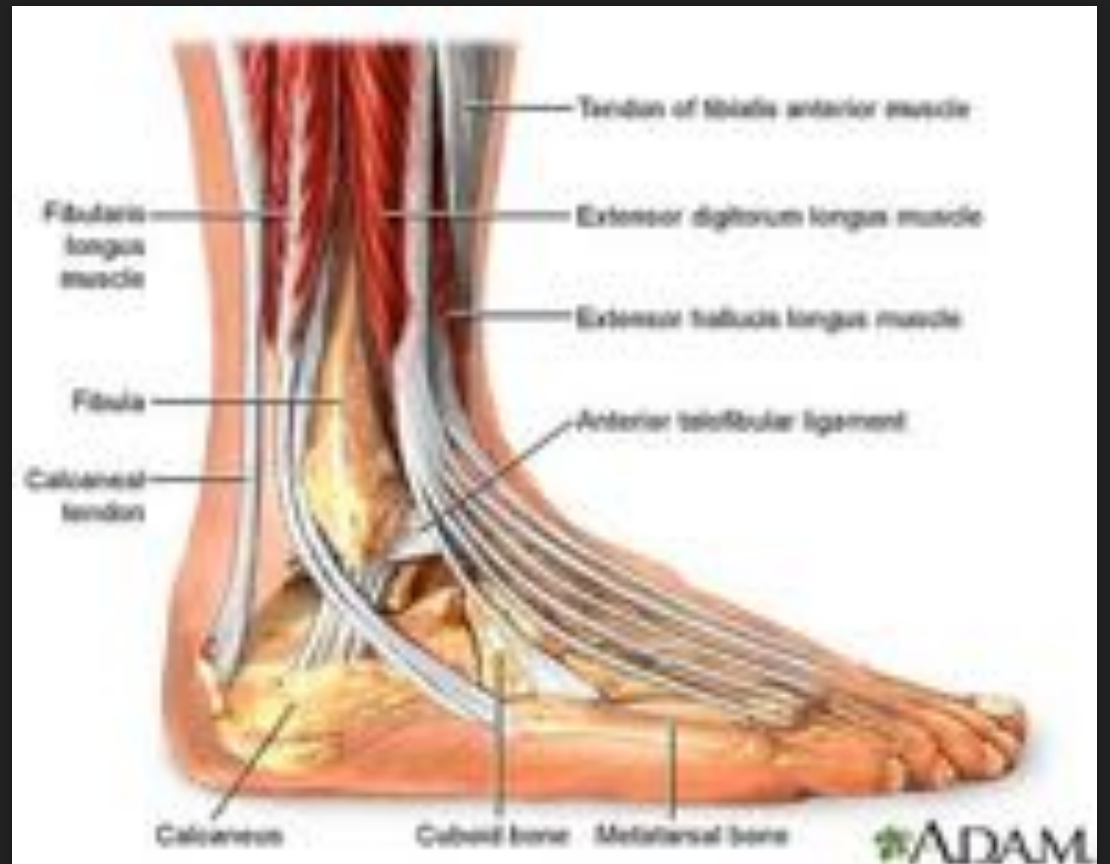
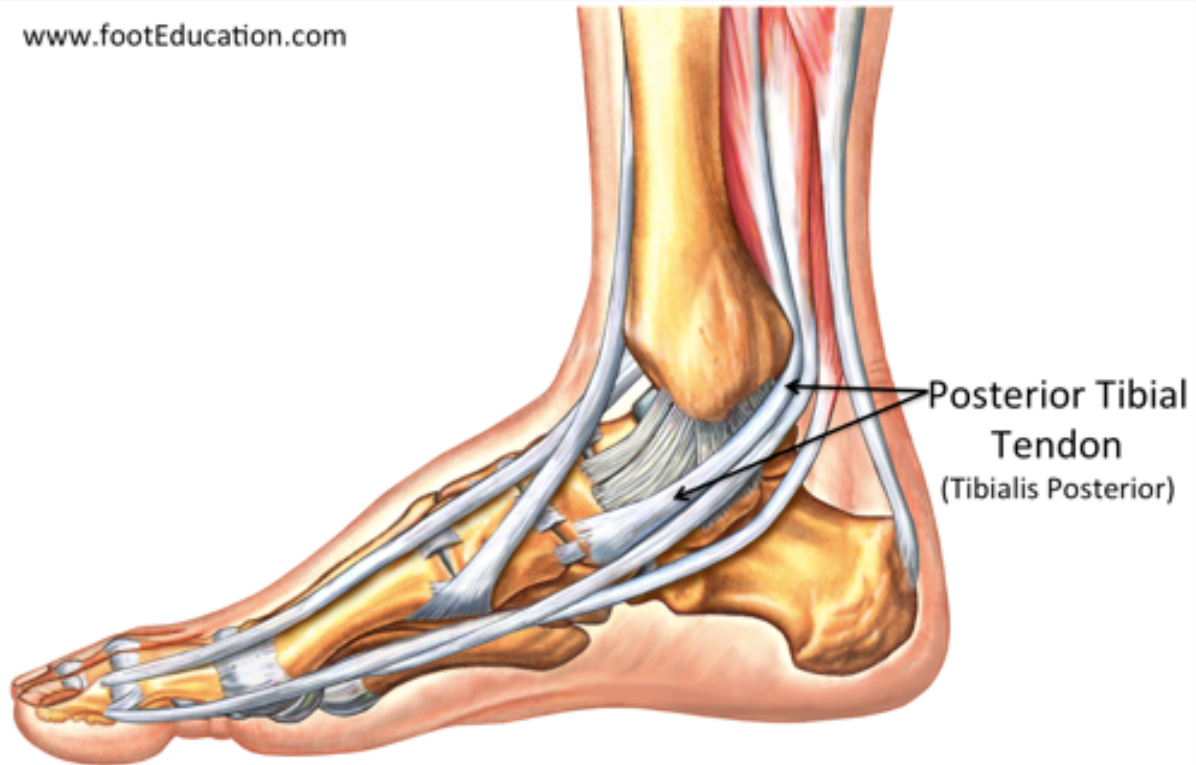


