

## FIBULAR SESAMOIDECTOMY USING LARGE BONE CURETTE

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### INTRODUCTION

Resection of the fibular sesamoid is rarely performed. Indications for fibular sesamoidectomy are hallux valgus repair, fracture, pain, arthritis, avascular necrosis, injury, hypertrophy, or deformity. Complications do arise with sesamoid removal that are indeed secondary to degree of surgical difficulty. Complications of fibular sesamoidectomy include bleeding, skin necrosis, excessive swelling, hematoma, infection, wound dehiscence, pain lateration flexor hallucis longus, and inadvertent resection tibial sesamoid.

### Anatomy

The fibular sesamoid is tightly bound by surrounding fibrous tissue inferiorly (the flexor plate). Medially it is paralleled by the flexor hallucis longus tendon and bound to the tibial sesamoid by the inter-sesamoidal ligament. Each sesamoid, bound together, articulate within a joint separated by a bony ridge or crista. Laterally the sesamoid is bound by the adductor hallucis muscle belly and tendon. Posteriorly, there is the flexor hallucis brevis muscle and tendon. Distally, the tendon of the flexor hallucis brevis binds the seamoid at its insertion into the proximal phalanx (Figure 1).

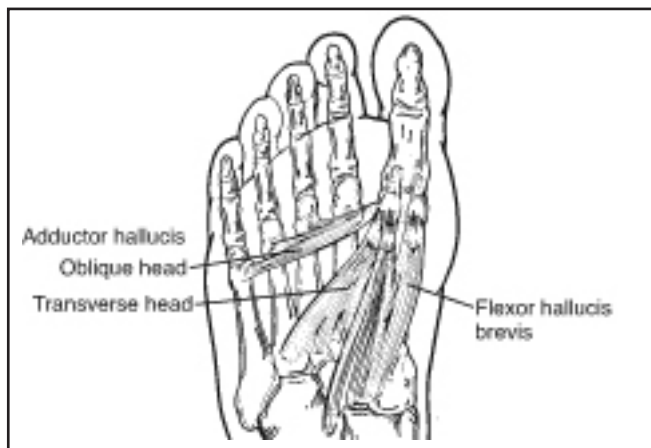


Figure 1. Anatomy surrounding fibular sesamoid.

### Procedure

The fibular sesamoid is approached through a standard dorsal curvilinear incision, used for hallux valgus correction (Figure 2). The first maneuver is to release the conjoined adductor hallucis tendon in standard fashion. This tendon can be transferred later if appropriate. Next, using a #15 blade, tenotomize the most distal aspect of the lateral head of the short flexor brevis tendon. Now, firmly grasp this tendon with an Addson-Brown forcep and place the tissue, which includes the sesamoid, under distal stretch or tension. An appropriate sized large bone curette is chosen. The proper size is a size that fits snugly around the sesamoid bone. It may be straight or curved. Usual size is 1.0 x 1.0 cm. The type shown here is from DePuy (Figure 3).

The curette is now placed over the outer edge of the fibular sesamoid. Through a supinatory wrist motion, the sesamoid is gently yet purposely divided from its surrounding soft fibrous tissues. The inter-sesamoidal ligament is cut as are the proximal muscle-tendon attachments (Figure 4).



Figure 2. Interspace approach to Sesamoidectomy.

Great care should be used to avoid inadvertent injury to the flexor hallucis tendon, the tibial sesamoid, the crista, and the articular surfaces of the inferior metatarsal head. Potential complications of sesamoidectomy using curette include tibial sesamoid injury or resection, FHL tendon laceration, metatarsal head cartilage damage, injured veins or arteries, injury to the deep peroneal nerve, bleeding, nerve entrapment, and scarring.

**The Manuever**

The curette is used in a supinatory-rotatory manor. The wrist is the focus of this movement (Figure 5).

Use of the bone curette facilitates sesamoid removal. When an appropriate sized curette is chosen and used carefully and skillfully, sesamoidectomy is efficient and successful (Figure 6).

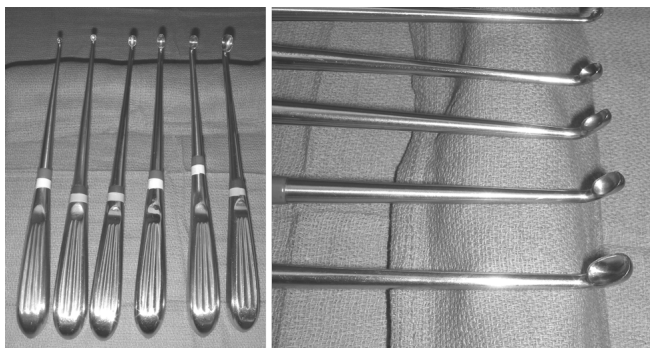


Figure 3. Angled large bone curettes.

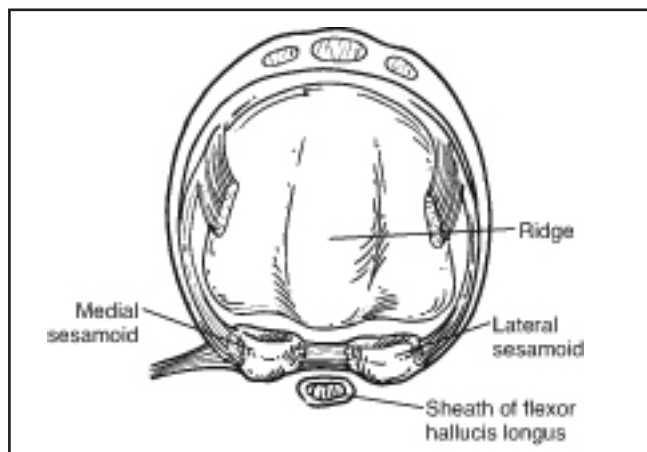


Figure 4. Relationship of lateral sesamoid to peri-articular structures.

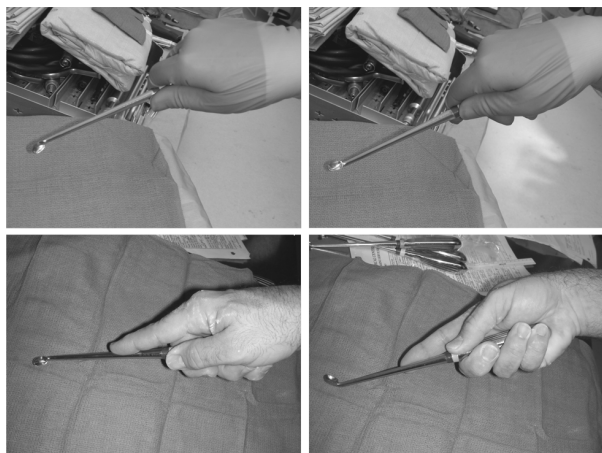


Figure 5. Wrist motion shown with straight and curved curettes.

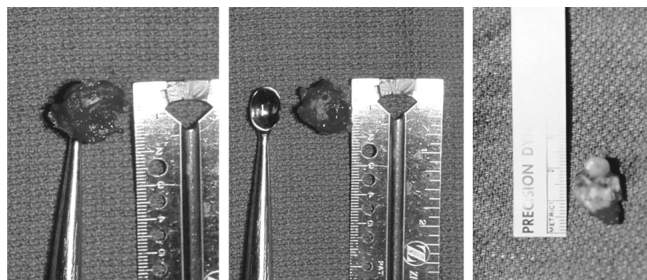


Figure 6. The curette should be as big or a little bigger than the sesamoid it will remove.