A bunion is a bony prominence over the inner border of the foot at the base of the big toe (hallux) and usually associated with deviation of the big toe (hallux) in an outward direction (hallux valgus). There are several causes. Often there is a family history of bunions (most common). Footwear can also contribute to formation of a bunion. Occasionally a bunion can result from an injury or repetitive stress associated with some sports.

In themselves, bunions do not require surgery. The reason for undertaking an operation is to reduce pain by correcting the deformity. The decision to operate is therefore dependent upon whether the patient experiences painful symptoms and is only undertaken if careful choice of footwear cannot control the symptoms. In other words we do not perform the surgery purely for cosmetic reasons (as the risks of surgery do not justify this).

**Details of the surgical technique:**

- **SCARF osteotomy:** This term describes the ‘Z’ shaped cut that is used in this operation in order to straighten the big toe. The cut is made in the first metatarsal bone (see diagram above) and the corrected position held with small titanium screws (these do not need to be removed except in very rare circumstances). This technique involves a cut on the inner border of the foot and is often combined with an ‘Akin’ osteotomy which completes the correction of the big toe by making a corrective cut at the base of the big toe which is fixed in position using the same screws. An additional cut is made in between the big toe and the second toe to release the tendons / ligaments tethering the big toe in its deviated position.

- **BASAL osteotomy (Modified Ludloff).** This involves the same skin cuts as the above SCARF technique but the bone cut in the first metatarsal is further back along the bone and is usually fixed using a plate and screws. This operation is performed for more severe deformities.

- **Fusion 1st metatarsophalangeal joint –** Used in severe deformities or if significant arthritis present (see separate information sheet).

- **Fusion 1st tarsometatarsophalangeal joint –** Used in severe deformities with hypermobility in the midfoot (overly mobile joints in the middle region of the foot). The fusion (gluing of two bony surfaces) is carried out at the joint at the base of the 1st metatarsal between the 1st metatarsal and the medial cuneiform. The articular surfaces are removed and the exposed bony surfaces compressed against each other using a combination of screws / plates. At the same time, the bones are positioned in order to correct the bunion and toe deviation. The 2 bones are intended to heal up as one across the joint.
**What Are The Alternatives to Surgery?**

- To accept your symptoms and try and live with them. Sometimes the bunion becomes worse (they do not get better with time) but this is variable and severity of symptoms also varies from person to person.
- Splints - these may sometimes be helpful in trying to make the foot more comfortable but do NOT correct the deformity and most patients do not find these useful
- Careful choice of shoes. Most people do not have symptoms from their bunion when barefoot and so choosing a broad enough shoe often helps with controlling/reducing symptoms from a bunion. Custom made shoes can be arranged. Shoes can also be stretched which can be helpful. Choice of shoes or their modification is important to try before considering going ahead with an operation (as it may give sufficient relief to avoid an operation).

**Bunion Surgery (Hallux Valgus Correction) General Recovery Facts**

- Operation performed under general anaesthetic or regional anaesthetic
- You are able to walk on the heel of the foot the day of surgery
- You must wear your surgical shoe (heel wedge shoe) at all times - except in bed at night
- You may not walk on the foot at all even in the house without this shoe
- You may not drive after the surgery for six weeks unless you have an automatic vehicle and only the left foot has undergone surgery
- The surgical shoe is worn for 6 weeks

**Sick Leave**

In general, 2-4 weeks off work is required but this depends upon your occupation.

**Driving**

- If have an AUTOMATIC VEHICLE and ONLY LEFT leg surgery then it is likely you will be allowed to drive after your outpatient review at 2 weeks post surgery.
- If you have a MANUAL VEHICLE or RIGHT leg surgery then you will NOT be able to drive until 6 weeks post surgery.

