

Hallux Valgus (Bunion)



Terms

- Hallux valgus---Lateral subluxation of 1st MTP (metatarsophalangeal) joint
- Hallux rigidus--- OA of 1st MTP joint



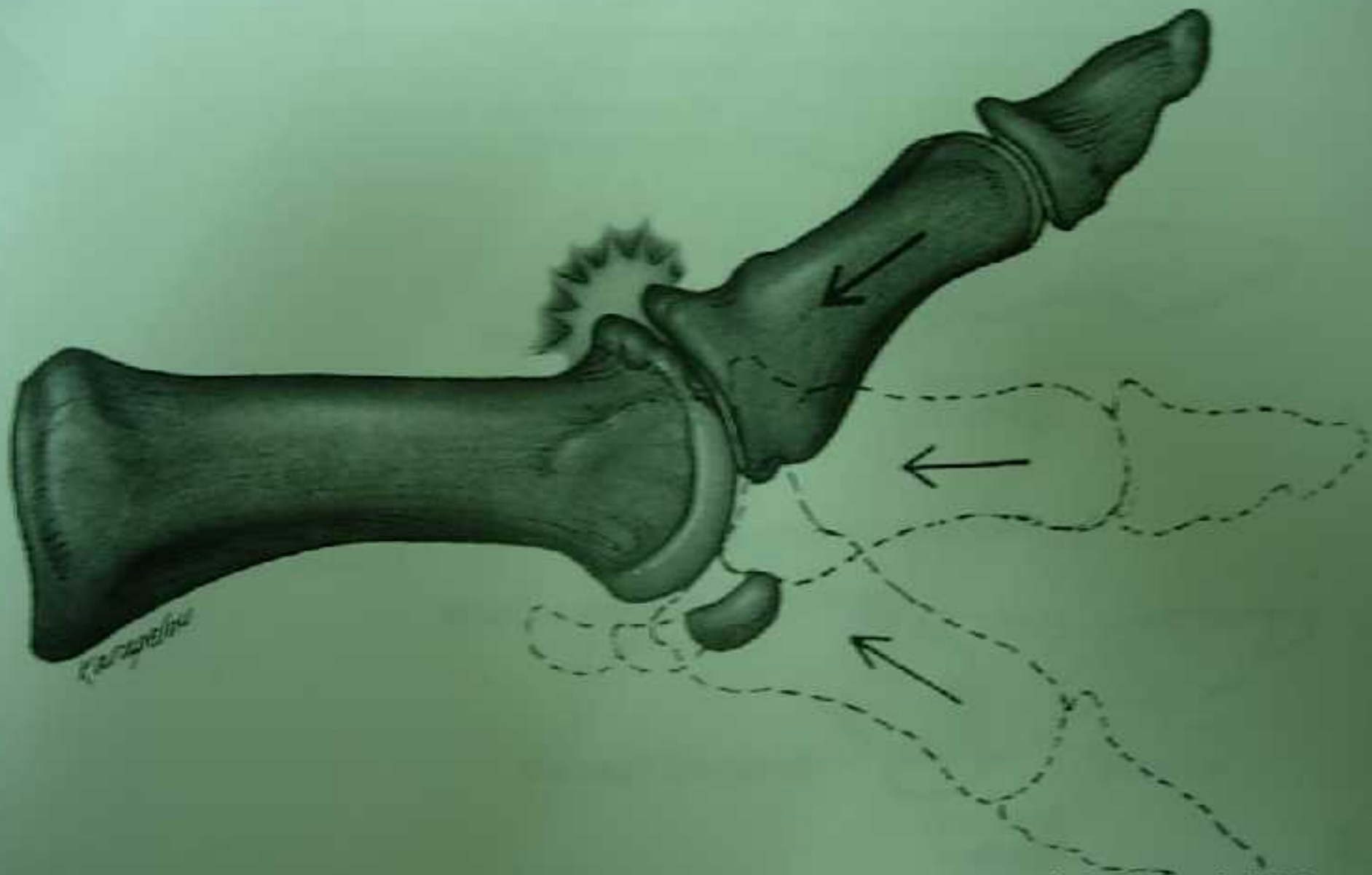
H. THOMAS

History and Physical Examination (hallux valgus)

- Pain over the medial eminence, exacerbated by footwear
- Typical deformity
- Lateral metatarsalgia
- Plantar keratosis beneath lesser metatarsal heads
- Callosity on medial site of 1st MTP or hallux

History and Physical Examination (hallux rigidus)

- Range of motion may be restricted, especially in dorsiflexion with hallux rigidus
- Axial grind test---elicit pain in patient with hallux rigidus



stages 1

- from adolescents to 25 y/o
- bunion presents as a slight bump



Stage 2

- from 25 y/o to 55 y/o
- 1st metatarsal head adducts, hallux abducts, callosity on medial site of 1st MTP joint
- Foot continues to pronate



