PLEASE CLICK ON THE FOLLOWING LINK TO WATCH THE LECTURE ONLINE:-

https://www.youtube.com/watch?v=BYEuzbp6m6g&list=PLuBRb5B7fa_cjuGL06zhWXRxCDRoGpJlh&index=6

Hallux Valgus

"bunion"

ALFUKAHA HAMZA
RMS
ORTOPAEDIC DEPARTMENT
FOOT AND ANKLE SURGERY

Overview

- What is it?
- Why does it occur?
- What problems does it cause?
- what can be done about it?

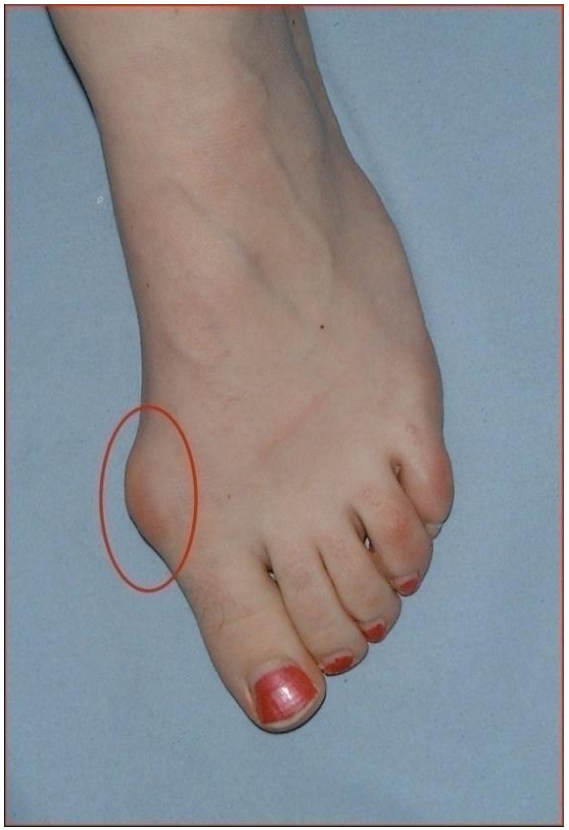
Name?

- Origin of bunion uncleare.
- Bunny in England 16th century

means swelling.

- Carl Hueter, 1871,

Hallux abducto-valgus.



What is it?

