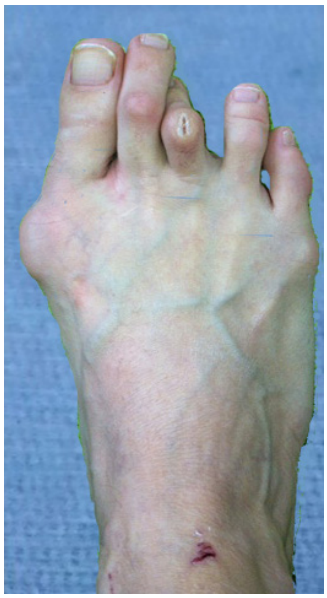
Richard M. Marks, MD
Professor and Director
Division of Foot and Ankle
Department of Orthopaedic Surgery
Medical College of Wisconsin

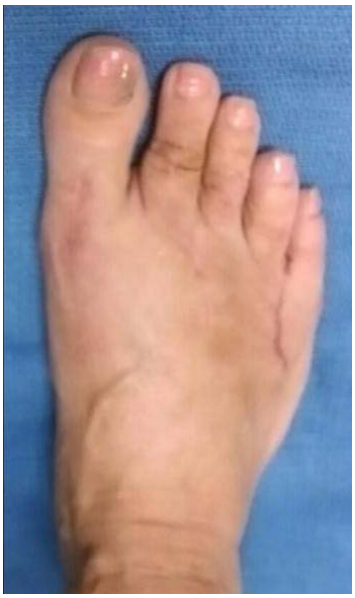
Bunionectomy-Forefoot Surgery

Explanation:

A bunion (also called hallux valgus) describes lateral deviation of the great toe (hallux). Bunions are more common in women secondary to fashionable shoe wear; however, deviation of the great toe (hallux) can also be caused by heredity, flat feet, trauma, or soft tissue laxity due to rheumatoid arthritis and gout. Hallux valgus deformities result in a characteristic prominent portion of bone on the inner aspect of the hallux which often becomes irritated in normal shoewear. Patients with bunions may also experience global joint pain or transfer metatarsalgia. Lesser toe deformities such as hammertoes or crossover deformities may also form secondary to hallux valgus as the lesser toes accommodate the great toe deformity. Conservative means of treatments can be successful and include utilizing wider shoes to alleviate sources of irritation or shoes made of soft leather that stretch to accommodate the deformity. Splints and toe spacers can also be affective in improving impingement symptoms of the lesser toes however these modalities will not correct the deformity indefinitely. Orthotics may also be beneficial for metatarsalgia complaints. If conservative means fail, surgery may be considered.



Pre-Operative

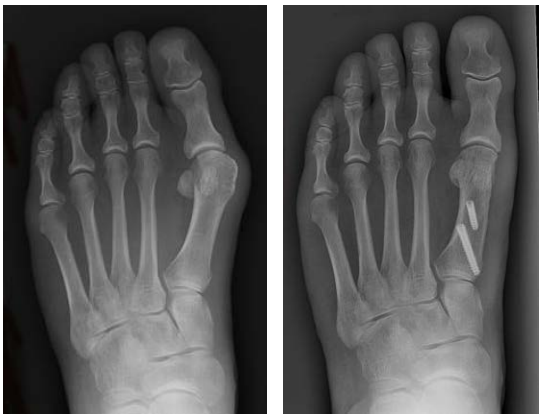


Post-Operative

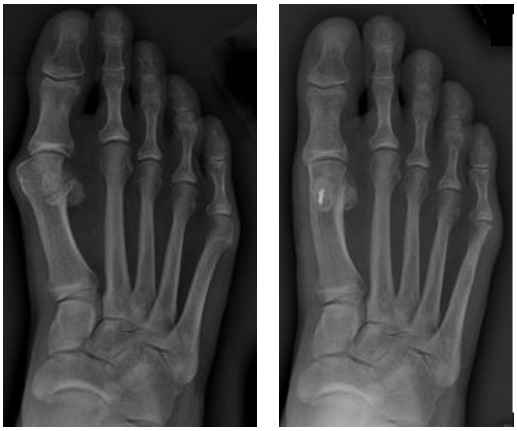
Rev. 3/4/2014

Procedure:

