

*Feet – Hallux Valgus, Claw & Hammer
Toes and Mortons Neuroma's*

Hope to Cover!

- Definition
- Aetiology
- Pathology / muscle function / anatomy
- Treatment
- Outcomes

Hallux Valgus & Bunions

- Bunio – to enlarge
- Common
- Unclear cause
- Female predominant
- Barefoot protection
- Degenerative
- Acquired
- Familial
- Hypermobility 1st MTC
- Metatarsus Primus Varus
- Hyperpronated 1st Ray
- Medial slanted 1st MTC

Choo – Blahniks Disease!



Footwear



Pathology

- Lateral deviation of hallux
- Medial bunion
- Metatarsus primus varus
- Sesamoid subluxation
- Pronation of the hallux



Signs and Symptoms

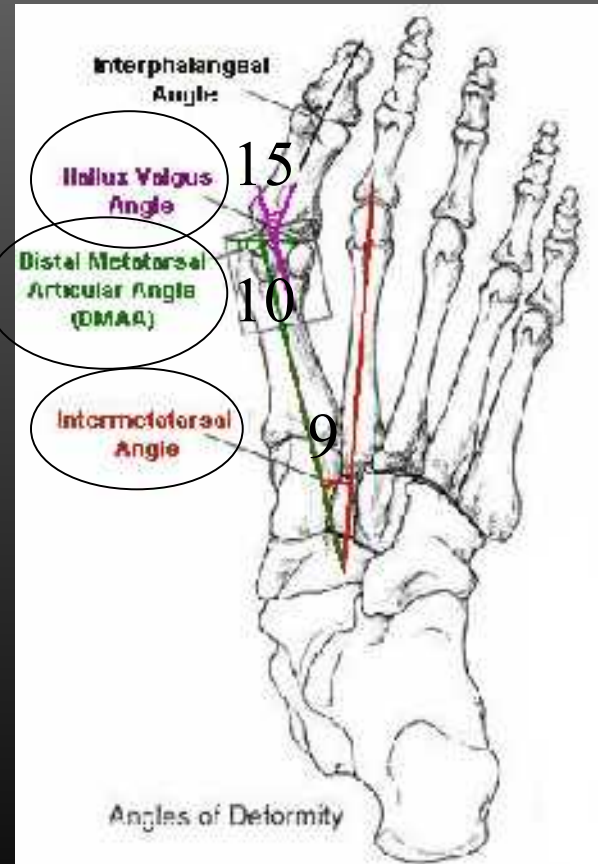
- Asymptomatic
- Pain
- Tenderness
- Infection
- Aesthetic
- ‘It might get worse’



Signs



Radiologically





Move Over Jimmy Choo



Differentials



Non Operative Measures



Surgery

- Wilsons
- McBride
- Modified McBride
- Kellers
- Chevron
- Silver
- SCARF
- Akin
- Basal
- Opening Wedge
- BRT
- Arthrodesis

Post Operative

- Stable osteotomy
- Heel weight bear
- Flexible correction
- Light dressing
- Back to work