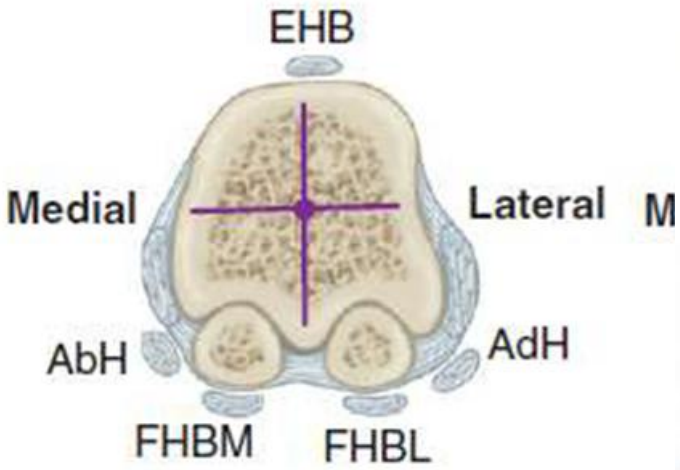
- Failure of the MCL\Sesamoid complex

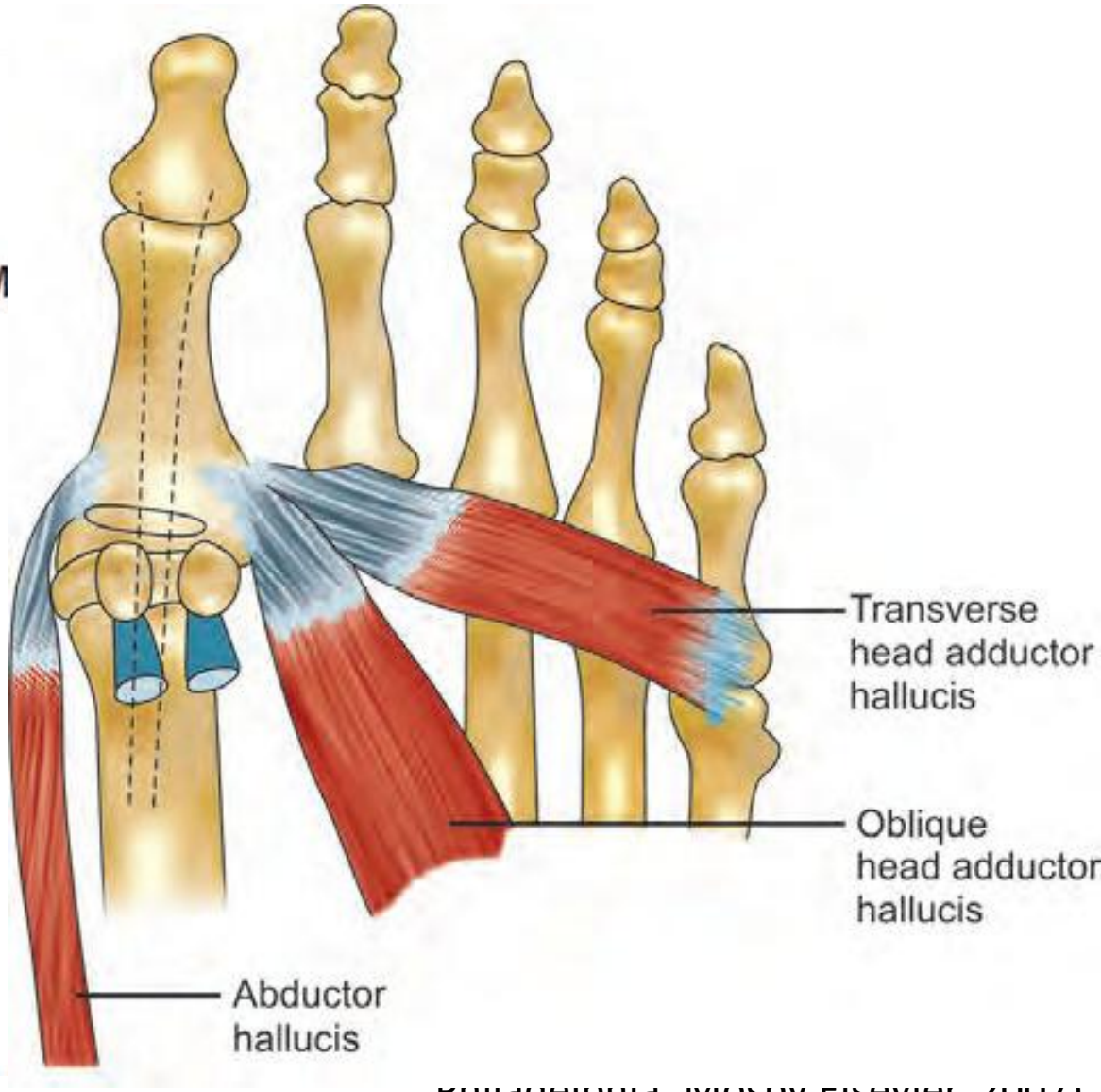
Or 1st TMT instability.

- **a triplane deformity with components in the transverse, sagittal, and frontal planes**


