Peroneal Tendon Injuries

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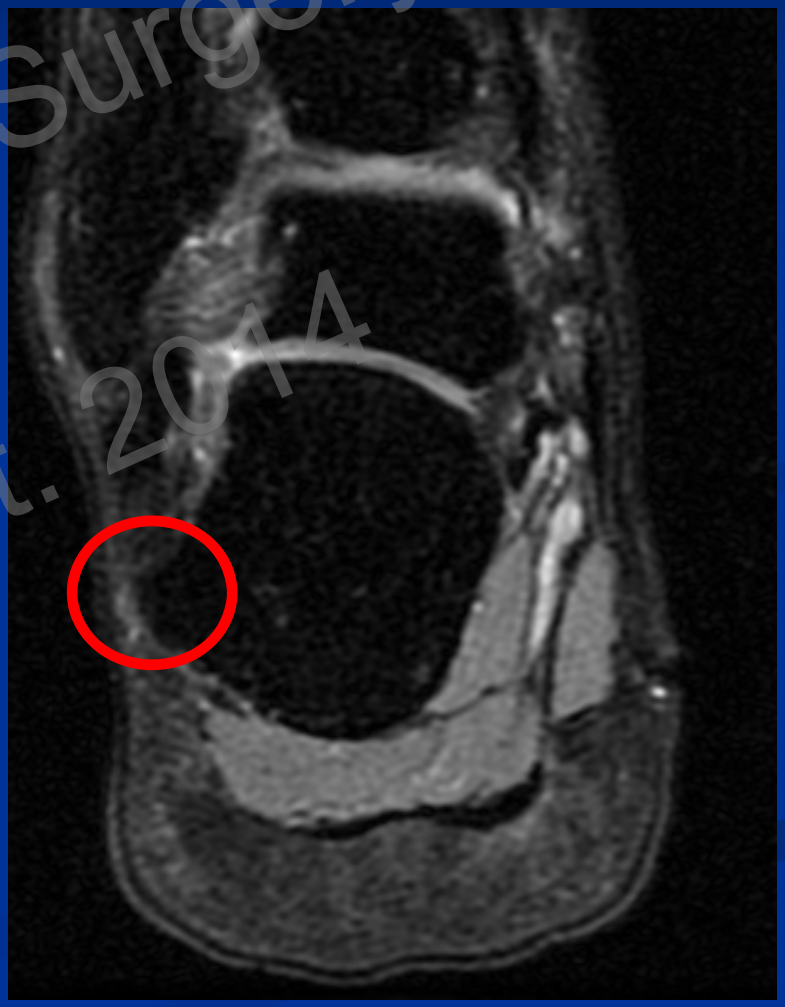
Disorders of the Peroneals

- Physical Examination
  - Posterolateral Swelling
  - Pain with resisted eversion
  - Subluxation / Apprehension with resisted eversion
- Critical to assess
  - Hindfoot alignment
  - Objective Laxity

Hypertrophic Peroneal Tubercle



Imaging

- Peroneal Tendon Subluxation
  - Dynamic Ultrasound
  - Excellent for Intrasheath Subluxation

Conservative Treatment- Tenosynvitis / Partial tear

- Limited literature evidence upon which to base effectiveness
  - Attempted on all patients has delay has no obvious detriment
- Initial Treatment
  - RICE
  - Immobilization (2-6) weeks
- If Improvement
  - Lace up ankle brace with malleolar support
  - Physical therapy (Strengthening and Proprioception)

Conservative Treatment

- Acute SPR injury
  - 25%-57% success rate with conservative treatment
    - Cast > Taping

(Stover CN, Bryan DR. Traumatic dislocation of the peroneal tendons. Am J Surg 103:180-186, 1962)

(McLennan JG. Treatment of acute and chronic luxations of the peroneal tendons. Am J Sports Med 8(6):432-6, 1980)

(Escalas F, Figueras JM, Merino JA. Dislocation of the peroneal tendons. Long-term results of surgical treatment. J Bone Joint Surg Am 62(3):451-3, 1980)

  - Offered to all non-athletic patients, however, counseled on moderate success rate.
- Athletic/active patients
  - Acute surgical repair

Conservative Treatment

- Chronic peroneal subluxation
  - No obvious role for conservative treatment
    - Recurrent subluxation => chronic tears
  - Symptomatic patients
    - Surgical reconstruction

Surgical Treatment - Synovitis

- Goals
  - Synovectomy
  - Tendon Repair
    - If Required
  - Groove Deepening
  - Peroneal Tubercle excision
    - If Prominent
  - Imbricate Retinaculum

