FootCare Update

Expert care from professionals who care.

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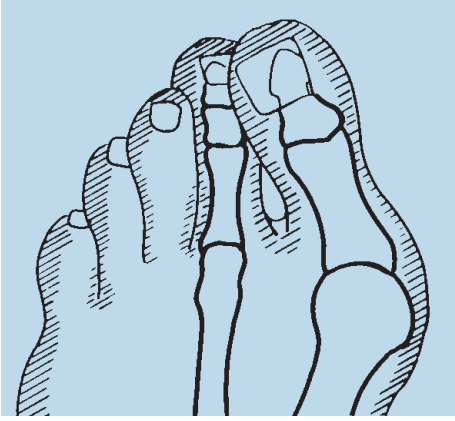
Bunion Surgery Requires Bio-mechanical Wisdom To Realign Deformed Big Toe Joint

To begin with, the term "bunion" is an odd one. The term was originally coined to describe the painful bump that often forms on the top or side of the Great Toe Joint, but in reality this bump is only a symptom of the underlying issue at hand, i.e. a dislocated Big Toe Joint. The best medical terminology for "bunion" is Hallux Abducto Valgus: Big Toe that dislocates to the outside of the foot then rotates and turns on its side.

When the Big toe itself dislocates to the outside of the foot, the bone deep inside the foot, the 1st metatarsal bone, the bone that the big toe is connected to, moves toward the inside of the foot. This widens the foot, and that head of the big bone rubs on shoes. As a protective measure, the bone and joint tissue overlying that bone becomes thickened and inflamed. (Yes, some of that bone will need to be removed with bunion surgery, but this is only 1% of what is involved in bunion surgery.)

On the bottom of the big toe joint there are two bones called "sesamoids". They are like little "knee caps". The big toe tendon swings around underneath those two little bones, pulling the big toe down and helping us to walk. When the big toe drifts toward the outside of the foot, it takes those little bones with it, also causing them to dislocate and rotating the toe in the process. Now the big toe no longer works properly and this often causes problems secondarily with the 2nd toe.



Typical bunion deformity.

All of this explanation is intended to convey the complexity of the bunion deformity and to help us appreciate the importance of the very best reconstructive care when having bunion surgery.

Why Do Bunions Develop?

Bunions typically are inherited, that is, the predisposing bone, joint and soft-tissue structures are inherited to the extent that bunion deformities (with or without symptoms) are often manifested in children and youth before age 20. Males and females both can develop bunions, however women tend to complain in greater numbers because of particular shoe gear. Although shoes, by themselves, do not cause bunions, people with a foot type that is prone to this kind of deformity, can aggravate the prominence with tighter shoe gear.

Why Surgical Intervention?

The first response to bunion deformities is usually initiated by the patients themselves. They self-medicate with over-the-counter, non steroidal anti-inflammatory drugs (NSAIDs), if tolerated, and they attempt to wear more comfortable footwear. They often attempt to use bunion shields or other over-the-counter devices, which can accommodate the swelling, but have no effect on minimizing the progression of the deformity or reversing it.

Treatment by physicians generally results in a recommendation for surgical intervention if the conservative means have been exhausted. Although the injection of a painful bunion may be performed, it is not advised. The treatment not only does nothing to deal with the deformity, but the steroid can weaken tissues, further progressing the deformity and

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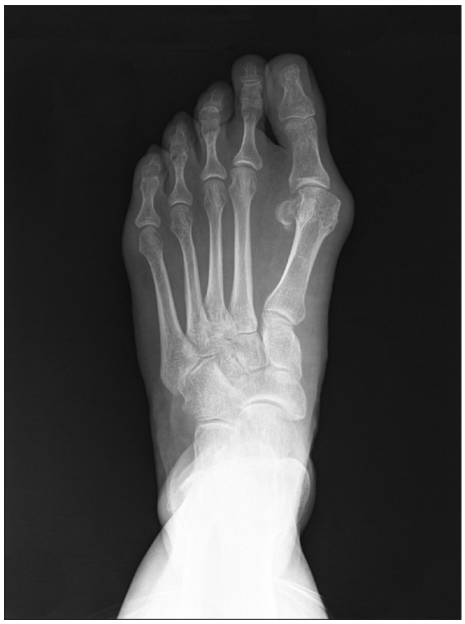
making repair more difficult.

Also, overlying skin is almost always thinned because of the deformity and the steroids can result in further skin thinning, breakdown and even chronic ulceration.