R
ER

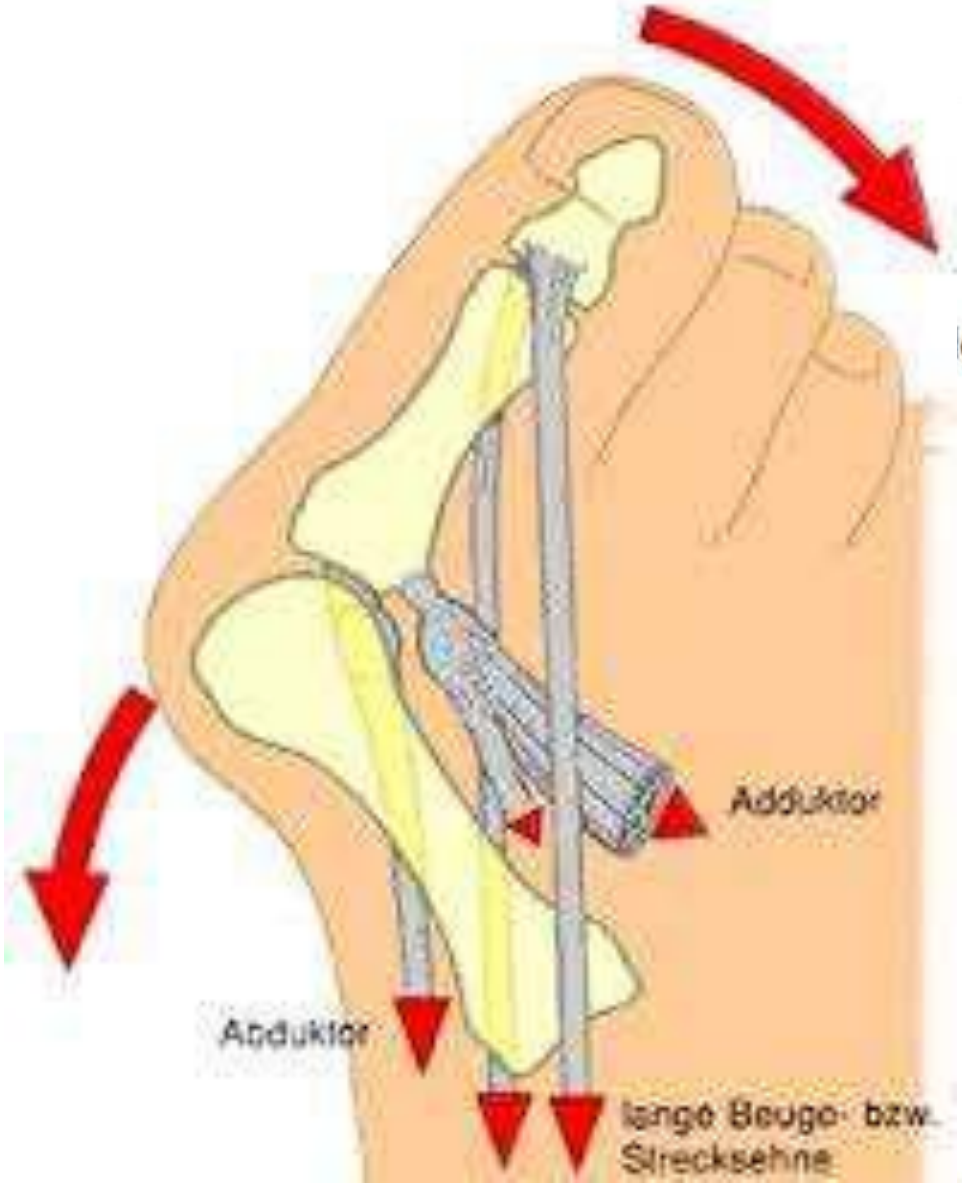
Anatomy

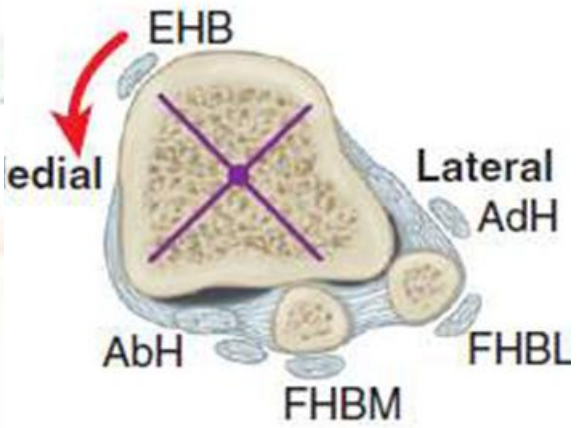




Philadelphia, Mosby Elsevier, 2007)

Pathoanatomy





Hallux valgus

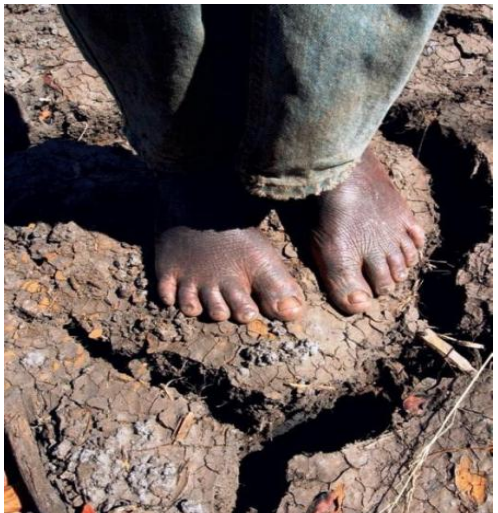
Why does it occure?

- Complex multifactorial
- Gender 4F:M
- Genetics 80% have positive maternal family history

but no gene identified…..

- Bad shoes controversial ….

Occures in un-shod population



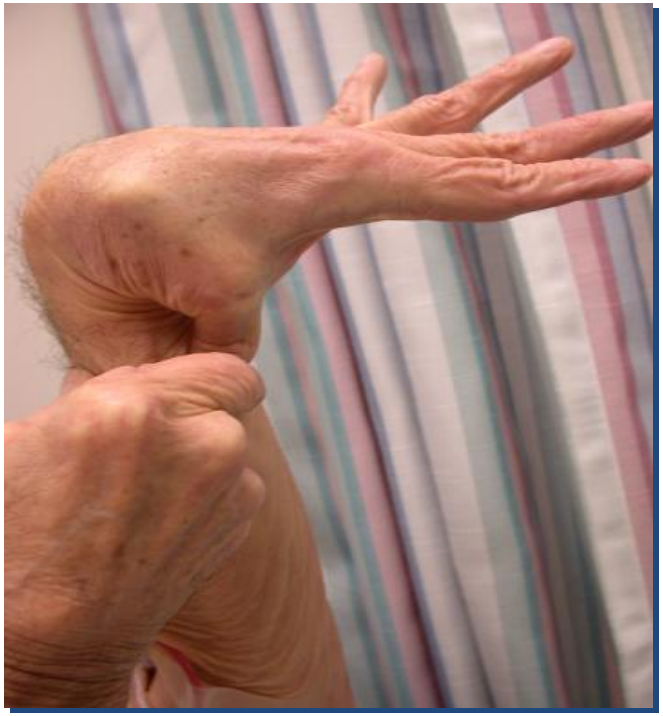
Risk factors

Intrinsic

- Genetic predisposition.
- Ligamentous laxity.
- Pes planus.
- Rheumatoid arthritis.
- Cerebral palsy.
- Amputation 2nd toe
- Trauma

Extrinsic

- Shoes with high heel, or narrow toe box.



Symptoms

- Unable to wear closed shoes → dorsomedial eminence –nerve compression
- MTP joint pain → osteoarthritis
- Transfer metatarsalgia
- Cosmetic
- Concern over progressing

Clinical Assessment

- Observe standing and walking whole limb
- Pronation of the hallux
- Where are the callosities?

