

Common Foot and Ankle Problems

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Overview

1. HALLUX VALGUS
2. Hallux RIGIDUS
3. ACHILLES TENDONITIS
with case studies
4. FLAT FOOT *with examination*
5. ANKLE LIGAMENT INJURIES

- A few tips on Management in Primary Care
 - *When/Who to refer*
- Some new operative techniques available
- O/E and case studies
- Interactive

HALLUX VALGUS

- *‘What causes bunions doctor?’*



- Intrinsic
 - Genetics
 - Muscles (CP, SB),
 - Ligaments (Hyperlaxity, Pes planus),
 - Joints (RA),
- Extrinsic
 - Footwear.

Examination

- Hindfoot: ?pes planus
- MTPJ: Arthritis
- Lesser toes: MTS, deformity.



Referral/Indications for Surgery



Pure cosmesis:

Generally not;
Length of recovery.
Potential for
stiffness.

Generally advise
against high heels
after.



Pain: **eminence**, joint, toe
crowding, shoe limitation



Lesser toe: MTS and Hammering

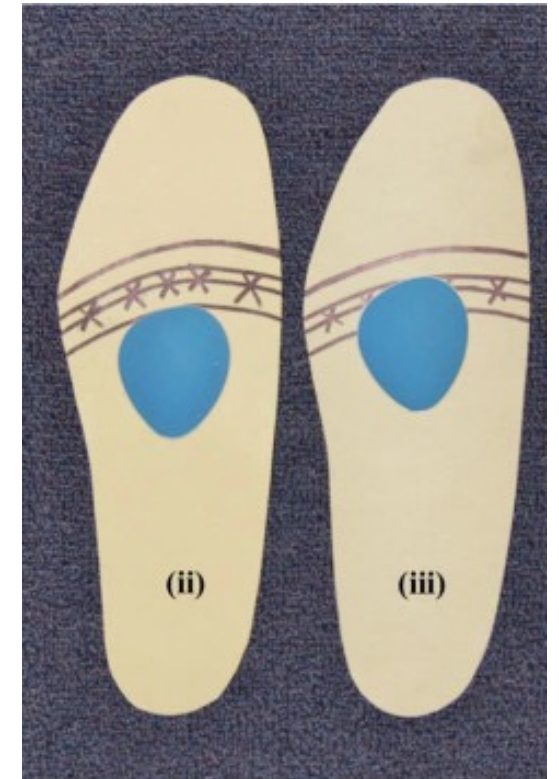
Progression



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Conservative Treatment

- Footwear modification
- Bunion pads
- Toe separators
- Bunion splints – darco
- Insoles: Flat feet, metatarsalgia.



Surgery

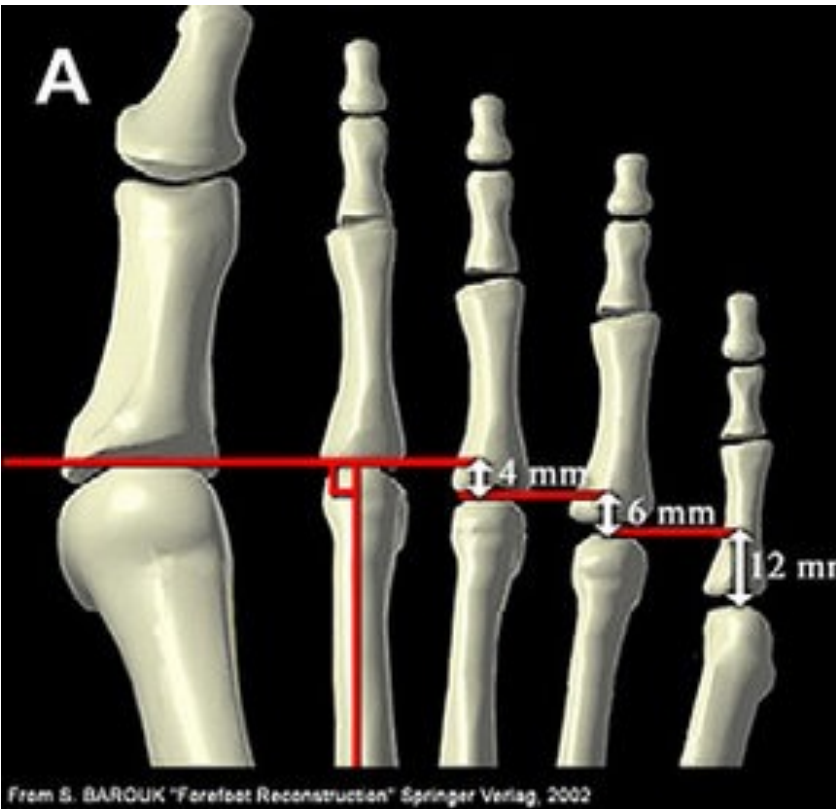
- No arthritis:
 - Osteotomy: Distal, midshaft, proximal +/- akin



- Arthritis
 - Fusion



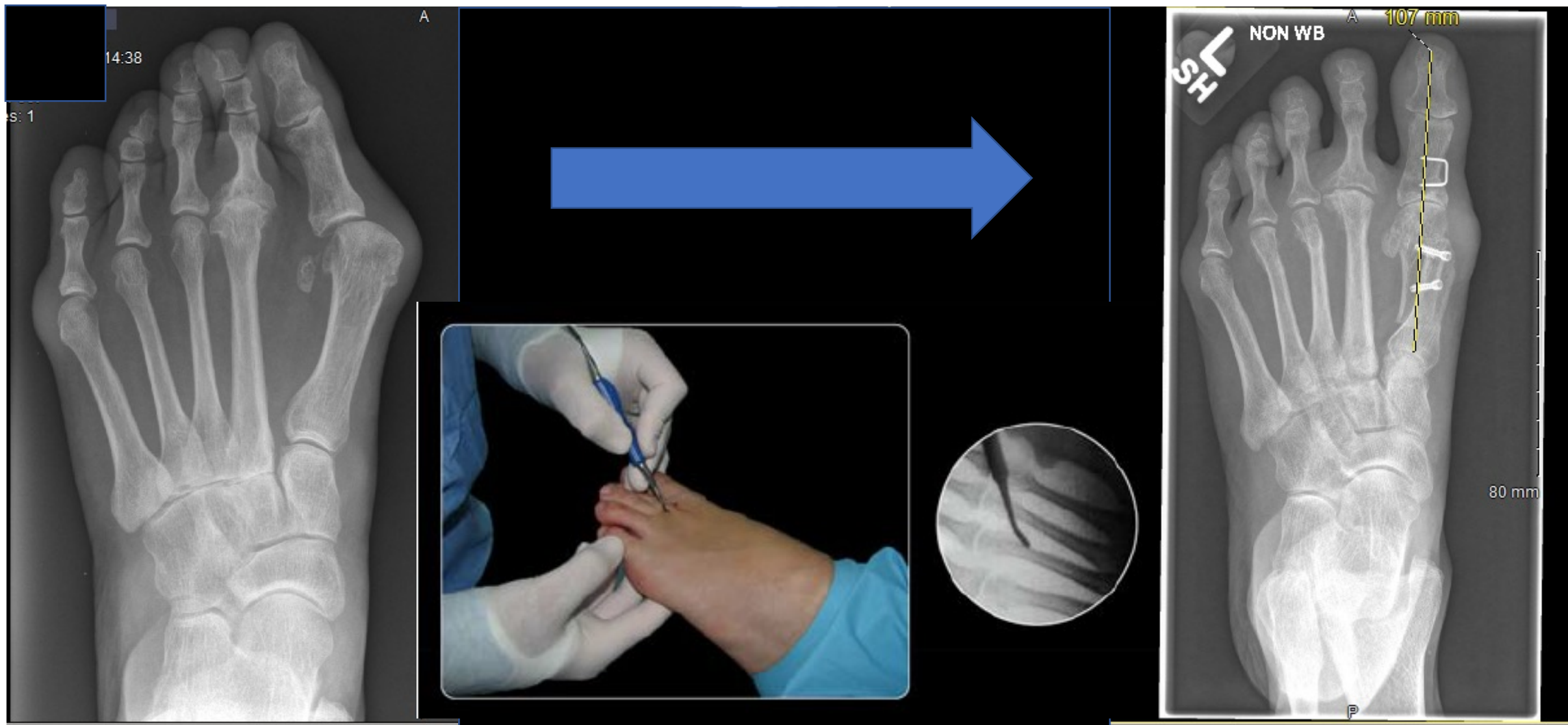
Development: Distal Minimally Invasive Metatarsal Osteotomy.





Weil Osteotomy Strap™

Application Instructions



Hallux Rigidus

- Literally - Stiff Great Toe!