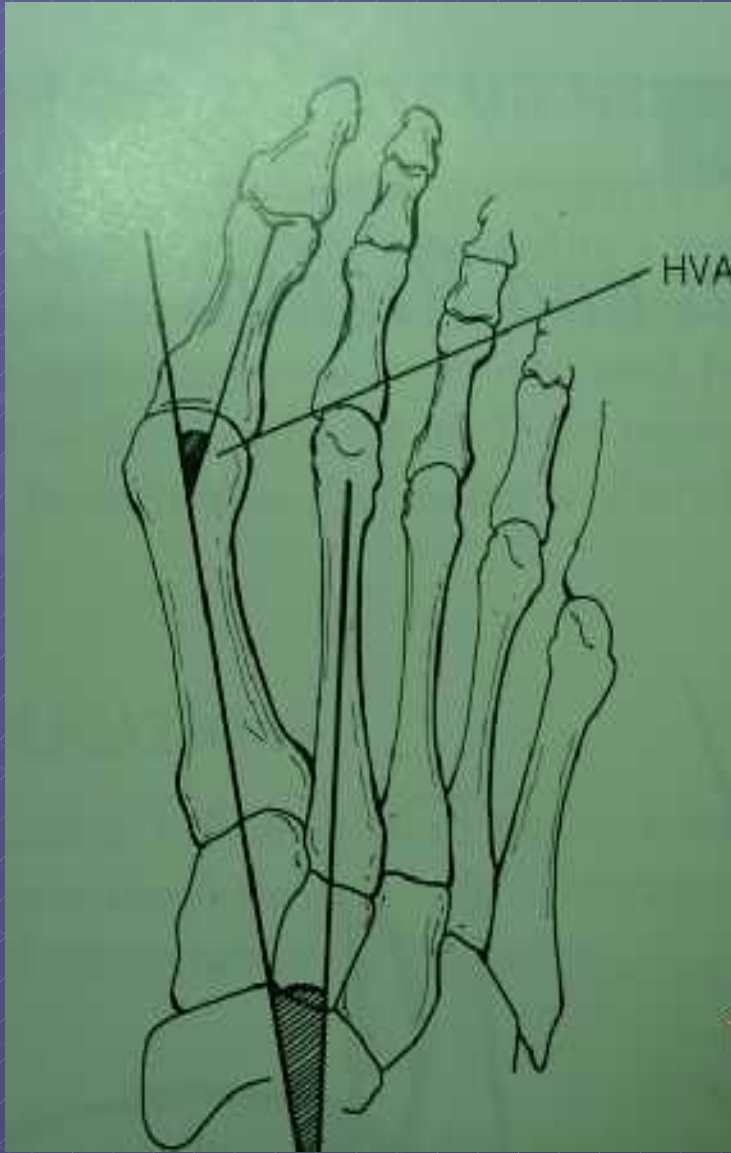
Stage 3

- overlapping of hallux either above or below 2nd digit
- Hard to find footwear
- extreme pain, need surgical correction



Diagnostic imaging

- Weight-bearing radiographs
- Hallux valgus angle (HVA)
normally $< 15-20^\circ$
- The 1-2 intermetatarsal angle (1-2 IMA)
normally $< 9^\circ$



Nonoperative management

- Footwear modification
- Orthotic devices—to control pronation
heat and mould the orthotic with foot in neutral calcaneal stance position
- NSAID
- Intrinsic foot strengthening exercise
-- pick up chopsticks with toes
- Bunion strapping--in stage 1 patient