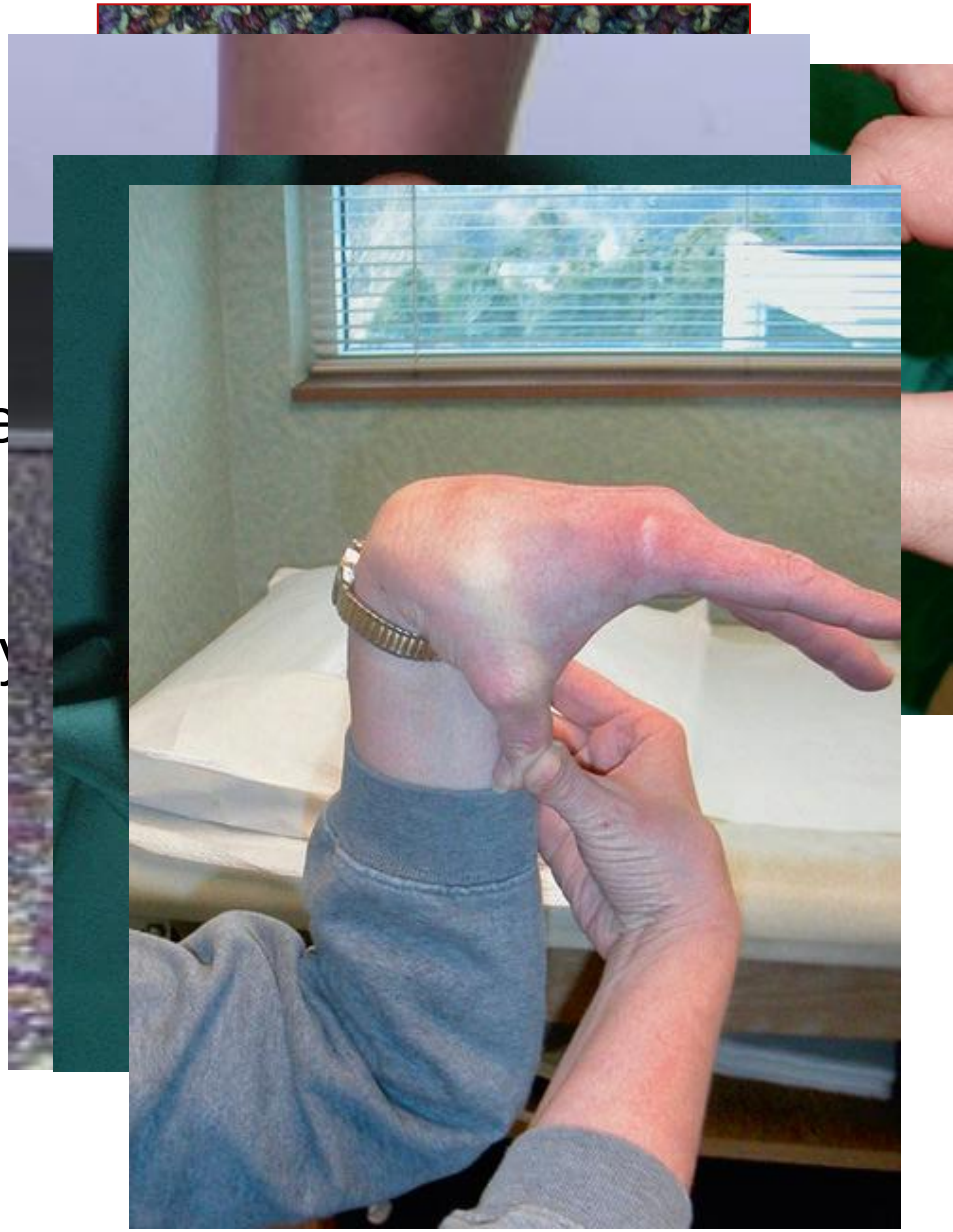
  Look at the sole
- Is the deformity

Correctable?

- Grind test

Clinical Assessment

- **Examine entire first ray for**
  - 1st MTP ROM
  - 1st TMT hypermobility
- Evaluate associated deformitie
  - Pes planus
  - Corns, calluses,
  - Generalized ligamentous laxity



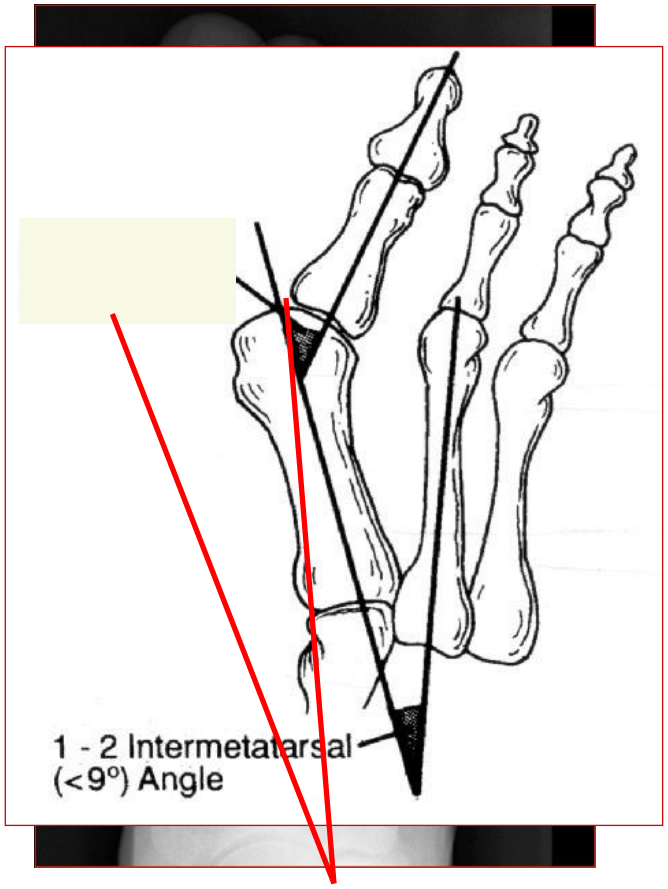
Radiographic Assessment

- Radiographs
  - views
    - standard series should include **weight bearing** AP, Lat, and oblique views
    - sesamoid view can be useful