Male > Female

- 80% Bilateral
- Aetiology unknown
 - 'wear and tear'?
 - Chronic repetitive injury
 - Altered mechanics



Hallux Rigidus

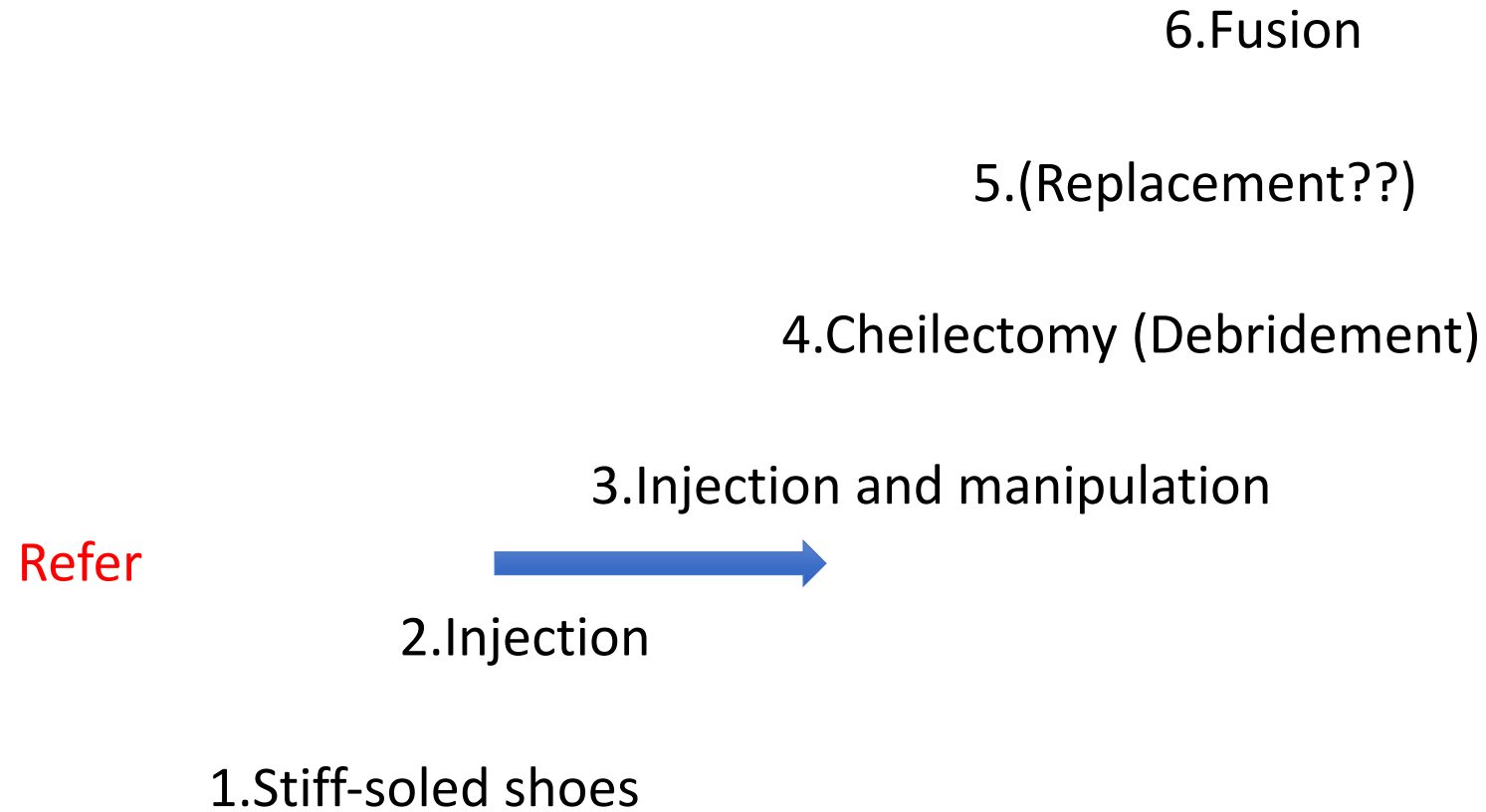
- Examination
 - Dorsal Bunion
 - STIFFNESS
 - PAIN
 - DORSAL IMPINGEMENT?
 - AXIAL GRIND?
 - Whole joint affected



| Classification | | |
|-------------------------------------|---|--|
| Coughlin and Shurnas Classification | | |
| | Exam Findings | Radiographic Findings |
| Grade 0 | Stiffness | Normal |
| Grade 1 | mild pain at extremes of motion | mild dorsal osteophyte, normal joint space |
| Grade 2 | moderate pain with range of motion increasingly more constant | moderate dorsal osteophyte, <50% joint space narrowing |
| Grade 3 | significant stiffness, pain at extreme ROM, no pain at mid-range | severe dorsal osteophyte, >50% joint space narrowing |
| Grade 4 | significant stiffness, pain at extreme ROM, pain at mid-range of motion | same as grade III |

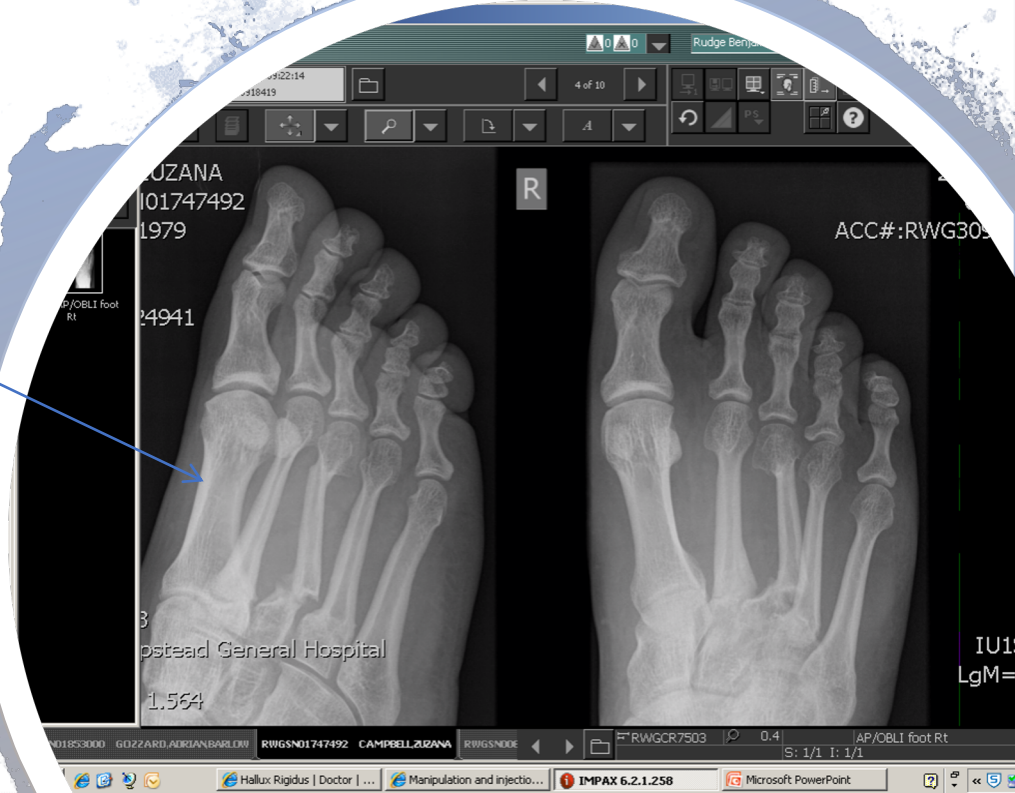
Classification

Hallux Rigidus



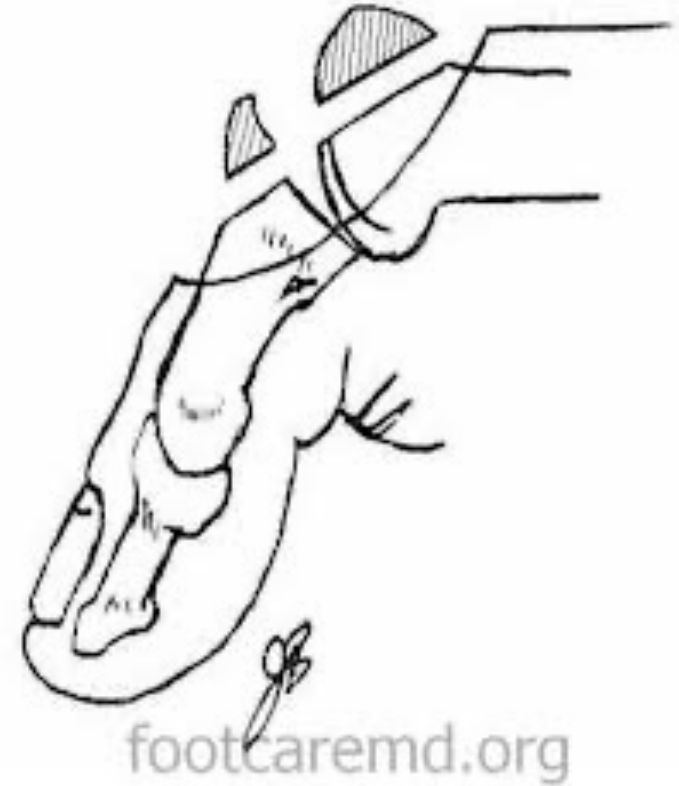
Hallux Rigidus – treatment ladder

- Appropriate footwear
 - Stiff soled shoes
- Steroid Injection
 - Useful in 50% pts with early condition
- Surgery
 - Cheilectomy
 - Fusion
 - Replacement