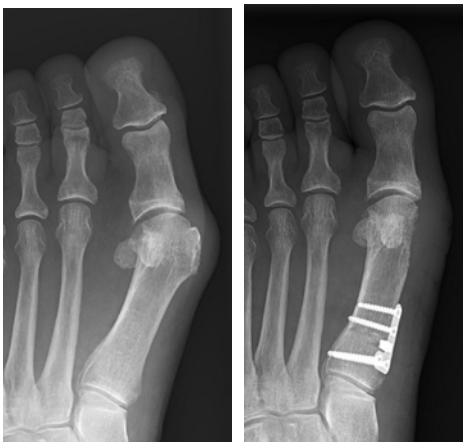
There are a number of procedures that can be performed to correct a hallux valgus deformity. Correction focuses on realigning the bony deformity and balancing the soft tissues. Resection of prominent bone is frequently combined with release of contracted soft tissues and cuts in the bone (osteotomy) to correctly align the 1st metatarsal and narrow the forefoot. Hardware, such as screws or pins may be used to stabilize the osteotomy. They will remain within the bone post-surgically. If a Chevron bunionectomy is performed, a permanent screw will be placed. A Proximal Metatarsal Osteotomy, done for advanced bunions, will require two permanent screws for fixation. If a Crescentic Oblique Basilar Resection Arthroplasty (COBRA) is preformed, bone is removed to decompress the joint and two pins are placed across the joint for stabilization. These pins are temporary and will be removed at week 6. Occasionally, the Extensor Hallicus Longus (EHL) requires lengthening as it can be a deforming force. In severe cases with advanced arthritic changes or fixed deformities, fusion of the metatarsal-phalangeal (MTP) joint may be considered. Hammertoe or clawtoe corrections may be done in tandem if needed.



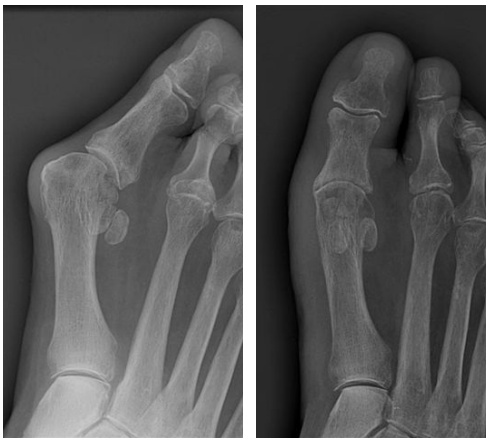
Proximal Metatarsal Osteotomy (PMO)



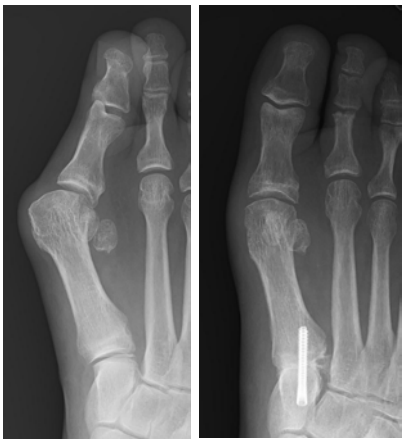
Chevron Osteotomy



Proximal Opening Wedge Osteotomy (POWO)



COBRA



Lapidus

Pre-surgical Considerations

All patients will have a pre-operative medical evaluation arranged either through your primary care provider or through pre-admission testing at Froedtert. Anti-inflammatory medications (i.e. ibuprofen, aspirin, plavix, or celebrex) need to be stopped seven days prior to surgery. You will be contacted the day prior to your scheduled procedure regarding the exact time of your procedure and required arrival. Please be punctual. If you are not contacted by 3:00 PM, please call (414) 805-3285 for procedures being done at Froedtert's main OR or (414) 805-9500 for procedures at Sargent Outpatient Surgery Center.

Following surgery you will be unable to place weight on your surgical extremity thus pre-operative planning is essential. Prior to surgery, an appointment with a physical therapist will be made for instructional use of crutches or a walker as their use will be required post-operatively. The device will also be fitted to your height during this appointment. The crutches or walker will be issued at that appointment or arrangements will be made to obtain the device or arrangements will be through a medical supply company approved by your insurance. Some patients may opt to use a Roll-a-bout or wheel chair. These devices can be obtained through your local medical supply store. Please contact the office (414-805-7442) with the medical supply store of your choice and a prescription can be faxed in. Regardless of the modality used to maintain your non-weight bearing status, please practice in your home prior to surgery as repetition will reduce the risk of falls post-operatively. Removing throw rugs and clearing wider pathways through your home will also make navigating with crutches or walker easier and diminish the risk of falls.

