

Foot and Ankle Deformity – An update



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more
foot & ankle





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THANKYOU!

Makes a difference to
patient care...

Overview

1. HALLUX VALGUS
2. PES PLANUS
3. PES CAVUS

- A few tips on Management in Primary Care
 - *When/Who to refer*
- Some new operative techniques available

HALLUX VALGUS

- *'What causes bunions doctor?'*
- Intrinsic
 - Muscles (CP, SB),
 - Ligaments (Hyperlaxity, Pes planus),
 - Joints (RA),
 - Genetics
- Extrinsic
 - Footwear.



Examination

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



Referral/Indications for Surgery

- 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





Conservative Treatment

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



Surgery

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



- Arthritis
 - Fusion



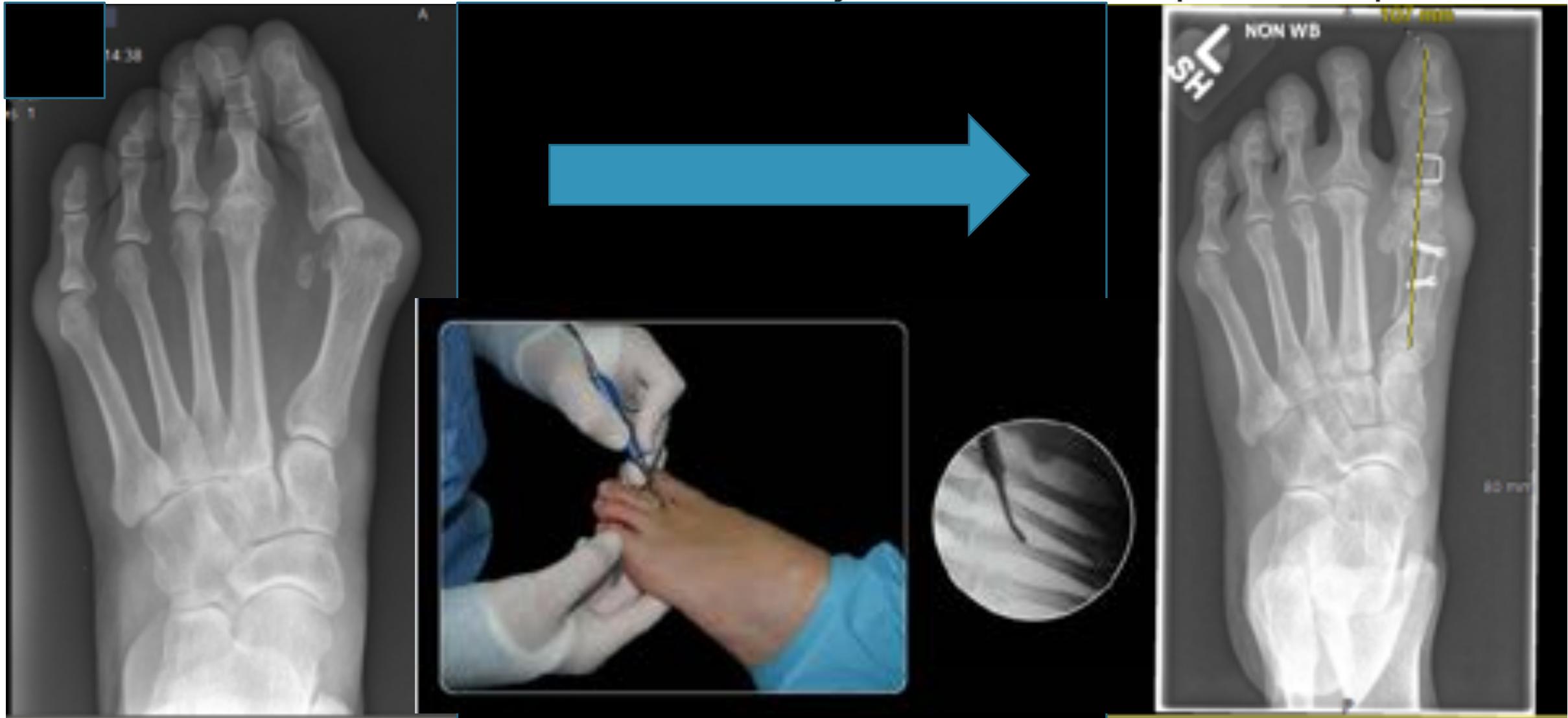
Development: Distal Minimally Invasive Metatarsal Osteotomy.