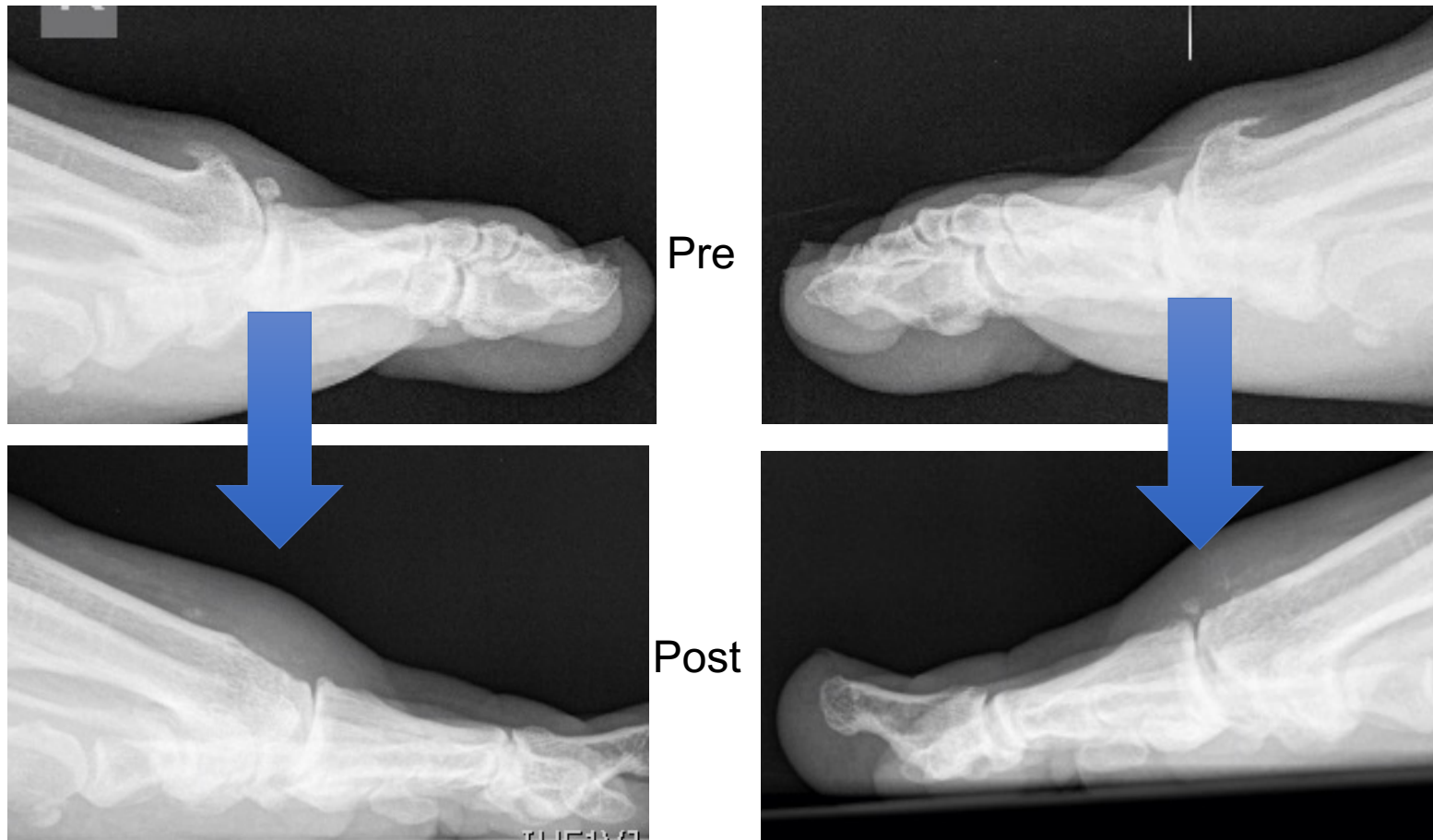


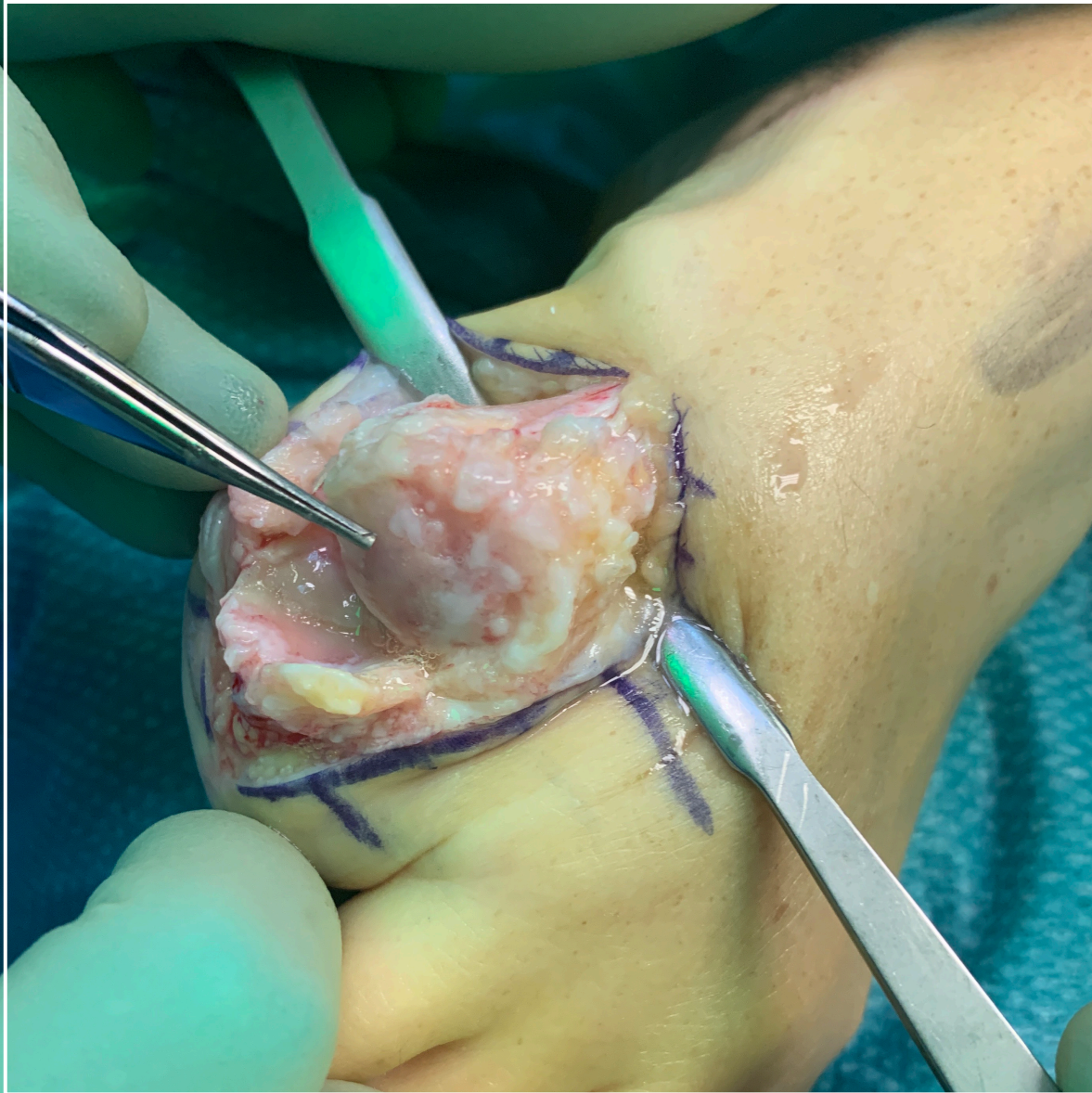
Hallux Rigidus - Cheilectomy

Open



Hallux Rigidus - Cheilectomy









A word of
caution!