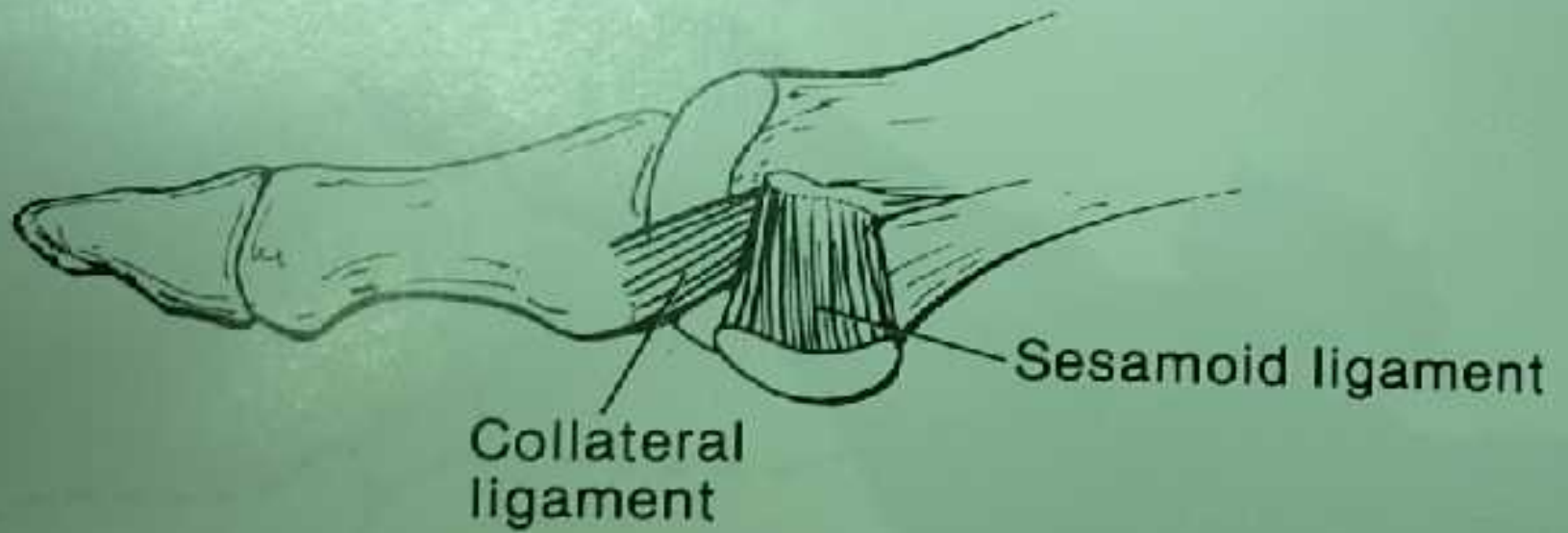
Orthotic



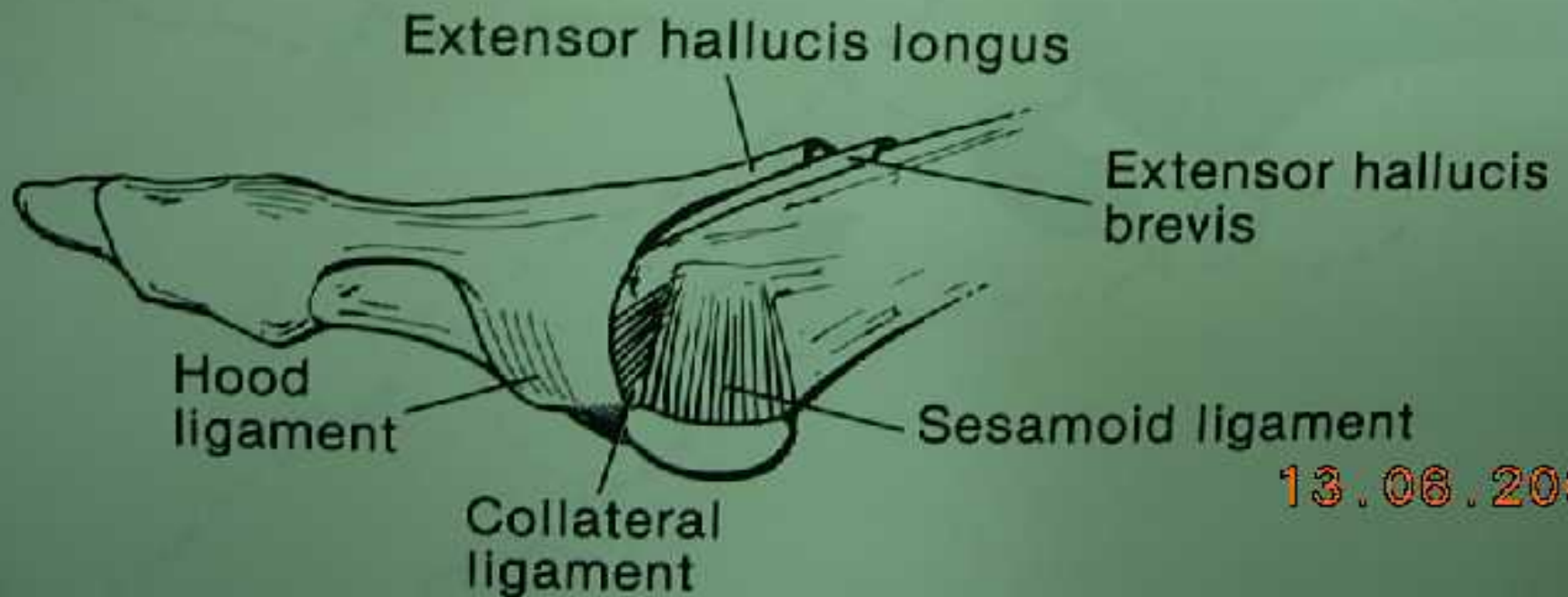
Anatomy

- More rounded metatarsal heads---related to development of hallux valgus
- Short 1st metatarsal
- Collateral ligaments and sesamoid ligaments
- FHB, abH, adH, EHB

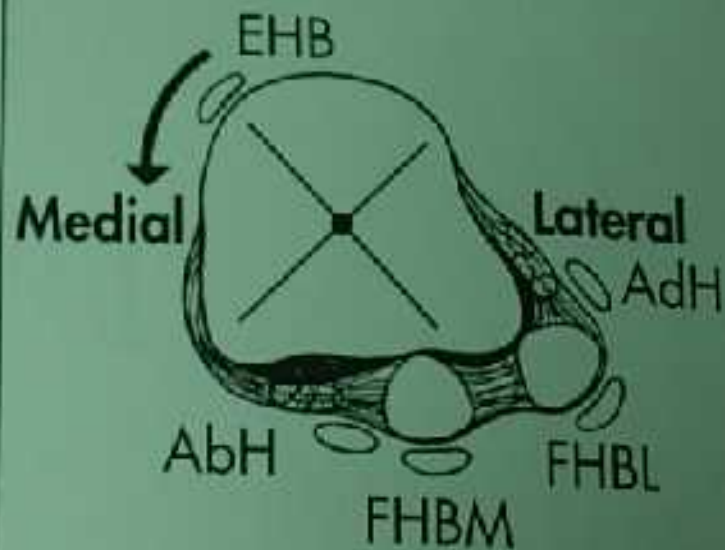
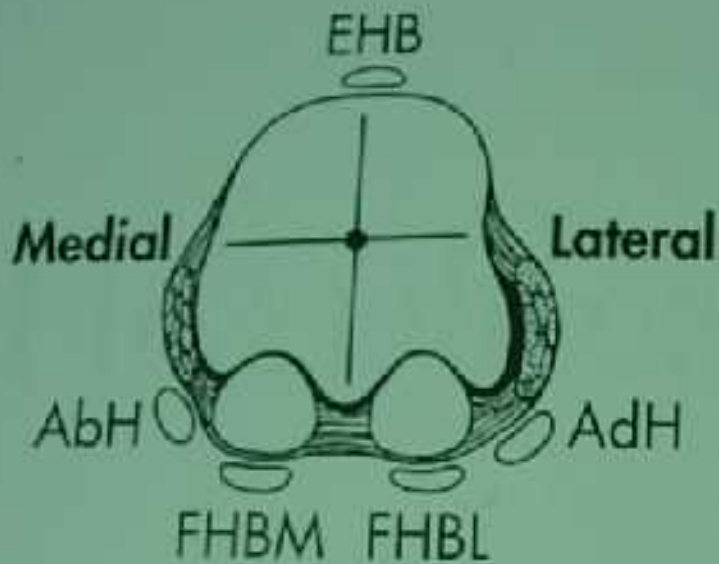
A