Weil Osteotomy Strap™

Application Instructions



PES PLANUS

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



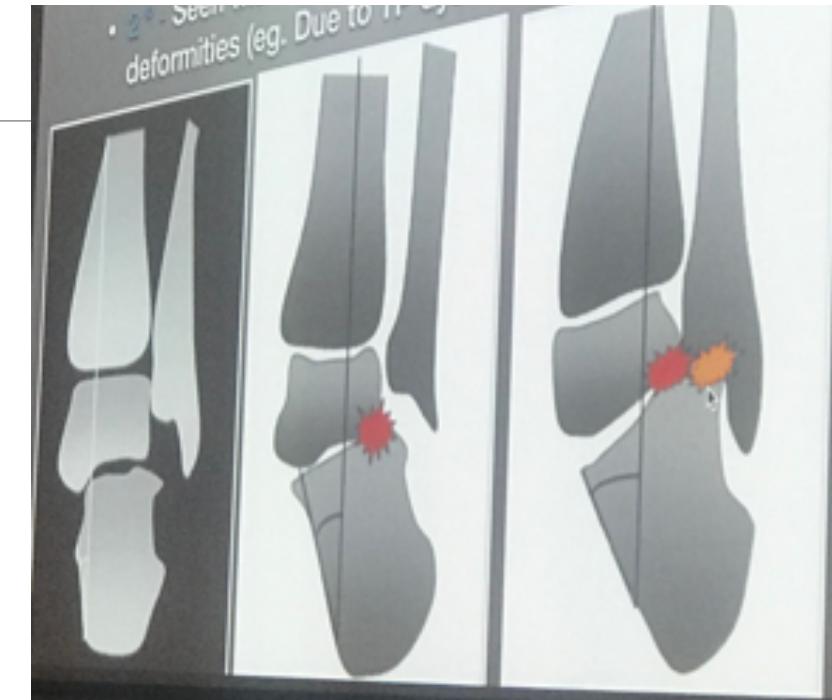
PES PLANUS - TPPD

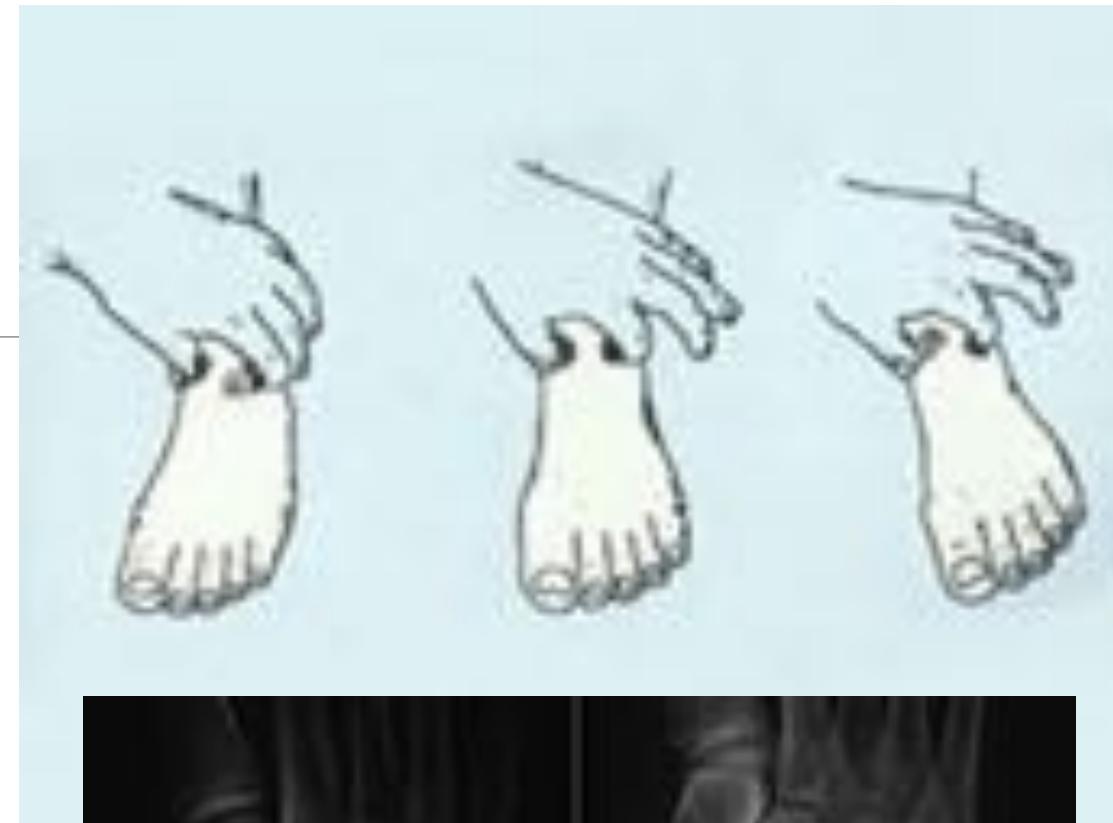
- SYMPTOMS

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

- EXAMINATION

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





Classification

- Johnson and Strom
- Type 1 – Tenosynovitis, no deformity
- Type 2 – flexible deformity
- Type 3 – Rigid Deformity
- Type 4 – Ankle involvement