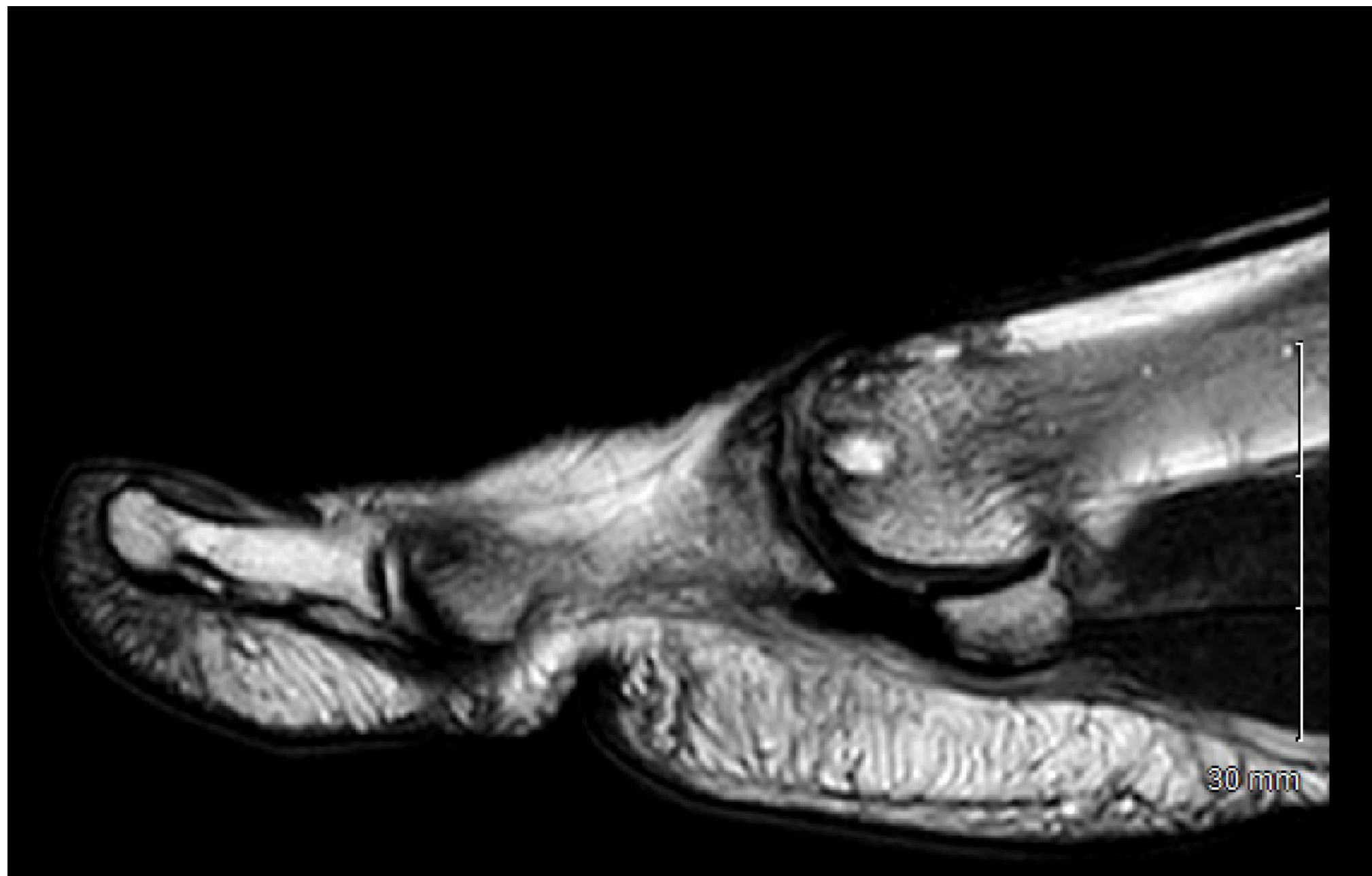
WEIGHT BEARING

HORIZ BEAM

R
17

50 mm












Hallux Rigidus - Fusion

- “Gold-Standard” for advanced arthritis
- Painful stiff joint  Painless stiff joint
- Women seem less keen??!!!

Hallux Rigidus - Fusion

- “Gold-Standard” for advanced arthritis
- Painful stiff joint → Painless stiff joint
- Women seem less keen??!!!





Hallux Rigidus - Replacement

- 56 yr old lady
 - 3 yr hx pain
 - Adamant NO FUSION!



Hallux Rigidus - Replacement



Achilles Tendonitis – Case study

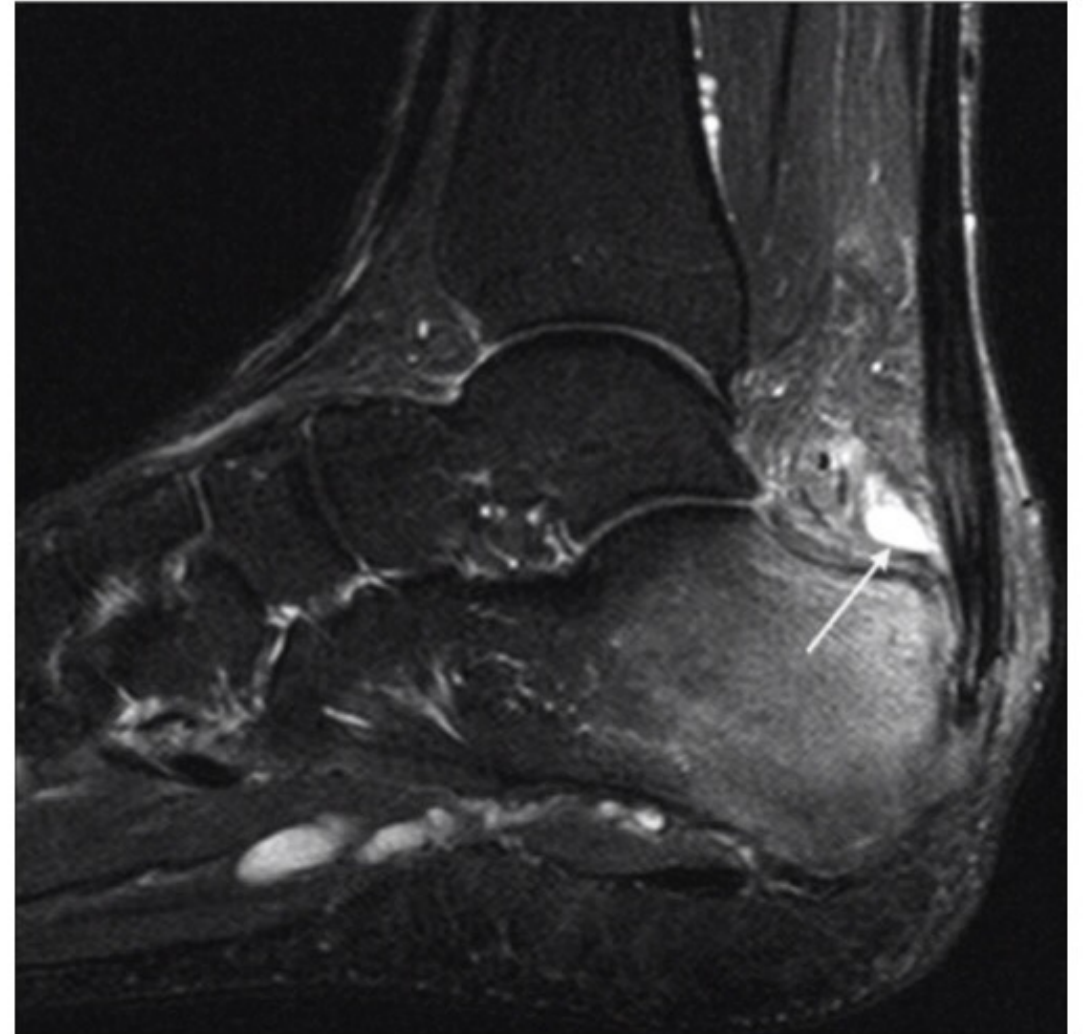
- 55M. High BMI, DM on metformin.
- Painful posterior heel 6/12.
- Gradually noticed bony bump
- Walking and shoes are painful
- IX:
- RX:



- 29M. Keen Runner.
- Recently increased distances and changed shoes.
- 2/12 pain and swelling achilles.
- Worse in morning
- IX ?
- RX?



Non insertional vs Insertional



O/E - both

Look: Hindfoot alignment: Cavus or planus *
Where is lump (proximal or distal).
Erythema: Esp with RC bursitis.

Feel: Along Achilles and insertion – tender,
firm.
Plantar Fascia

Move: Achilles tightness (or laxity...)
Silvfer skiold test

Ix

- Xray
 - Insertional: Haglunds, ossification of insertion.
 - Less useful non insertional.
- USS
 - Useful for both. Can also see neovascularisation.
- MRI
 - Tendon, bursa
- US or MRI?
 - Both equally useful.

Rx – Non insertional.



Rest/Activity
Modification.

Analgesia: NSAID, cold
compress

Self Physio: If tight.
ECCENTRIC. 12 weeks *.

Orthotics – change
trainers

Primary care

refer

Formal Physio –
kinesiotape, deep
frictional massage?

Shock wave

Injections

Night splints?

Gastroc
release
Tendon
Debridement
+/- FHL
transfer



Rx –Insertional.

Rest/Activity
Modification.
BOOT 6
weeks.

Analgesia:
NSAID, cold
compress

Self Physio:
Eccentric. LESS
EFFECTIVE (90
vs 30%)

Orthotics -
heel lift.



Formal Physio
Shock wave –
LESS but still
EFFECTIVE
Injections?