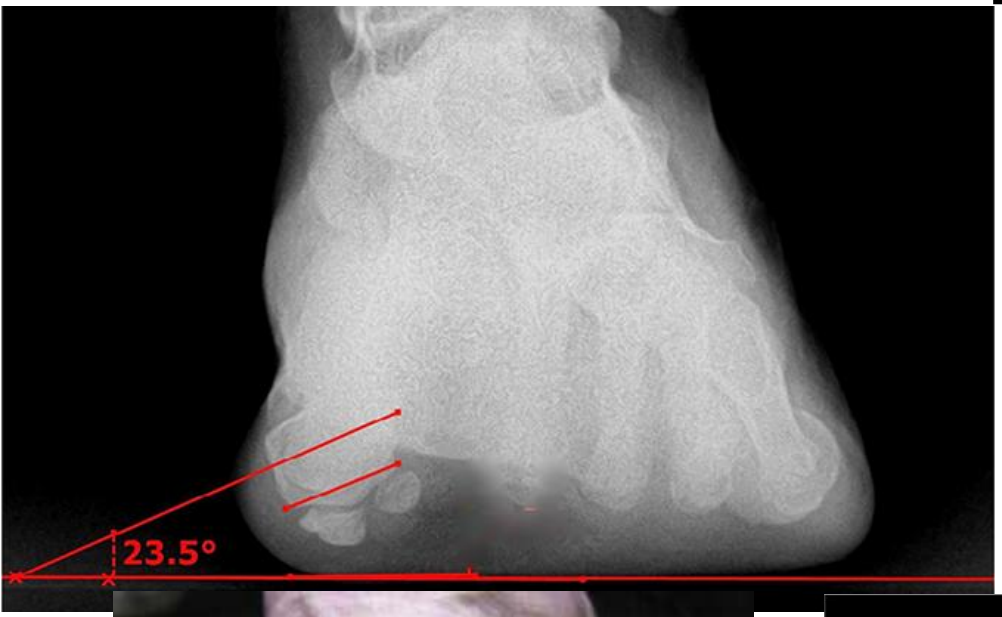
Transverse plane

Hallux Valgus Angle (HVA)

Intermetatarsal Angle (IMA)



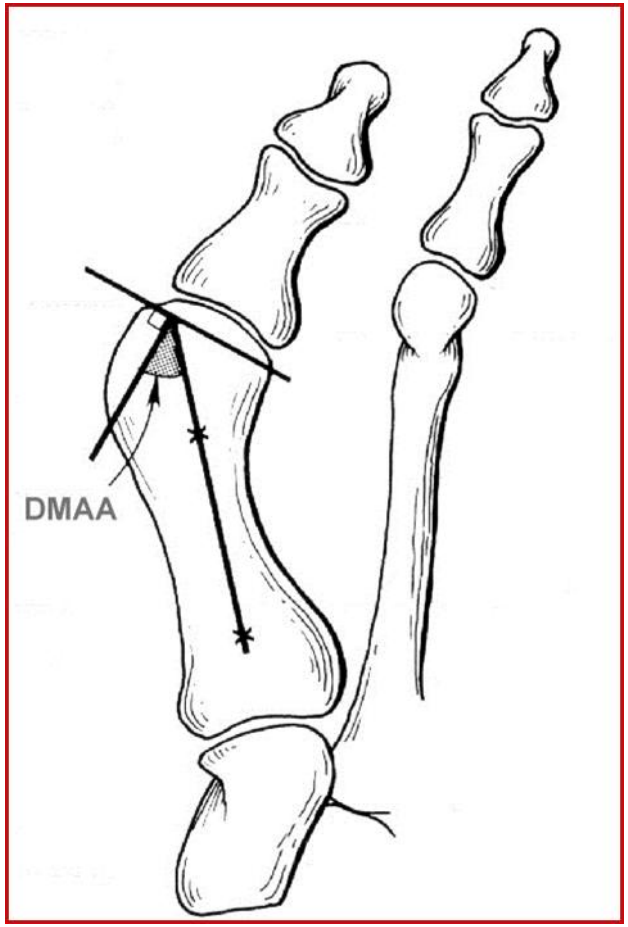
Frontal plane



Sagittal plane

Mann ™s Surgery of the Foot and Ankle

Distal Metatarsal Articular Angle (DMAA)????