Incision

Retinaculum incised

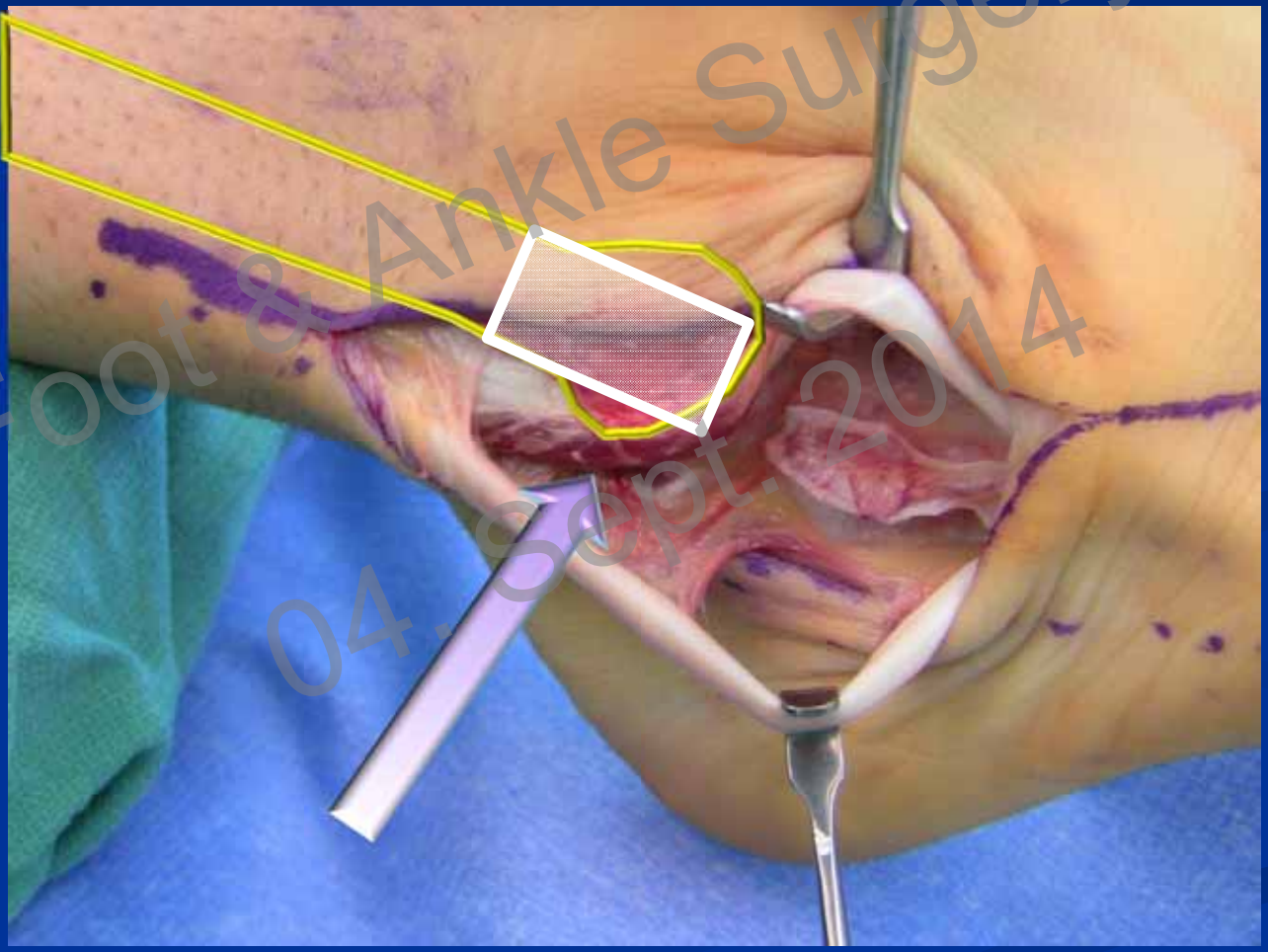
Synovitis

Synovectomy

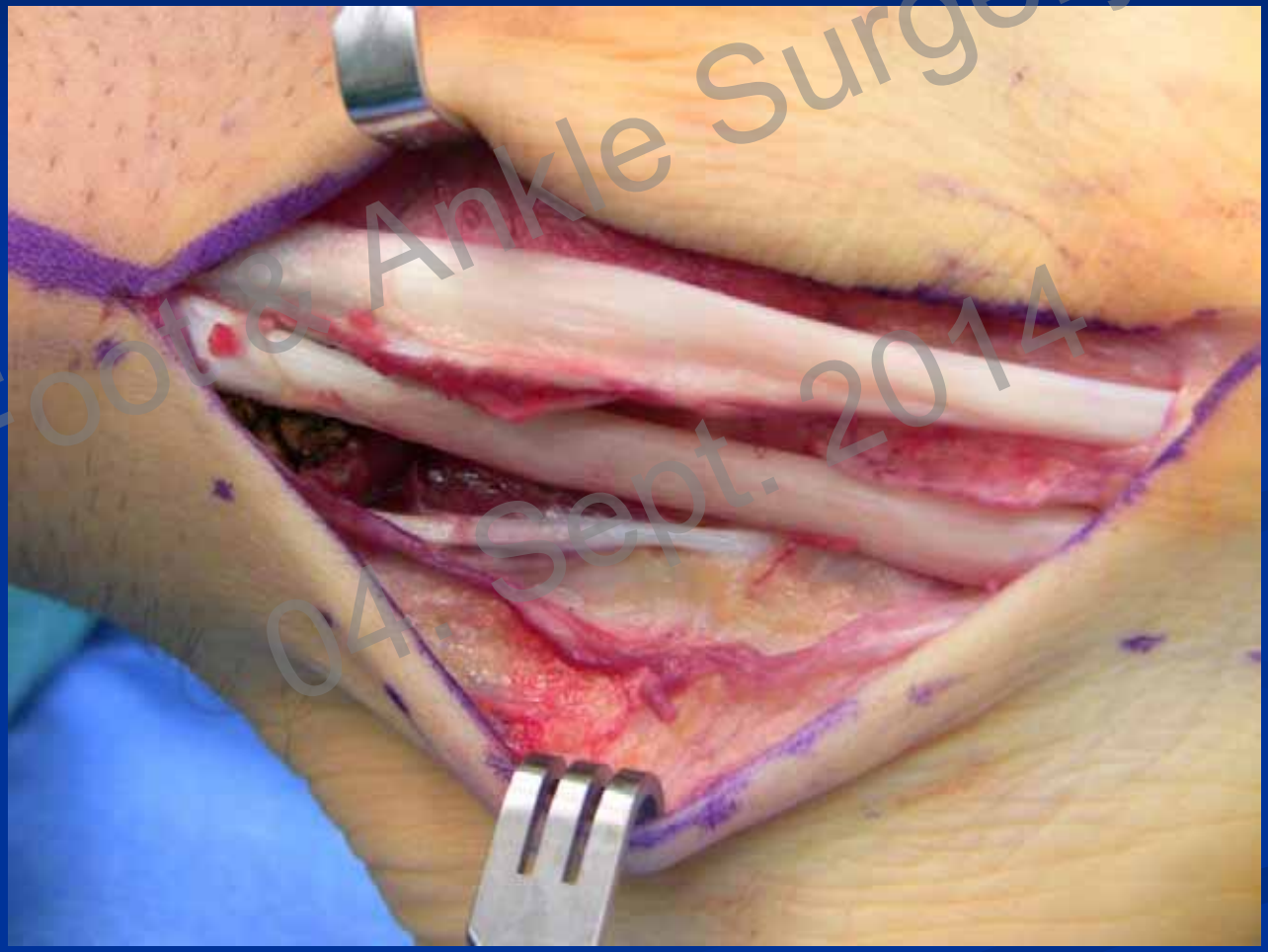
Excision of Space Occupying Tissue

- Low lying brevis
  - Muscle present within the distal fibular groove
    - May predispose to synovitis/tear
- Peroneus Quartus
  - Accessory muscle that attaches to lateral wall of calcaneus
    - May predispose to synovitis/tear