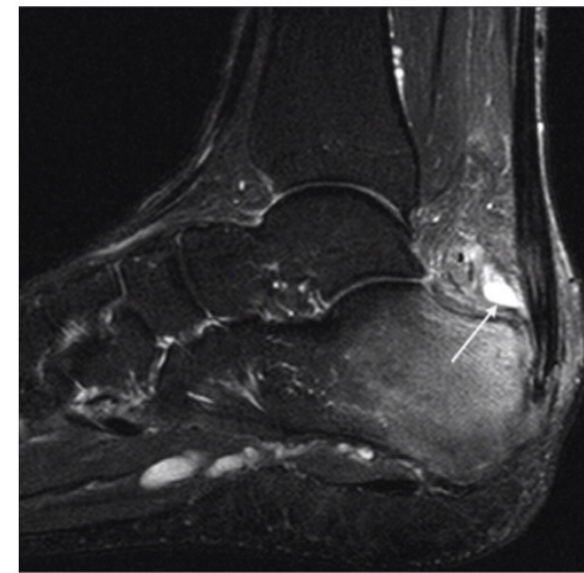
Gastroc
release

Open/Arth
haglunds
debridement.



DEBRIDEMENT
WITH
SPEEDBRIDGE
REINSERTION.

ZADEK



PES PLANUS



Spire

Bushey Hospital

- CAUSE:
 - CONGENITAL
 - COALITION, FLEXIBLE, ACCESSORY NAVICULAR
 - ACQUIRED
 - TRAUMA: LISFRANC (CRUSHED MIDFOOT)
 - INFLAMM: RA, PA
 - DEGEN: **PTTD**, MIDFOOT OA

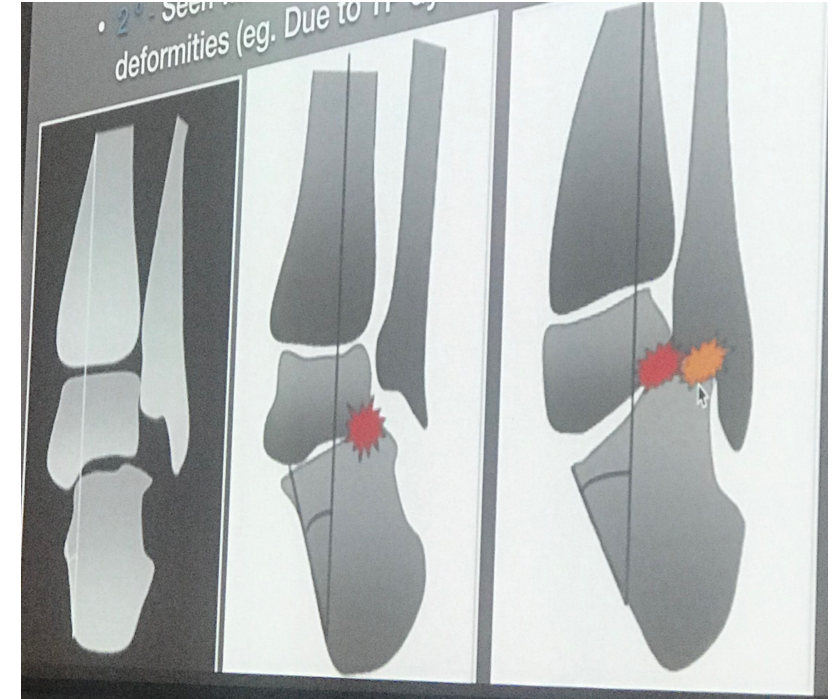
PES PLANUS - TPPD

- SYMPTOMS

- MEDIAL PAIN
- LATERAL PAIN
- ACHILLES/PLANTAR FASCIA PAIN
- HV/LESSER TOES

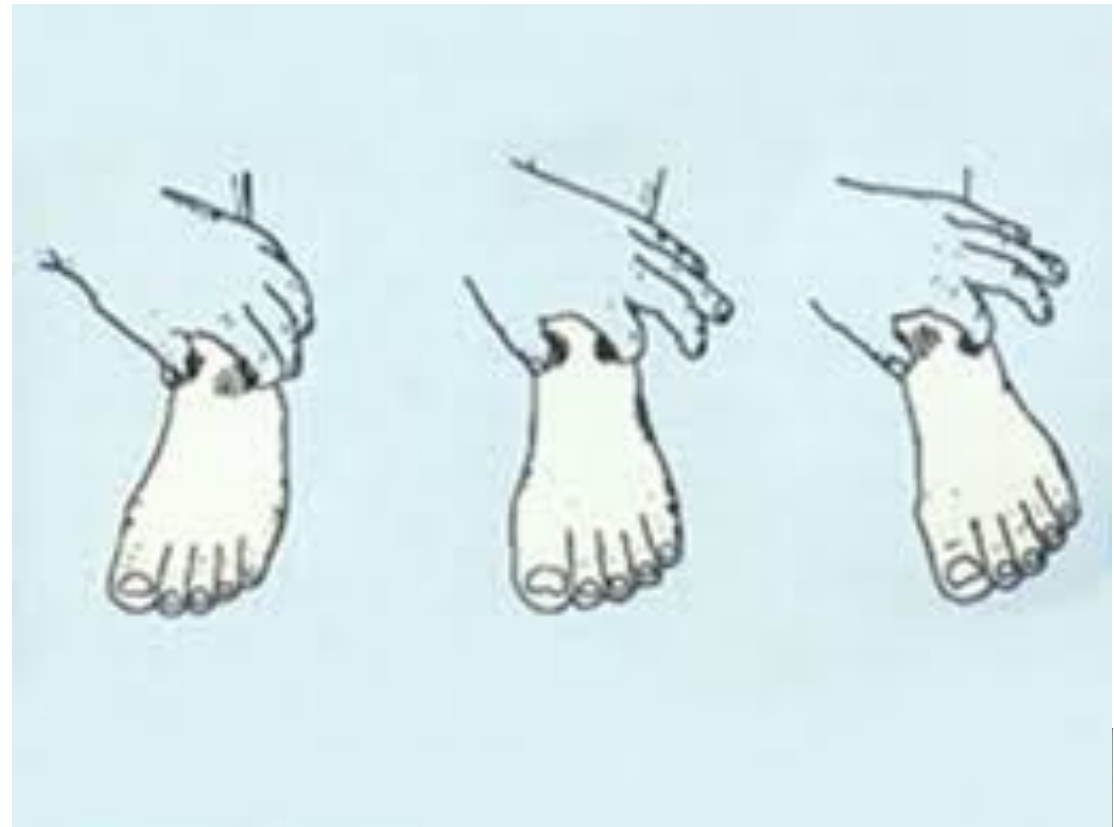
- EXAMINATION

- VALGUS HEEL
- TOO MANY TOES SIGN
- FLEXIBILITY *
- SLHR
- ONCE REDUCED TO TALAR NEUTRAL – FOREFOOT : SUPINATION, ABDUCTION
- ACHILLES



O/E

- How to establish they are flat
- How to determine flexibility
- How to see if achilles is tight



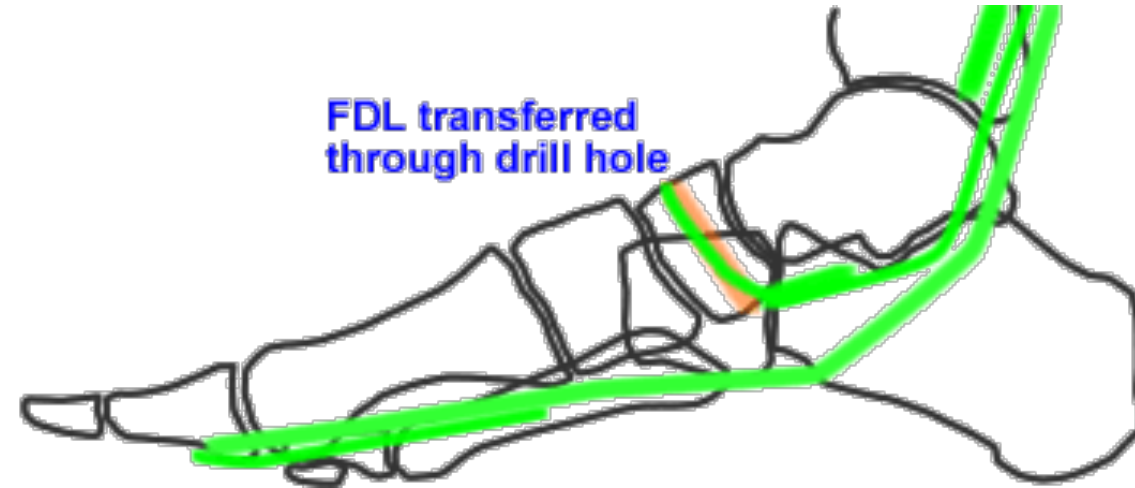
CONSERVATIVE

- INSOLES
 - MEDIAL ARCH, MEDIAL HINDFOOT POST
- PTTD BRACE
- ACTIVITY MODIFICATION
- PHYSIO
 - TENDO ACHILLES, ECCENTRIC STRETCHING TIB P
- WHEN TO REFER
 - 6 MONTHS CONSERVATIVE RX

