Patient information

East Sussex Healthcare NHS Trust

Arthritis of the Big Toe – Hallux Rigidus

What is arthritis of the Big Toe?

The knuckle joint at the base of the big toe is known as the first metatarsophalangeal joint or 1st MTPJ. The big toe takes considerable load throughout our lives, bearing all of our weight when running, walking and standing on tiptoe. It is commonly affected by wear and tear arthritis. The medical name for this condition is hallux rigidus.

Hallux rigidus results in stiffness, pain, bony prominences which may rub on shoes. Sometimes the toe may become crooked and deformed.

What treatment options are available?

Non-surgical Options

Patients with hallux rigidus should initially try wearing more supportive stiff-soled shoes which are large enough to prevent rubbing. A rigid insole may help by preventing excessive movement of the painful toe. Avoiding activities such as running may also help. If the toe is very stiff, a shoe with a slight rocker bottom may help. There are several of these on the market, known as FitFlops and MBT trainers.

Injections

If these non-surgical measures fail, the joint can be injected with steroid. This offers some short term pain relief, but is not a long-term solution. Repeated injections can damage skin and soft tissues and are not recommended.

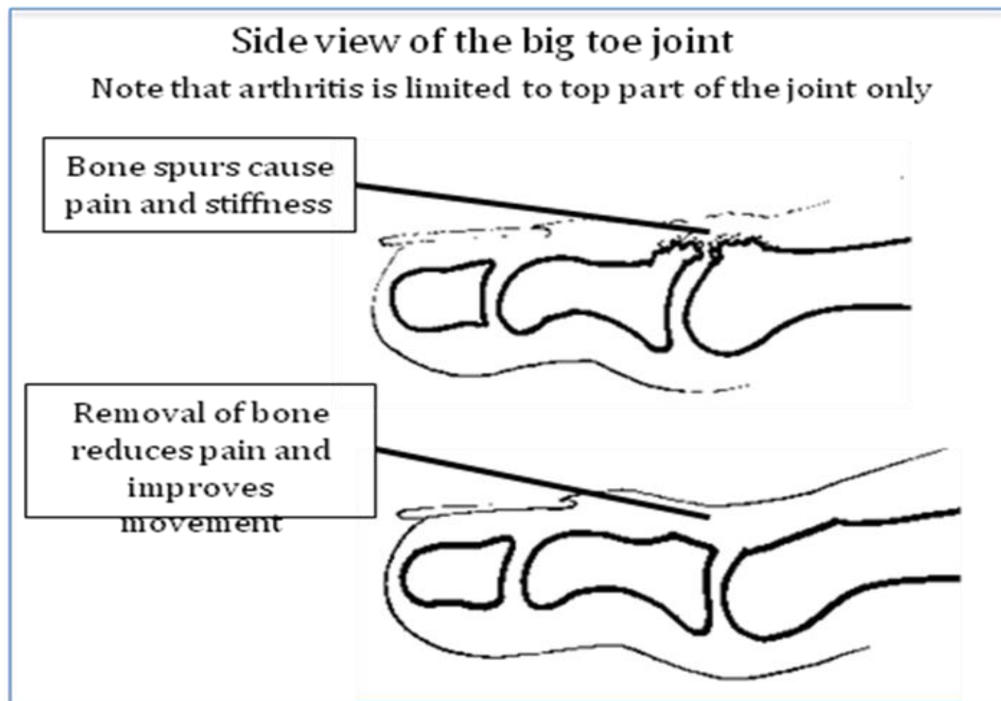
Surgical Options

There are two operations available. The amount of arthritis in the joint will determine which option is best. Both of these procedures take place as Day Surgery – you will come into the hospital, have the procedure and be discharged on the same day. Both procedures require you to have a General Anaesthetic and take place in the operating theatre.

Cheilectomy

If there is limited arthritis, but large bone spurs which limit movement and cause pain, the bone spurs can be removed. This involves making an incision on the top of the toe and removing excess bone. This is called a Cheilectomy.

The advantage of this procedure is that movement of the toe is maintained. The disadvantage is that the joint is left intact. Arthritis may progress, resulting in ongoing pain.



What are the potential risks and side effects of a Cheilectomy?