B



13.06.200



A

Normal

Hallux valgus

13.06.2006

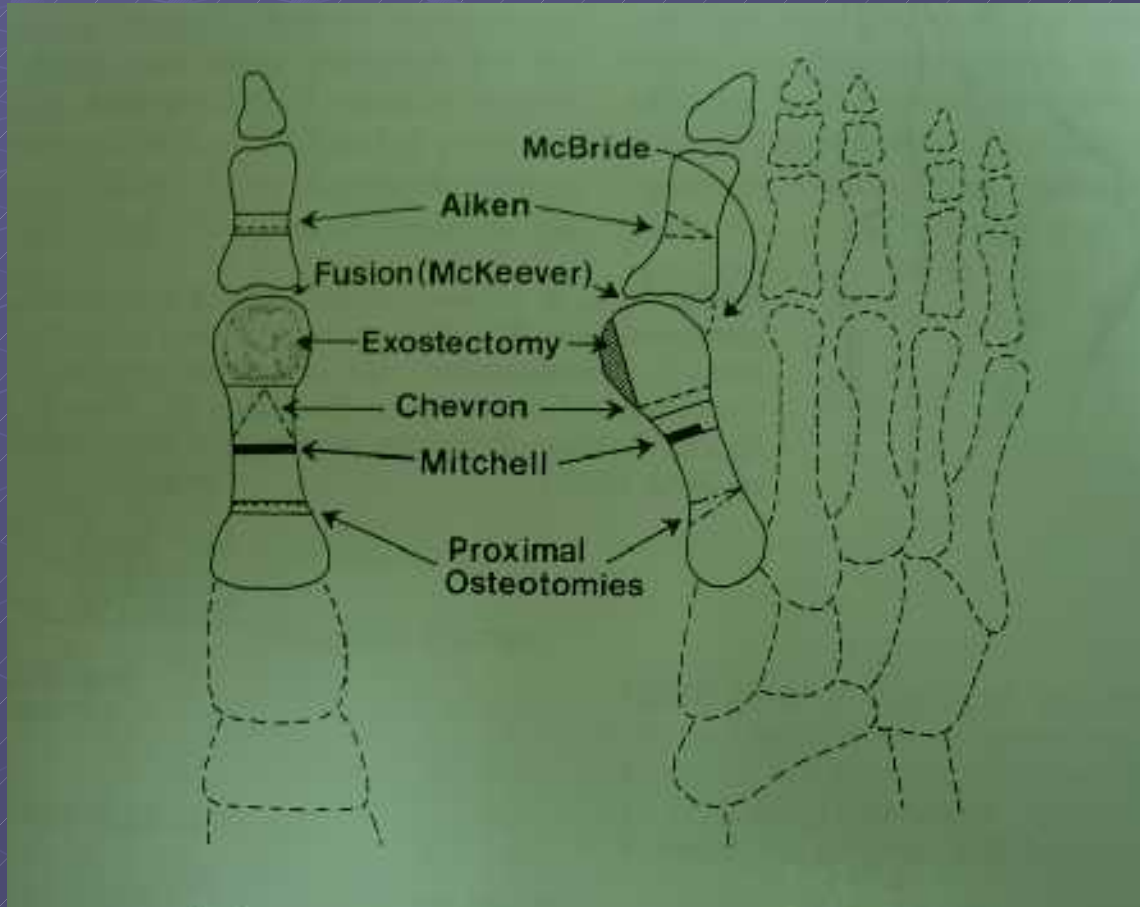
Surgical Technique

- Dorsal Cheilectomy---in hallux rigidus patient with isolated dorsal degenerative joint disease.
- Hallux valgus---a variety of techniques, based on the degree of deformity, i.e, HVA and 1-2 IMA