Tendon Problems

Mr Matthew Welck
Consultant Surgeon
Foot and Ankle Unit
RNOH

Anatomy...!

www.footEducation.com



Contents



Tib post tendon

Tibialis posterior tendon insufficiency...
pes planus



Achilles

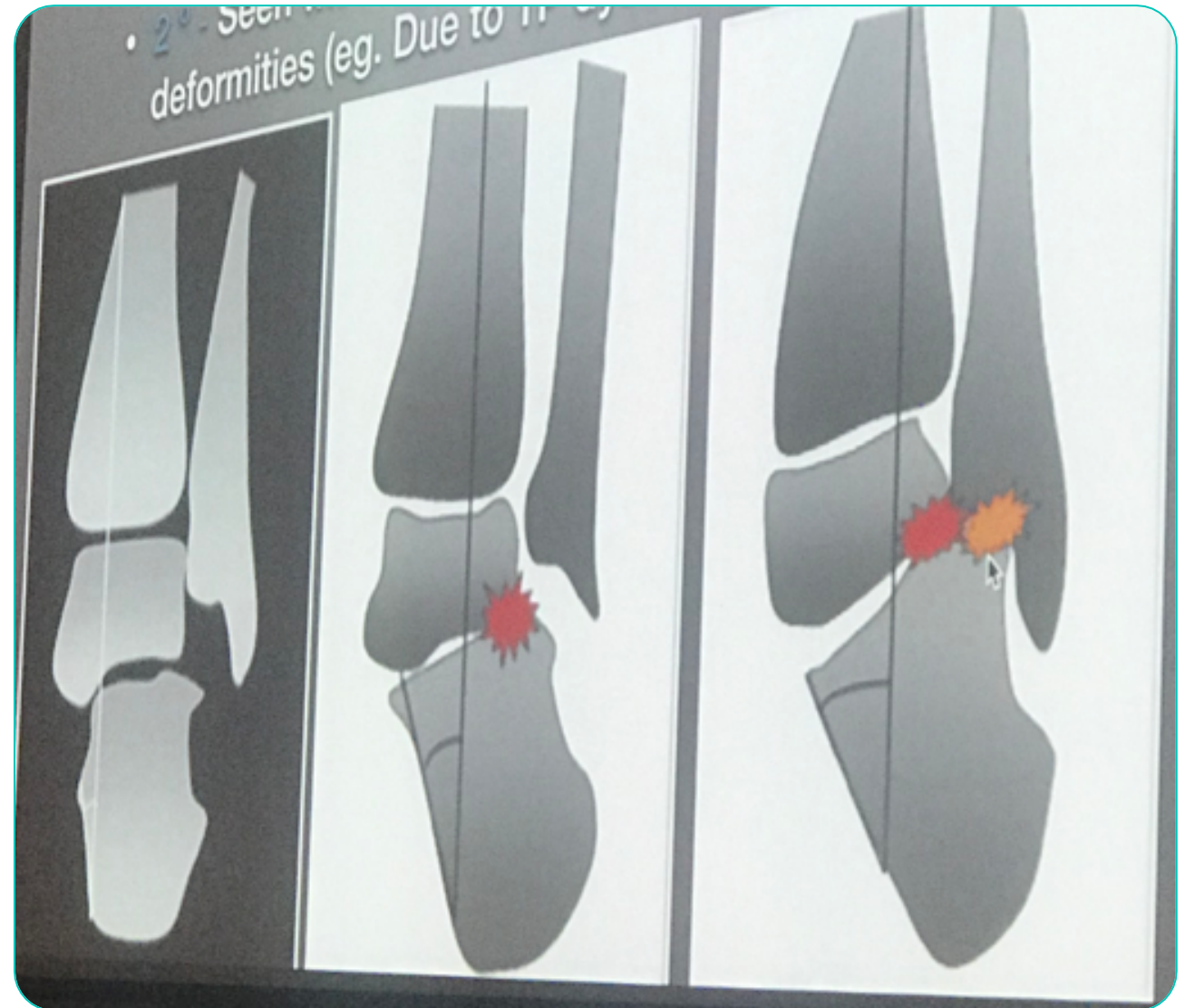
Insertional and Non Insertional
Tendinopathy
Rupture