The main complication is ongoing stiffness. Manipulation of the joint is usually successful in treating this. You may need physiotherapy. The joint will have been left intact, and sometimes arthritis can progress, resulting in ongoing pain. If this is the case, a future fusion may be required. Infection, nerve injury and blood clots are other potential risks. The **'Preparing for Foot Surgery'** booklet has more information.

Recovering from a Cheilectomy

After the operation, the toe is protected with a bandage. This should be left undisturbed and kept dry until you are seen in clinic at two weeks. At this stage, if the wound has healed, it is very important to get the toe moving. It will be sore at first, but gentle movement will prevent the toe from becoming stiff. You will be able to fully weight bear, although it will be swollen and sore for several weeks. Keeping the foot elevated is the best way to reduce this.

When can I return to work?

You should be able to return to work after two weeks for office-based work. If you have to stand for long periods or wear work boots you may need up to six weeks off.

When can I return to driving?

Most people are able to return to driving after four weeks, although this can be longer in some cases. You must make sure you are in full control of the car before you drive as your insurance may be invalid if you drive when impaired.

First MTPJ Fusion – why may this be done?

If the entire joint is affected with arthritis or the toe is bent, the joint may be surgically fused. The commonest reason for fusing the great toe is arthritis of the great toe joint. This may be isolated arthritis of the great toe ("hallux rigidus") or part of a generalised arthritis of the foot (usually rheumatoid arthritis). It would only be done if the arthritis has severely damaged the joint. Sometimes it is difficult to tell from the X-ray whether a cheilectomy (removing excess bone) or a fusion will be required. In this case the surgeon may ask you to allow the decision to be made after the inside of the joint has been inspected during the operation. This would be fully discussed with you beforehand.

The toe may also be fused to correct a severe deformity of the toe, usually a bunion ("hallux valgus"). This may seem a very aggressive way to treat a deformity, but severe deformities tend to recur if any lesser form of treatment is used, and a fusion will virtually guarantee this will not happen.

Finally, a fusion may be used to treat problems after failure of another operation on the great toe, especially if the toe is deformed, weak, floppy or painful. If the toe has been left very short by the previous operation, a piece of bone may be inserted into the fusion to lengthen the toe.

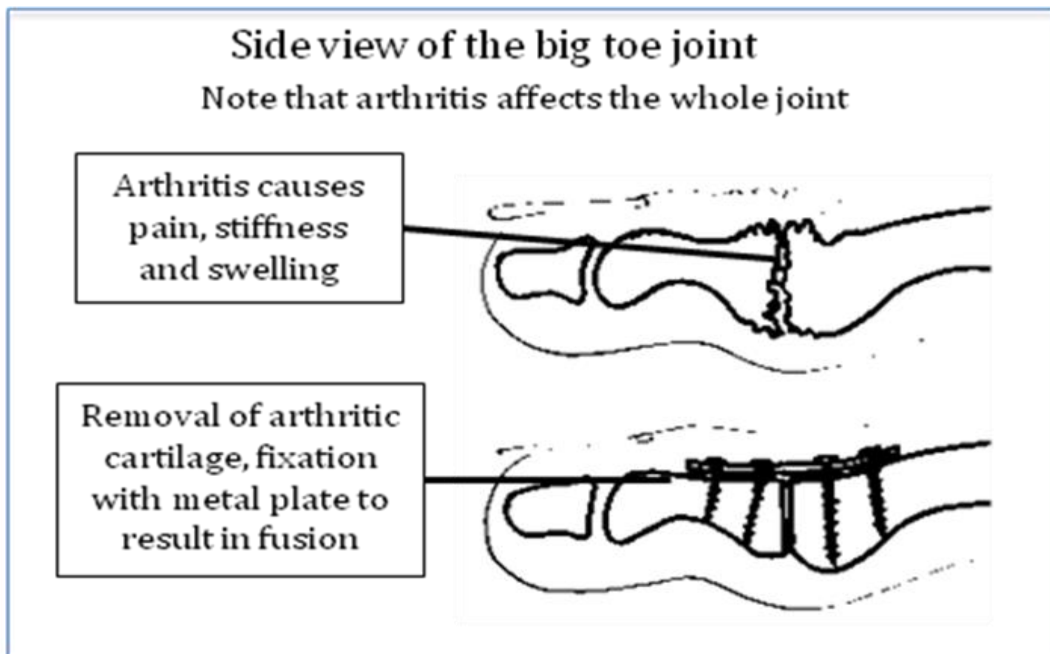
A fusion makes your great toe quite stiff. In particular, it will limit the height of heel you can wear on your shoes. We can allow for a certain amount of heel, but usually not more than 2.5cm (1 inch). In addition, the stiff joint may alter the way you walk. Most people do not find this much of a problem (in fact, if you have severe arthritis, getting rid of the pain by a fusion will usually make walking so much more comfortable that the stiffness is a small price to pay). Nevertheless, a few people have to use an insole in their shoes or have alterations to their shoes. If you cannot accept these limitations, you should not have a fusion.