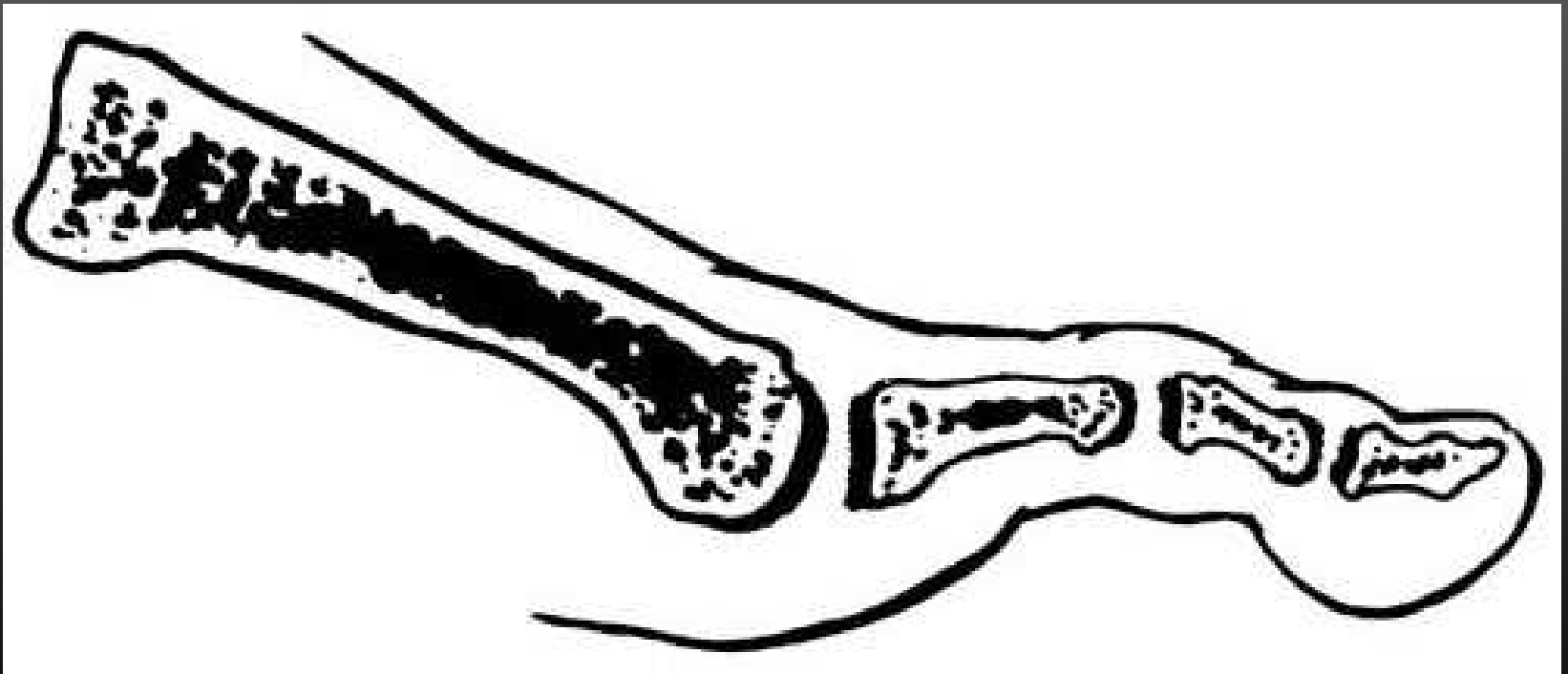
Outcomes of surgery

- Stable
- 70-80% satisfaction
- Good correction
- Low risk AVN
- Low risk #
- Poor for the Juvenile
- Contra indications –
 - Spasticity
 - Equinus contracture
 - Marfans
 - Vascular insufficiency
 - Short 1st Metatarsal

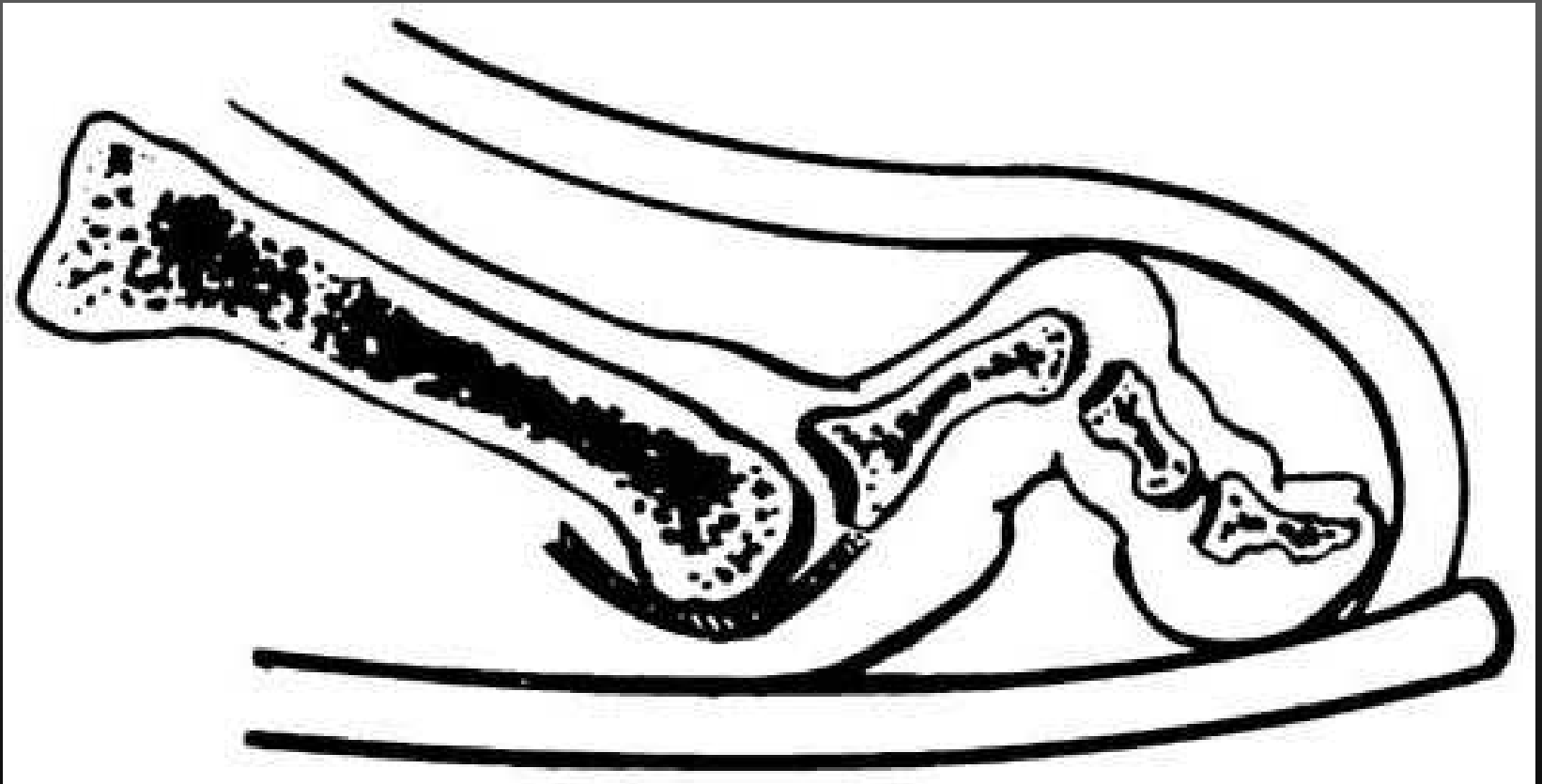
Hammer Toe



Normal Toe Positioning



In Shoes!