Obliquity of the first metatarsal-medial cuneiform articulation

“lateral round sign

classification

- Mild
- HVA 15- 30 IMA < 13

- Moderate
- HVA 30 – 40 IMA 3 – 18
- Fibular sesamoid 75- 100% displaced

- Sever

HVA >40 IMA >18

Fibular sesamoid 100% displaced

Management

- Can you offer joint preservation surgery?
- How technically difficult will correction be?
- What technique would work best?
- Treatment must be matched to patient expectations.

management

Nonsurgical Treatment

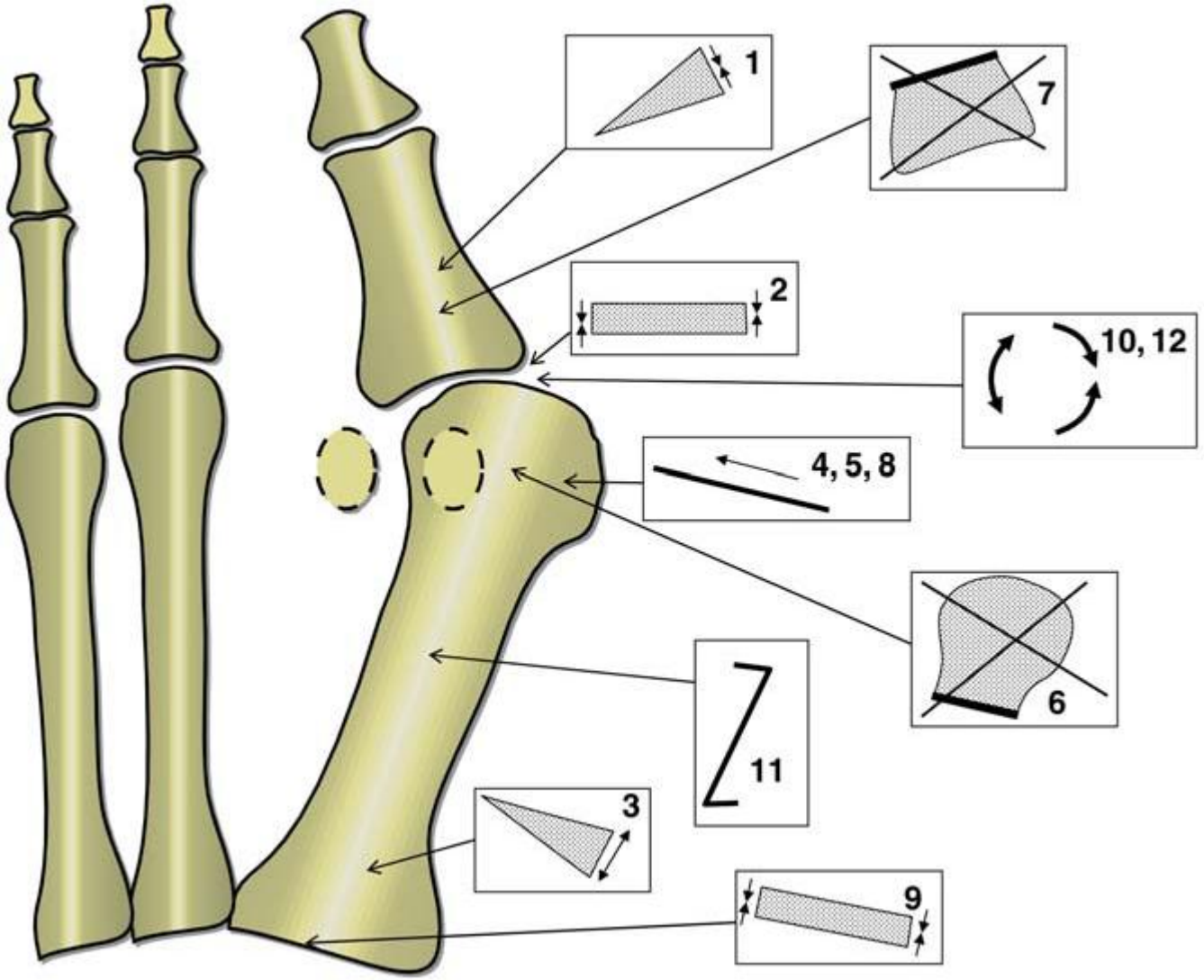
- Shoewear counseling
- Bunion splint
- Orthotic arch support
- NSAIDs

Surgical Indication

- **Pain.**
- **Difficulty with footwear**

- **But remember, we should never operate for cosmetic reasons alone**

Over 100 different procedure



Operative Considerations

Mild

- distal metatarsal osteotomy (Chevron)

moderate

- Proximal or shaft metatarsal osteotomy

Instability of the 1st TMT/Joint laxity

- Lapidus (Fusion of 1st TMT joint)

