

Micro-Invasive Bunion Surgery

Bunions are very common and typically cause pain on the inside of the big toe. This is most commonly caused by the base of the big toe rubbing on shoes and has an association with high heels and narrow toe box shoes. Most can be treated with wider shoes, shoe cobbling and stretching, anti-inflammatories, avoiding heels and sometimes toe spacers and pads.

Although many dislike the appearance, the indication for surgical correction is continued pain and the inability to find comfortable shoes. There are over 150 surgeries described for bunion correction, and arguments can be made for each of them. Every surgeon has their preferences and much has been researched into which procedures are the most appropriate for certain patients. The minimally-invasive bunionectomy is a new approach to an old problem. The same correction and the same surgery is performed, but achieved in a way that tries to cause less trauma, less swelling, preserve more motion, avoid complications and allow earlier weight bearing.

When is it Time to Think About Surgery?

If you have a painful bunion that has been present for several years and comfortable shoes are difficult to find, you may be a candidate for surgery. You should have stopped wearing high heels and narrow shoes prior to considering surgery. Cosmetic appearance is never a reason to consider surgery. Although the minimally-invasive surgery is often much more cosmetically pleasing than other methods, this is not the goal of surgery. Every surgery will leave scars, which could be painful. No surgery can guarantee there will not be a complication. Never have a painless bunion corrected.



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Who is a Candidate for Surgery?

Patients who are candidates for surgery are those with painful bunions who have failed all non-surgical measures such as wider shoes and anti-inflammatories. The bunion should be of moderate size without dislocation of the joint. There should be little or no arthritis. The patient should have their growth plates closed. This procedure is not for juvenile bunions which are much more likely to recur and often have open growth plates that could be damaged by this procedure. Anyone who has medical issues preventing anesthetic are not candidates for this surgery.

About the Surgery

The minimally invasive bunion correction is an outpatient procedure. You will have a general anesthetic and local anesthetic will be injected around your toe during the procedure to help control pain after surgery. You will need a driver to drive you home.

The bunion will be corrected by what is called an "osteotomy". This means that the bone will be cut, shifted into the

correct position and then fixed in place with screws. Most bunions will require two cuts and three screws. The cutting tool is not a saw, but a specialized cutting burr which uses high torque and low speed with irrigation. It is designed to cut bone and not tendon, nerves, or arteries; however, as in any surgery, there is always the potential for injury to these structures.

Because the procedure is done with x-ray guidance and is much more technically difficult, it typically takes longer than a traditional “open” technique. Average surgery times is 1-2 hours.

Preparing for Surgery

Once you are deemed a candidate for bunion correction, preadmission testing is done to confirm you are healthy enough for surgery. This will include labs and, depending on age and health, an electrocardiogram and chest x-ray. Occasionally, we may need evaluations from your primary care physician or other specialists such as cardiology prior to surgery. Stop smoking at least 3 weeks prior to surgery to reduce your risk of lung issues after surgery, and to lower your risk of not healing or having other complications such as nerve injuries.

What to Expect After Surgery

A special dressing will be placed to hold your toe in the proper place. Sometimes, we will have you return to the office 3-5 days after surgery to replace this dressing. Other times, the dressing may be left in place until the two-week follow up.

You will be sent home in a post-op shoe unless another procedure is done at the same time requiring a boot. You may weight bear to tolerance in the shoe and walk flat-footed. Crutches to aid with walking and to avoid “overdoing it” for the first two weeks are recommended. After two weeks, a forefoot compression sleeve is recommended to both hold your toe in the proper position and help avoid swelling for 6-12 weeks post-surgery. Please note, these sleeves are typically not covered by insurance. Most patients can wear an athletic shoe at two weeks post- surgery with athletic socks. A full return to all activities, including running, can take 6-12 weeks.

Complications and Risks of Surgery

The bunion can recur after surgery. The risk of recurrence is greatest with large bunions, especially when the correction is done using a traditional surgical method.

There is always a risk of the bone cuts not healing. Decreasing smoking, eating a healthy diet and supplementing vitamin D and vitamin C can decrease this risk.

Screws will be implanted. These screws are specially designed for this procedure to sit flush to the bone and not require removal, but some people may still notice them. Screws can be removed once the bone has healed; typically, 6 months to 1 year after surgery.

Infection is rare but can occur with any procedure. Antibiotics are given through your IV prior to surgery but will not be given after surgery unless you have evidence of an infection.

Numbness is very common after a bunion procedure. This technique tries to minimize numbness, but at the very least, temporary numbness is expected. On some occasions, numbness can be permanent.

Occasionally, burns can occur on the skin incisions from the burr used to cut the bone. Typically, the burn(s) will heal without further treatment. The bone that is cut can also sometimes die and cause pain requiring other procedures such as fusion. This complication is much more common in a traditional open technique and has been shown to be very rare in case studies of this minimally invasive technique.

Recovery Period

Weeks 0-2: You will need to keep your foot elevated and ice (20 minutes on and 20 minutes off as needed for pain and swelling) for at least the first two weeks. You will be putting weight on it immediately. Crutches are recommended for two weeks after surgery.

Weeks 2-6: You will start gentle range of motion of your toe. Massage for desensitization is recommended. A compression bunion sleeve is recommended and you may walk in an athletic shoe.

Weeks 6-12: Swelling will resolve and your foot will start to behave more normally. Typically, most athletic activities may restart during this time.