Hammer Toe



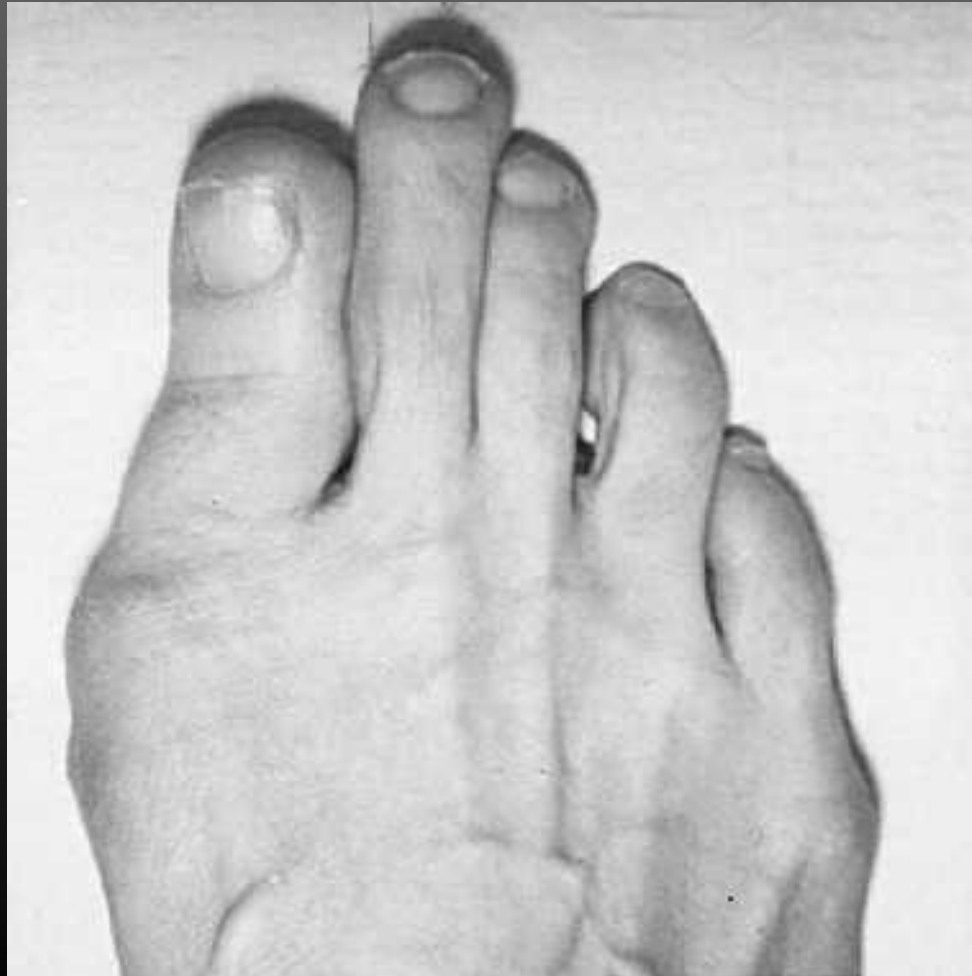
Incidence

- Incidence 2-20% population
- Female : male = 4:1
- Mallet:Hammer = 1:9
- Increase at 50-70 years old

Hammer Toe - causes

- Multifactorial
- Footwear
- Trauma - compartment syndrome (tight FDL - dynamic)
- Muscle imbalance - Friedreich's, C.P, M.S, Myelodysplasia, degenerative disk disease
- Diabetes
- Hansen's disease
- RA/Psoriatic arthropathy