Arthritis, Rigid deformity or Spasticity

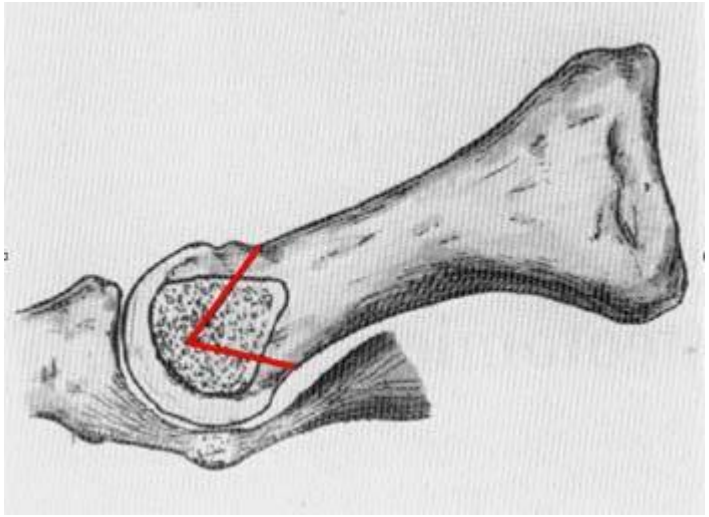
- 1st MTP fusion

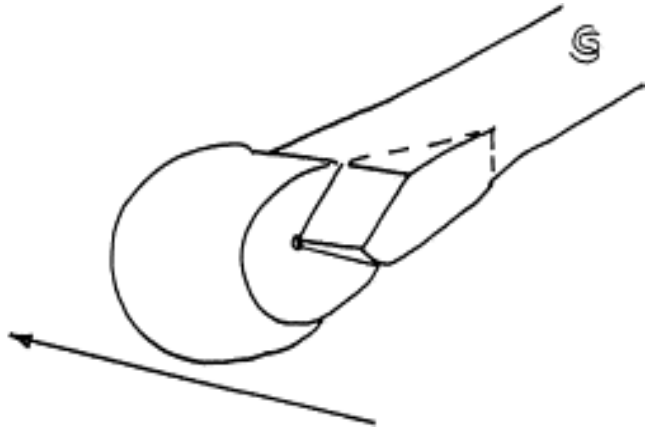
Chevron osteotomy

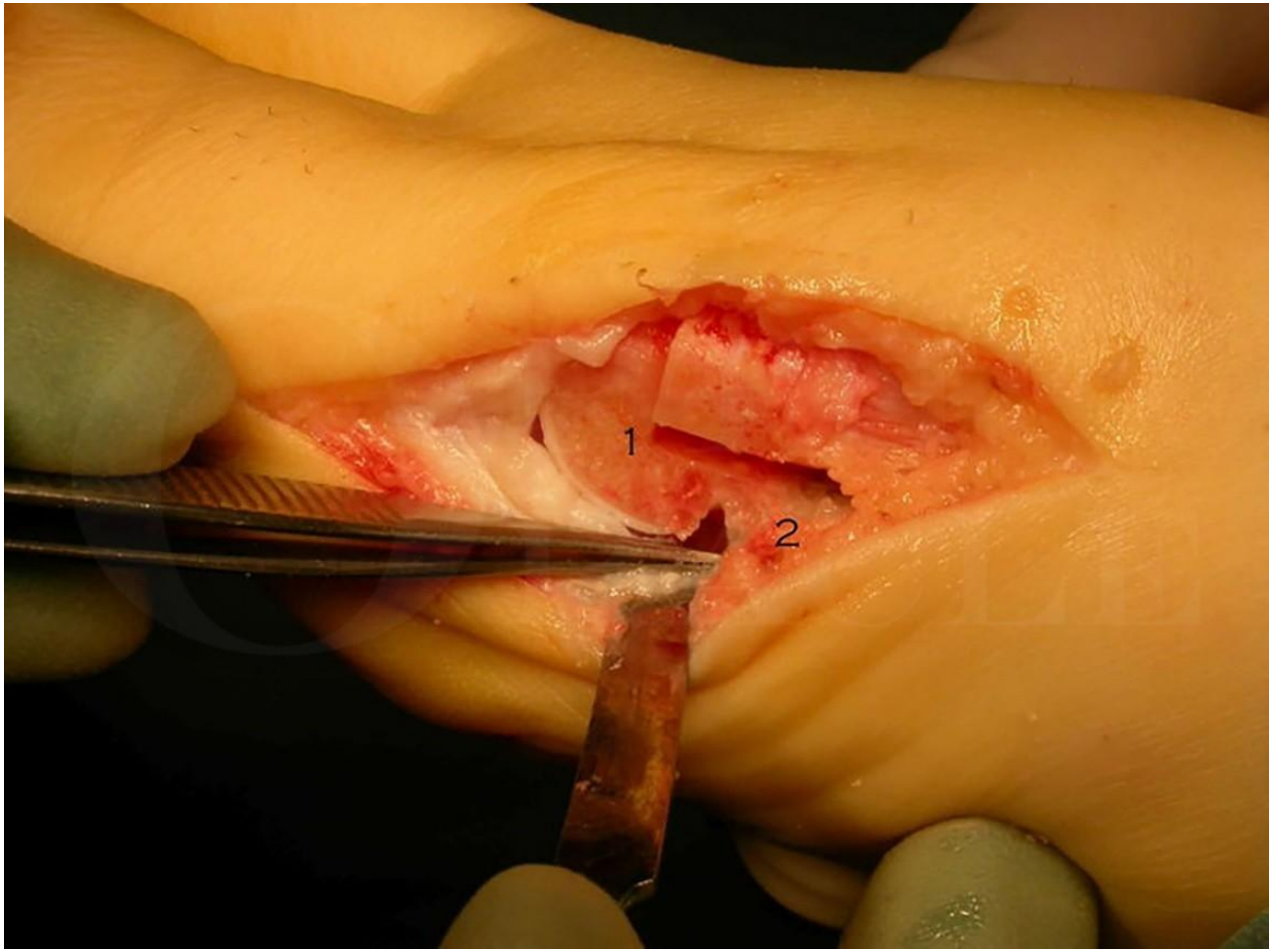
V- shaped osteotomy (or L – shape)

