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Peroneal Tendon Disorders



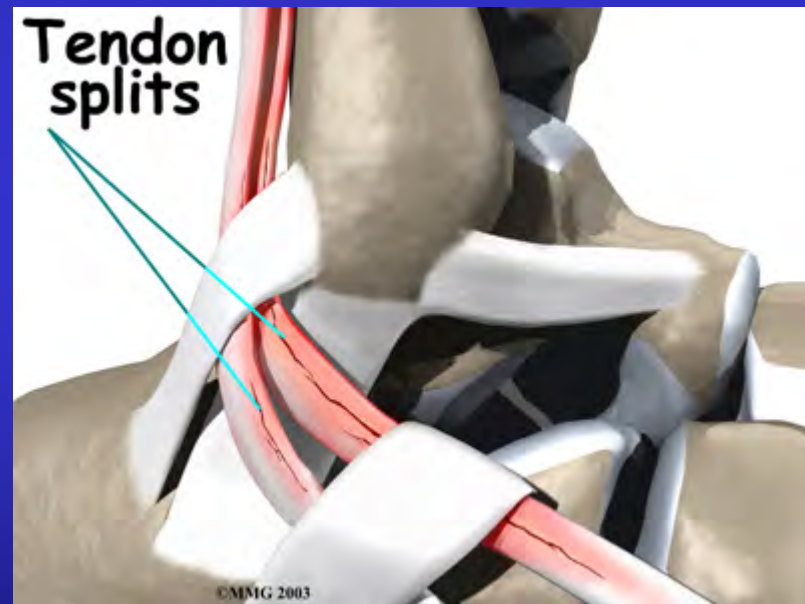
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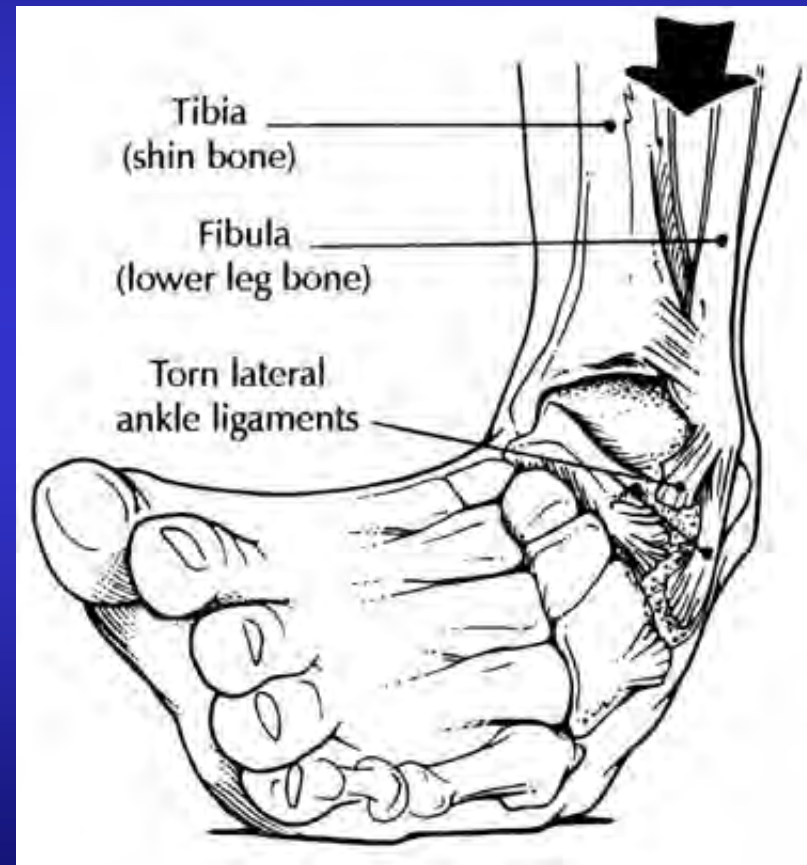
Peroneal Tendon Disorders

- Tenosynovitis
- Tears
- Snapping Peroneal Tendons



Cause of injury

- Occur during acute ankle sprain
- Can occur as well by attrition over time.
- Multiple ankle sprains/recurrent instability



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Lateral Ankle Sprain

- “Complete Rupture of the ATFL Ligament”

ULTRASOUND LEFT ANKLE

History: Sprain. Progress after physiotherapy.

Findings:

Within the lateral ankle, there is a complete tear of the anterior talofibular ligament.