Long Toes - Mallet/Hammer



Treatment - Hammer

- Flexible
- Rigid
- MTP hyperextension
- FDL tight
- Associated H/Valgus



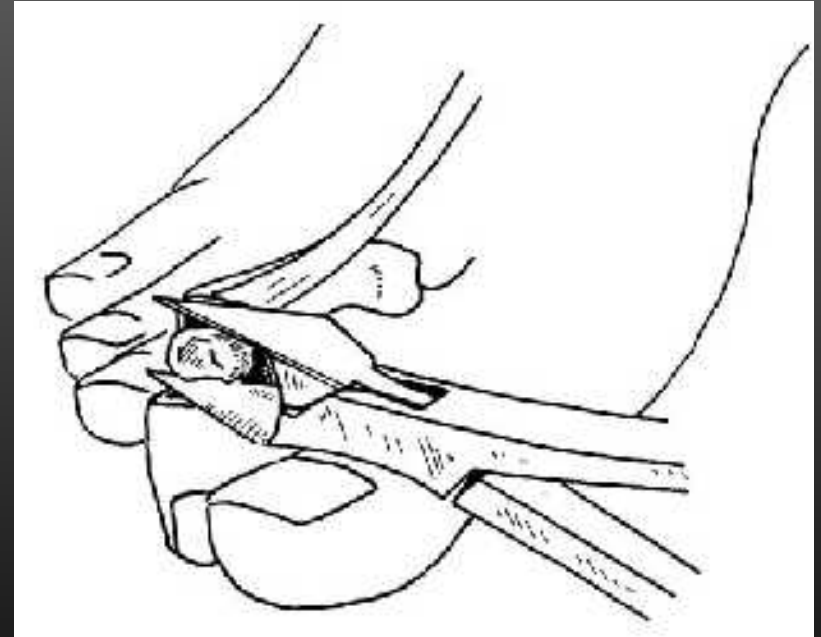
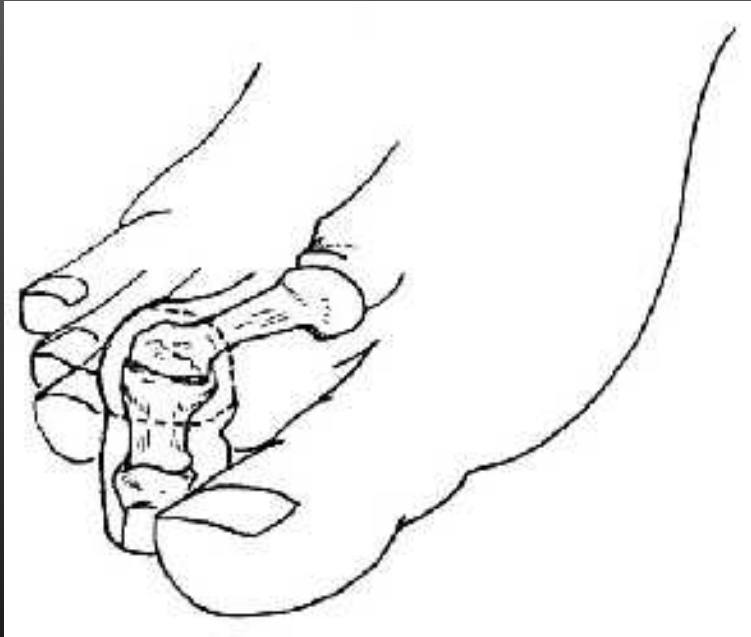
Treatment - Hammer



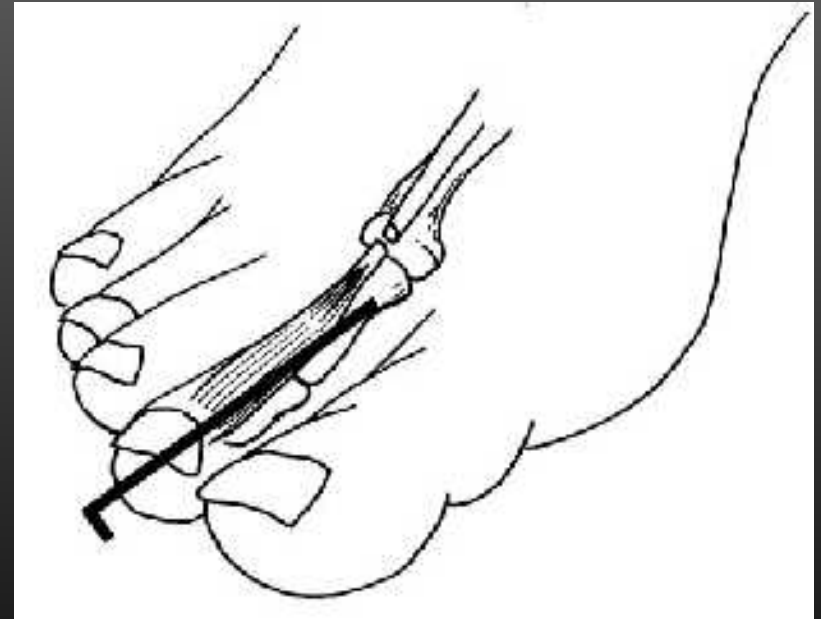
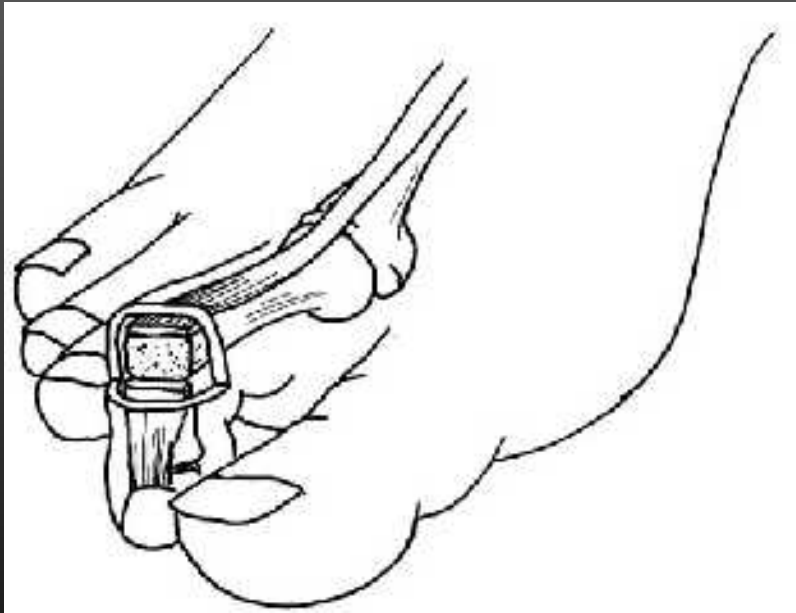
Treatment - surgical

