Foot Surgery: Bunion, Hallux rigidus and small toe deformities

Patient information Leaflet

<table>
<thead>
<tr>
<th>Contents</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Types of conditions</td>
<td>2</td>
</tr>
<tr>
<td>Types of treatments available</td>
<td>4</td>
</tr>
<tr>
<td>What to expect after your surgery</td>
<td>5</td>
</tr>
<tr>
<td>Risks and complications</td>
<td>7</td>
</tr>
<tr>
<td>Contact details</td>
<td>8</td>
</tr>
</tbody>
</table>
What is a bunion?

A bunion is a lump at the base of the big toe, caused by outward drifting and angulation of the big toe. The Latin name is hallux valgus. This lump is made up of bone and soft tissue. Sometimes it is painful in itself, but more commonly it causes symptoms by pressure when you wear shoes or, on occasions, by crowding or crossing the smaller (lesser) toes. It can cause a secondary deformity in the second toe when it becomes so crowded that it becomes 'clawed,' and crosses over the big toe.

What is Hallux Rigidus?

Hallux rigidus (Latin for a "stiff great toe") is a condition caused by arthritis at the base of the big toe. It commonly affects active and sporty people as a result of repeated trauma. The stiffness of the toe is especially noticeable on the upward bending caused by walking or running. This stiffness causes pain. As well as the pain and stiffness hallux rigidus causes a bump on the top of the big toe which itself can cause pain from pressure when wearing shoes. However, some people have both hallux valgus and rigidus (bunion and arthritis).
What is small (lesser) toes deformity?

Small single or multiple toes deformity can develop commonly due to overcrowding caused by hallux valgus deformity. Other conditions can cause small toes deformity such as rheumatoid arthritis. There are different types of small toe deformities; clawing deformity, hammer deformity and mallet deformity. These deformities can cause problems with pain under the balls of the feet, corns on the top of the toes, or pain under the tip of the toe (shown by the arrows below).

Is surgery the only way to treat bunions?

Early and mild bunions may respond to the application of splints or braces, although the effects are often short-lived. Wearing 'corn plasters' or 'pads' may relieve local pressure symptoms. Shoes may be made or adapted to accommodate the bunion within a broad front (toe-box). Some bunions are caused by a flat foot and collapse of the arches. These can be helped by arch supports. More severe bunions can only be corrected by surgery. Surgery should only be undertaken if the symptoms are significant and appropriate non-operative management has been considered. The surgery is usually carried out under a general anaesthetic, with local anaesthetic being used to reduce the amount of general anaesthetic required. Surgery is usually performed either as a day-case (where you do not have to stay in hospital overnight at all), or with an overnight stay in hospital.

What type of surgery do I need to treat bunions?

An 'osteotomy' is an operation when the bone at the base of the toe (the metatarsal bone) is divided and 'displaced' into the correct position. The bony bump is usually trimmed at the same time. The operation aims to straighten the great toe, and narrow the forefoot. Because the operation involves dividing the bone, it has to be held in position while the bone heals together again. In the majority of cases small screws, wires or staples are used. The foot is usually protected in a special post-operative plaster shoe during this time. Occasionally the big toe is osteotomised as well, a procedure known as an 'Akin'. The fracture in the bone allows the bones to be repositioned, so that the bunion disappears.
Is surgery the only treatment for Hallux rigidus?

**Without an operation**
As with the arthritis of any joint, avoiding those activities which cause the symptoms is one option. Obviously not everyone is happy to do this. In ladies, symptoms may be relieved by avoiding high heels. Anti-inflammatory medications and gels may also help. Stiffening the sole of the shoe may also improve symptoms, although the effects are often short-lived.

**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 forms of surgery: cheilectomy" and "fusion."

**What is a cheilectomy?**
This is an operation to remove (shaving) the extra bump of bone on the top of the big toe. It increases joint movement, and is successful in reducing symptoms in 90% of patients with less severe arthritis. If cheilectomy fails, it is possible to perform a fusion at a later date. After cheilectomy patients can suffer with persisting stiffness, or the arthritis can progress. The recovery from cheilectomy is quicker than the recovery from fusion. Over the first two weeks you will be in a stiff soled 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?**
A fusion is an operation when the bone at the base of the toe (the metatarsal bone) is fused to the toe bone (phalanx) producing a stiff joint. Any bony bump is usually trimmed at the same time. The operation aims to re-align the great toe and get rid of the pain. It usually maintains strength of the great toe and reduces pain, but movement is lost. Because the operation involves holding raw bone edges together while they heal, two internal screws are usually inserted. The foot is usually protected in a post-operative plaster shoe. The screws may need removal at a later date if they cause symptoms.

**Is surgery the only treatment for small toes deformity?**

**Without an operation:** early deformities may respond to strapping, with local paring back of corns. For more severe deformities, the shoe may be made with an enlarged toe-box; the toe may be protected with foam tubing.