The unremarkable

suggesting an u
rior and exte

1. Complete tear of the anterior talofibular ligament.

1. Complete tear of the anterior talofibular ligament.

2. Partial tear of the deltoid ligament.

Yours Sincerely

- Treated Non-operatively



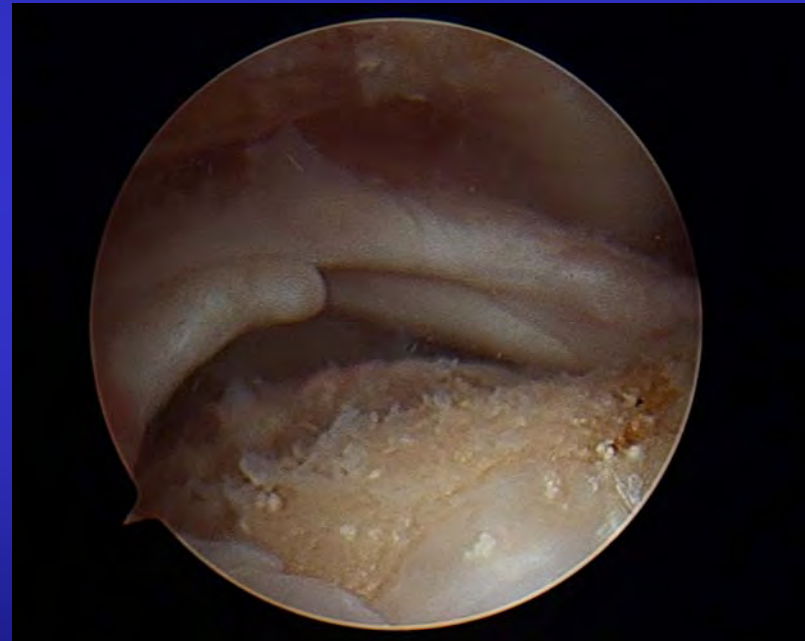
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ACL Rupture/ Rotator Cuff Tear

- “Complete Rupture of the ACL ligament”
- “Full Thickness tear of the Rotator Cuff
- Usually require surgery



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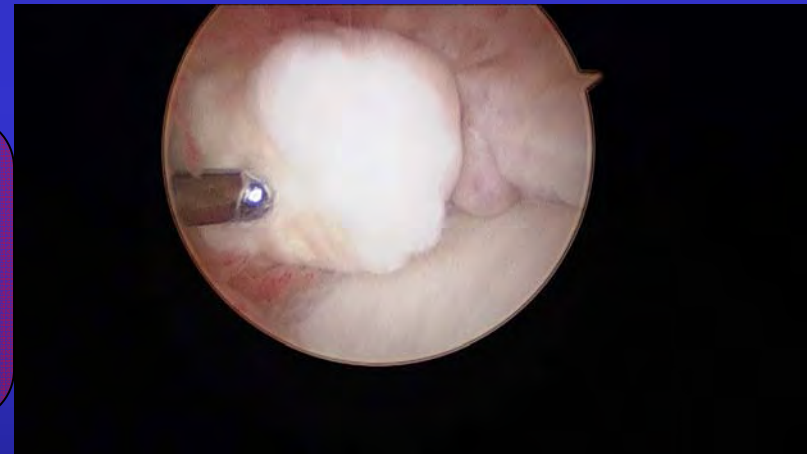
Lateral Ankle Sprains

- Treat the complete ATFL rupture NON-operatively
- Similar outcomes to surgical treatment with LESS RISK.
- Can Always do surgery later on.



Causes of Pain after Lateral Ankle Sprain- NOT ATFL

- Talar dome lesions
- Intra-articular scar tissue, impingement
- Peroneal tendon tears
- Peroneal tendon dislocations
- Missed achilles
- Missed Syndesmosis



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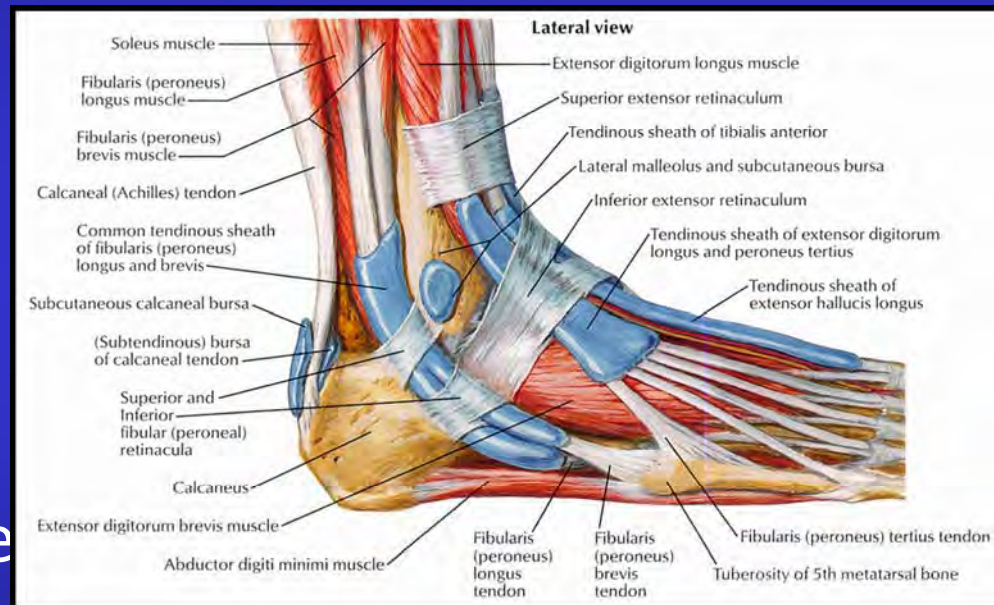
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Missed Lis Franc

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Anatomy Peroneal Tendons

- Acute Angle around fibula
- Eversion/Flexion
- SPR- prevents subluxation
- IPR- holds in place
- Tenosynovium
- Common sheath