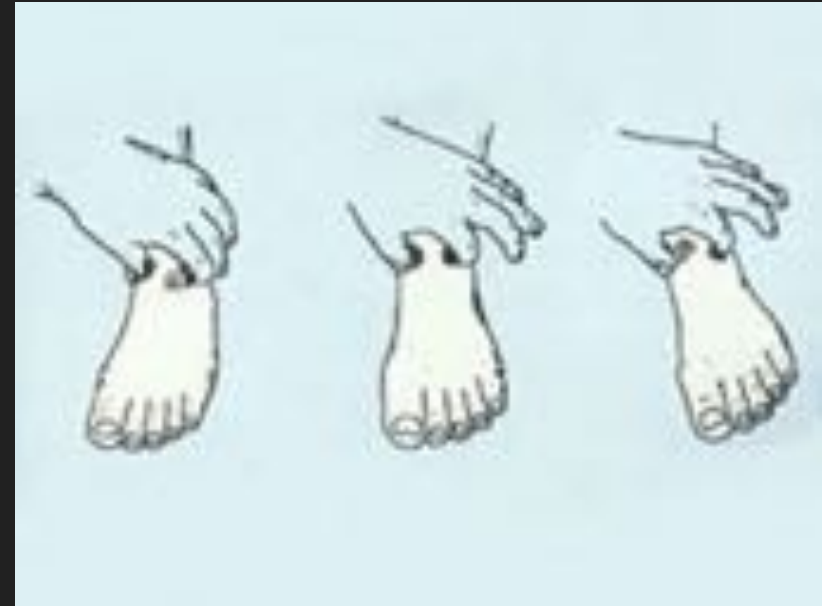
PES PLANUS

- 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 (5, PART 4)
 - FLEXIBILITY *
 - SLHR
 - ONCE REDUCED TO TALAR NEUTRAL – FOREFOOT : SUPINATION, ABDUCTION
 - ACHILLES





