

Bunion (Hallux abductovaglus)

1. What is bunion

A bunion is a “bump” on the joint at the base of big toe known as first metatarsophalangeal joint(1st MPJ) – that occurs when the bone or tissue at the big toe joint moves out of place. The visible bump actually reflects changes in the bony framework of the front part of the foot. Bunion is a progressive disorder. They begin with a leaning of the big toe, gradually changing the angle of the bones over the years and slowly producing the characteristic bump, which continues to become increasingly prominent. Usually the symptoms of bunions appear at later stages, although some people never have symptoms.



Figure 1
Bunion on the left foot

2. What causes a bunion?

It is still not clear what exactly causes bunion deformity but possible causes are;

- Genetic (family history): If other members of your family have bunions, you have a higher risk of developing bunion but it does not mean you will definitely develop.
- Biomechanics of your feet: Abnormal function of joints in your feet can predispose to the development of bunion deformity
- Arthritis: Rheumatoid arthritis, gouty arthritis or psoriatic arthritis
- Other conditions or syndromes: cerebral palsy and Marfan’s syndrome when ligaments are genetically loose
- Poorly fitting shoes – pointy or narrow shoes, high-heeled shoes

3. What are the conservative treatments?

- Putting padding over the bunion area or spacer between first and second toe may relieve pain caused by the bunion rubbing
- Wear extra-wide-fitting shoes
- Custom-made orthoses: it may help relieve pain associated with bunion or may prevent it from becoming worse rapidly.

However, all of these conservative treatments do not correct bunion deformity and these modalities are to reduce pain.

4. Do I need bunion surgery?

Although your surgeon has recommended an operation for your bunion to improve the function of your foot and reduce pain, it is your decision if you go ahead with the operation or not.

Bunion is often progressive and once the second toe overlies or underlies your first toe, additional operations are required to address the deformed lesser toes.

5. What does the operation involve?

There are around 130 different procedures for bunion surgery. Your surgeon will decide what procedure is performed depending on your bunion, but it typically involves;

- *Removal of bunion*
- *Releasing tight ligaments, capsule and tightening loose ligaments*
- *Cutting and realigning first metatarsal bone with fixation(K-wire or screws)*
- *Additional procedure may be warranted to correct the big toe*

Various anaesthetics are available for bunion surgery. Your anaesthetist will discuss with you. (General anaesthesia or spinal block or local anaesthesia with sedation)

Operation usually takes *an hour or slightly more*, and at the end of operation your foot is dressed with a bandage or plaster cast.

6. What medications will I take and does it affect my medications?

You will first be given to take antibiotics 1 hour prior to operation and if needed, you will also take a sedative medication 90 minutes prior to the operation if you decide to have local anaesthetics. You will also be given post-operative analgesics for pain reduction.

Your surgeon also asks what medications you are on during preoperative consultation and given you an instruction;

- If you are on *beta-blockers* for your high blood pressure, you should continue to take them
- If you are on warfarin or clopidogrel, you may need to stop prior to surgery
- If you are diabetics, you should continue to take diabetic medications and make sure your blood sugar is under control

7. What if I am a smoker?

If you are a smoker, you need to stop the habit of smoking 6 weeks before your operation for normal healing and reduce postoperative complications. Nicotine is known to stop bones from healing.

8. What can go wrong with bunion surgery?

As with any surgical procedures, bunion surgery also carries complications. The complications fall into three categories.

- Complications of anaesthetics
- General complications of any operations
- Specific complications of bunion 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 bunion surgery

Delayed bone healing: Osteotomy (Bone cutting) site usually takes 8 weeks to heal but sometimes it could take a longer time up to 6 months and sometimes further surgery is required to address this problems.(risk:1 in 50)

Stiff joint: Due to soft tissue swelling, the movement of joint may be slightly restricted but this usually resolves with time.

Nerve Damage: You could experience numbness near the operation site but this usually resolves with time.

Recurrence of the deformity: This could happen if underlying cause is not addressed after the operation. Recurrence is usually higher if you are young or have hypermobile joints.

Overcorrection: If the deformity is overcorrected, your big toe may go outward.

9. How soon will I recover

1. In hospital

After the operation you will be transferred to the recovery area. You will have a plaster cast or thick padded bandage with postoperative shoes on your foot. You should keep your operated foot raised to reduce swelling.

A member of the healthcare team will check the blood circulation in your foot and monitor if there is excessive bleeding or swelling.

You are also advised by the surgeon how much weight you can put on your foot and/or you may require crutches or a walking frame for walking.

You should be able to go home later on the same day and you should arrange transport by your family member or taxi and stay with you for at least 24 hours. You should prepare telephone near you in case of an emergency. You will need support for a few days.

2. At Home

You should not drive, operate machinery (including cooking) or do any potentially dangerous activities for at least 24 hours and not until you have fully recovered feeling, movement and co-ordination. If you had a general anesthetic or sedation, you should not sign legal documents or drink alcohol for at least 24 hours.

For the first week, you will need to spend most of the time with your operated foot raised to reduce swelling.

If you have anything in doubt, you should contact your surgeon on the phone number given to you.

3. Returning to normal activities

It can take six weeks or longer before swelling has gone down enough to wear normal soft shoes. Once the bone has healed, you can massage any scars with moisturising or scar creams and gently move your toes to make them more supple. Your surgeon will tell you when you can return to normal activities. Regular exercise should help you to return to normal activities sooner but before you start exercising, you should ask your surgeon or your healthcare team members such as a physiotherapist or GP.

Do not drive until you are confident about controlling your vehicle and always check with your doctor and insurance company first.

The swelling usually subsides within 6 months but it may last up to 12- 18 months. You should wear comfortable shoes that have enough space for your toes. Wearing shoes with high heels or pointed toes may lead to more toe problems in the future.

10. Summary

If you have a bunion that is causing pressure and pain, surgery should help straighten your big toe and make your foot fit more comfortably into a normal shoe.

Surgery is usually effective and safe but complications can happen. You need to know about them to help you make an informed decision about surgery. Knowing about them will also help to detect and treat any problems early.