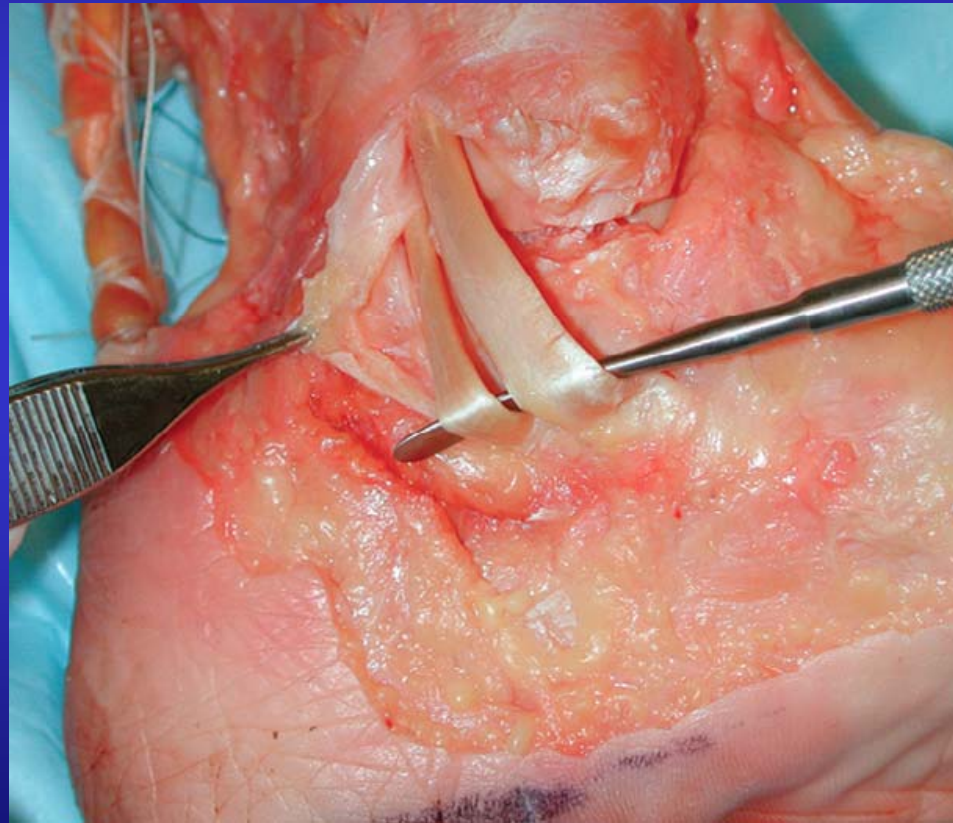
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Anatomy Peroneal Tendons

- SPR- prevents subluxation
- Common sheath
- Splits at peroneal tubercle
- Area of constriction



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Anatomy Peroneus Longus

- Courses around cuboid
- Inserts into base of 1st metatarsal
- Plantarflexes first ray
- Everts ankle



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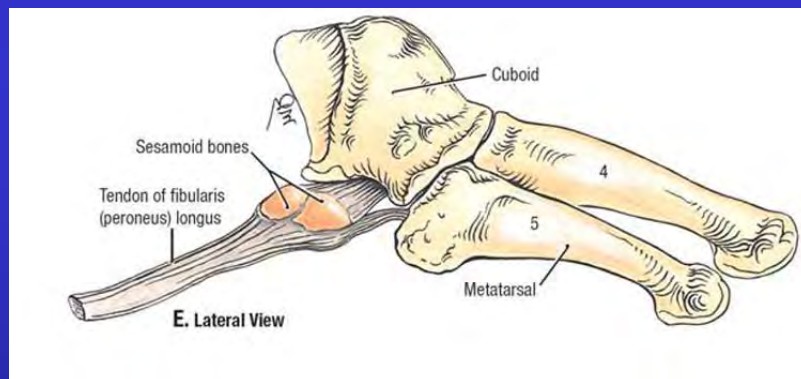
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Anatomy Peroneus Longus

- MRI showing course of peroneus longus
- Unique to Longus is Os Peroneum
- Sesamoid bone within tendon- 10%
- Site of rupture/tears/pain



Anatomy



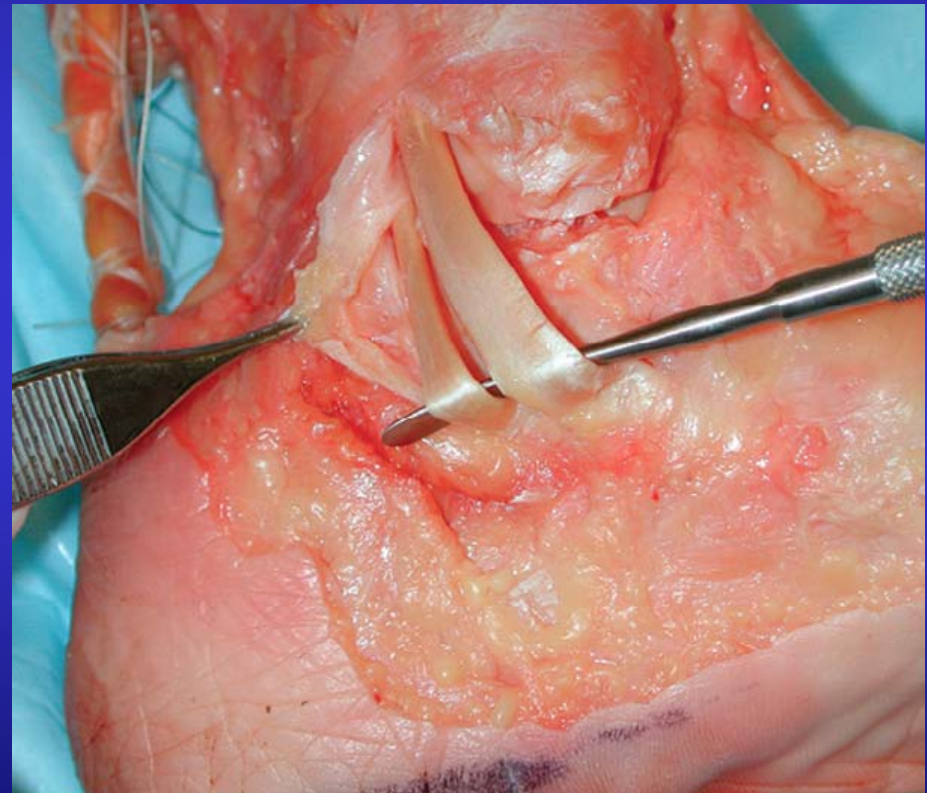
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Peroneus Brevis Anatomy