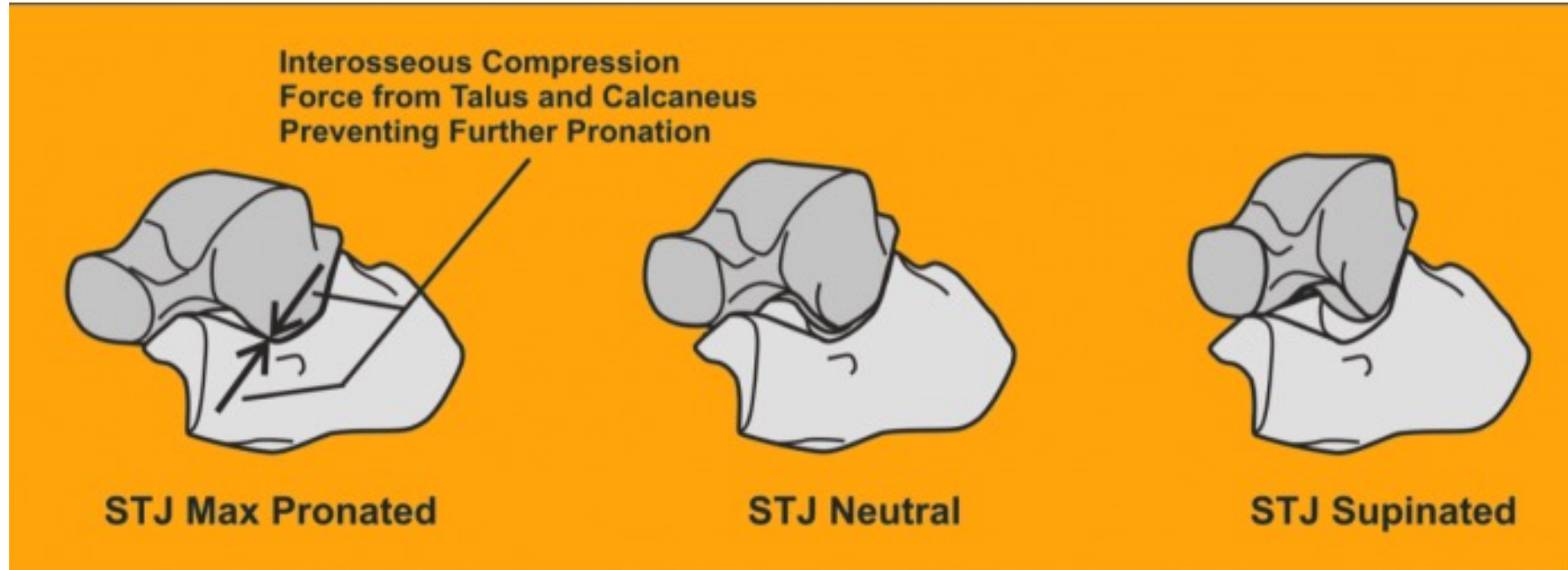


OPERATIVE

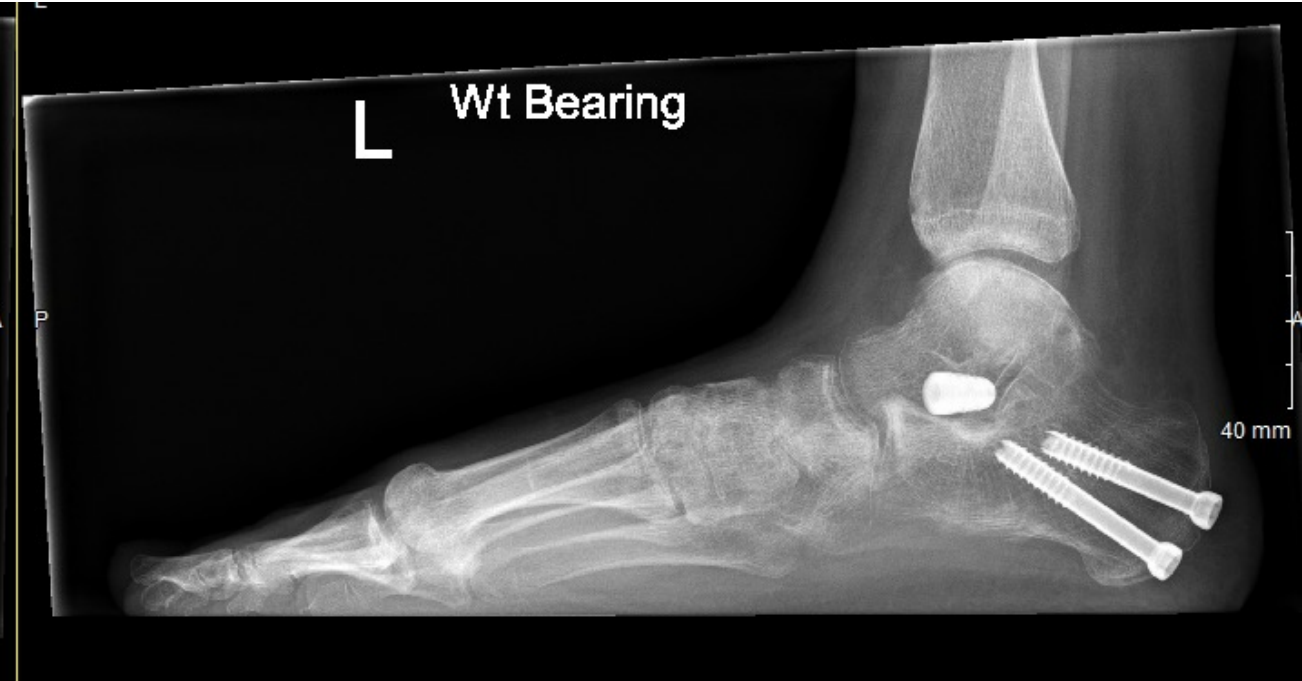
- FLEXIBLE
 - MEDIALISING CALCANEAL OSTEOTOMY
 - FDL TRANSFER FOR TIB POST
 - SPRING LIGAMENT REPAIR
- BUT RECURRENCE...!



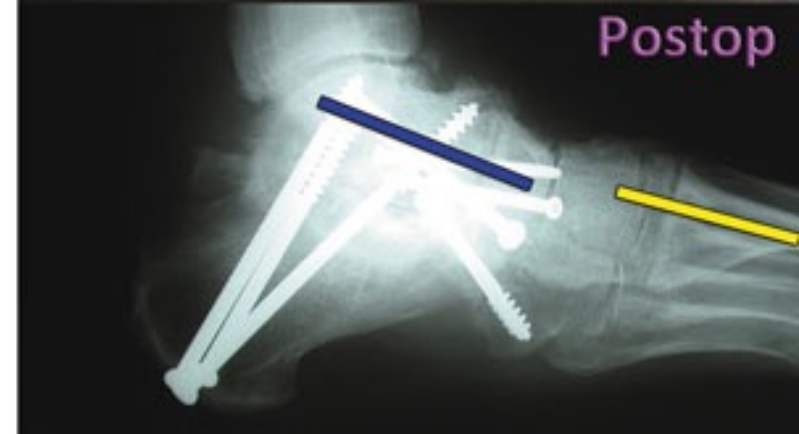
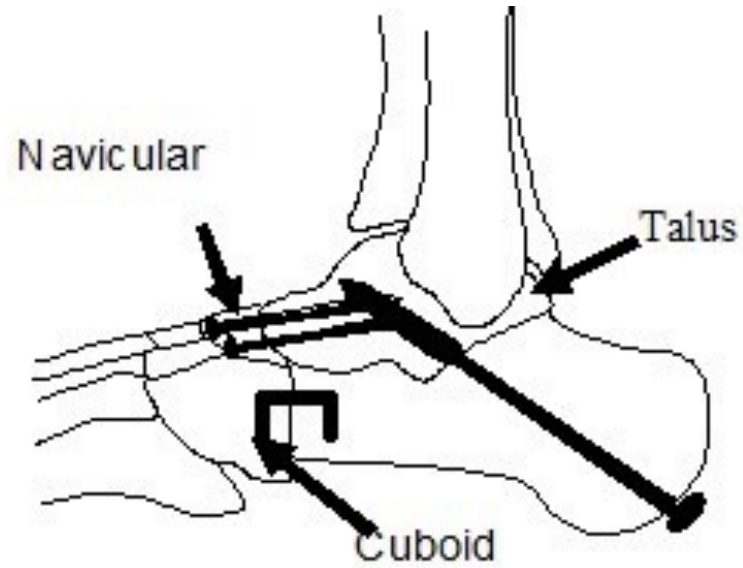
ARTHROREISIS SCREW



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TRIPLE FUSION



ACUTE ANKLE SPRAIN



RX

- MAJORITY CONSERVATIVE 6/12 – AS MOST RECOVER.
 - AICAST BRACE > TUBIGRIP
 - FUNCTIONAL REHAB > PLASTER FOR 6 WEEKS.
- EARLY SURGERY IN ELITE ATHLETE AS LOWER RATE OF CHRONIC INSTABILITY