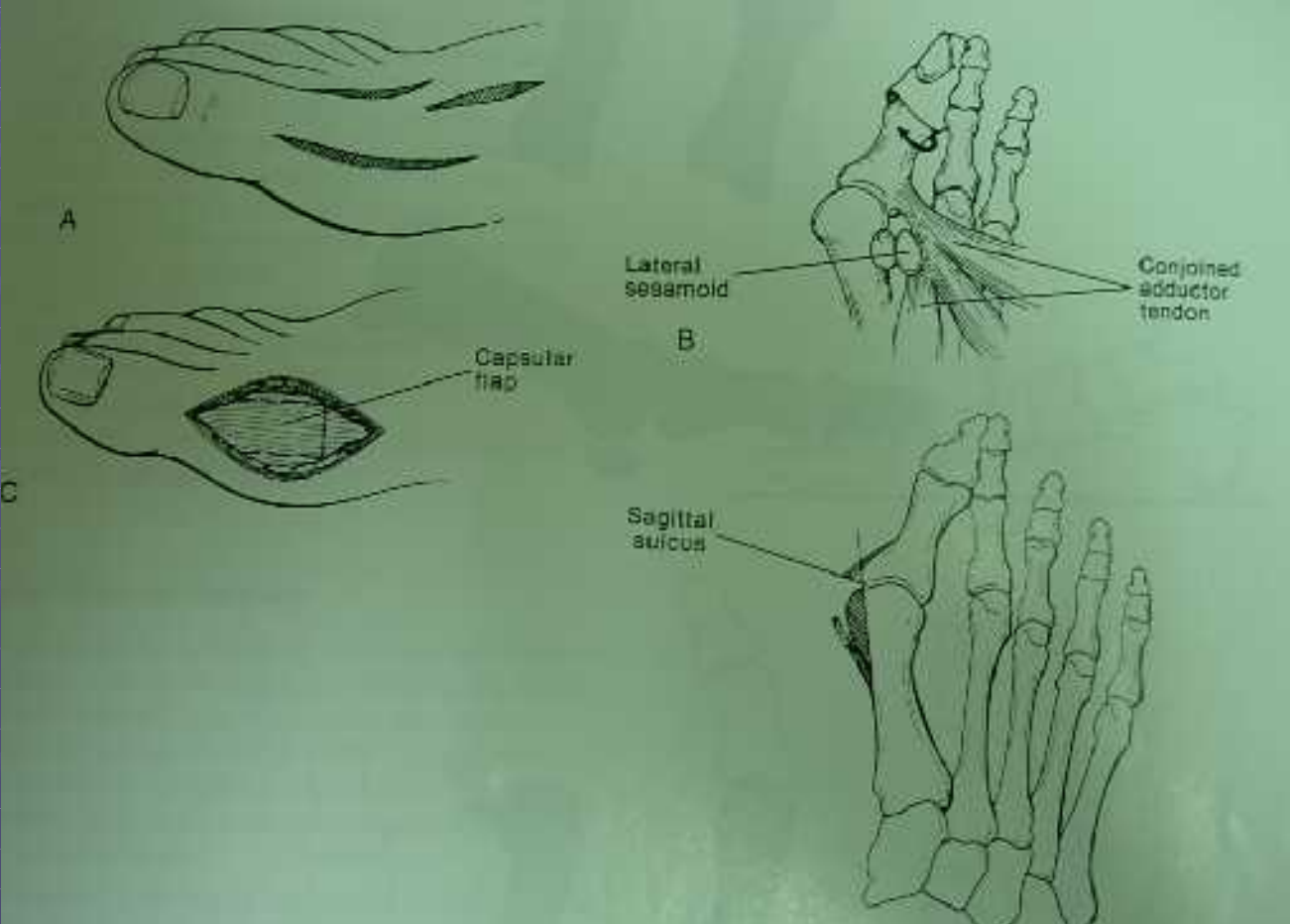
Surgical Technique

<i>HVA</i>	<i>IMA</i>	<i>Procedure</i>
$< 40^\circ$	$< 13^\circ$ to 15°	<i>modified McBride or distal chevron osteotomy</i>
$< 40^\circ$	$> 13^\circ$ to 15°	<i>modified McBride and proximal osteotomy</i>
$> 40^\circ$	$> 20^\circ$	<i>modified McBride and proximal osteotomy or arthrodesis</i>