- Inserts into the 5th metatarsal base
- More anterior
- Location of tears distal end of fibula
- Tendinosis can occur at peroneal tubercle



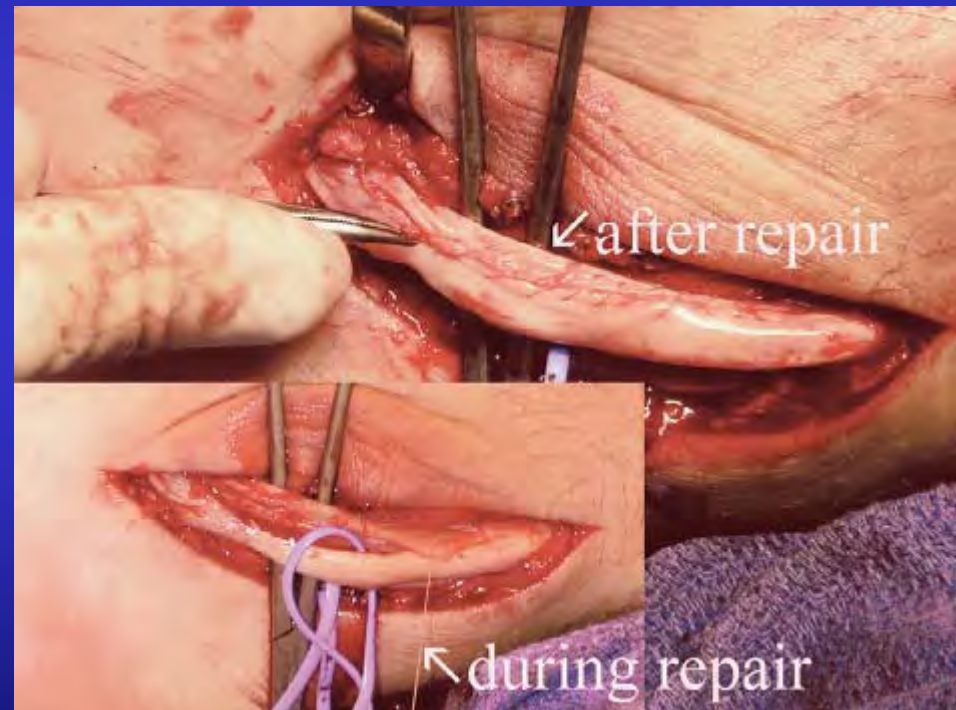
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Peroneus Brevis Tears

- Longitudinal Tears
- NOT transverse tears
- Still can function normally
- Cause pain, weakness and dysfunction



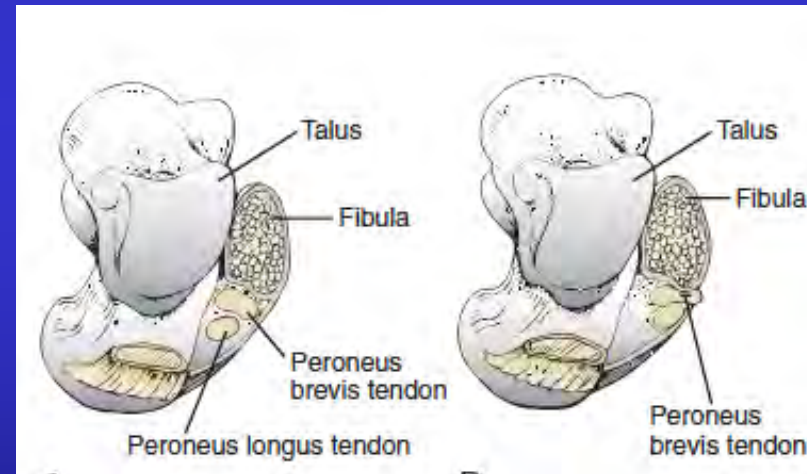
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Peroneus Brevis Etiology

- Brevis is anterior to longus
- “Sandwiched” between longus and fibula
- Worse when ankle 15-25 degrees PF
- Causes attritional longitudinal tears



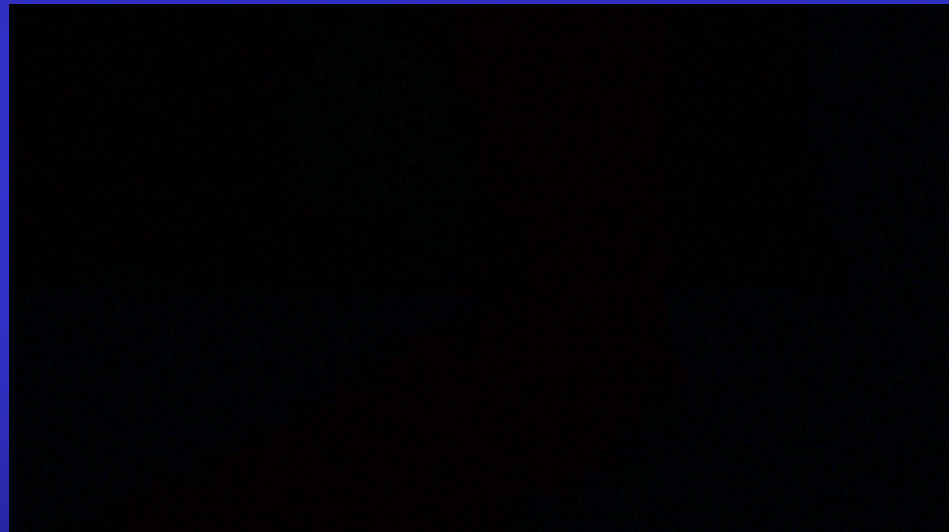
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History of Peroneal Tendon Pathology