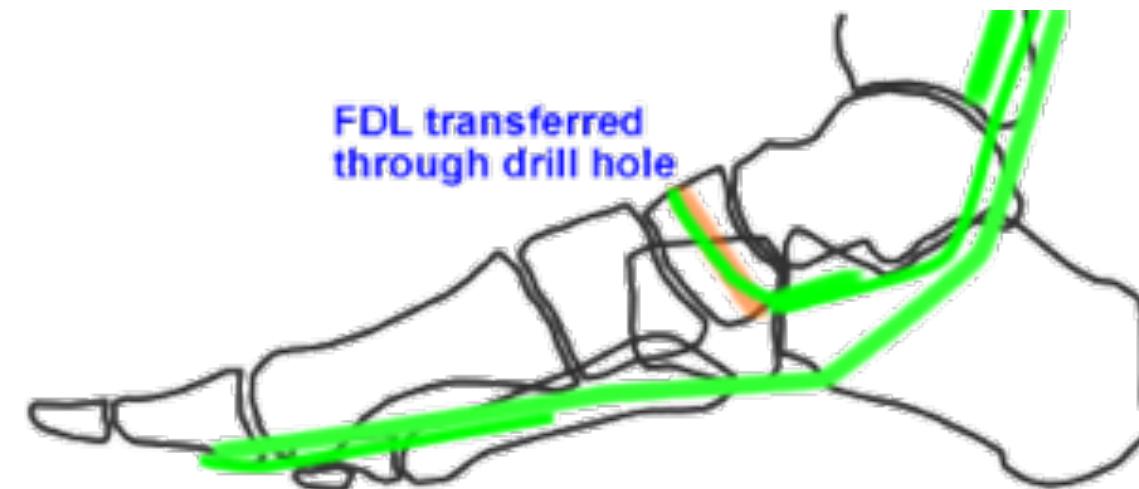
CONSERVATIVE

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



OPERATIVE

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