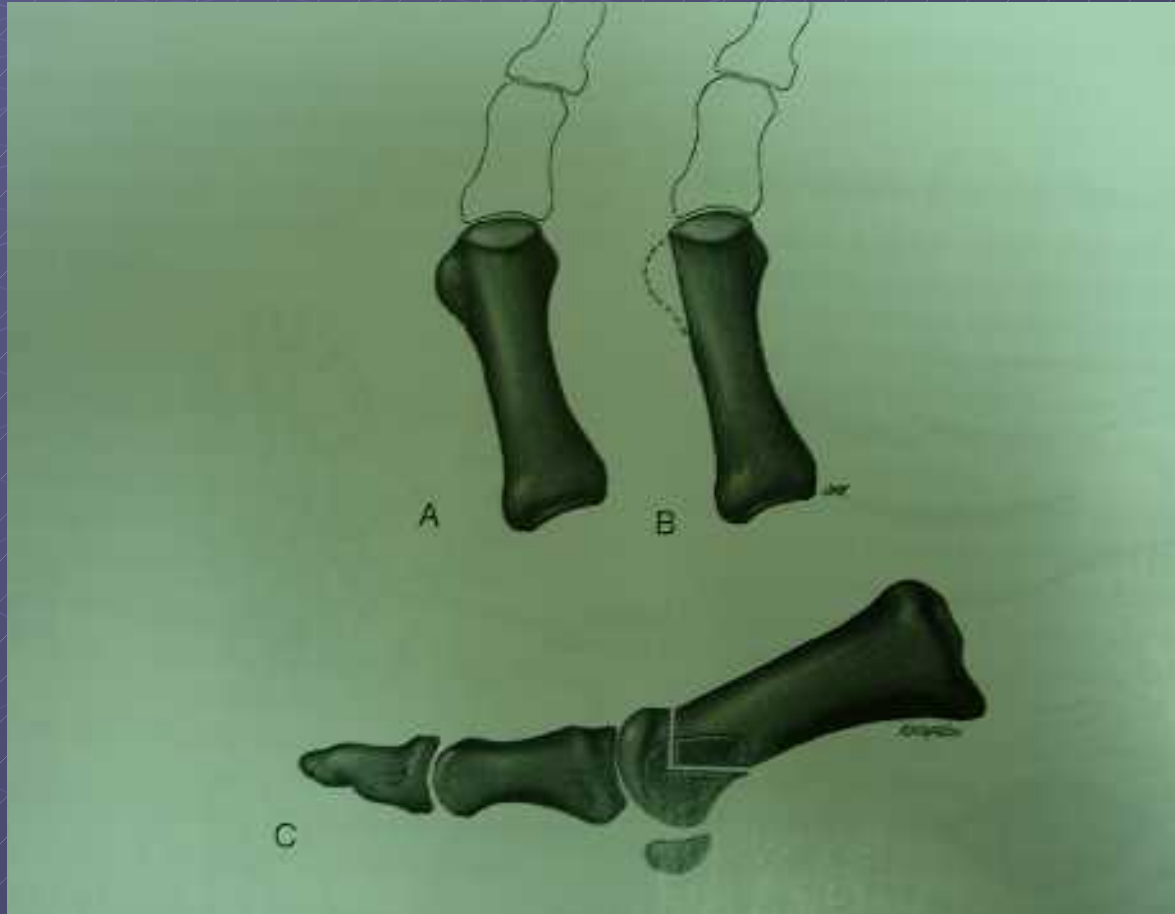
Surgical Technique



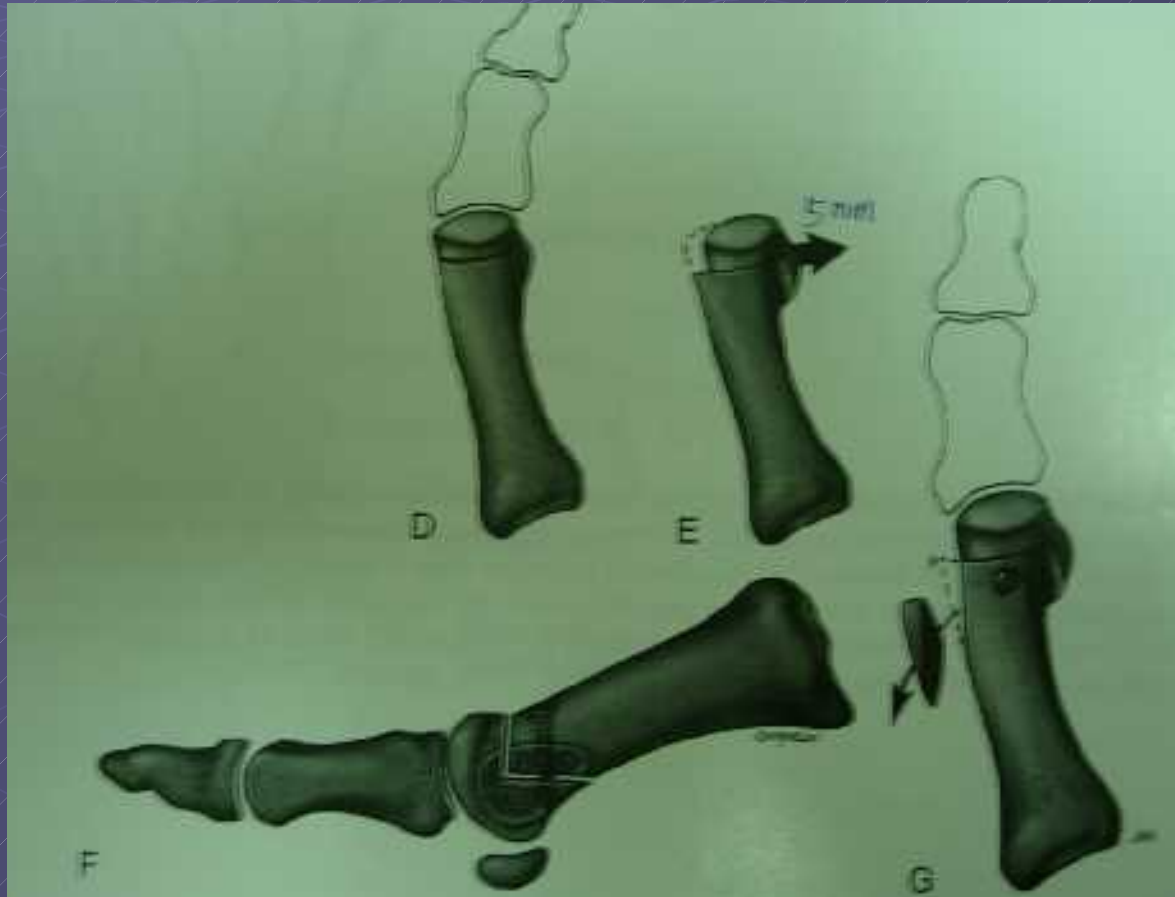
Modified McBride Procedure



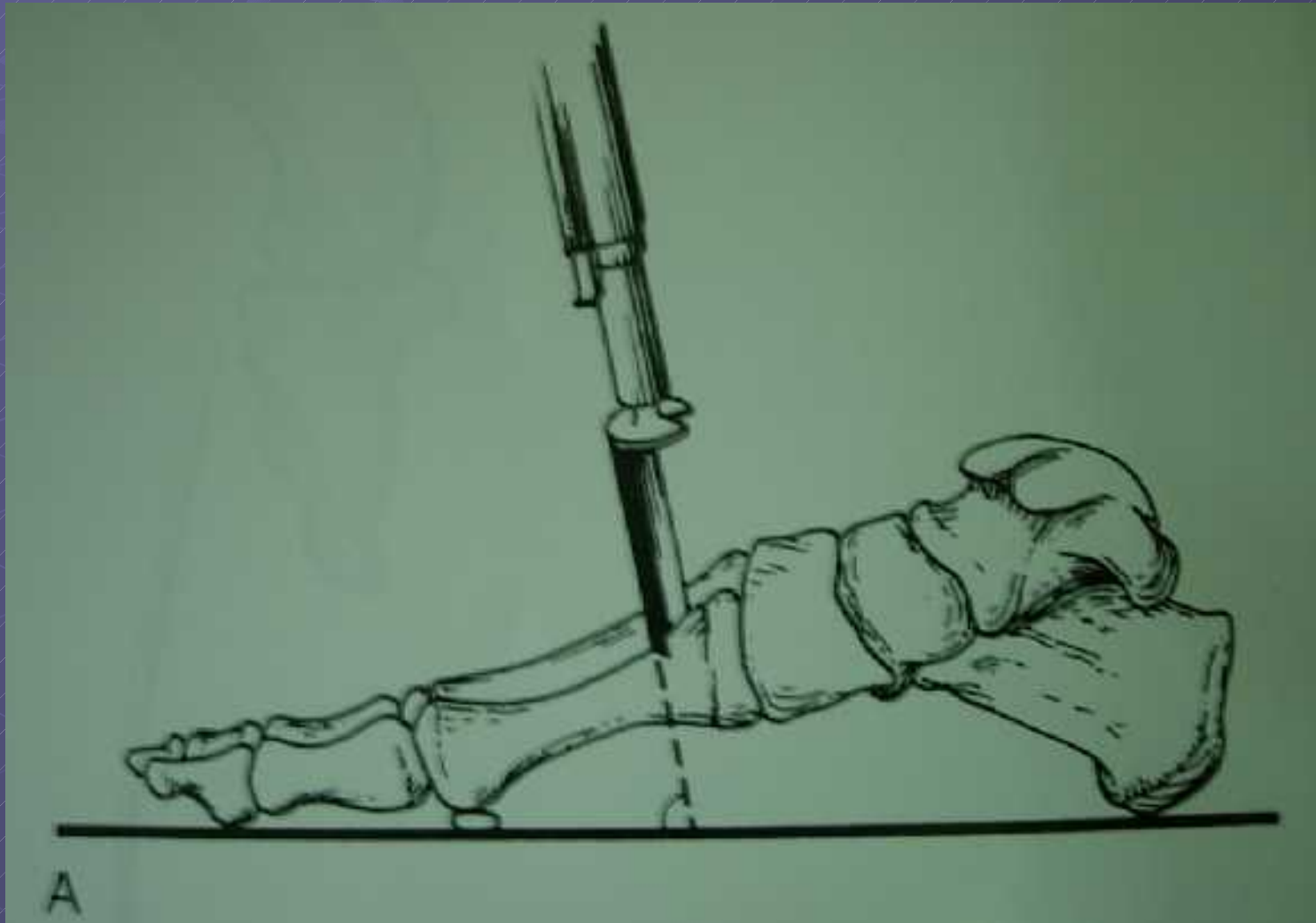