O/E

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

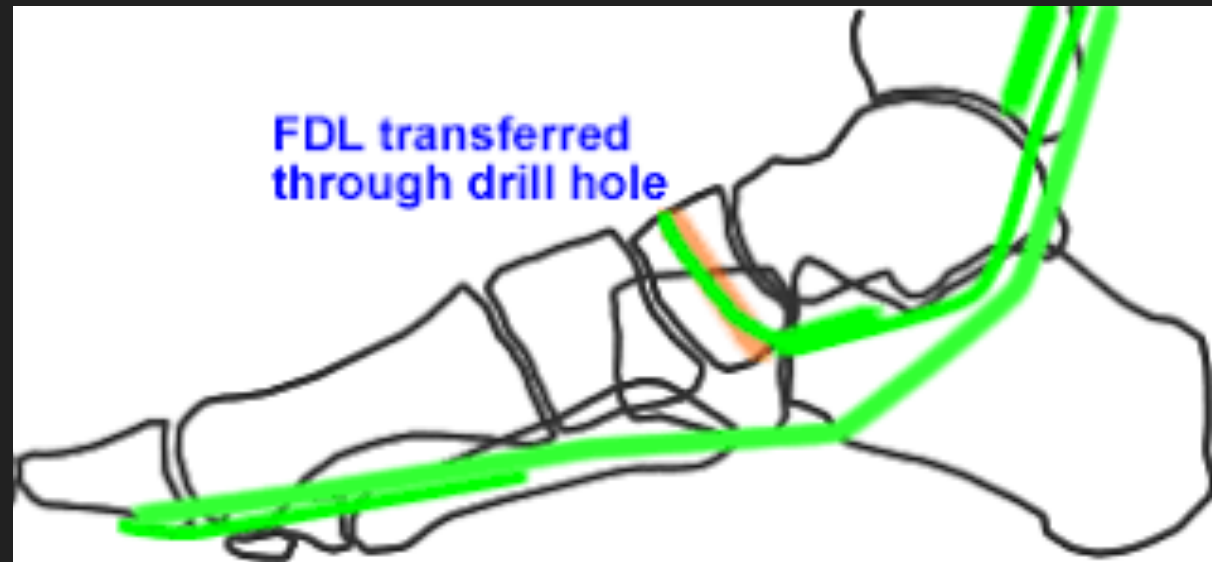
CONSERVATIVE

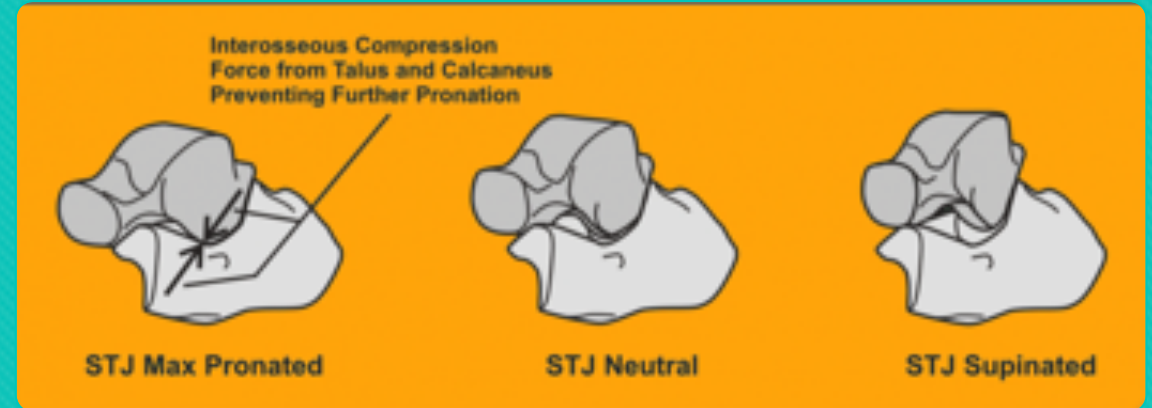
- INSOLES
 - MEDIAL ARCH, MEDIAL HINDFOOT POST
- PTTD BRACE
- ACTIVITY MODIFICATION
- PHYSIO
 - TENDO ACHILLES, ECCENTRIC STRETCHING TIB POST.
- WHEN TO REFER
 - 6 MONTHS CONSERVATIVE RX



OPERATIVE

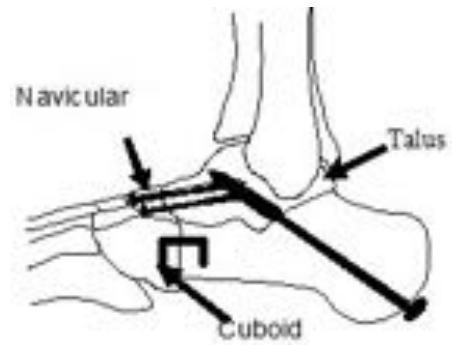
- FLEXIBLE
 - MEDIALISING CALCANEAL OSTEOTOMY
 - FDL TRANSFER FOR TIB POST
 - SPRING LIGAMENT REPAIR
- RECURRENCE....!