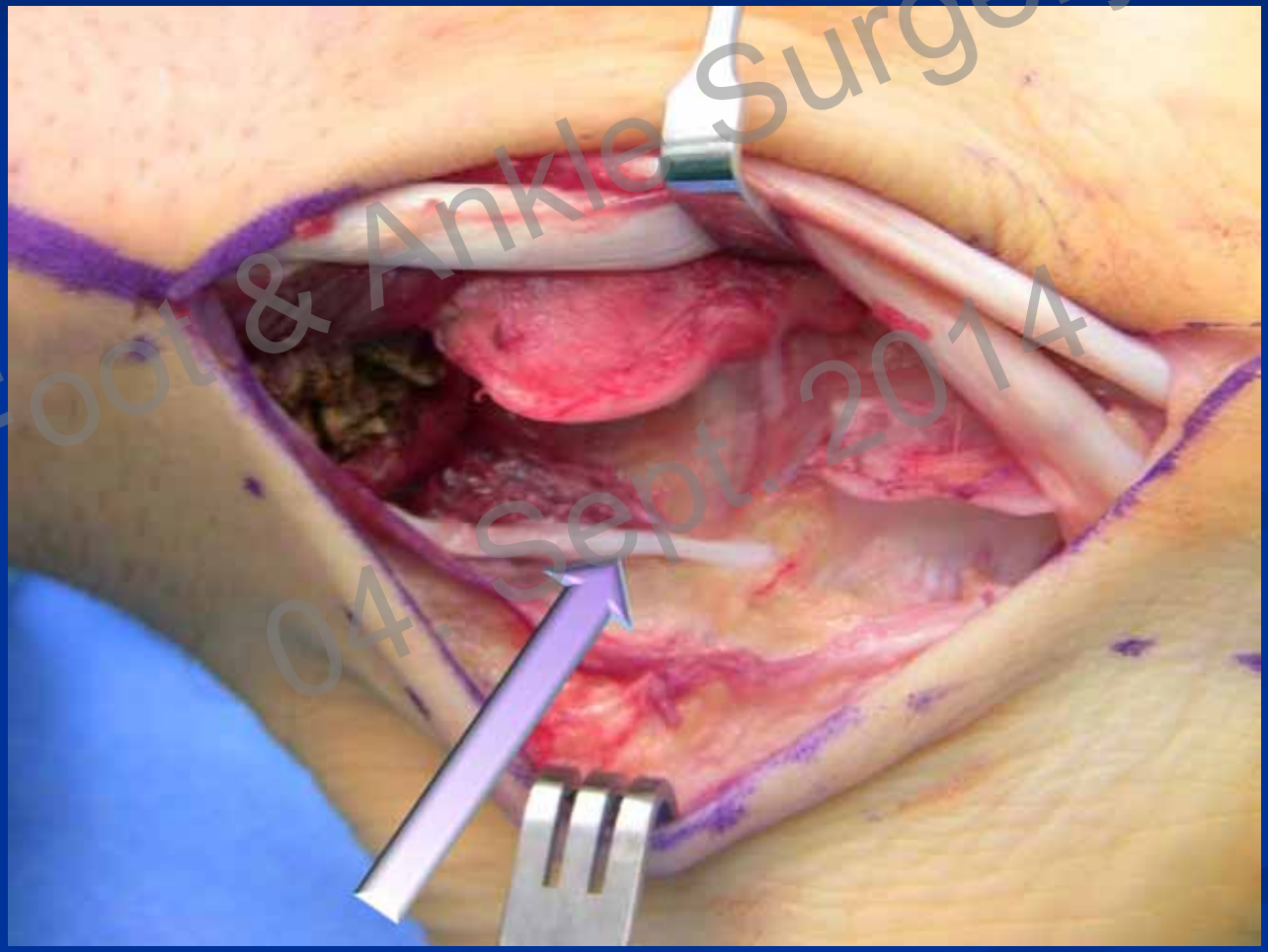
Low lying PB



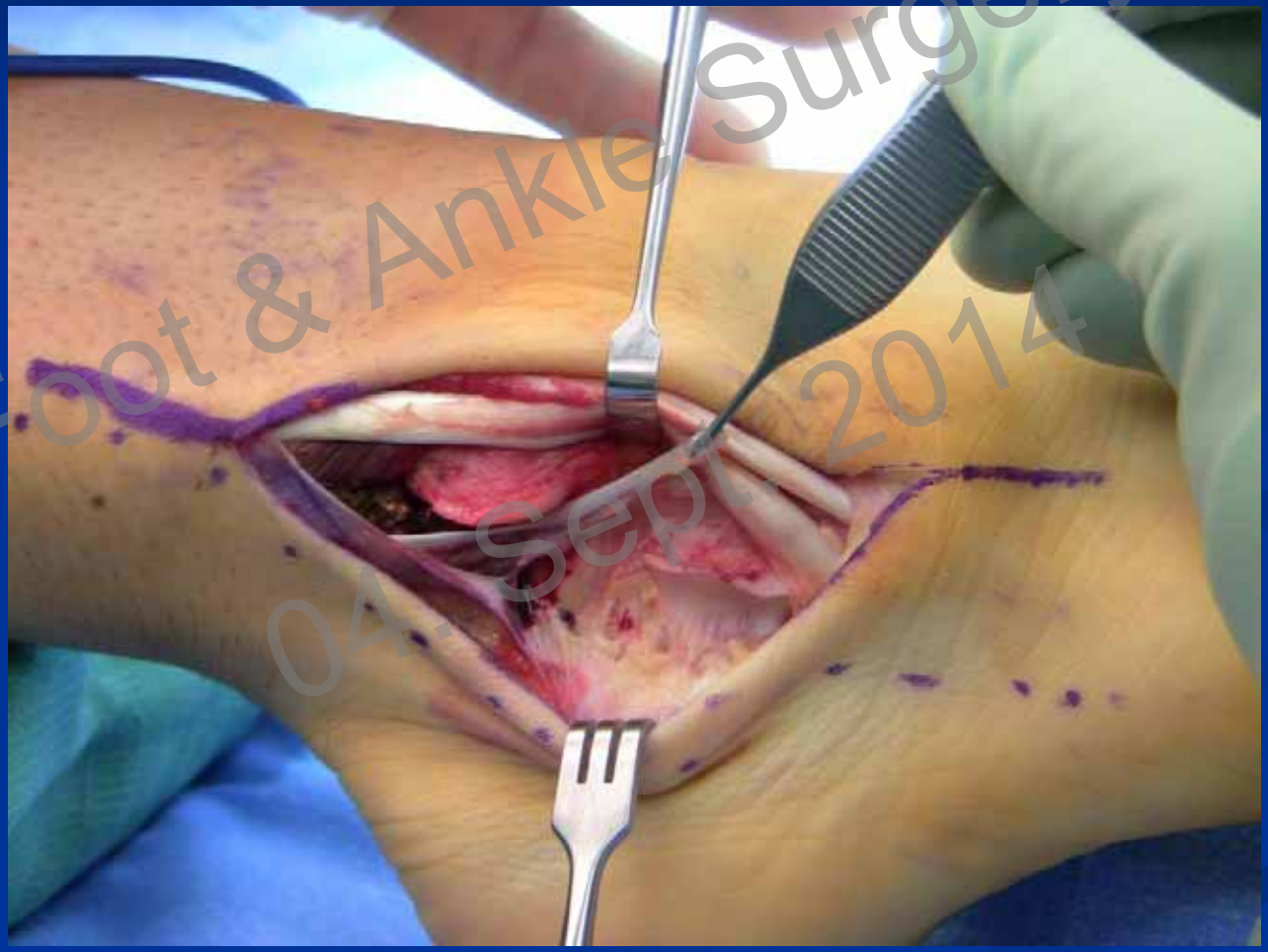
Debridement of Muscle



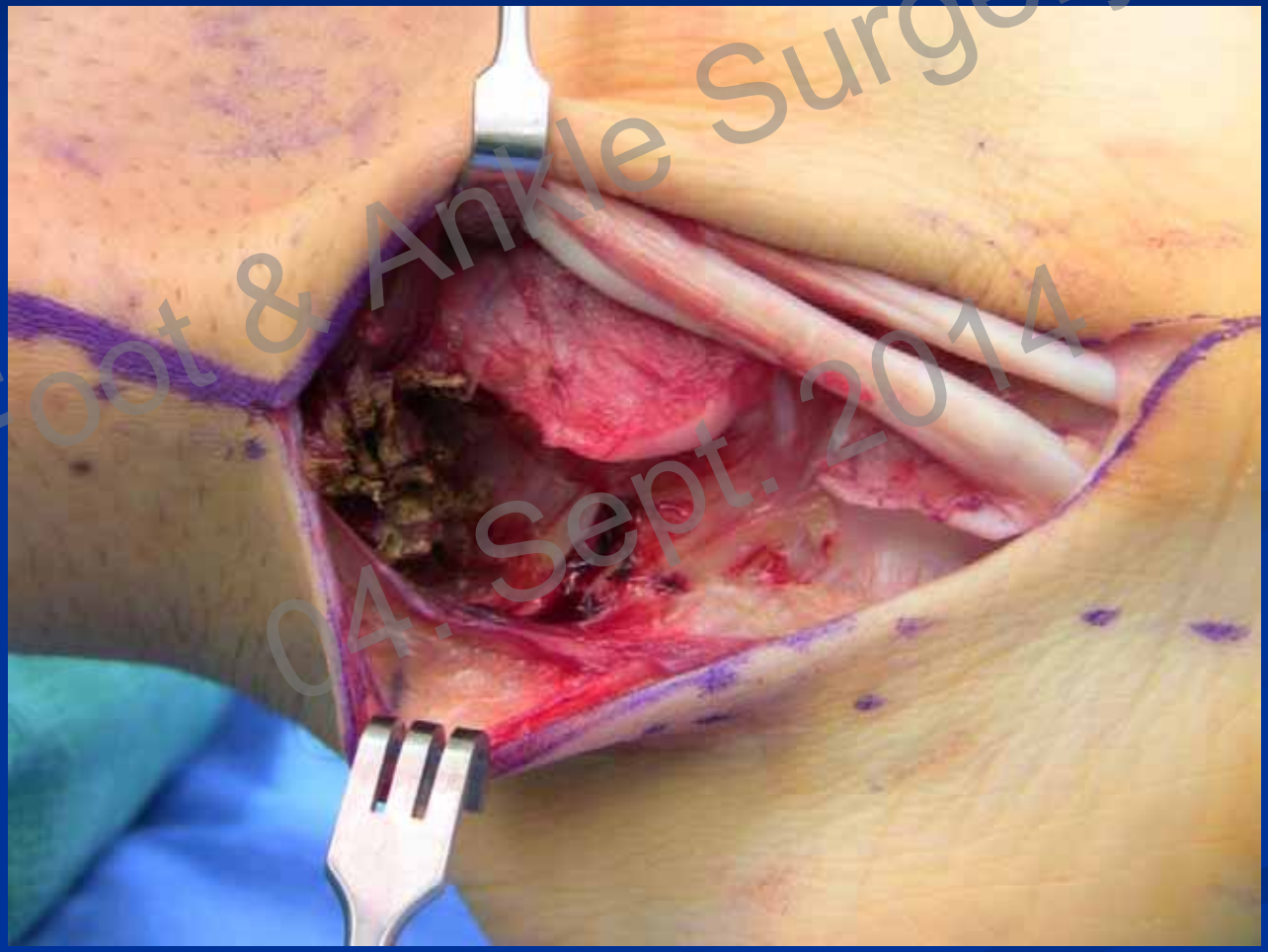
Peroneus Quartus



Peroneus Quartus – Release From Insertion