Distal Chevron Osteotomy



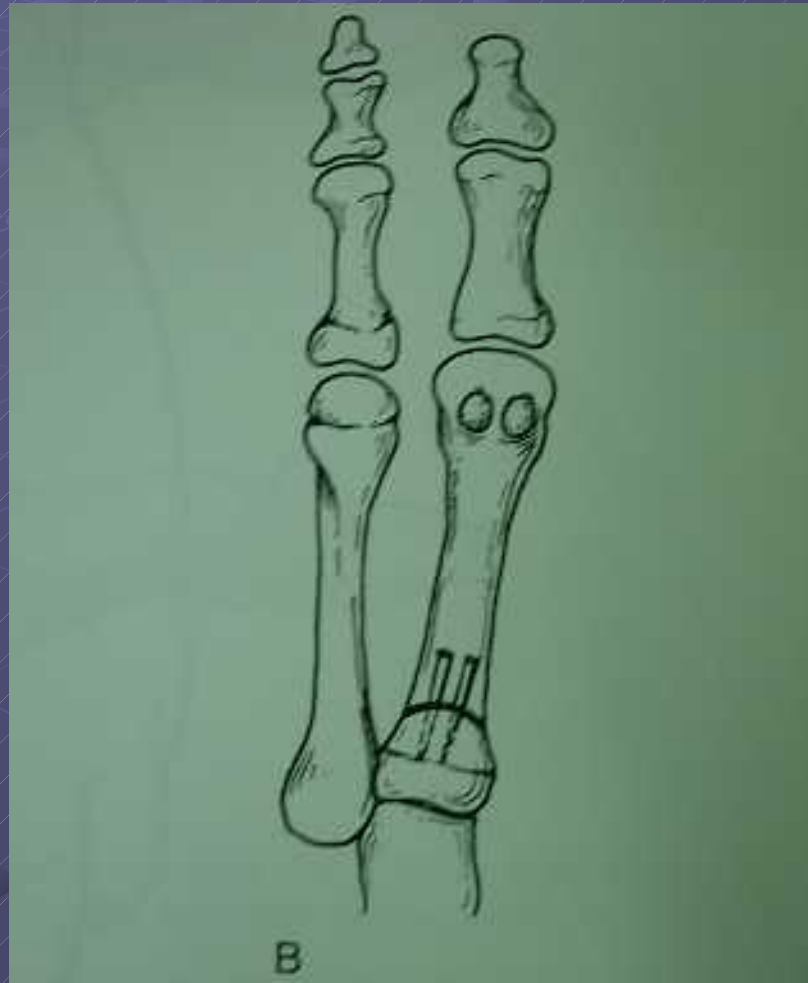
Distal Chevron Osteotomy



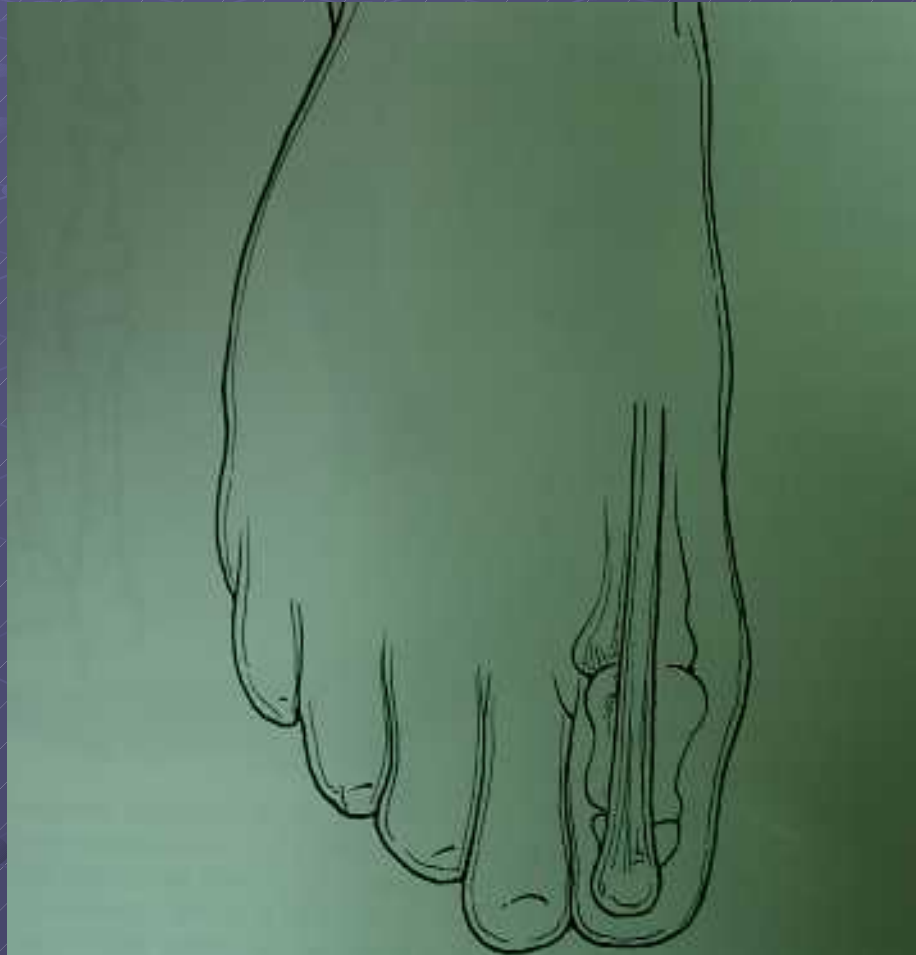
Proximal Metatarsal Osteotomy



