

Big toe arthritis (hallux rigidus)

Big toe fusion surgery

A patient's guide

What is hallux rigidus?



Hallux rigidus (Latin for a 'stiff big toe') is a condition caused by arthritis at the big toe joint.

It causes pain and stiffness as well as disability. This results in problems with upward bending of the big toe. It is noticeable when walking, running and sporting activity.

The condition can also result in a bump on top of the big toe and deformities such as a bunion. These deformities can put pressure on the other toes and cause problems with footwear and crowding or crossing over of toes.

It is therefore possible to have both a bunion and hallux rigidus.

What are the treatment options?

Not all cases of big toe arthritis need surgery. It is advisable to initially treat it without surgery, and leave surgery as a last resort.

Some of the non-operative treatments include:

- Avoiding high heels
- Avoiding exacerbating activities and sports.
- Insoles and orthotics – stiffened insoles to minimize movement in the big toe or stiff soled shoes.
- Painkillers and anti-inflammatory gels

Surgery options:

1. Cheilectomy
2. Joint replacement surgery
3. Fusion surgery (joining the big toe joint together).

What is a cheilectomy?

A cheilectomy is an operation to remove the extra bump of bone on top of the big toe. It increases joint movement and is successful in reducing symptoms in patients with less severe arthritis and stiffness. It is not recommended if you have severe and advanced arthritis. If cheilectomy fails, then it is possible to do a fusion at a later date. The recovery following a cheilectomy is usually quicker than the recovery from a fusion.

What is a joint replacement procedure?

In some cases, you and your surgeon may feel that a joint replacement procedure is an option to treat your arthritis. This procedure usually preserves some of the big toe range of motion. However it is important to understand that the range of motion is unlikely to be like a normal joint (there will be some stiffness following the procedure). Some patients may also find that they may still not be able to tolerate wearing high heels. Joint replacement surgery is generally not advised if there is a deformity present. These issues can be discussed with your surgeon.

What is a fusion?

A fusion is an operation to join the big toe joint together, producing a stiff joint. Any bony bumps are trimmed at the same time. It

straightens the big toe and reduces pain. It does result in a permanently stiff joint.

What are the benefits of fusion surgery?

In cases of severe chronic pain and significant decrease in function which is not responding well to non-surgical methods, then surgery may be a last resort to improve pain and function.

The aim of surgery is to relieve pain and improve function and quality of life. Deformity can also be improved if present. Swelling, unfortunately, is usually permanent after surgery.

Summary of fusion surgery.

The surgery is usually performed as a day case. It is usually performed under a general anaesthetic. Local anaesthetic is often given at the end of surgery to help with pain relief. The bony bump is removed and the bones are prepared and repositioned to straighten the toe. The bones are held with screws and/or plates. This will allow the fusion to take place. If the other toes need straightening, then this will also be carried out and held straight with a temporary wire. This wire stays in for 6 weeks and is removed in clinic.

After your surgery

Your foot will be in a bulky bandage and wearing a post-surgical shoe. You may be given a nerve block for pain relief which can last for 24 hours or more. You should keep your foot elevated on a chair/pillow and take regular painkillers.



Above are examples of the metal work used to fuse the big toe. The fusion is performed with screws and/or plates

Advice after surgery

The foot should be strictly elevated for the first 2 weeks to avoid excessive swelling which could compromise the wound. Aim to keep the foot elevated for 55 minutes of every hour

The dressings should not be disturbed unless there is a concern with the wound. At around 2 weeks after surgery, you will return to the clinic to have the bandages and stitches removed. After this the wound can be dressed with a simple light dressing.

You may shower after the stitches have been removed and the wound is fully healed. Keep the wound and surrounding area dry and clean.

You are allowed to bear weight in the post op shoe. You may need crutches. The physiotherapist will show you how to use them. You will need to wear the shoe for 6 weeks. After this time, you can wear flat soled shoes.

It may take several weeks before you can drive. Please check with your insurer.

Going back to work depends on the activity undertaken at work and should be discussed with your surgeon.

Excellent pain relief is noticed quite quickly which improves until the toe has fused, which can take 3 months. It may take 3-6 months before swelling subsides and when you can resume recreational walking and light sporting activities. This is a normal recovery. Often a full recovery takes much longer than one would expect – this can be up to a year. If you are slower than these times do not panic, they are only averages, but let your surgeon know when you attend clinic.

What are the risks with fusion surgery?

The general risks with surgery include

- Bleeding – rarely may there be bleeding with results in a collection of blood under the wound. Bruising is common after this procedure

- Swelling – common after surgery and can take many months to eventually settle down. Elevation is key to reducing this.
- Stiffness – exercises are important to reduce the stiffness in the big toe after surgery
- Infection – infections can be treated with antibiotics. Deeper infections which are much rarer may require further surgery
- Nerve damage – This can result in numbness over the scar but is generally not a problem. Occasionally a scar may be sensitive.
- Clots in leg/lung – your risk of clots will be assessed prior to surgery and appropriate treatment/advice will be given.

The specific risks to this surgery include

- Deformity – sometimes the toe position may cause problems with footwear. Women find they cannot wear high heels after surgery. A few people may find the toe position does not suit them individually and may consider further surgery to adjust this.
- Non-union – sometime the bones may not knit and may require further surgery. Smoking increases this risk considerably.
- Metatarsalgia – Sometimes other parts of the foot may undergo undue pressure when walking. This is often treated with insoles.
- Prominent metal – Sometimes the metalwork can be felt under the skin. If this is a problem, then the metal can be removed at a later date once the fusion has healed (usually after 6 months).

- Fracture – If the bone fractures, this will be fixed immediately. Sometimes a temporary wire and plaster may be required.
- Chronic regional pain – This is excessive pain after surgery and is a very rare complication.
- Amputation – this is extremely rare. However deep infections or chronic pain may result in amputation.

If I have any questions or concerns?

These guidelines are to help you understand your operation. This level of detail may cause concern, anxiety, or uncertainty. Please let your doctor or nurse know so that we may address these issues.

We aim to see you back in the clinic at regular intervals to monitor your progress and answer any questions you may have during your recovery.

If there is concern regarding the wound, such as increased redness, pus, discharge, or pain, then seek medical attention either at your GP or nearest Emergency department.

Above all else, please do not proceed with surgery unless you are satisfied and understand all you want to know about the operation.

Further information

There are a number of places that you can look at for further information. These days the commonest and easiest way is to look in the internet. You can also ask your surgeon or General Practitioner. Below are a few web sites that you may find useful.

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

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