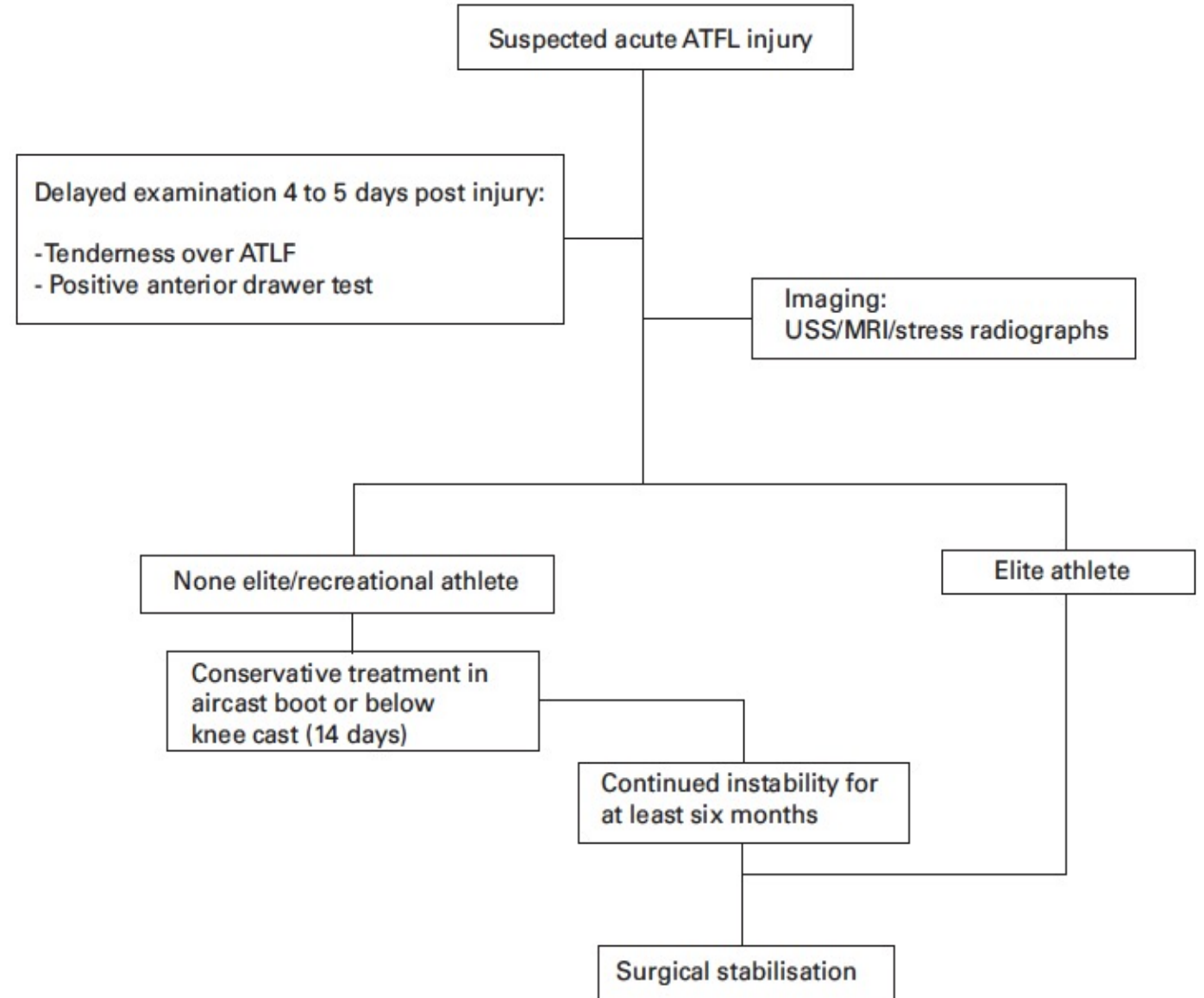
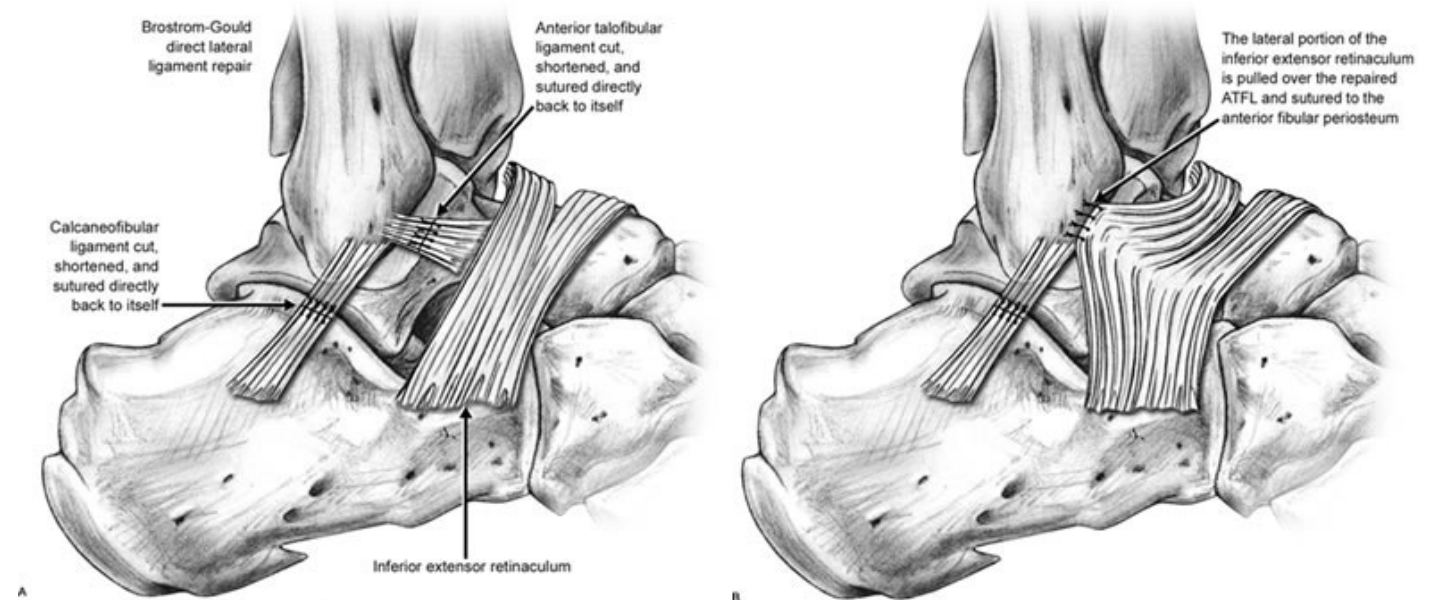
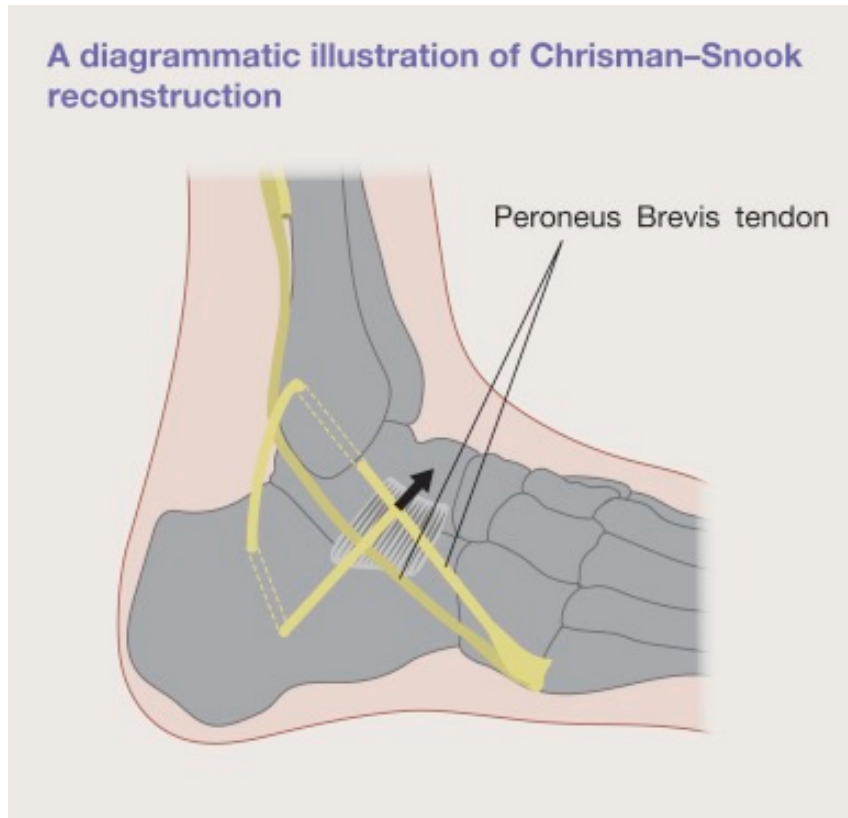