First MTPJ fusion – what does the operation involve?

A cut is made over the top of the toe and the joint is opened. Any large bony lumps are trimmed. (The only exception to this is if you have a severe bunion: in this case part of the bunion lump may be kept to give a grip to the fixation screws). The joint surfaces are cut out, trimmed to enable the toe to sit in the right position, and fixed together with one or two screws, screws, staples or a metal plate. The wound is stitched up.

If you are having a piece of bone put in for a short floppy toe after previous failed surgery, the bone will be removed from the brim of your pelvis just above the hip. It will be fixed into place using a small plate as well as screws or pins.

The objective is to achieve solid bone healing so that there is no movement across the joint. This eliminates pain and corrects deformity. The disadvantage is that there will be no movement at the joint which will make wearing very high-heeled shoes impossible. Running long distances may be difficult.



Can it be done as a day case operation?

The operation can be done on a day case basis if you are medically fit, have someone who can collect you and look after you after the operation, and you are comfortable afterwards. The commonest reason for having to stay overnight after great toe fusion is for pain control, as the operation involves cutting through a bone. This may therefore be quite painful immediately afterward. Local anaesthetic injections can help with this.

Will I have to go to sleep (general anaesthetic)?

The operation is usually done under general anaesthetic (asleep). Discussion with your anaesthetist on the morning of surgery will confirm this.

In addition, local anaesthetic may be injection into your leg or foot while you are asleep to reduce the pain after the operation even if you go to sleep for the surgery. You will also be given pain-killing tablets as required.

Will I have a plaster on afterwards?

You will either be in a plaster bootie for six to eight weeks or you will be fitted with a stiffsoled shoe which allows you to bear weight through your heel but not the front of your foot. This protects the bone whilst it heals.

What will happen afterwards?

You can go home when comfortable and safe. If you have a plaster, you can walk on the heel of this when it is dry, after 48 hours.

Dressings should be undisturbed and kept dry for the first two weeks until you are seen in clinic. You will be seen in clinic 10 to 14 days after your operation. The wound will be examined and the stitches removed if necessary. A full plaster will then be applied or you will retain the special shoe for at least six weeks. Your foot will be swollen and must be elevated most of the time. Another clinic appointment will be made five to six weeks later. The toe will be examined and another X-ray taken to assess whether the bone has healed. You can return to normal footwear

at this stage, although your foot may be swollen for up to six months. Broad supportive flat shoes are best.

How soon can I?…

Walk on the foot?
You can do so immediately, but you should put most of your weight on the heel. You can usually walk fully on the foot after the six week Xray.

Go back to work?
This depends on what you do and how you get to work. If you have a sitting-down job that you could do with your foot in bandages, and you can get to work, you could probably go back to work a few days after surgery.

On the other hand, if you have a heavy manual job you may be off for up to three months. If you need to drive to work, this will affect when you can go back. Please discuss this with your surgeon.

Drive?
If your right foot is operated on and you have a manual car, you must not drive while in a plaster or special shoe which you will have for about six weeks. After this, you must be comfortable and not too stiff before trying to drive. Start by sitting in the car and trying the pedals then drive round the block.

Drive short distances before long ones. Remember, if you cannot safely make an emergency stop your insurance will not cover you in the event of an accident.

Play sport?
After six weeks, you can start gently exercising your foot and walking further each day. When you are comfortable doing this, you can start gentle running and stretching. Contact, twisting and impact sports can follow as comfort dictates. Everyone is different in how quickly they can take up exercise again, be guided by your own body's reactions and the advice of your surgeon. Obviously, the stiffness of your toe may affect your ability to play sport, but most people can run, swim and cycle as much as they were doing beforehand within six months of surgery.

What are the potential risks and side effects?