- DuVries arthroplasty - rigid
- F.E.T.T - flexible
- Partial phalangectomy & syndactylisation
- Amputation
- Silicon arthroplasty

DuVries Arthroplasty



DuVries Arthroplasty



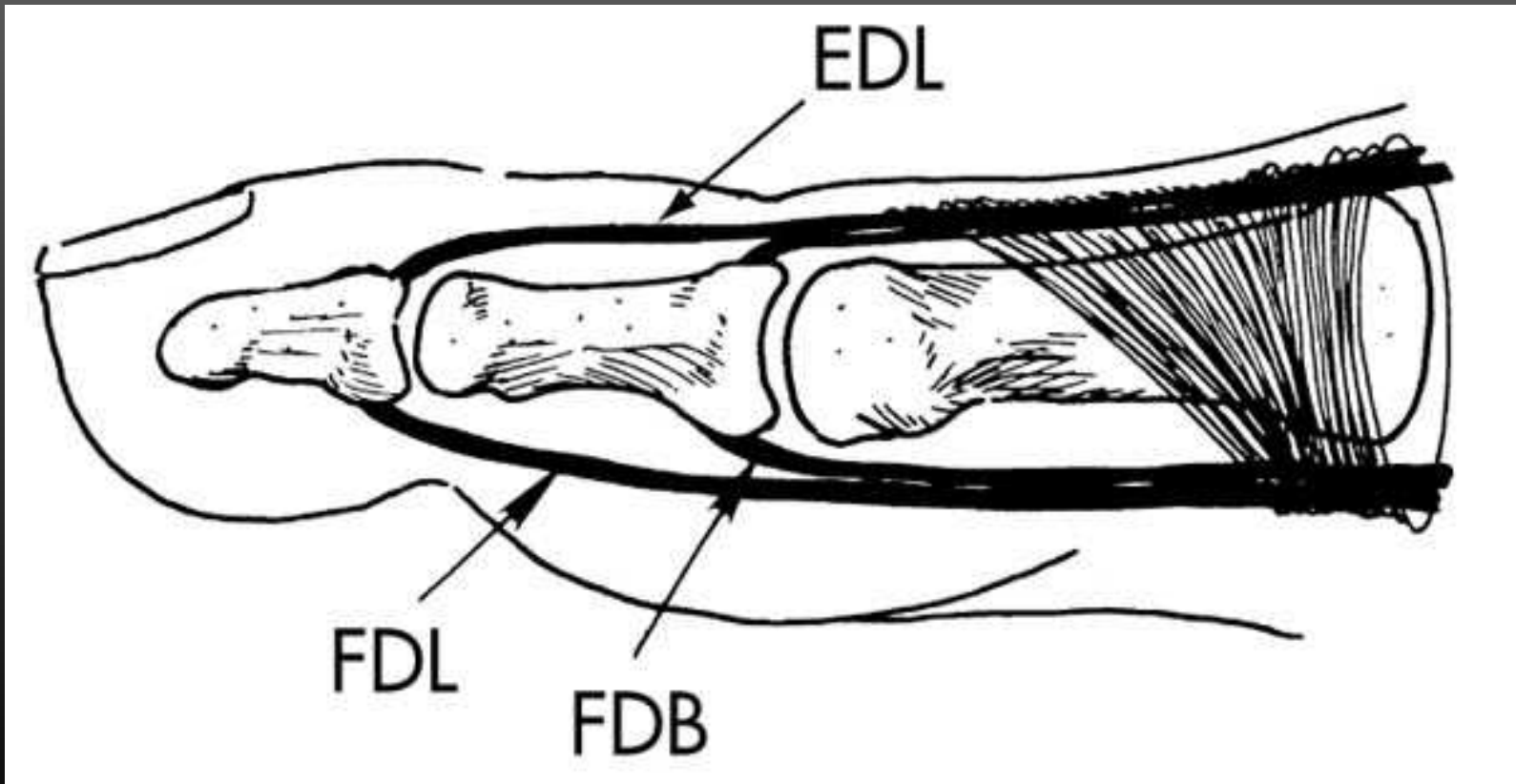
Post Operative Care

- Compression bandage
- Mobilise in cast
- R/O wire 3/52
- Support toe further 4/52