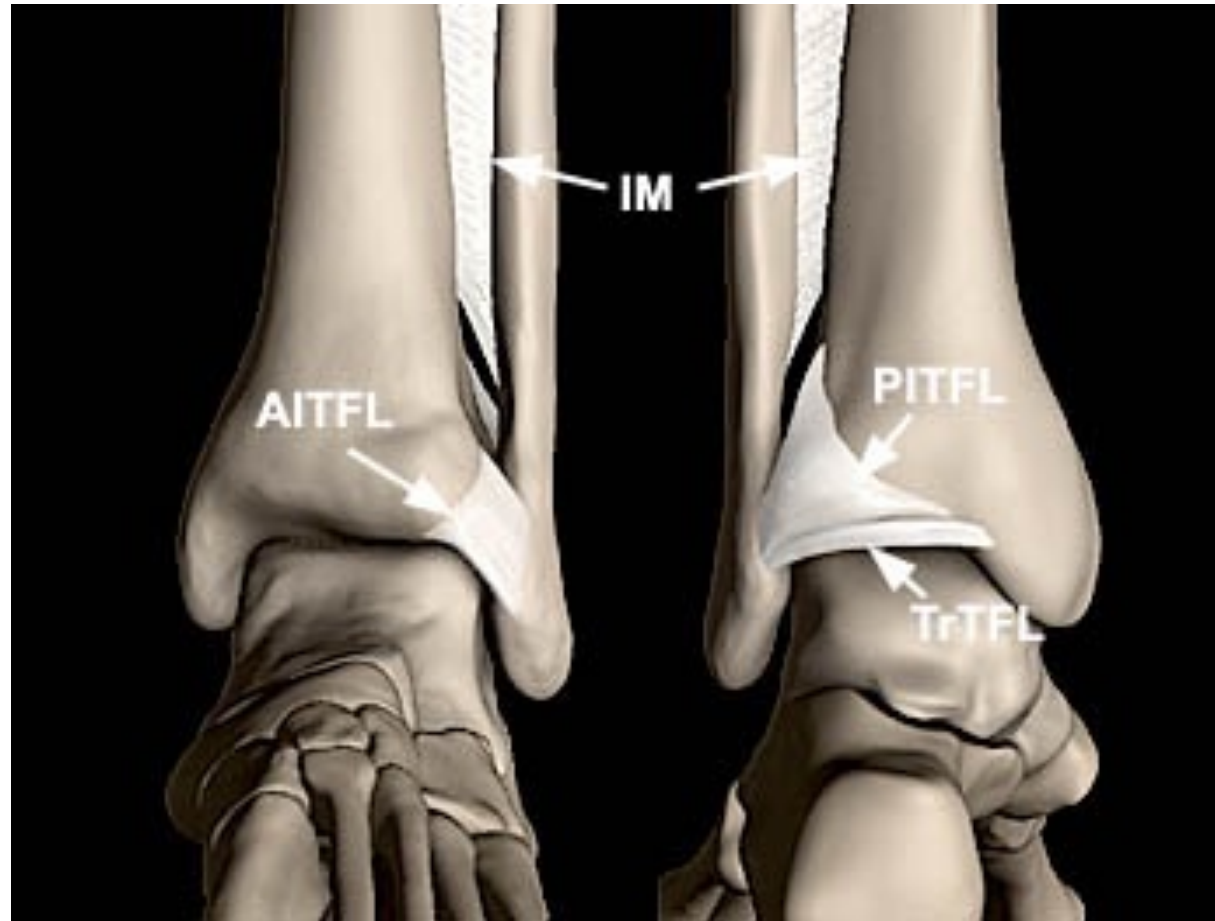
Fig. 2

Treatment algorithm for suspected injury of the anterior talofibular ligament (ATFL). (USS, ultrasound scan).

- NON ANATOMICAL – EVAN, CHRISMAN SNOOK
 - STIFFNESS
- ANATOMICAL – BROSTRUM GOULD
 - +/- ANCHORS, INTERNAL BRACE



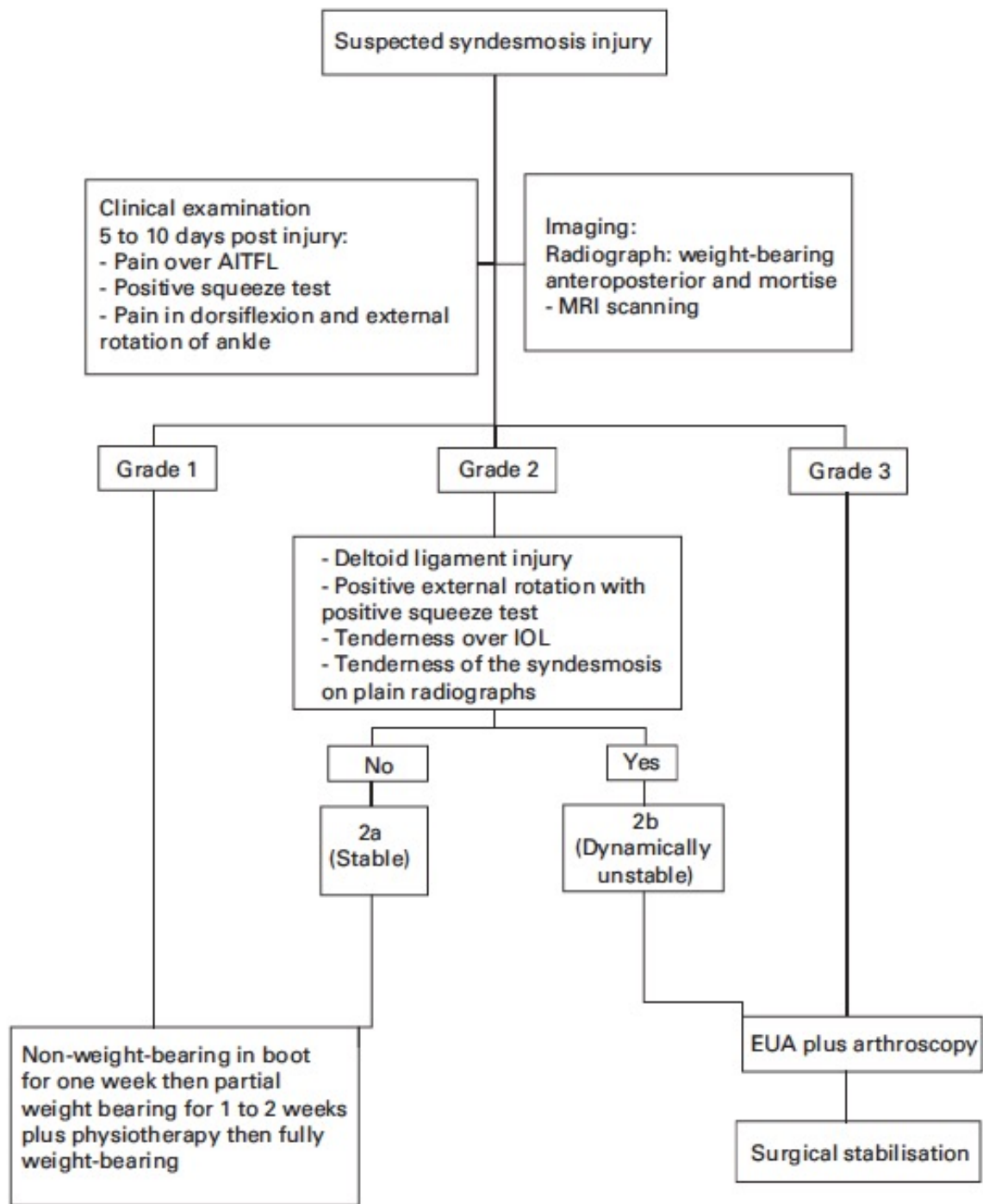
SYNDESMOTIC INJURY



- MOI
 - ER TALUS ON PLANTED FOOT
- O/E
 - HIGH ANKLE PAIN
 - DF/ER TEST SENSITIVITY 92%

- **WEST POINT GRADING SYSTEM**

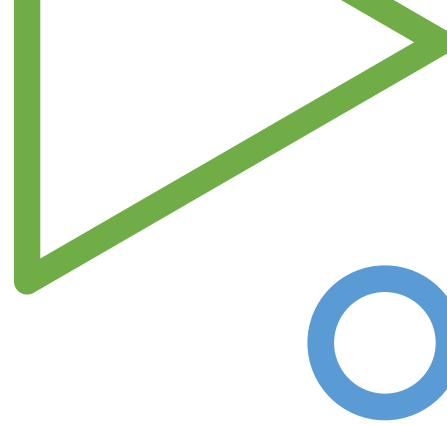
- **1. SPRAIN AITFL. NO INSTAB**
- **2. TEAR AITFL, INCOMPLETE IOL – slight instab**
 - AT 5 DAYS. DELTOID LIGAMENT INJURY, POSTIIVE ER AND SQUEEZE, TENDERNESS >6CM PROX TO ANKLE, WIDENING ON XR
 - A OR B. DYNAMICALLY UNSTABLE
- **3. COMPLETE OF ALL AND GROSS INSTAB**



THANK YOU

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Spire
Bushey Hospital

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