- Recent ankle sprain or injury
- Often NO recall of specific episode
- Chronic discomfort lateral ankle



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Physical Examination

- Pain along course of peroneal tendons
- Presence of swelling-effusion or synovitis
- Pain with passive inversion
- Pain with eversion against resistance



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Investigations

- X-ray
 - Rule out fractures
 - Os peroneum
 - Alignment, cavovarus
- CT NOT helpful
 - Soft tissue problem



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Investigations- Ultrasound

- Dynamic test
- Can demonstrate subluxation of tendons around fibula
- Technician dependent
- Accurate of looking for tears

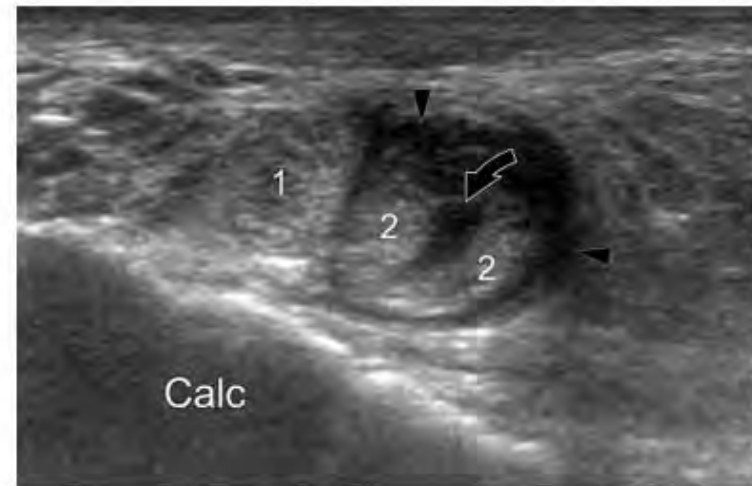


Fig. 10 Injury to the peroneal tendons. US coronal oblique scan shows partial-thickness longitudinal fissure of the peroneus brevis tendon (*curved arrow*) associated with reactive synovial thickening of the tendon sheath (*arrowheads*). 1 peroneus longus tendon, Calc calcaneus. 1 TPL (peroneus longus tendon); 2 TPB (peroneus brevis tendon), *arrowheads* associated tenosynovitis, Calc calcaneus

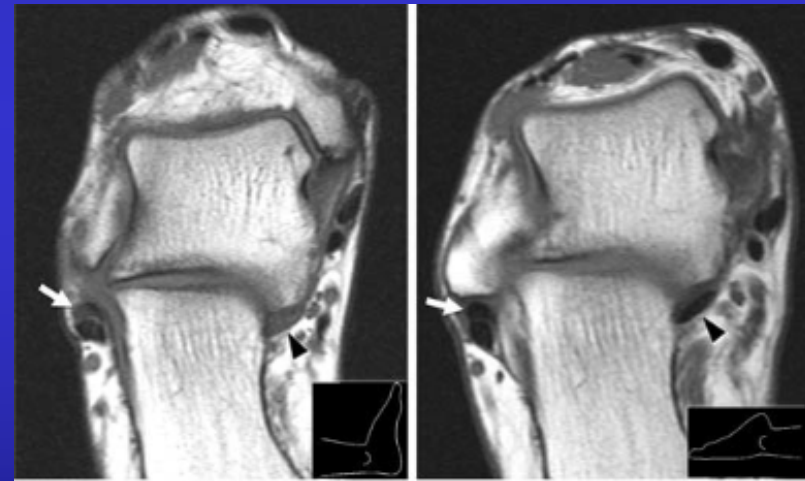


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Investigations- MRI

- Great detail
- Evaluates entire ankle joint i.e. chondral lesions
- “magic angle effect”- because of acute curve in tendons can over/under estimate tears



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Treatment- Non op

- Rest, NSAIDS
- Physio- stretching, strengthening, mobilisation, manipulation.
- Ankle Stirrup or boot
- Cortisone Injections
- 3-6 months



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When to do Surgery?