During the period when strict elevation is required (the first ten days) you will need help with activities of daily living such as laundry, cooking, and cleaning. Please plan ahead and consider having friends or family stay with you. Driving is contraindicated during the acute post-operative recovery phase and may be prohibited for a longer period of time if your right foot requires immobilization. Showering will also be difficult during the recovery phase as you are unable to place weight on the surgical leg and the cast/dressing needs to be kept clean and dry. Consider the use of a shower chair and/or hand held shower head. You will need to protect the leg by leaving it outside the shower as well as using bags or a plastic cast sleeve (brochure available in cast room) to ensure dressings remain dry.

Postoperative Visits

Day 0-10

- Outpatient procedure: Patients may go home the same day.
- Anesthesia: A regional anesthetic at the level of the ankle (Ankle block) will be administered pre-operatively creating numbness in the foot for intra-operative and post-operative pain control. Intravenous sedation will be administered intra-operatively for relaxation.
- Dressings: Following the procedure, a soft dressing will be applied to the foot. This dressing is to be kept clean, dry and left in place until you return to clinic.
- Non-weightbearing: To ensure optimal surgical results, you will be unable to bear weight on your operative side. The use of crutches or walker is required. Heel weightbearing may be allowed for balance only. Post-operative shoe should be worn for transfers or when patient is out of bed. You are not required to wear the shoe when in bed. Activities are strictly limited during this time.
- Elevation: Strict elevation above heart level (toes above the nose) for the first ten days is important to your recovery as it helps to minimize pain and swelling. Swelling can adversely affect the soft tissue by placing increased tension on incisions putting them at increased risk for dehiscence.
- Pain Control: Pain medications will be prescribed to be used as needed. Pre-Operative nerve blocks can last between 8 to 12 hours; however, waiting to take pain medication until the block has completely worn off can result in increased breakthrough pain which can be difficult to manage. Please plan accordingly and take your medication promptly when sensation begins to return to the foot usually indicated by a tingling sensation in the toes or mild discomfort at the surgical site. Pain medications may be taken on a scheduled basis in the early post-operative recovery phase as this is when the pain is most intense.

Day 10 – First Post-Operative Visit

- Suture removal if minimal swelling and reapplication of forefoot dressing. Forefoot dressing will feel tight; however, this is key in maintaining the correction and preventing further swelling.
- Allowed heel weightbearing only and continue with limited activities.
- Applying weight to front of foot puts stress on the healing osteotomy and <u>will bend pins</u> resulting in difficult pin removal or possibly suboptimal surgical results.
- Bi-weekly visits are made until post-op week 6 for forefoot dressing changes.
- If a *Lapidus* is preformed, a Cast will be applied.

Week 6

- Pins are removed if a hammertoe or COBRA were preformed.
- Weightbearing films are obtained in clinic.
- Can advance weight to front of foot over next two weeks in post-op sandal.
  * If a *Lapidus* is performed, Gradual WB is needed over four weeks.
- Once comfortable in sandal may transition into comfortable sneaker.

- Physical Therapy instituted for range of motion exercises. Compliance with home PT program is also instrumental in full recovery. Slowly increase activities as tolerated.

3 Months

- Continue increasing activities. May resume more intense activities such as running at approximately 4-6 months if approved by surgeon.

Scar Management: Steri-strips, which were placed over the incision following suture removal, will gradually fall off between week 6-8. Do not pull at these; you may trim the loose edges. Once the Steri-strips have fallen off, you may massage Vitamin E oil or Mederma into the incisions twice a day. Silicone gel strips should also be used in conjunction with the other scar management modalities. These can be obtained from the cast room.

If any questions arise, please contact the office at (414) 805-7442 between 8:00 am and 4:30 pm Monday through Friday. Leave your number and message, Dr. Marks, Jamie, his physician assistant, or Mary S., his nurse, will return your call.