FDL transferred
through drill hole

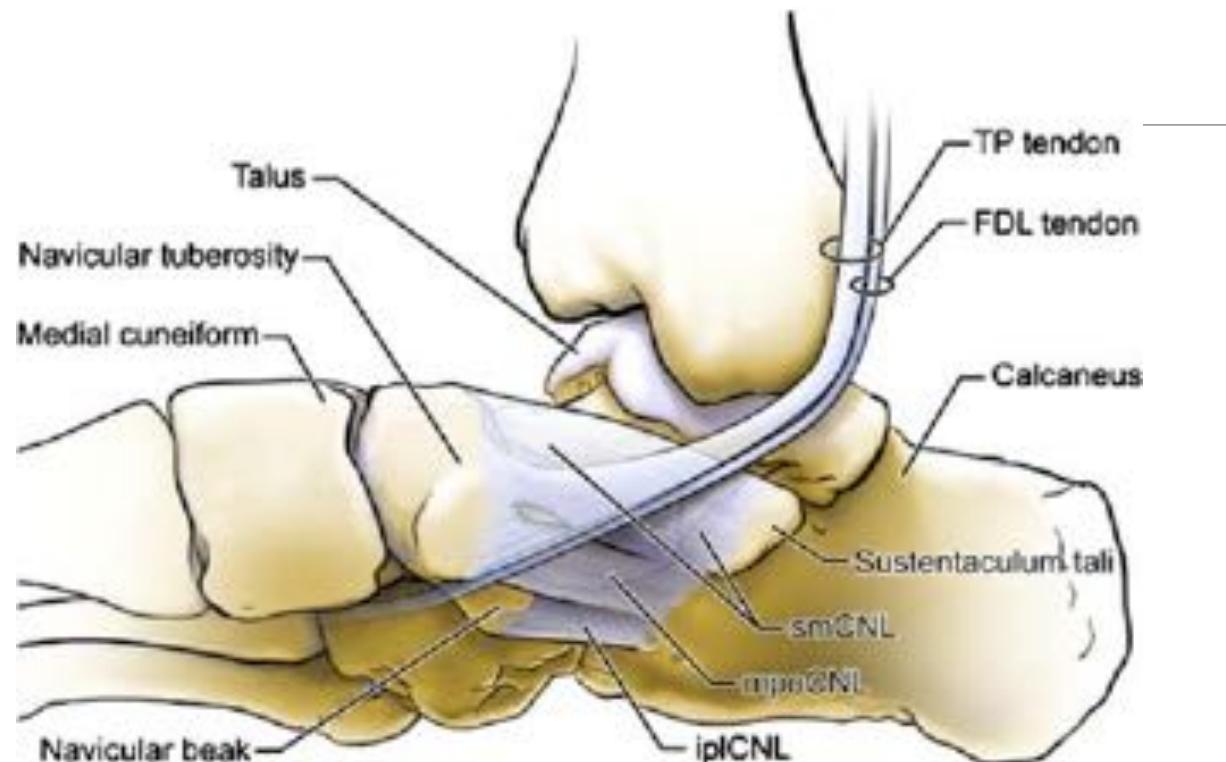
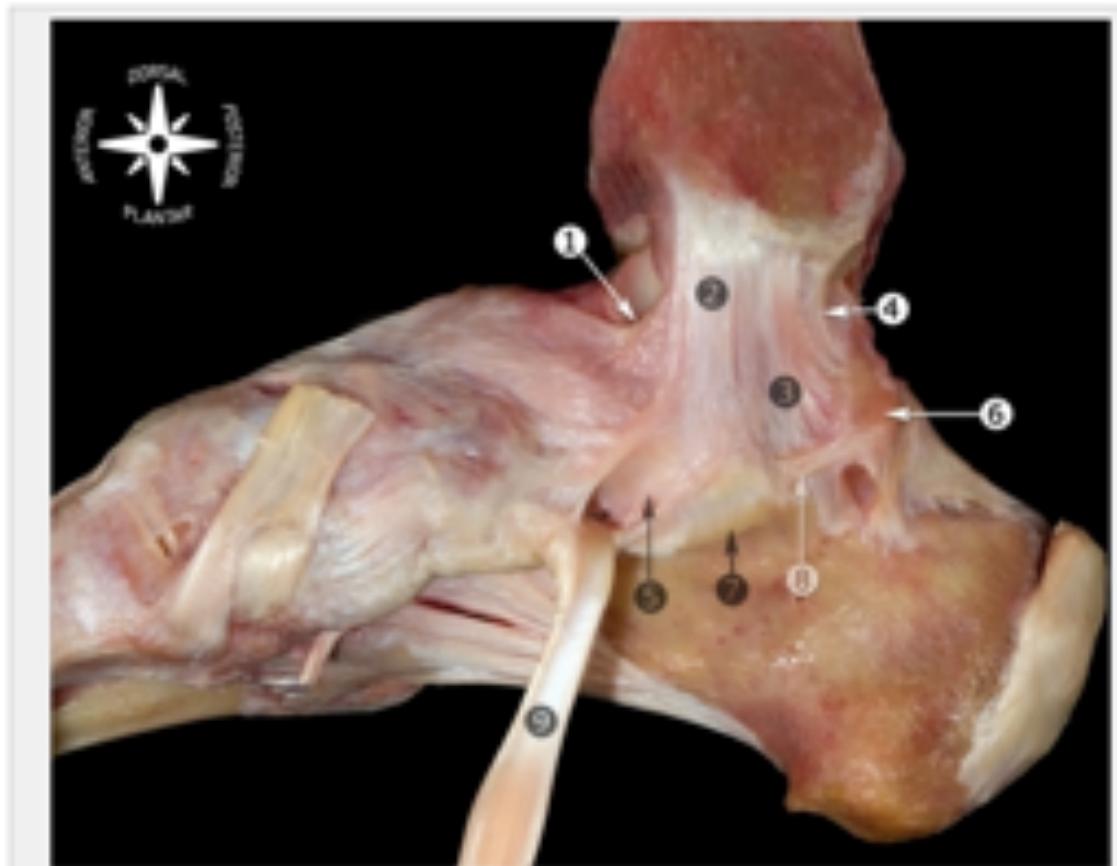