- With tears of brevis, symptoms usually do not subside.
- Brodsky - 20 of 24 pts failed conservative management after 8 months.
- Early surgery large tears
- Failed nonop



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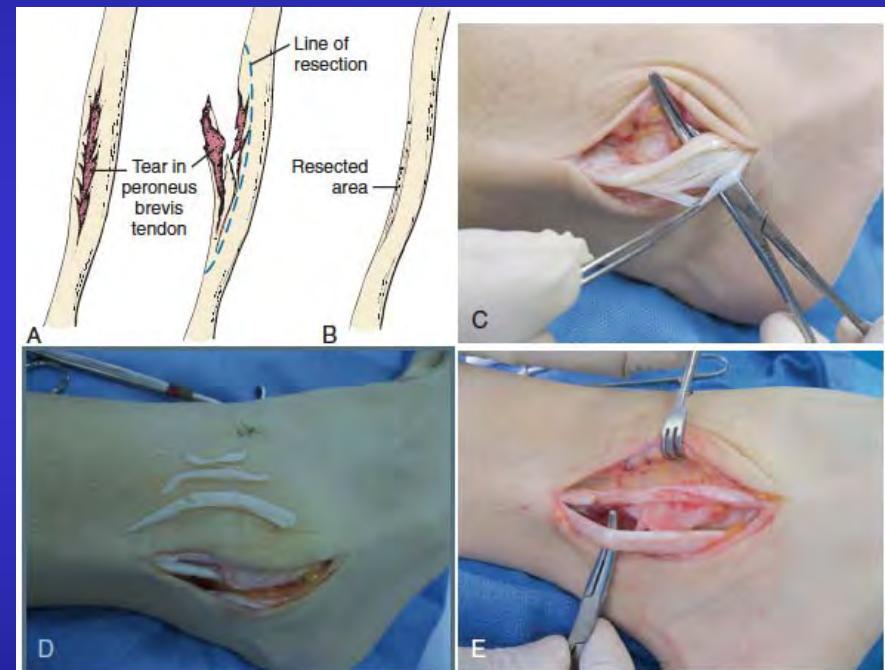
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Surgical Treatment

- Remove Torn Portion
- Circularise remaining portion
- Decompress tendons at peroneal tubercle
- Repair SPR as needed



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Post-operative Care

- 0-2 weeks- Non weight bearing (wound healing)
- 2-6 weeks- Boot-weight bearing
- 6 weeks- ROM, strengthening, proprioception, brace
- RTS 3-6 months



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Peroneal Tendon subluxation/Dislocation

- Uncommon injury
- Often missed as an “ankle sprain”
- Always after injury
- “Snowboarders” injury
- Tendons intact, dislocate out of groove



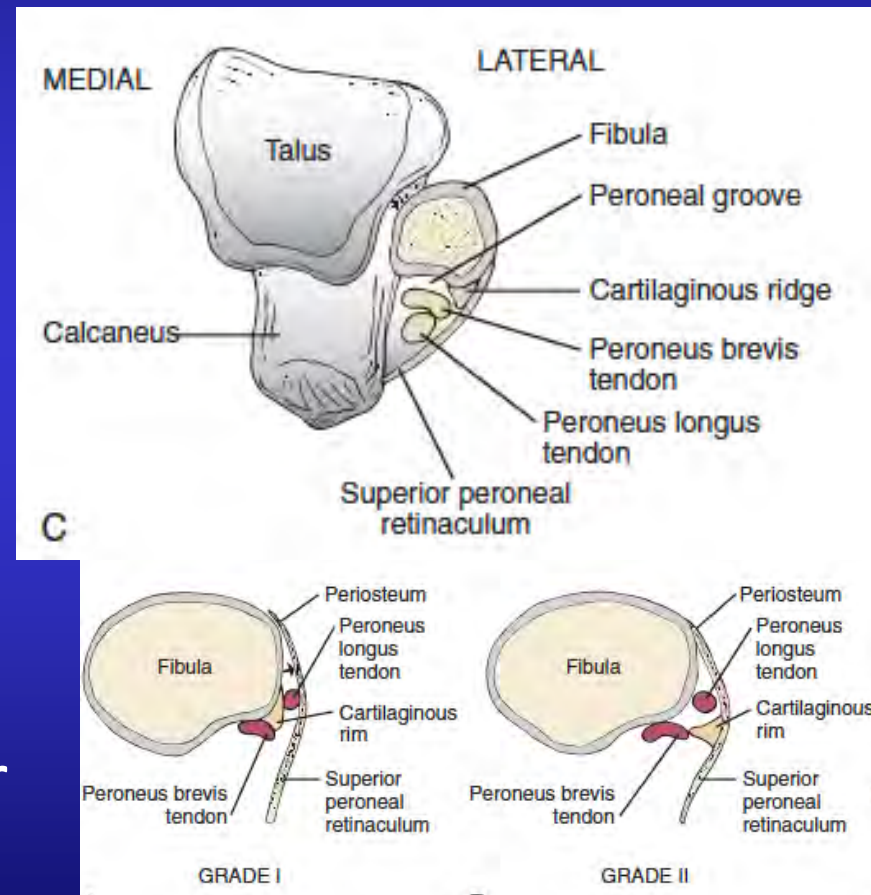
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Anatomy