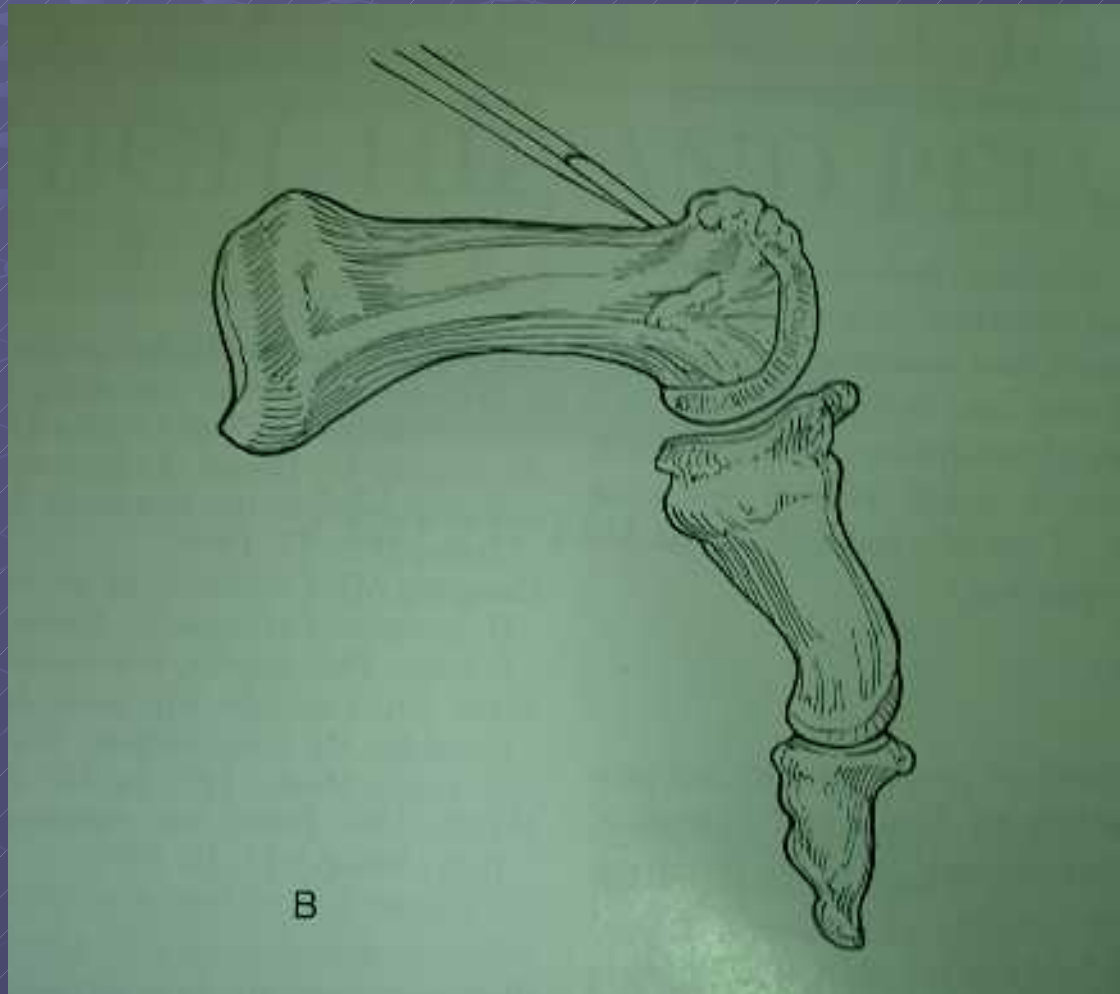
Proximal Metatarsal Osteotomy



Dorsal Cheilectomy (for hallux rigidus)



Dorsal Cheilectomy (for hallux rigidus)



Dorsal Cheilectomy (for hallux rigidus)