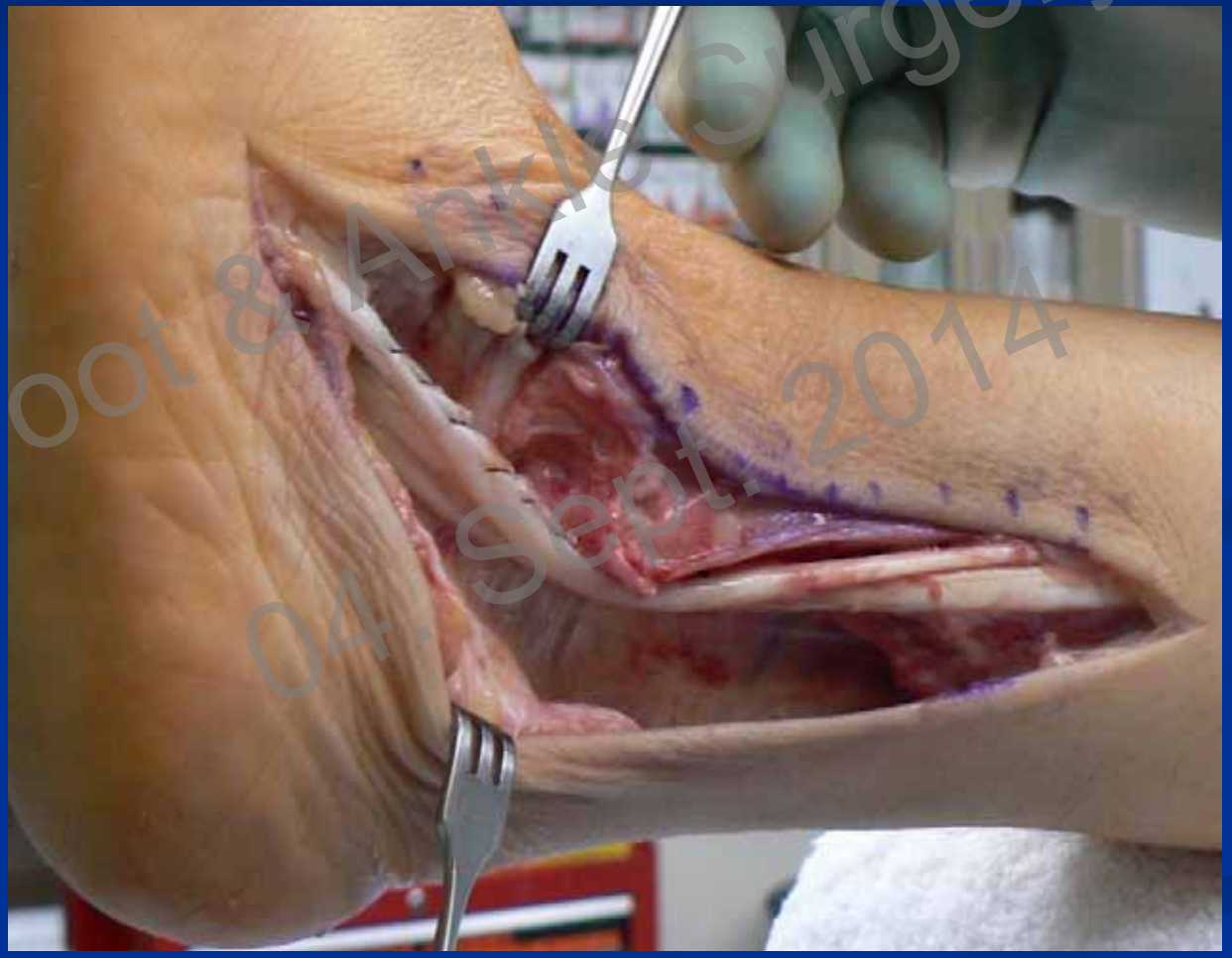
Peroneus Quartus - Excision



Tendon Tear

- >50% viable tendon
  - Excision of diseased tissue
  - Tubularization of remaining tendon
    - Begin proximal to tear
    - End distal to tear
  - 4-0 nylon or 4-0 PDS suture
    - I prefer smaller absorbable suture
    - Some thought that use of PDS incites an inflammatory response which may be superior for healing

