AMIT AMIN
FOOT & ANKLE SURGEON

Chielectomy for big toe arthritis

Why do I have arthritis of my big toe?

Hallux rigidus is the term used for arthritis or 'wear and tear' of the main joint of the big toe.

In most people there is no definite cause. Its commonly 'structural' – how your foot is designed and genetics plays a part. Occasionally, it relates to an injury or another medical problem such as gout or an infection.

What are the common problems?

Common symptoms pointing to the diagnosis are pain in the big toe around the joint. This usually occurs when walking but can also be present at rest and at night. Stiffness of the big toe is common and the ability to move the big toe upwards is usually lost.

A bony bump ("osteophyte") may develop on top of the joint, which you might be able to see and feel. This is your body's natural response to the worn-out joint. The bump may rub on shoes. We sometimes call this a dorsal bunion.

To compensate for the painful big toe some people tend to walk on the side of the foot. The problem tends to develop early in life, and in most people it gradually deteriorates without pain over many decades. In about 20-25% of people the joint becomes progressively more stiff and/or painful and treatment may be required.

What are the treatment options?

Treatment always begins with conservative (non-surgical) treatment. We recommend staying active if possible (good for general health), and wearing sensible shoes.

You can take simple pain killers, if the pain is bad and interfering with your life. The toe is usually most painful when it is bent upwards and it can be helpful to stiffen the sole of your shoe so that it does not bend whilst walking. Orthotics are sometimes helpful to take the pressure of the big toe joint.

If the toe remains very painful, it may be worth injecting some steroid mixed with local anaesthetic into the joint. This reduces the inflammation and the injection can be given in the outpatient clinic. The toe may be more painful for a few days after the injection and gradually improve over a few weeks. The duration of improvement is variable and unpredictable.

What are the surgical options?

These include a cheilectomy, which involves removing the bony lump on the top of the toe, which may be causing the pain, through to a fusion (permanent joining) of the big toe joint, or a replacement.

What is a cheilectomy?

This is the recommended procedure for someone with a bump on the top of the toe, who has pain, particularly at the extremes of motion, ie with the toe turned right up. This indicates the bony lump is interfering with movement and causing pain. If pain is felt throughout the range of movement or if rest and night pain is present, then a fusion or replacement, may well be a better option.

Surgery is undertaken as a day-case patient. You will have a General Anaesthetic (GA) followed by an ankle block (local anaesthetic injection) performed at the beginning of surgery to reduce post-operative pain. It is also possible to do the surgery entirely with Local Anaesthetic and sedation.

Specifically, the procedure involves shaving away the bone on top of the joint through a 4cm incision. The joint is manipulated and freed up, to encourage more movement. The wound is closed with dissolving stitches, and a bulky dressing applied.

It is also possible to perform the surgery through a small incision – ‘minimally invasive cheilectomy’, which is very effective and potentially speeds up recovery. It also minimises scarring. Through a small incision the bone is removed with a

specialised burr, and x-ray guidance used to confirm adequate bone removal. Not everyone is a candidate for this type of surgery, and it will be discussed with you during your consultation.

What happens after the operation?

Day 1

• Foot wrapped in bulky bandage
• Start walking in surgical shoe only, with crutches for balance as needed
• Elevate, take pain medication regularly to begin
• Begin moving the big toe as comfort and bandage allows
• Expect numbness in foot for 12 hours from ankle block
• Blood drainage through bandage expected – Do not change bandage
• You can remove surgical shoe when seated and in bed at night

10-14 Days

• Follow-up in the outpatients for wound review
• Dressing changed
• Shower when incision dry
• Begin to walk in ordinary soft training shoe depending upon comfort
• Start early range of motion exercises for big toe, to maximise chances of regaining and improving movement. Start physiotherapy

2 weeks onwards

The toe will gradually loosen up, with time and physiotherapy. Swelling is usually persistent for 3-6 months, gradually improving over this time frame. You can swim and cycle from 2 weeks, and return to impact activity from 3-6 months, depending on progress.

How successful is surgery?

The success rates vary from person to person, and is related to many different factors, the most important being the extent of the actual arthritis or 'wear and tear'. In general 85% of patients are much improved following surgery. Some patients continue to be affected by stiffness, which causes problems. Some patients develop progressive arthritis, which then requires a discussion about a fusion of the joint (permanent stiffening procedure).

What are the risks of surgery?

Swelling – Initially the foot will be swollen and needs elevating. Often shoes will remain tight for 8-12 weeks. The swelling will disperse over a period of 6-9 months.

Infection – There is always a risk of infection with surgery. You will be given 1 dose of intravenous antibiotics during surgery. The best way to reduce the chance of acquiring an infection is to keep the foot elevated (80% of the time) for 14 days. Smoking increases the risk 16 times. If there is an infection it normally resolves with a course of oral antibiotics.

Wound problems – Sometimes the wounds can be slow to heal and this needs to be closely observed. This may mean frequent visits to the clinic, and repeat dressings.

Scar sensitivity – The scar can be quite sensitive following surgery but this usually improves over 3-6 months. Regular massage can help make the scar less sensitive.

Nerve damage – A nerve supplying the side of the toe lies beneath the incision, and this is at risk of damage. Usually it is only bruised and will recover. If the damage is permanent, there will be a small patch of numbness. This does not normally cause any disability.

Chronic Regional Pain Syndrome – This is where the nerves around the big toe become overly sensitive. The area swells, changes colour and becomes stiffer than expected. It is exceptionally uncommon, but can be very debilitating. If this is diagnosed, then I will refer you to a specialist pain doctor. The outcome of surgery can be suboptimal in this situation.

Transfer pain – This describes pain in the fore part of the foot, after surgery. Following surgery it can take time to regain trust in the big toe, and for a period of time more pressure is placed under the ball of the foot – resulting in transfer pain. This can result in inflammation and rarely stress fractures. Further investigations are required if you start to experience transfer pain.

Deep Vein Thrombosis (DVT) – This is a clot in the deep veins of the leg and the risk of this occurring following foot and ankle surgery is low (generally< 1%). The fact that you are mobile after surgery and able to take weight through foot helps to minimise this small risk. However, it is sensible to try and move the toes and the ankle regularly following the surgery and probably also sensible to avoid a long-haul flight in the first 4 weeks following surgery. If a deep vein thrombosis (DVT) occurs then you will require treatment to thin your blood as this helps prevent any of the clot travelling to the lungs (pulmonary embolus /

PE) which can be much more serious. If you develop severe pain and swelling in your calf, you should attend A+E, and inform my team.

On-going pain/stiffness – Most people (85%) are very happy with the results of surgery. In some patients the arthritis progresses and this then may require further surgery.

Sick Leave

In general 2 weeks off work is required for sedentary employment, 4-6 weeks for standing/walking work and 8-12 weeks for manual/labour intensive work.

Driving

You will be able to return to driving at the earliest from 2 weeks post surgery. At the 2 week follow-up appointment, we would make a further judgement on your ability.

These notes are intended as a guide and some of the details may vary according to your individual surgery.