ARTHROREISIS SCREW





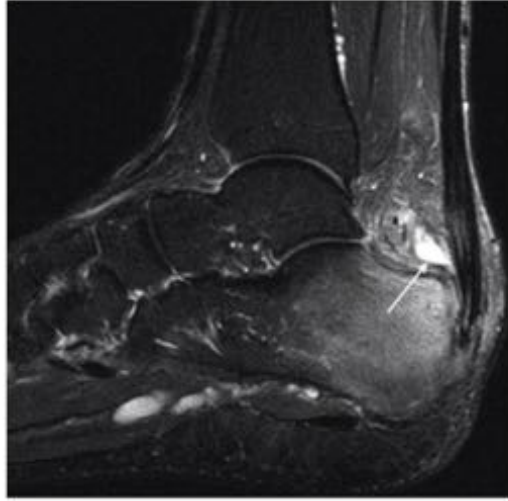
TRIPLE FUSION

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?

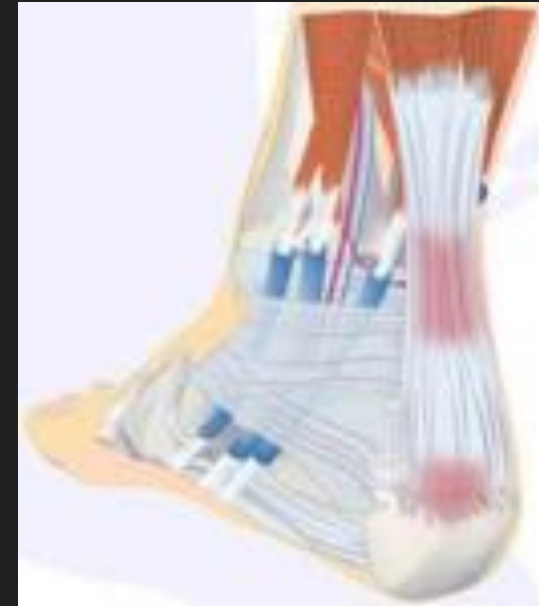




MRI showing enlargement of the retrocalcaneal bursa



Longitudinal ultrasound showing enlargement of the superficial retrocalcaneal bursa



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?



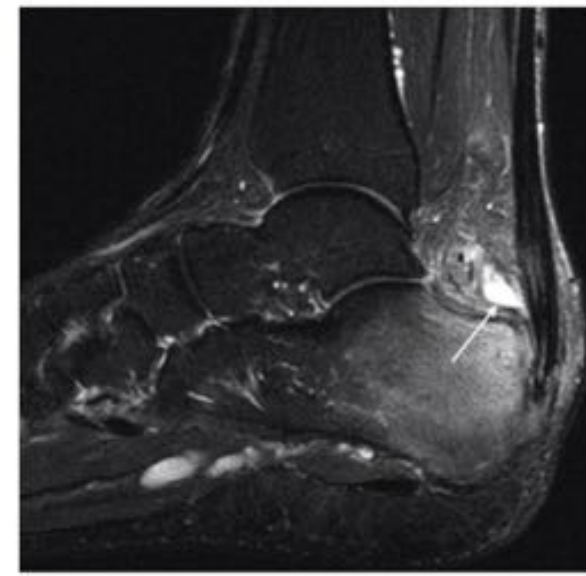
Gastroc
release

Open/Arth
haglunds
debridement.



DEBRIDEMENT
WITH
SPEEDBRIDGE
REINSERTION.

ZADEK



Achilles Tendon Rupture

- Increased incidence
 - More weekend warriors!
- History typical
 - Felt like kicked to back of calf
 - Fell over



On examination

<https://www.youtube.com/watch?v=8PvgvUV8N8U>

Sensitivity of tests for acute achilles tendon rupture

Gap	0.73
Ankle of declination	0.88
Calf squeeze	0.96

Simmonds' triad of tests 100% sensitive

Treatment

- Traditionally compare
 - Op (open) vs non-op (plaster, NWB)
 - 5% vs 10%
- Evolved
 - Main change Functional rehab
 - Equivalent rerupture rates
 - MIS (some studies better patient satisfaction, less wound problems, same re rupture)
- Athletes – fix
- Gap size – controversial:
 - 5mm, 10mm, relevance...!

THANK YOU

matthewwelck.com



MR MJ WELCK



Royal National
Orthopaedic Hospital
NHS Trust