**Bunion Surgery (Hallux Valgus Correction) Post-operative Course**

**Day 1**

- Foot wrapped in bulky bandage and surgical shoe (heel wedge shoe)
- Start walking on the heel in surgical shoe only
- Elevate, take pain medication
- Expect numbness in foot 12-24 hours
- Blood drainage through bandage expected - Do not change bandage
- Do not remove surgical shoe - except at night

**Day 7**

- Do not remove surgical shoe - except at night
- Moderate pain - continue pain medication
- Elevate as much as possible
- Keep bandaging dry and do not remove (do not change dressing unless instructed)
- May drive with caution in surgical shoe ONLY IF surgery to left foot only and automatic vehicle (otherwise return to driving at 6-8 weeks post surgery)

**10-14 Days**

- Follow-up in the outpatients for wound review & removal stitches
- Application of toe alignment splint to maintain big toe position
- Alignment splint to be worn inside surgical shoe
- Usually encouraged to begin moving the big toe after 2 weeks post surgery
- Physiotherapy may be recommended
- Shower when incision dry

**6 weeks**

- Follow-up in the outpatients with xray on arrival
- Remove surgical shoe if satisfactory xray
- A regular shoe may be worn as comfort allows
- Do not roll off on the big toe for one more month
- Big toe (hallux) alignment splint to be worn until 3 months after surgery
- No high heel is worn for two more months

These notes are intended as a guide and some of the details may vary according to your individual surgery or because of special instructions from your surgeon.
**Main Risks of Surgery**

**Swelling** - Initially the foot will be very swollen and needs elevating. The swelling will disperse over the following weeks and months but will be apparent for up to 6-9 months.

**Infection** - This is the biggest risk with this type of surgery. Smoking increases the risk 16 times. You will be given intravenous antibiotics to help prevention. However, the best way to reduce your chances of acquiring an infection is to keep the foot elevated over the first 10 days. If there is an infection, it may resolve with a course of antibiotics.

**Wound problems** - Sometimes the wounds can be slower to heal and this does not usually cause a problem but needs to be closely observed for any infection occurring.

**Scar sensitivity** - The scars can be quite sensitive following surgery but this usually subsides without treatment. If persistent sensitivity occurs then this can be treated.

**Nerve Injury** - The risk of the small nerves in the area being directly injured by the surgeon is approximately 1%. However, the nerves can become bruised by the surgery as a result of the swelling (10%). Whilst this usually recovers, you could end up with some permanent numbness over the big toe area, which might cause irritation.

**CRPS** - This stands for complex regional pain syndrome. It occurs rarely (1%) in a severe form and is not properly understood. It is thought to be inflammation of the nerves in the foot and it can also follow an injury. We do not know why it occurs. It causes swelling, sensitivity of the skin, stiffness and pain. It is treatable but in its more severe form can take many months to recover.

**Delayed and non union** - This is when the bones fail to join and bone has not grown across the cut bone. If this is painful then further surgery may be needed. The risk of this is approximately 5%.

**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 the heel of the operated 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 with heparin and Warfarin to try and prevent any of the clot travelling to the lungs (pulmonary embolus / PE) which can be much more serious.

**Stiffness** - The big toe joint is almost always more stiff following this surgery because of the scar tissue that forms. The stiffness can be minimised by beginning to move the big toe after 2 weeks from surgery and your surgeon will advise you regarding this. Most of the movement usually returns but some stiffness may remain permanently. Physiotherapy may be recommended from 2 weeks after surgery.

**Continuing symptoms** - Most people (90%) are very happy with the results of their bunion surgery but you can appreciate that if some of the above problems occur then this may affect the end result. Occasionally (5%) the bunion may recur although not usually to the same degree. This is more likely in patients who have more lax ligaments in their feet. If there is a recurrence then you don’t necessarily require any further surgery - this will depend upon your symptoms.

**Sick Leave**

In general 2 weeks off work is required for sedentary employment, 6 weeks for work involving standing or walking, and 8 weeks for manual labour work. We will provide a sick certificate for the first 2 weeks; further notes can be obtained from your GP.

**Driving**

May return to driving after outpatient review at 2 weeks post surgery ONLY IF left leg surgery only and automatic vehicle – otherwise unable to drive until 6 weeks post surgery.

*These notes are intended as a guide and some of the details may vary according to your individual surgery or because of special instructions from your surgeon.*