**With an operation:** if non-operative measures do not give relief or when the deformity is severe, surgery may be considered to correct it. Surgery may be performed under local or general anaesthetic.
To correct the deformity surgery comprises of either fusion of one or both joints in the lesser toe or removing part of the bone at the base of the toe (excision arthroplasty). Normally a pin is used to splint the toe during surgery which will be removed at four to six weeks after surgery. Removal of the pin does not usually require any anaesthetic, and is relatively painless. If you have had excision arthroplasty surgery you will have a shorter and floppy toe. Although foot function returns rapidly, the toe usually stays swollen for many weeks after surgery.

**Your surgery**

**What can I expect after the operation?**

All types of surgery are usually performed either as a day-case (where you do not have to stay in hospital overnight at all), or with a stay in hospital overnight. After the operation, you will wake up with your foot in a bandage or a plaster shoe. Normally you would have been given a local anesthetic in the foot during the surgery. After a few hours the anesthetics will wear off and the foot can be painful. Usually it is possible to control the pain with oral medication.

In order to minimise swelling and pain, you should keep your foot up for the first two weeks following surgery and only necessary walking on the heel is allowed.

**What can I do once I am discharged?**

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. This should be avoided. 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. If you were in a plaster, you will return to the clinic or plaster room for a wound check two weeks after surgery. Alternatively, if your foot was in a bandage you need to visit the local surgery for a wound check between 10-14 days after surgery.

**What happen afterwards?**

**Osteotomy:** On average, you should expect to spend six weeks in the post-operative plaster shoe. After removing the plaster, it is expected that you will have swelling and stiffness in the toe. It is important to exercise or mobilise the toe. You can start these exercises even at an early stage after surgery, while in the plaster. Failure to undertake these exercises increases the risk of developing stiffness of the toe after surgery. After this you may need to wear the hospital orthopaedic shoe that you have been given for a few days or possibly weeks until you can wear a shoe for a full working day. It is usually three to six months from the operation before you can hope to resume recreational walking or light sporting activities. If your recovery is slower than these times do not panic, they are only averages. You can consult your surgeon at the clinic for advice.

**Cheilectomy:** The bandage will be removed once the wound is checked between 10 to 14 days after surgery. Start moving the big toe regularly and walk on the foot as normal.

**Fusion:** On average, you should expect to spend six weeks in a plaster shoe. Afterwards you can expect the toe to be swollen for a period of time. It will be a further two to six weeks before you can wear a standard shoe for a full working day. It is usually three to six months from the operation before you can hope to resume recreational walking or light sporting activities.
You will be unable to wear shoes with a high heel.

In the longer term many patients will be able to run and participate in sports after a fusion, however this cannot be guaranteed. If your recovery is slower than these times do not panic, they are only averages. You can consult your surgeon at the clinic for advice.

**Are there any risks or complications?**

In most cases the operation produces good results, however complications can occur. Despite the great care that is taken with the operation and aftercare, a small number of people (fewer than 10%) may have complication.

Possible complication can include: stiffness, infection, nerve damage, bone not healing, recurrence of the deformity, and continued pain.

There are some risks related to the general or regional anesthesia which differ between patients according to each person’s general health.

* Smoking increases the risk of this complication considerably.
* Anti-inflammatory medication can reduce and delay bone healing. They can be taken only for few days.

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 before surgery by maintaining adequate hygiene. 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?**

Some problems such as recurrence of the bump, or corn formation become obvious with time. 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 doctor or nurse know if this is the case, so we can address the matters of concern.
Where should I seek advice or help?

<table>
<thead>
<tr>
<th>Time</th>
<th>Contact</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>8am - 8pm</td>
<td>Day Surgery Unit, North East Surgery Centre, Queen Elizabeth Hospital</td>
<td>0191 445 3009</td>
</tr>
<tr>
<td>8pm - 8am</td>
<td>Level 1, North East Surgery Centre, Queen Elizabeth Hospital</td>
<td>0191 445 3004</td>
</tr>
<tr>
<td>9 am and 5 pm</td>
<td>Plaster Room, Queen Elizabeth Hospital</td>
<td>0191 445 2259</td>
</tr>
</tbody>
</table>

The Patient Advice and Liaison Service (PALS) can provide help, advice and support to patients, relatives or carers who have any questions or concerns regarding their health care. PALS are unable to give medical advice. You can contact PALS on free phone 0800 953 0667. Monday - Friday 9.00am – 5.00pm. An answer phone is available outside of these hours and calls will be returned the next working day.

Data Protection

Any personal information is kept confidential. There may be occasions where your information needs to be shared with other care professionals to ensure you receive the best care possible.

In order to assist us improve the services available your information may be used for clinical audit, research, teaching and anonymised for National NHS Reviews. Further information is available in the leaflet Disclosure of Confidential Information IL137, via Gateshead Health NHS Foundation Trust website or the PALS Service.

This leaflet can be made available in other languages and formats upon request.