Risks

- AVN
- Maluonion





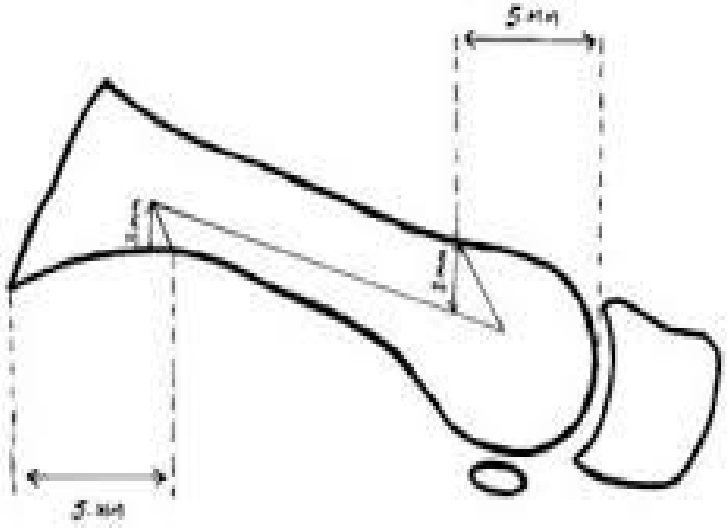

1
2

Scarf osteotomy

- allows multiaxial displacement of tow fragments

Advantages

- Stable
- Low risk of AVN and non union
- Large translation and derotation

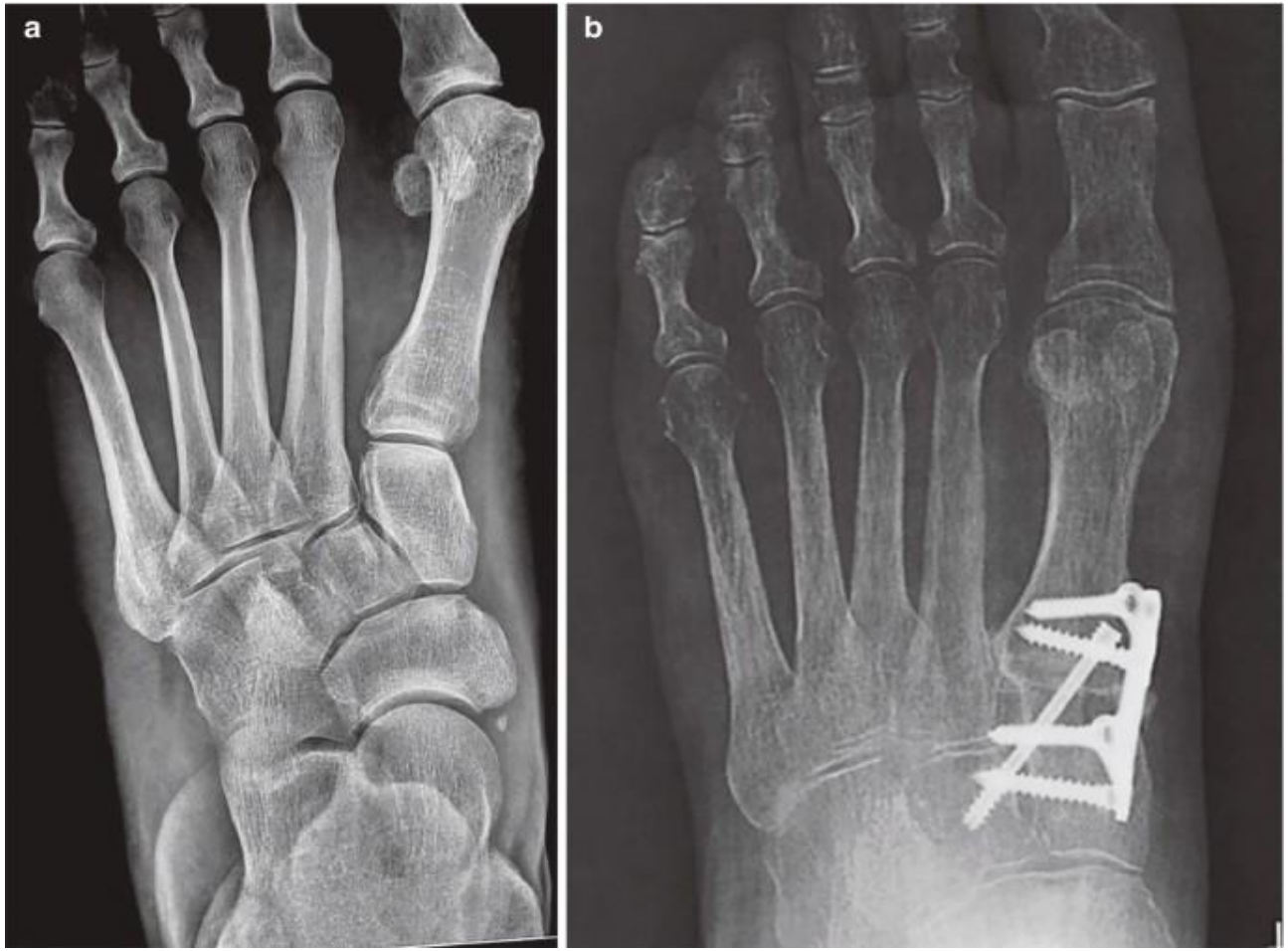

5 mm
5 mm

Proximal fusion

Lapidus

- Very powerful correction
- stabilizes hypermobile 1st ray

- Risks of nonunion, plaster immobilization and technically difficult.


a
b

Take home message

- Hallux valgus is a triplane deformity .
- Surgery is indicated if the pain persists.
- Clinical and radiographic assessment is very critical in management of hallux valgus.