

Patient information

Hallux rigidus or arthritis of the big toe



What is Hallux rigidus?

Hallux rigidus (Latin for a "stiff great toe") is a condition caused by arthritis at the joint of the big toe. This is a very common condition, affecting the1st Metatarso-phalangeal joint. Progressive joint pain and stiffness can occur over a long period of time, although pre-existing arthritis can develop quickly following injury to the joint.

Initially, the smooth white cartilage on each side of the joint becomes thinned and roughened. The joint may start to appear to be thickened, which is due to bone lipping (osteophytosis) building up around the joint. The joint may become swollen from time to time due to inflammation of the joint lining, (synovitis); painful stiffness, especially after a period of rest, is a common complaint.

Conservative (non-surgical) treatment

As with the arthritis of any joint, avoiding those activities which cause the symptoms

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is one option. Obviously not everyone is happy to do this. In ladies, symptoms may be relieved by avoiding high heels. For painful arthritic joints, stiff-soled shoes are recommended to reduce the joint strain when walking, although the effects are often short-lived. Some patients are helped with special insoles called orthoses.

Some evidence shows long term use of glucosamine/chondroitin/MSM tablets may be helpful in slowing down the disease progression and maintaining the joint's movement.

It is important to keep the joint moving as much as possible, unless it is extremely painful. If the joint is painful (and often may also be swollen) this may be due to inflammation of the joint lining (capsule and synovium). In this case an antiinflammatory injection of a corticosteroid can often relieve both the pain and swelling.

Anti-inflammatory medications and gels may also help. These actions will only 'manage' the condition, they cannot 'cure' it.

With an operation

Surgery should only be undertaken if your symptoms are significant, and appropriate treatment without surgery is not satisfactory to you. There are two common forms of surgery provided, "Cheilectomy" and "fusion".

Both surgeries are usually performed as day case procedures and involve a general anaesthesia in combination with local/regional anaesthetic techniques.

Cheilectomy

For early stage, I - II degenerative osteoarthritis Cheilectomy is an operation to remove the extra bump of bone (shaded in grey in the diagram) on the top of the big toe. It aims to increase joint movement, and is successful in reducing symptoms in 90% of patients with less severe arthritis. If Cheilectomy fails, it is still possible to perform a fusion at a later date. After Cheilectomy patients can still suffer with persisting stiffness, or the arthritis can still progress.



The recovery from Cheilectomy is quicker than the recovery from fusion. Over the first two weeks you will be in a stiff soled surgical shoe, to allow the skin to heal. After this you will be advised on exercises to start the joint moving. Performing these exercises early and regularly will help you to get the best possible result from your surgery.

What is a fusion?

For more advanced osteoarthritic disease, fusion surgery is more appropriate. Fusion is an operation where the diseased cartilage is removed and the remaining metatarsal bone is fused to the toe bone (phalanx) producing a stiff joint. Any bony bump is usually trimmed at the same time. Rehabilitation is significantly longer than Cheilectomy surgery.

The operation aims to re-align and stiffen the great toe and in turn reduce your pain. **Movement in the great toe joint is lost.** The great toe may also appear shorter as a consequence of surgery.

Because the operation involves holding raw bone edges together while they heal, two screws and or a surgical plate are usually inserted. The foot is then protected in a post-operative shoe for 6 weeks whilst healing occurs. On rare occasions a plaster cast may be applied. Although rare, the screws may need removal at a later date if they are prominent or cause pain.





What can I expect after surgery?

Both types of surgery usually take about one hour and are usually performed either as a day case or with a stay in hospital over-night. After the operation, you will wake up with your foot in a bulky bandage which will remain in situ for two weeks. Foot surgery is commonly painful, but it is usually possible to control the pain with oral medication. In order to minimize swelling (which can promote pain, and wound healing problems) you should keep your foot up as much as possible for the two weeks following the operation. For fusions, you should only mobilize when wearing the provided surgical shoe.

What can I do once I am discharged?

To start with you will need to rest with your foot up, on a stool, or across the sofa, most of the time. When the foot is lowered it will throb and swell. With time, the period you can keep the foot down will increase. After two to three weeks you should be able to keep it down most of the time.

At around two weeks after surgery, you will return to the clinic for removal of stitches. For Cheilectomy patients you may be discharged at this appointment, otherwise you will then continue rehabilitation for a further four weeks, (walking with the surgical shoe on). At six weeks after your operation you will be seen in clinic again. An x ray of your foot will be taken. Subject to examination of your foot and x-ray, you may be allowed into normal footwear. You may be discharged at this appointment if your progress is good. Some patients require longer than this time for safe healing of the bone. You may be required to continue in the surgical shoe as a precaution and require further rehabilitation time.

It is usually three to six months from the operation before you can hope to resume recreational walking or light sporting activities. In the longer-term many patients will be able to run and participate in sports after a fusion. This cannot be guaranteed. If you are slower than these times do not panic, they are only averages, but let your surgeon know when you attend the clinic. It may take up to 12 months to fully recover; swelling may be present up to this point also.

Are there any risks or complications?

Although the operation produces good results in most cases, complications do occur. Despite the great care that is taken with the operation and aftercare, a small number of people (up to 10%) may have a less than perfect results due to problems such as:

- 1 *Non-healing of the bone (occurs in about one in 20 people), and may require further surgery. Smoking increases the risk of this complication considerably.
- 2 *The position in which the toe is set can also cause problems. Women may find that they cannot wear high heels after a fusion. A few people will find that the position in which the toe is set does not suit them individually, and may consider further surgery to adjust this.
- 3 Sensitisation of the foot due to damage to the small nerves and blood vessels.

- 4 Weight transfer to the second toe (a corn under the second toe)
- 5 Infection
- 6 The complications of any surgery such as thrombosis (a blood clot) and anaesthetic problems.

(*these complications only occur after fusion)

Most problems can be treated by medications, therapy and on occasions by further surgery, but even allowing for these, sometimes a poor result ensues. For this reason we do not advise surgery for cosmetic reasons. The level of symptoms before surgery must be worth the risk of these complications. We also advise against prophylactic surgery (surgery to avoid problems that are not yet present).

You can reduce the risk of complications by preparing yourself and your foot, as described in our handout "preparing for foot surgery".

If you are at particular risk of complication, this will be discussed with you. If you have any general or specific worries, you should ask the doctor treating you who will explain it to you.

How do I know if I have a complication?

It is important that you notify a doctor if you get an increase in pain after you go home, and particularly if the pain does not settle with elevation and mild painkillers, as this may indicate early infection.

Similarly if you get swelling of the leg or foot which does not settle when the foot is elevated above heart level you should seek medical advice.

Special note

These guidelines are intended to help you understand your operation, and to help you to prepare yourself and your foot for it.

Some patients will want to know more details. Please ask, and we will be happy to add additional notes or comments for your assistance. Above all else please do not proceed with surgery unless you are satisfied you understand all that you want to about the operation.

Finally, this level of detail may cause some patients worry, concern, or uncertainty. Please let your surgical team know if this is the case, so we can address the matters of concern.

Who can I call for help or advice?

Orthopaedic Practitioner Advice Helpline	01284713924
Pre-Admission Clinic	01284 712810
Physiotherapy Department	01284 713300
Occupational Therapy Department	01284 713560
Community Equipment Stores (OT)	01284 748826

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