



## The Z-Bunionectomy

### What is a Bunion?

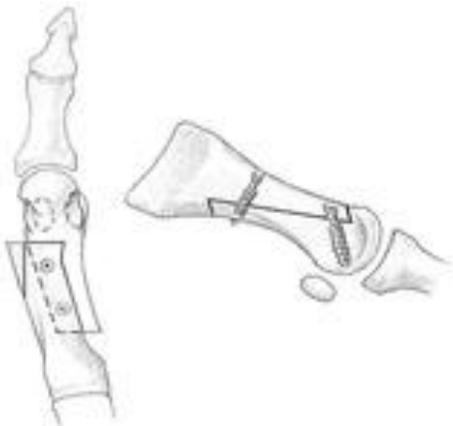


A bunion (aka hallux abducto valgus) is a bony alignment issue, in that the first metatarsal medially deviates at the first metatarsal-cuneiform joint. The first metatarsophalangeal joint (MPJ) has two sesamoids plantar which are supposed to be centered directly under the first metatarsal head. As the first metatarsal shifts medially, the sesamoids remain in place. The adductor hallucis tendon inserts on the proximal lateral base of the hallux. As the first metatarsal deviates medially, the hallux is pulled laterally causing the large, bony medial eminence commonly referred to as a bunion. The pulling of the hallux now becomes a deforming force, causing increased medial deviation of the first metatarsal.

### The Z-Bunionectomy Procedure

There are many different ways to correct a bunion, but all are trying to accomplish the same thing: bring the first metatarsal head back over the sesamoid apparatus to re-align the first MPJ and limit the amount of deforming forces from the hallux.

Our bunion surgery is performed as an outpatient, same day surgery under MAC anesthesia – usually using versed and propofol with a localized first metatarsal block. No general anesthesia or tubes are inserted to help the patient breathe. They are off in a “twilight sleep” during the procedure, but are breathing on their own.



The procedure I prefer to utilize is the **Z-bunionectomy**. This refers to the shape of the bone cut we utilize to move the first metatarsal back in alignment with the sesamoids. The incision is made at the medial aspect of the joint in order to minimize visibility of the scar. A sagittal saw is used to resect a small amount of the medial eminence. The saw is utilized to create a z-shaped osteotomy in the transverse direction. The capital fragment/head of the first metatarsal is then shifted medially and temporarily fixated with a bone clamp. Two small screws are then inserted to reattach the bone, and a sagittal saw is utilized to resect the remaining overhanging medial eminence.

At this point, the joint is re-evaluated. If the hallux is still slightly deviated, a small, oblique wedge may be removed from the middle of the proximal phalanx, shifting the hallux into a more rectus fashion and then fixated with a screw or threaded k-wire. A sterile, mildly compressive dressing is applied and the patient is placed in a short walking boot.

## The Recovery

### Weeks 1-2 Post-Op

- Immediately following the surgery, the patient may walk with boot on to the bathroom and back (or very short distances only). No cast or crutches are needed.
- Post-op pain medication is usually taken every 4-6 hours for the first 3-7 days.
- They must elevate their foot whenever sitting in order to control edema.
- The bandage will stay in place and will not be changed until their first post-op appointment in 4-7 days.
- The bandage will be changed after week one, and they will have the same instructions:  
No getting it wet, with minimal walking to bathroom and back.

### Weeks 2-6 Post-Op

- At 2 weeks post-op, all dressings will be removed.
- The patient may now shower and get the area wet
- They may apply various hand lotions to the incision (vitamin E, cocoa butter, aloe vera, etc.)
- They will also be returned to their gym shoe and allowed to walk on the area for 10 minutes each hour (maximum) the first week. Each coming week they will increase their walking by 10 minutes per hour.
- Also at 2 weeks post-op, the patient may start with a light swim or exercise bike activity.

### Week 6 Post-Op

- At 6 weeks post-op, the bone cut should be healed. An x-ray is taken to verify the healed osteotomy.
- If the osteotomy is healed, the patient may start walking for exercise and gradually start trying to be on their feet all day.
- The osteotomy is still not strong enough for high impact activities yet.

### Week 10 Post-Op

- At 10 weeks post-op, the bone should be much stronger and the patient may start to gradually build up their running and jumping activities.
- The swelling usually decreases enough around the 3-month mark so that the patient may return to all gym shoes and tighter fitting shoes.
- The surgical site will continue to gradually remodel and strengthen over the course of a year.

Contrary to the vast amount of information found on the internet, our patients are usually quite surprised by the little amount of pain and discomfort they have post-op. We prefer to operate on only one foot at a time, in order to give the patient one "good" foot to walk on during the recovery.