Tendon Repair Appearance PB



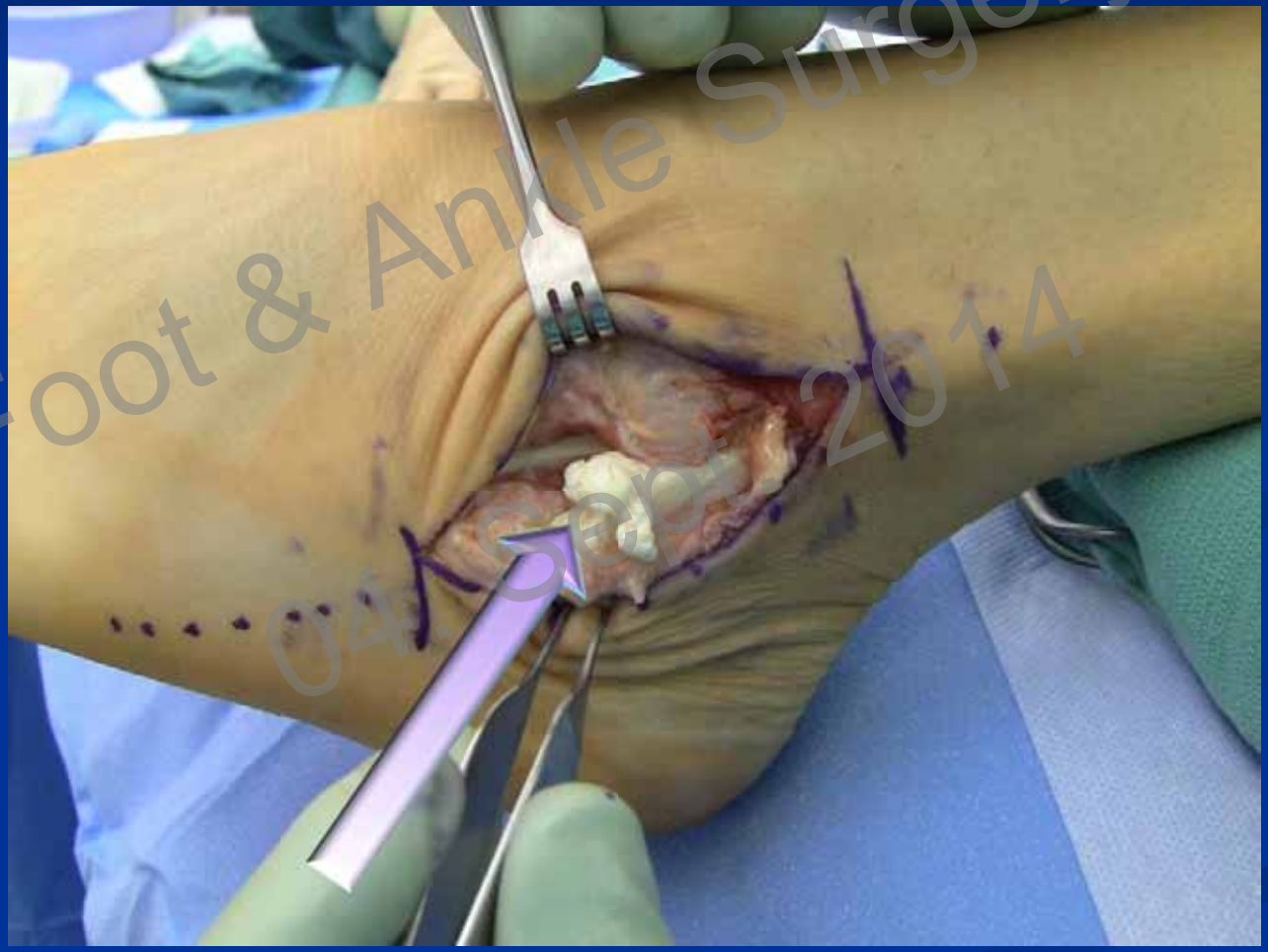
Tendon Tear

- <50% viable tendon
  - Excision of diseased tissue
  - Side to side tenodesis
    - Assumes viability of other tendon
  - Dermal matrix reconstruction?

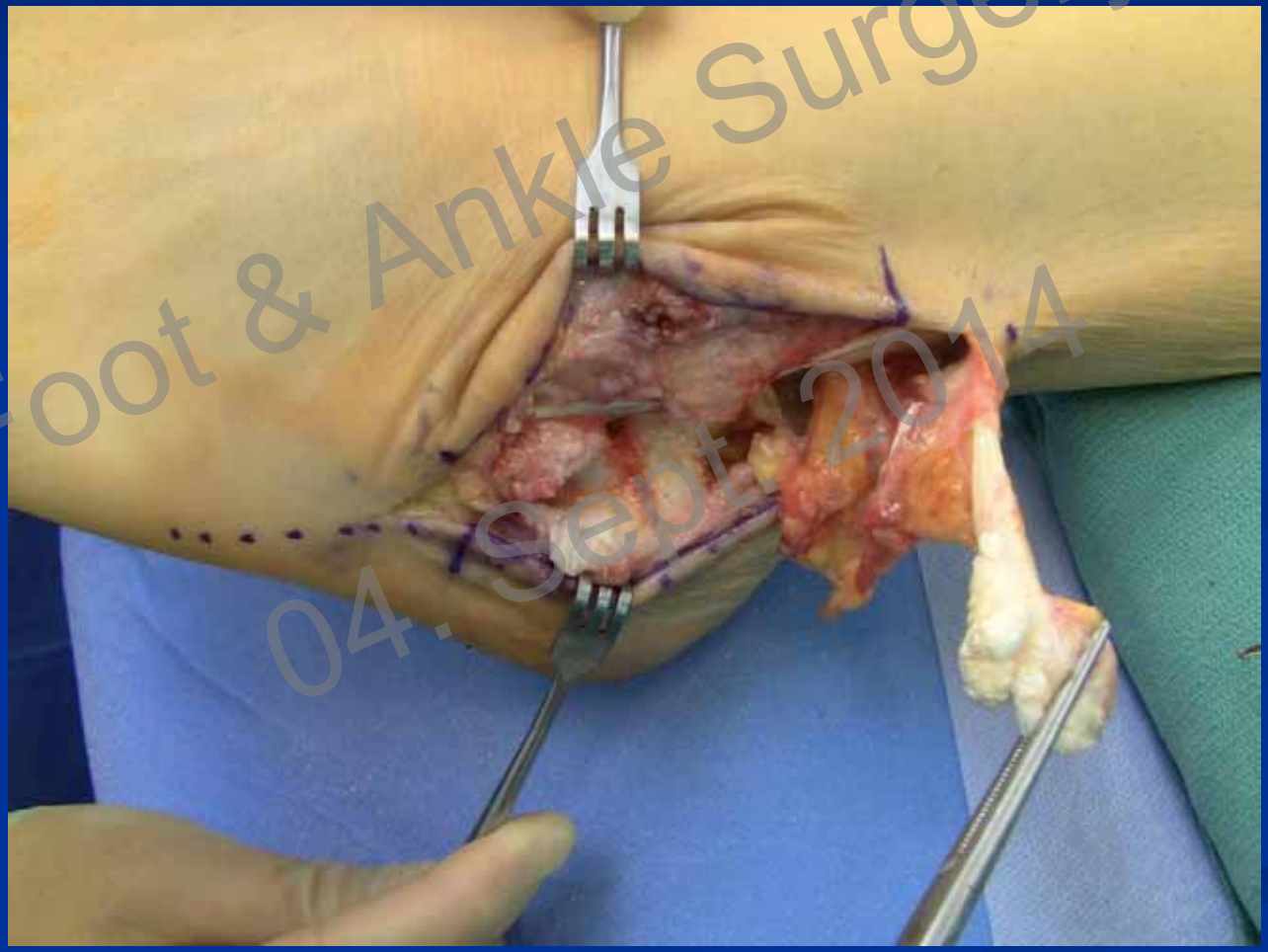
(Rapley J, Crates J, Barber A. Mid-Substance Peroneal Tendon Defects Augmented With an Acellular Dermal Matrix Allograft. Foot Ankle Int. 2010; 31(2): 136-140.)