The most serious problem after a fusion is failure of the joint to fuse. This occurs in about 10% of people. Half of these will have no problems from their unfused joint, as the scar created by surgery holds the bones together as firmly as a proper fusion. However, most of the rest will need to have the operation done again. If you are having a re-fusion, lengthening fusion or fusion for previous failed surgery the rate of failure is higher at 15 to 20% and again about half will be painful. Diabetes, rheumatoid arthritis, poor circulation and smoking also increase the risk of failure.

If you smoke, you **must** stop before surgery. There is help to do this at https://smokefree.gov.

When the joint is fused, the toe will be slightly shorter afterwards. This is normal.

Occasionally the screws, staples or plate may be felt under the skin when the swelling has subsided. If this causes irritation they can be removed after six months.

It is important to prepare for an operation to reduce the risks of complications. There is information about how to do this at: https://www.cpoc.org.uk/patients.

1. **Swelling**
   The foot tends to swell up quite a lot after surgery. Swelling is part of your body's natural response to any injury and surgery is no exception. In addition, your foot is at the bottom of your body so fluid tends to collect in its tissues ("at the bottom of the slope") and cause swelling. People vary in how quickly this swelling disappears after an operation. Provided you are not having undue pain or inflammation you can afford to give it time. Try to elevate the foot on pillows between bouts of activity.

2. **Pain**
   If you need to have a bone graft taken from your pelvis, this is often quite painful for a couple of weeks and some people have a little numb area beneath the scar. Again, this is normal but can be irritating. If you are concerned contact your surgeon for further advice.

3. **Infection**
   Infections in the wound, plaster problems and minor damage to the nerves of the toe can occur in any foot surgery. Usually these are minor problems that get better quickly. Rarely, the fusion itself becomes infected. This would require a further operation to clear the infection, antibiotics, and usually a repeat fusion when the infection has settled.

There are risks of infection, nerve injury, blood clots and ongoing pain. The '**Preparing for Foot Surgery**' booklet has more information.

A note on Joint Replacement
In the past, surgeons have tried replacing the first MTPJ with an artificial joint. The results have generally been poor. The artificial joint wears quickly and can come loose, resulting in recurrence of pain and deformity. Correction is difficult and often unsuccessful. Currently we do not recommend this treatment for most patients.

Who should I contact if I have a problem after the surgery?

You will have clinic appointments two and six weeks after the operation. It is often helpful to write any questions down beforehand so you don't forget them.

If you have a problem at any other time, please contact the Day Surgery Unit, the Casting Department or your Consultant's secretary via the hospital Switchboard

Conquest Hospital - Tel: 0300 131 4500 Eastbourne
DGH – Tel: 0300 131 4500

In an emergency contact your GP or attend the Emergency Department (A&E).

Consent

Although you consent for this treatment, you may at any time after that withdraw such consent. Please discuss this with your medical team.

Sources of information

For more information you can visit the NHS Choices website - http://www.nhs.uk/Conditions/Arthritis/Pages/Introduction.aspx or Versus Arthritis website – https://www.versusarthritis.org/

Important information

The information in this leaflet is for guidance purposes only and is not provided to replace professional clinical advice from a qualified practitioner.

Your comments

We are always interested to hear your views about our leaflets. If you have any comments, please contact the Patient Experience Team on 0300 131 4731 (direct dial) or by email at: **eshtr.patientexperience@nhs.net**

Hand hygiene

The trust is committed to maintaining a clean, safe environment. Hand hygiene is very important in controlling infection. Alcohol gel is widely available at the patient bedside for staff use and at the entrance of each clinical area for visitors to clean their hands before and after entering.

Other formats

If you require any of the Trust leaflets in alternative formats, such as large print or alternative languages, please contact the Equality and Human Rights Department.

Tel: 0300 131 4434 Email: esh-tr.AccessibleInformation@nhs.net

After reading this information are there any questions you would like to ask? Please list below and ask your nurse, doctor or practitioner.

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Reference

The following clinicians have been consulted and agreed this patient information:
Dr Danielle Vidler – Consultant and Clinical lead Emergency Department CQ
Mr Utham Shanker – Consultant and Clinical lead Emergency Department EDGH

The directorate group that has agreed this patient information leaflet:
URGENT CARE

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Responsible clinician/author: Emergency Department Consultants

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