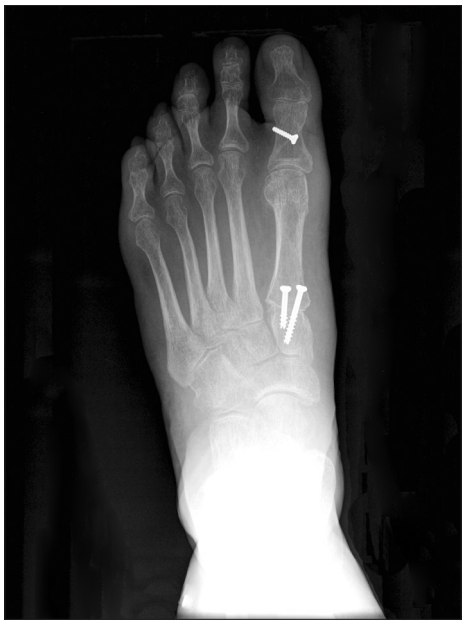
Many Factors Drive Surgery

There are many different types of surgical procedures that correct the bunion deformity. Based on clinical examination and x-ray findings, as well as age and activity level, the surgeon should custom design the procedure for the patient. In addition to the genetic predisposition for the deformity, the surgeon must consider the mechanics of the foot in general when considering other causes and in planning surgical correction. Medical conditions also must be considered including, chronic gouty arthritic attacks, rheumatoid or other collagen-vascular diseases, connective tissue pathology such as Down's syndrome, Ehler-Danlos Syndrome, Marfan's Syndrome, generalized ligamentous laxity or neuromuscular conditions. Lastly, traumatic injuries resulting in soft tissue derangement can also be contributing factors.

Most bunion procedures are now performed on an out-patient basis in the hospital or surgery center settings. The surgery to repair a bunion deformity is reconstructive and generally



Pre-surgery



Post-surgery

involves cutting of bone and repositioning the malaligned first metatarsal joint. Some form of fixation (usually screws) is used to hold the bone in position during healing. The severity of the deformity will determine the correct surgical plan, and sometimes age and physical stamina are factored into the equation.

When Bunion Surgery Fails

In my practice, a significant percentage of my surgical volume involves revision which is the surgical correction of other surgeons' failed bunion surgeries. Unfortunately, bunion surgery can have a high failure rate if not properly executed. There are significant reasons for the majority of these failures.

Poor bunion surgery is inadequate correction of the underlying structural deformity with either immediate recurrence of the deformity, often right on the operating table or within a short time after the patient puts the foot back on the ground. These surgical misadventures could be due to poor surgical skills if the surgeon doesn't specialize in foot surgery, but usually are due to poor surgical decision-making. Surgeons often excuse poor results by "blaming" their "training" and/or by blaming the pressure the patient has placed upon them for a speedy recovery.

All too often bunion surgery is patient-driven. Too many surgeons use procedures that they know are doomed to failure, but which they perform with the goal of getting the patient back on their feet sooner. While this rationale might at first blush appear honorable, it sacri-

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fices the welfare of the patient.

Full Recovery Period

At the root of good bunion surgery is the simple axiom that a good surgical outcome requires good skills and a "good" amount of time being off of the foot to allow the bones and soft tissues to heal. False hopes, false promises and false expectations combine to produce false outcomes.

Like a crooked wall that sits on top of a crooked foundation, the foundation must be straightened before the wall can be put upright. Hence, the foundation of the bunion, the crooked 1st metatarsal bone, must be made straight before the wall, the big toe, can be straightened. This requires the cutting of bone(s) and the use of plates and screws, AND then the most important thing, TIME TO HEAL. Now it is important to add that there are very important age factors involved. There are procedures in place for older patients, usually patients in their late 60s and beyond, that will allow them to spend less time on crutches. But, these procedures have drawbacks and a good surgeon will not perform them on younger folks with a more active lifestyle.

A good surgeon emphasizes the goal of providing a long-term result that usually includes a painfree result and a result that lasts, in return for three months of disability (2-3 months on crutches - no weight on the foot) as "payment" for many decades of relief. A surgeon whose focus is on speedy recovery and early walking on the foot (for the younger patient), is usually not providing the patient with the best chance for a good outcome.

Is surgery really necessary?

Bunion surgery is elective; however the deformity is progressive and non-reversible if not surgically corrected. Important factors to be considered in the decision to have surgery are 1) discomfort from the bunion or other toes, 2) inability to wear desired shoes and 3) limitations made on the patient's lifestyle and career activity levels.

Potential complications following bunion surgery include postoperative infection, delayed healing, and prolonged swelling and joint stiffness.

Fortunately these complications, though infrequent, can be treated to preserve a good result.

Patients often have a big concern about post operative pain. There are newer techniques employed by foot surgeons at the Baptist that result in no pain after surgery for up to 18 hours. When pain does occur it usually does not last for more than a couple of days, and it can be well controlled with medication.

Basically the aim of the foot surgeon is to appreciate the importance of joint realignment, the maintenance of bone length and position in respect to the other metatarsals and most importantly, individually tailoring those procedures in each and every case.

There is no such thing as a 'cookbook' bunion surgery. The reputation of bunion surgery is either very good or very bad depending almost upon the technical expertise of the surgeon and his or her ability to educate and motivate the patient to make a priority of compliance during the recovery period.

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