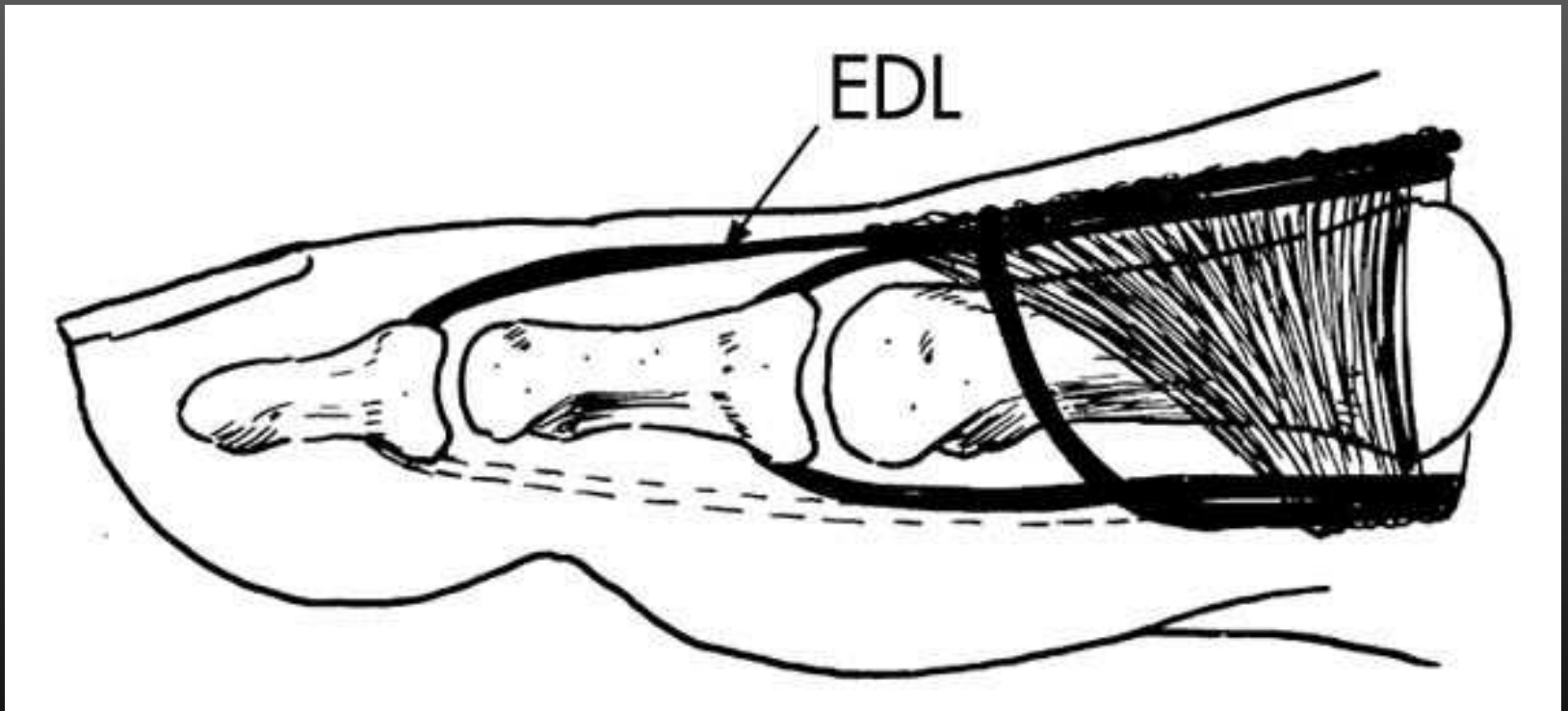
Treatment - Dynamic Hammer

- Flexible/Dynamic deformity
- FDL contracture
- Only present on standing
- Treat by FDL tendon transfer

Flexor to Extensor Tendon Transfer



Flexor to Extensor Tendon Transfer



Flexor to Extensor Tendon Transfer



Results

- High Fusion - bony/fibrous
- 50-80% satisfactory
- Excellent pain relief
- 54% correction of MTP subluxation

Complications

- Swelling
- Transient numbness
- PIP joint stiffness
- Residual angulation
- Continuing pain
- Pin tract infection
- MTP hyperextension
- Moulding

Claw Toes



Claw Toes - causes

- Unclear
- Associated with muscle imbalance
- RA
- Collagen deficiency syndromes
- Cavus foot
- Idiopathic

Muscle Action - at rest



Muscle Action - EDL



Muscle Action - FDL



Muscle Action - EDL/FDL



Clinical Examination

- Neurological
- Vascular
- Flexible/ Rigid
- Callosity
- Nail problems
- Space locally



