# Surgery for problems of the small toes

## 1. What problems can happen to the small toes

The small toes are important in walking, especially when pushing off with the foot towards the next step. They share the pressure with the big toe and the ball of the foot. Toes become deformed when the pressures on the toe are stronger than their joints can resist. This may because the joints are weak or the pressures strong, or both.

The joints may be weak because they have been damaged by injury or arthritis. The muscles that control them may become unbalanced, so that one set pulls harder than others and causes the toe to bend. In some people the tissues in the lower part of the joint at the base of the toe (metatarso-phalangeal joint or MTPJ) become weak, allowing the base of the toe to drift upwards and unbalancing it.

The main pressures which cause toes to become deformed come from shoes which press on the tip of the toe, either because the shoe is tight or because it has a high heel, which tends to force the toes into the tip of the shoe.

There are different types of small toe deformities; claw toes, hammer toes and mallet toes.

<b>Claw toes:</b> Involves an upward bending of the toe joint at the ball of the foot. At the middle joint and sometimes the end joint as well, the toe bend downward in a claw-like fashion, often digging in to the sole of the foot. This can occur in any toes except the big toe.	
Hammer toes: Toe is bent at the middle joint causing a curling of the toe. Most common in the second toe, but can occur in any toes. Hammer toes are often present along with a bunion deformity.	
Mallet Toe: Similar to a hammer toe except the joint involved is the last joint (DIPJ) instead of knuckle joint(MPJ), giving the toe a mallet- like appearance at the end of the toe	

## 2. What problems do these deformed toes cause?

The main problem with deformed toes is that they tend to rub on shoes, either on top of the PIPJ or at the tip or both. This rubbing may simply be uncomfortable or the skin may be rubbed raw and this may result in ulcers.

If the MTP joint is bent upwards, the toe may press down and cause pain in the ball of the foot ("Metatarsalgia")

Bent toes may rub on one another or on the big toe, especially in case of concurrent bunion deformity.

## 3. What causes these deformed toes?

Poorly fitting shoes: usually wearing shoes that are too short High Arched foot Genetics Bunions Rheumatoid arthritis Underlying neurological condition such as charcot-marie tooth disease Diabetes Tendon imbalance

## 4. What are the benefits of surgery

Your toes should be straighter, so your foot should fit more comfortably in a normal shoe

## 5. Are there any alternatives to surgery

Putting padding between your toes and strapping them in place may help to stop pain caused by toes rubbing

Orthoses can reduce excessive pressure from painful areas.

Shoes with wider and deeper toe areas can also help you get around more easily Regular visit to podiatrists to remove painful hard skin can help reduce pain in a short term. If these measures do not work, surgery may be an option.

### 6. What will happen if I decide not to have the operation?

Problems of the small toes do not get better without surgery. Conservative treatments will usually prevent them from getting rapidly worse.

The skin on the toes can become inflamed and infected.

### 7. What does the operation involve?

The operation for small toe deformity is usually day-case procedure and can be done under local or general anaesthesia. Your surgeon or anaesthetist may give you antibiotics during the operation to reduce the risk of infection.

The operation usually takes around 30 minutes. The operation depends on the problems with your toes and your surgeon will discuss with you which of the following procedures your operation is likely to involve.

- Releasing or lengthening tendons
- Putting joints back into place
- Straightening a toe by removing some bone
- Stiffening one of the toe joints
- Changing the shape of metatarsal bone to shorten or lift it away from the skin in the ball of the foot

### 8. What do I expect immediately after surgery in hospital?

Your surgeon may fix the toes in place with wires or tiny screws. There may be short wires visible at the end of the toe (these will be removed with a gentle pull, pain-free in the outpatient clinic after 4 weeks)

At the end of the operation, your surgeon will close the skin with stitches and put a bandage or plaster cast on your foot.

### 9. Recovery in the first few weeks after surgery

- Elevate your foot as often and as much as possible to reduce swelling
- Avoid smoking
- Take pain medication as instructed
- Some blood ooze can be expected in the bandage, but if worried, contact the number given

### **10.** Post-operative clinic schedule

- 1<sup>st</sup> week wound check and dressing change
- 2<sup>nd</sup> week wound check and suture removal
- 4<sup>th</sup> week X-ray and removal of wire
- 12<sup>th</sup> week Clinical examination

### 11. When can I walk?

- 0-4 weeks Full weight bearing in the postoperative shoes
- 4-6 weeks Full weight bearing in the postoperative shoes/comfortable wide shoes
- > 6 weeks Full weight bearing in normal shoes

### 12. Can I get my foot wet in shower?

In the first 4 weeks, keep the foot dry. You may shower with a waterproof cover over your foot.

### 13. How can I look after the incision wound?

Do not pull at scabs but let them fall away naturally. If your wound becomes red, swollen or sore, you need to see your surgeon.

### 14. When can I start to drive?

Do not drive until you are confident about controlling your vehicle and always check with your doctor and insurance company. Generally it will take at least 6 weeks.

### 15. When can I work?

- Sedentary 2 weeks
- Manual labour 6 weeks

### 16. What long-term outcome can I expect after surgery?

Symptom relief with a straight toe once the wound heals. Return to activity and sports in comfortable shoes by 2-3 months are possible.

The swelling often take up to six months to go down completely. You should always wear comfortable shoes that have enough space for your toes. Wearing shoes with high heels or pointed toes may cause more toe problems in the future.

#### 17. What are the risks?

As with any other surgical procedures, small toe surgery is not without complications. The complications fall into three categories.

- Complications of anaesthetics
- General complications of any operations
- Specific complications of small toe operation

### 1) Complications of anaesthetics

Anaesthetist will discuss with you the possible complications from having anaesthetics.

### 2) General complications of any surgery

Pain: Your surgeon will give you pain medication.

**Bleeding**: surgery is usually done under ankle tourniquet to minimise bleeding during procedure.

**Infection**: soft tissue infection could happen after the operation and it is usually managed well with oral antibiotics.

There is a slim risk that bone infection (Osteomyelitis) could happen and this usually requires intravenous antibiotics for a period of time.

**Surgical site scarring**: If you are prone to hypertrophic scar (Keloid), doctor can arrange scar reduction cream during the operation.

**Blood clot (Deep Vein Thrombosis) in the leg**: This could happen 1 in 100 but your surgeon can assess you for risk factors such as blood disorder, previous history, smoking, edema of the legs

### 3) Specific complications of small toe surgery

**Nerve Damage**: leading a patch of numb skin near the cut or a tender scar. This usually settles on its own but may be permanent.

**Damage to blood vessel**: Rarely happen but this can cause a toe to die. If this happen, you will need to have the toe removed. (Amputation)

**Problems with bone healing**: this can happen if the operation includes cutting the bone to realign the toe. The bone has to heal in the same fashion as a fracture. Occasionally, the portion of the one can slip before and healing may take a longer than usual 6 weeks or may require further surgery to correct. **Loss of movement in the toes**: caused by scarring from the surgery and this often improves with time.

Severe pain, stiffness and loss of use of the foot (Complex regional pain syndrome): rare condition with unknown causes

**Recurrence of the deformity**: This can happen if tendons get out of balance again, or you have arthritis that causes more damage to your joints. You may need more surgery in the future.