- 11 cases of complete midsubstance peroneal tear – min 12 mos F/U
  - GraftJacket used to span the defect – 7/11
  - 5-/5 at least in all patients
  - Painless ROM
- Proximal tendon must be viable

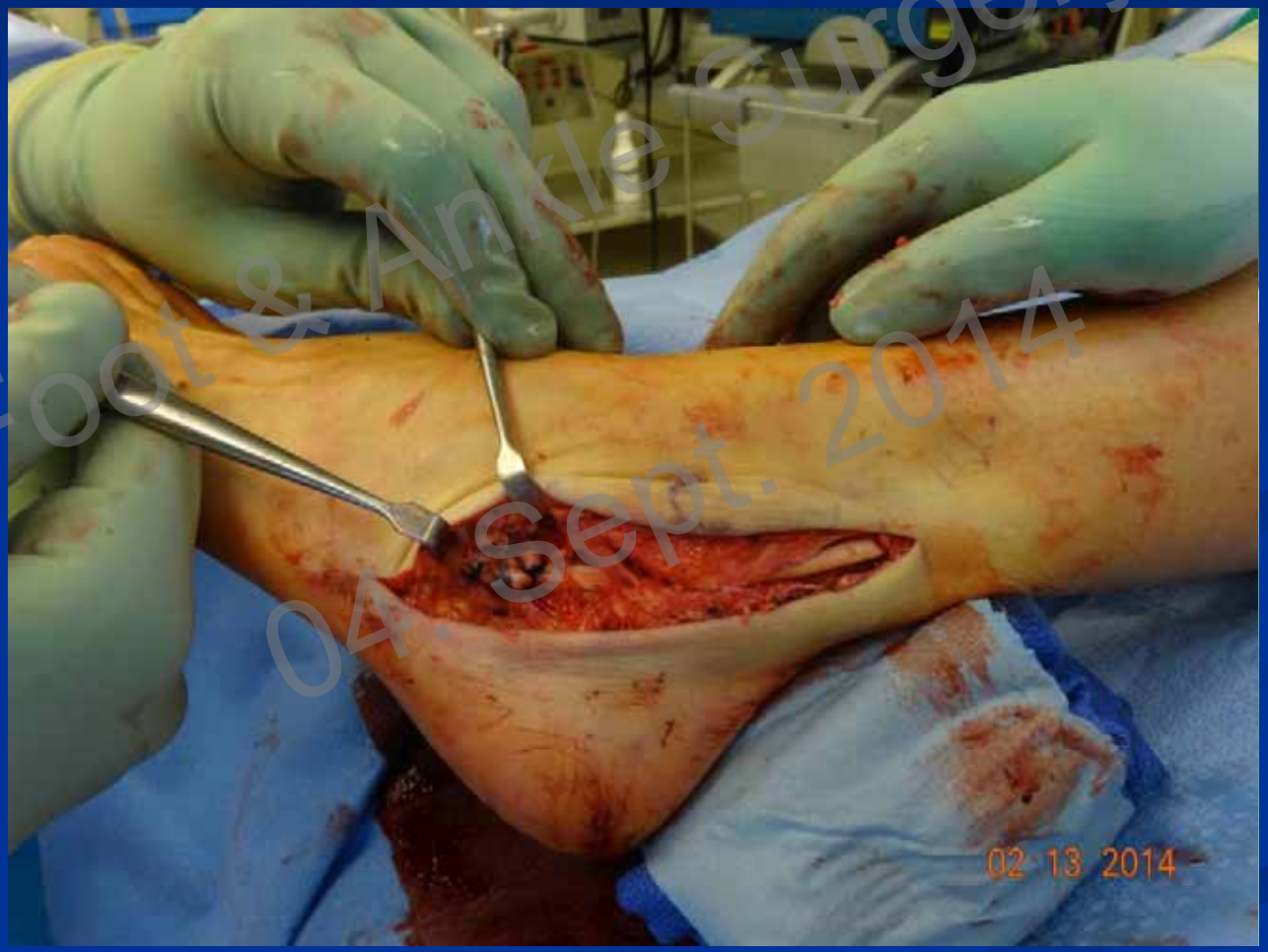
Complete rupture of PL



Excision of non-viable tissue

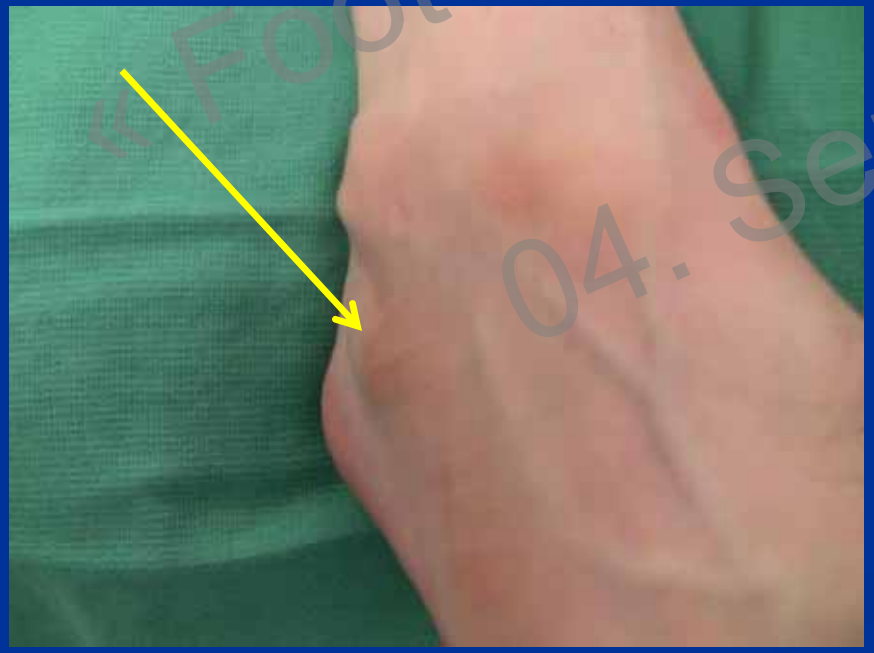


Most important is PB function