Radiological Assessment

- Bony deformity seen
- Subluxation or dislocation
- Gun Barrel Sign



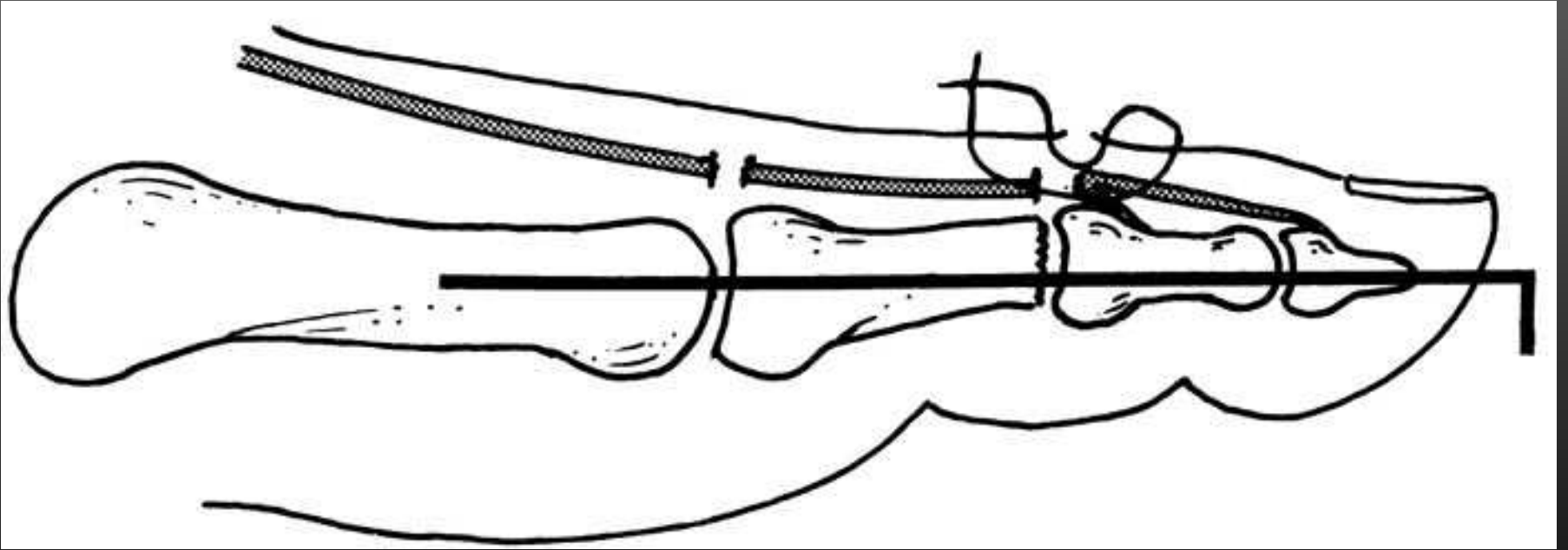
Claw Toes



Treatment - Claw Toes

- Depends on pathology, i.e. cavus
- Conservative
- Surgical
- Again flexible/rigid
- Treat both Hammer and MTP joint components

Treatment - Claw Toe



Results & Complications - Claw

- 70-90% Fair/good post operation
- Recurrence of deformity a problem
- Persistent metatarsalgia

Mortons/Interdigital Neuroma

- Difficult to diagnose
- Pain into toes
- Aggrevated by activity
- Tingling in toes
- Non descript burning
- Metatarsalgia
- Stress #
- MT bursae

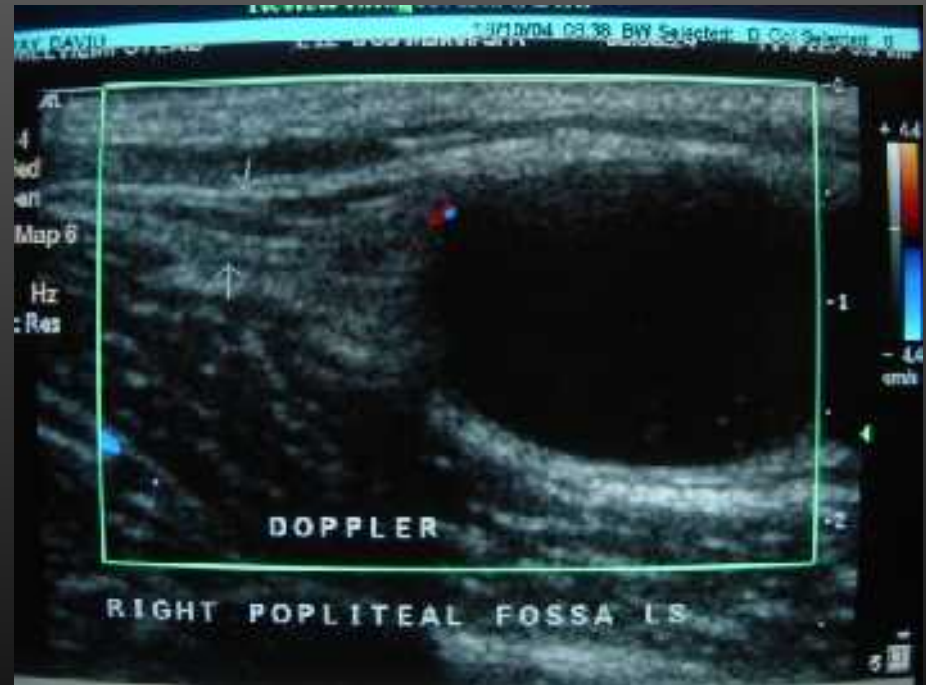
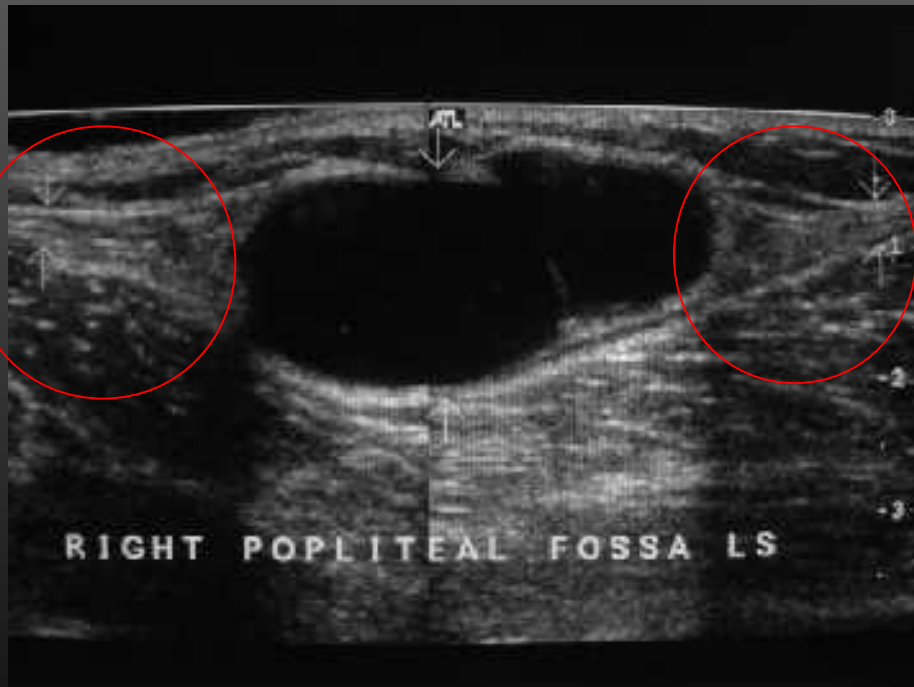
Morton's