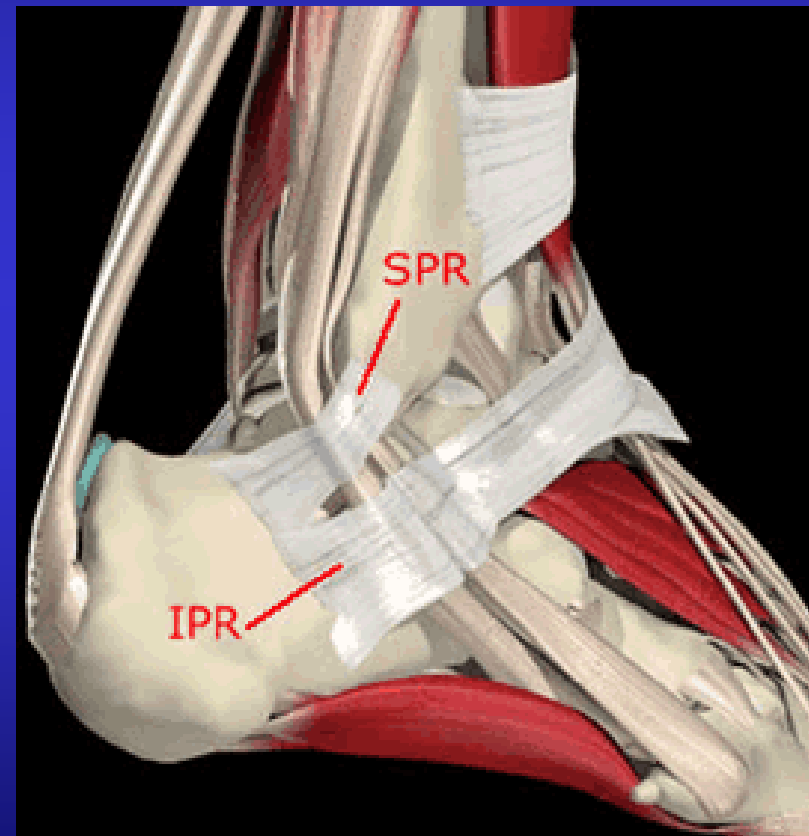
- Rupture of the Superior Peroneal Retinaculum
- Shallow groove
- Allows for tendons to subluxate
- Similar to Bankart Lesion in the shoulder



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Mechanism of Injury

- Ankle dorsiflexed
- Forceful contraction of peroneal muscles



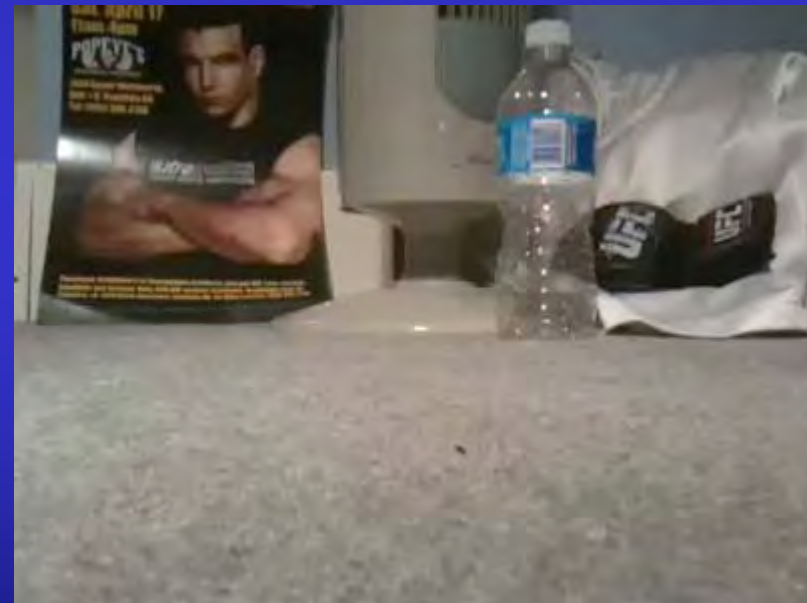
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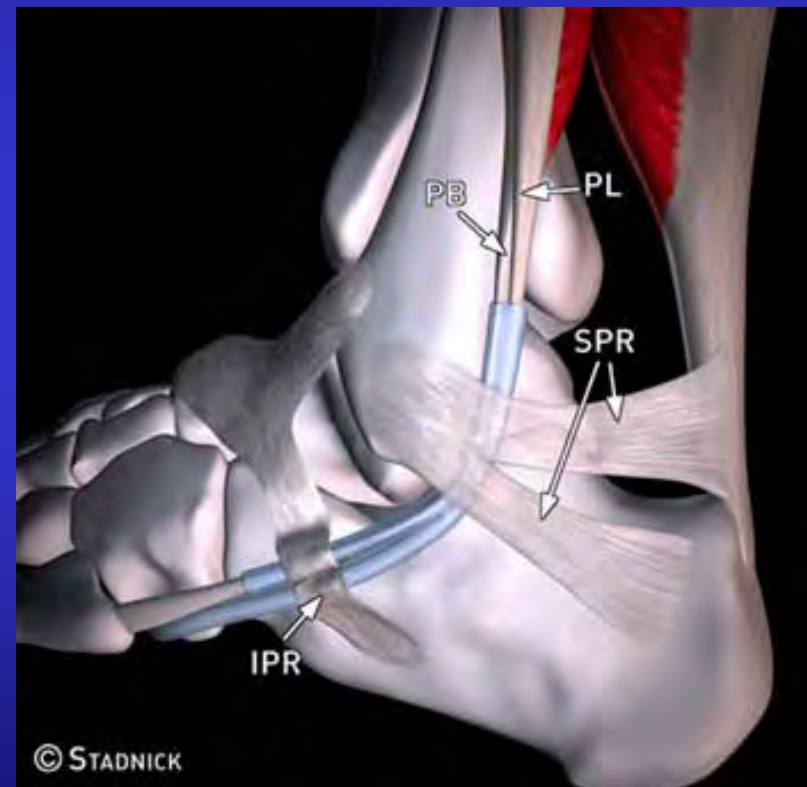
History

- Recalls significant injury
- May feel a “snapping” sensation or rupture
- Afterwards, with sport, may experience same snapping, instability