Always save distal stump of PB for distal tenodesis. Proximal Tenodesis if Possible



Hypertrophic Peroneal Tubercle

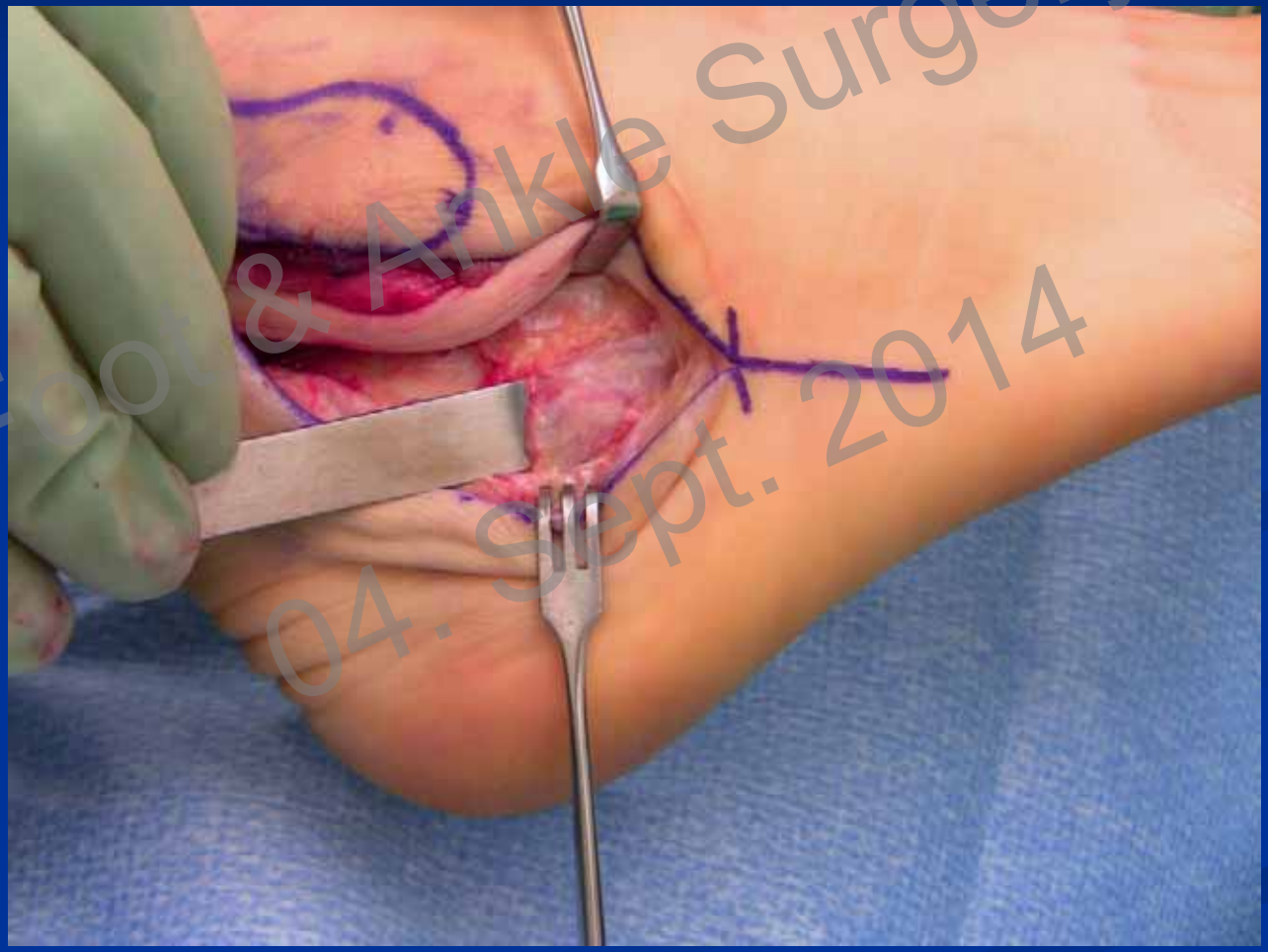
- Complain of “bump” on side of foot
  - Difficult shoewear
  - Associated with PL synovitis and tear



Exposure – Posterior to PL

They can also be huge

Osteotome to create co-planar surface



Following Resection – Rasp to smooth surface + bone wax