Mulders Click



Ultrasound in Mortons

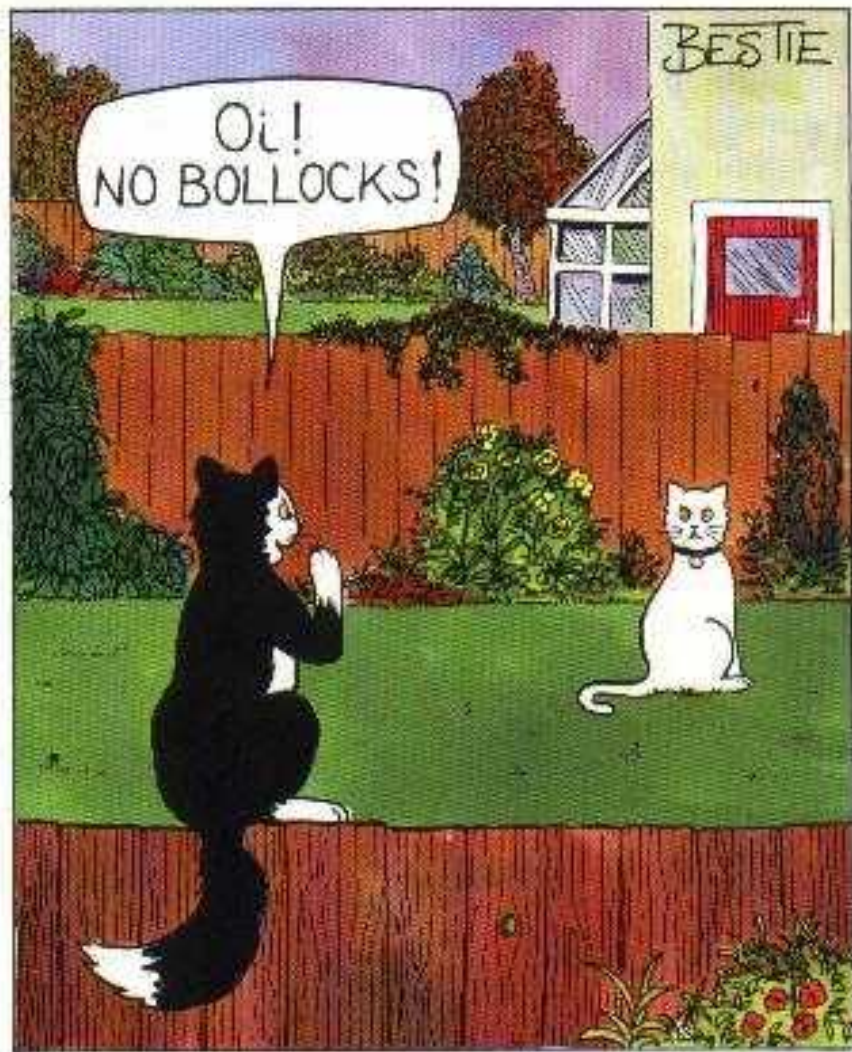


Diagnosis & Treatment

- Clinical
- USS
- LA injection
- MRI
- Wide fitting shoes
- Many settle
- Steroid
- Excision
- Neurolysis
- Intermetatarsal release

Outcomes

- Dependant on diagnosis
- 80% satisfaction



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