Keeping your leg elevated reduces swelling, pain and risk of infection. It also reduces the risk of bleeding immediately after your surgery. Keep your foot on a small stool with your foot above your knee and your knee above your hip.

Will my operation be carried out by an orthopaedic surgeon or a podiatrist?

Your operation may be carried out by either an **orthopaedic surgeon** or a **podiatrist**. The Foot & Ankle service at Royal Infirmary of Edinburgh (RIE) and St John's Hospital employs podiatrists to undertake forefoot surgery. Podiatrists, unlike surgeons, do not have a "medical qualification" and so are not "doctors" but the podiatrists in this service have been trained to carry out a specific range of foot operations to the same standard as the orthopaedic surgeons. If you would prefer to have your operation carried out by an orthopaedic surgeon rather than a podiatrist you should let us know in advance of your operation.

Can I have both feet done at the same time?

If you have both feet operated on at the same time you will be greatly incapacitated following your surgery, pain is greater, you do not have a good leg to rely on and you may damage the recovering toes. The outcomes of surgery may therefore not be as good. It is advisable to have one foot done, make sure you are content with the outcome of this surgery before progressing to have the other foot operated on.

Will we meet again before my operation?

Yes, you will be seen in the **Preoperative Assessment Clinic at St John's Hospital Livingston** about two weeks before your operation date. During this visit, you will be seen by a nurse who will assess your health and suitability for an anaesthetic, your planned operation will be discussed again and you will be asked to provide consent.

Key facts

Whilst most patients benefit from this operation you should be aware of the following:

- Surgery is not essential
- The big toe joint will be stiff afterwards and this may impact on your activities
- Footwear limitations will continue despite surgery
- You will not be able to wear high heels after big toe joint fusion surgery
- You will require a special shoe for six weeks
- You will be off work for at least six weeks (depending on your job)
- It will be 3 months before you return to your usual activities
- There are risks involved and outcomes are not always as expected
- You may be disappointed with the final result.

Further Information

Further information is available on the internet in various websites. The following websites are recommended as reliable sources of information:

British orthopaedic Foot & Ankle Society (BOFAS) Website

- <https://www.bofas.org.uk/patient/home>

Blackburn Hyperbook

- <http://www.blackburnfeet.org.uk/hyperbook/elective/halluxRigidus/halluxRigidus.htm>

My Notes/Questions to discuss:

10. After surgery advice

At 10 to 14 days after your operation:

You will need to arrange to see the Practice Nurse at your local GP practice to have the bandage removed and your wound checked.

Note to GP Practice Nurse: The skin layers have been stitched together with stitches that dissolve (clear stitches). Sometimes the knot is tied on the **outside of the skin**. This can be **trimmed flush with the skin**. There is no need for the stitch material to be removed completely. Non-dissolvable stitches (blue or black stitches) should be removed completely.

You can start the below advice two weeks after your surgery, following your initial post-operative follow-up appointment as long as your wound has healed and there is no sign of infection.

Massage and use of emollients

- You can now start to massage the scar with emollient cream (e.g. E45, hand cream, Bio-oil) especially after bathing
- Massage the cream firmly along and across the scar from the tip of your toe towards your ankle
- Repeat this at least four times per day
- Do **not** use cream on open wounds.

Six weeks after your surgery

Footwear

- Ideally, you should no longer need the post-operative shoe
- Wear a roomy shoe- a **training shoe** is ideal
- You may need to obtain a larger size than normal to accommodate the swelling in your foot
- The shoe may feel tight and a little sore compared to the post-operative shoe.

Walking

- You can now increase your walking activities with care, gently starting to roll off the ball of your foot
- It is normal at this stage for this to feel a little stiff and uncomfortable
- Your foot will be more swollen at the end of the day or following long periods of standing. This swelling normally takes many months to disappear completely
- If your foot or toe(s) become very swollen and painful, you have probably been overdoing it so rest the foot up at hip level
- Try to concentrate on walking normally putting your weight through your big toe
- When sitting, keep your foot elevated.