Fig. 1 Diagram of medial aspect of the ankle and foot showing the



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Fig13: Medial view of the anatomic dissection of the main components of the medial collateral ligament. 1 Tibionavicular ligament; 2 tibiospring ligament; 3 tibiocalcaneal ligament; 4 deep posterior tibiotalar ligament; 5 spring ligament complex (superomedial calcaneonavicular ligament); 6 medial talar process; 7 sustentaculum tali; 8 medial talocalcaneal ligament; 9 tibialis posterior tendon

ARTHROREISIS SCREW

Interosseous Compression
Force from Talus and Calcaneus
Preventing Further Pronation



STJ Max Pronated



STJ Neutral



STJ Supinated



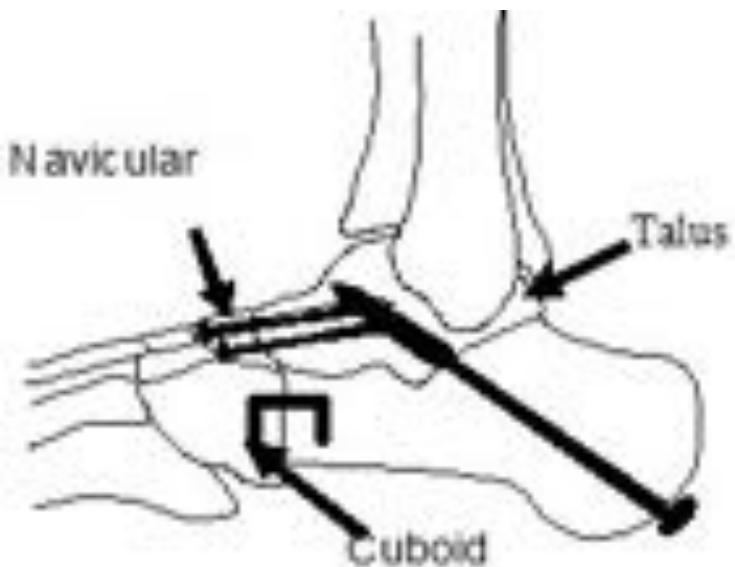
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SPRING LIGAMENT INTERNAL BRACE



TRIPLE FUSION





Spire

Bushey Hospital

PES CAVUS

- CAUSES
 - IDIOPATHIC
 - CONGENITAL:
 - TRAUMATIC:
 - NEURO:
 - MUSC:
- RESIDUAL CTEV
BURNS
HMSN / polio, SC TUMOUR, SB,
DIASTOMATOMYELIA/ CP
MD.



REFER

-
- NEUROMUSC AS PROGRESS.
 - EXAMINE MUSCLE POWER, SENSATION, REFLEXES
 - CMT: DELAYED REFLEXES, LOW TONE, TYPICAL POWER
 - CP: BRISK REFLEXES, SPASTICITY.
 - UNILATERAL, PROGRESSIVE,
 - PURE CAVUS VS CAVOVARUS, ECV
 - SYMPTOMATIC
 - SEVERE

DEVELOPMENT

- PEDCT
- ANALYSE DEFORMITY
 - EG WHERE IS CAVUS COMING FROM
 - WHERE IS VARUS COMING FROM
- MONITOR DEFORMITY



pedCAT
TRUE 3D
Weight Bearing
Imaging for
Foot & Ankle









TREATMENT

FLEXIBLE

- LATERALISING/WEDGE CALC OSTEOTOMY
- DORSIFLEXION 1ST MT OSTEOTOMY
- TA LENGTHENING
- TIB POST TENDON TRANSFER
- PL/PB TRANSFER, PF RELEASE

FIXED

- TRIPLE ARTHRODESIS
- COLE/JAPAS/JAHS
- TA LENGTHENING
- LESSER TOES/HALLUX – STAGED.



THANK YOU

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