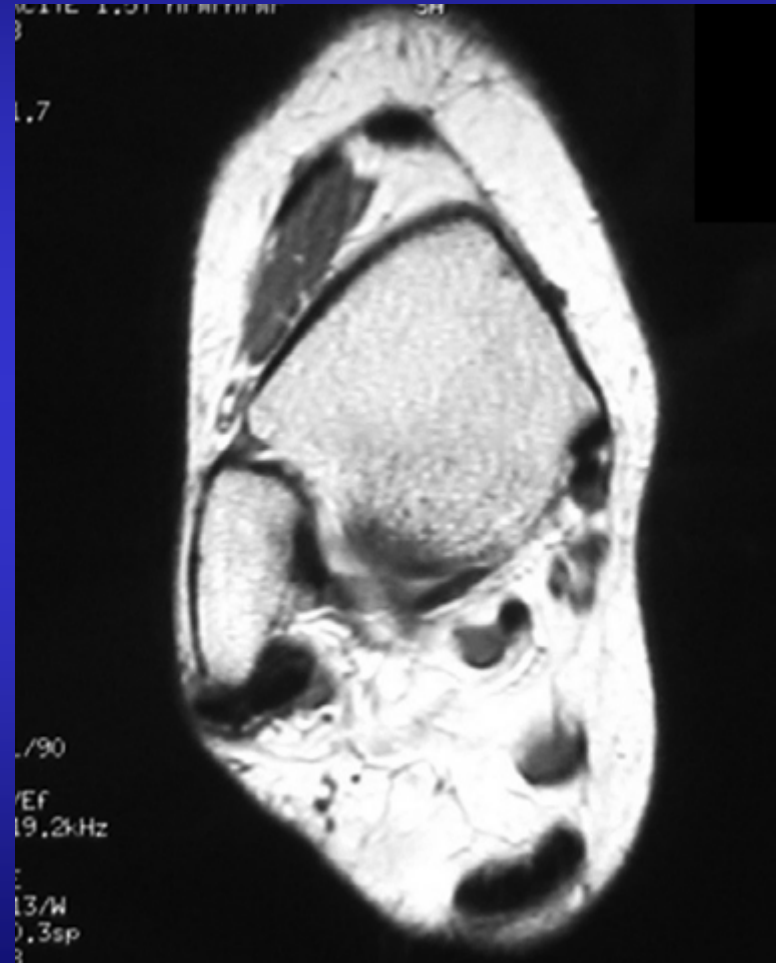
Physical Examination

- Can be missed if not looking for
- Pain over SPR, not ATFL
- Snapping can be reproduced
- Force on tendons behind fibula with eversion



Investigations

- Xrays- rarely may show avulsion SPR
- Ultrasound- dynamic study, reproduce dislocation
- MRI- can demonstrate SPR rupture, and subluxation



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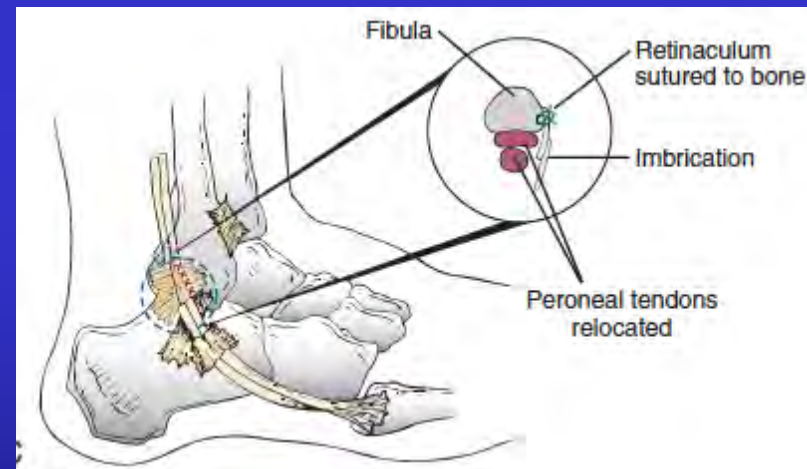


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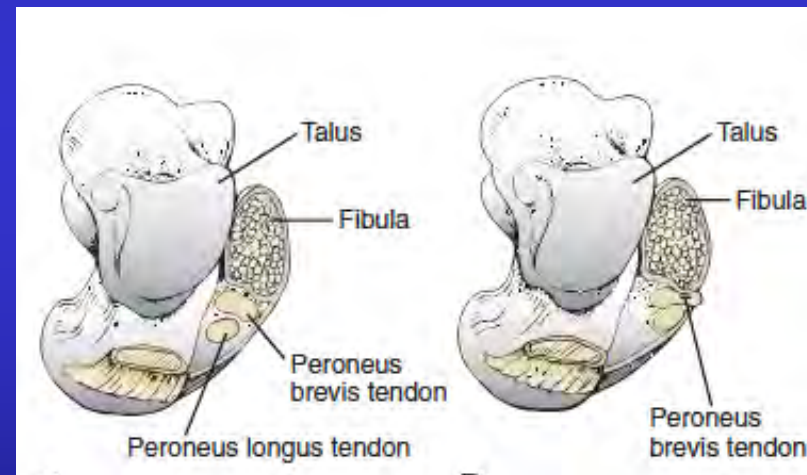
Treatment

- Surgical
- Young active pts.
- Nonsurgical has a high failure rate.
- Stover- Immobilisation slight plantarflexion success in 57%.
- Escalas- 74% required surgery



Summary

- Peroneal injuries can cause persistent pain after ankle injury
- Awareness of peroneal pathology
- Dislocations- surgical
- Tears- nonop or surgical
- Tenosynovitis- nonop



Thank You



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