

Common Foot Conditions

"The Fab Few of Foot and Ankle"

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Hallux Valgus/Bunion Deformity



Introduction

- Bunion
 - denotes any enlargement or deformity of the MTP joint
 - enlarged bursa, ganglion, hallux valgus, hallux rigidus, proliferative changes secondary to arthritis
- Hallux valgus
 - defines static subluxation of the 1st MTP joint with lateral deviation of the great toe and medial deviation of the 1st MT
 - advanced hallux valgus deformity is a complex forefoot deformity, with significant pathologic changes to the soft tissues supporting the hallux, the sesamoid mechanism, and the MTP joint

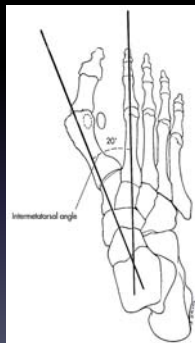
Radiography

- Hallux valgus (HV) or 1st MTP joint angle
 - Created by a line the bisects the proximal phalanx and the 1st MT shaft
 - “Normal” is $\leq 15^\circ$



Radiography

- Intermetatarsal (IM) angle
 - Created by a line that bisects the 1st and 2nd MT shafts
 - “Normal” $< 9^\circ$



Radiography

- Distal MT articular angle (DMAA)
 - Relationship between the articular surface of the 1st MT head and a line bisecting the 1st MT
 - “Normal” < 10° lateral deviation



Radiography

- Joint congruency
 - No lateral shift of the proximal phalanx indicates congruency



Summary

- Modify footwear, bunion splints, toe spacers
- Surgical correction based on angles and congruence (Rule of 15 and 30)
- Age greater than 60 and/or Arthritis consider MP fusion
- Obliquity of TMT joint and hypermobility of first ray consider Lapidus

"Flatfoot"



Introduction

- Posterior tibial tendon (PTT) is an important component of normal gait
- Action
 - Inverts and plantar flexes foot at the ankle
 - Medial ankle stabilizer
- Synergists: FHL, FDL.
- Antagonist: Peroneal Brevis
- PTT Dysfunction is the most common cause of acquired flatfoot in an adult

Anatomy

- Insertion
 - Inserts on every tarsal bone except talus
 - Anterior band
 - Major insertion - tuberosity of navicular
 - Medial NCJ
 - Medial cuneiform



Classification

- Stage I
 - Normal appearing foot
 - Pain and swelling around medial hindfoot
 - Tendinitis with little or no degeneration
 - Can SLHR

Classification

- Stage II
 - Postural changes of foot
 - Hindfoot valgus
 - Loss of long arch
 - Forefoot abduction
 - Tendinosis (MRI)
 - Motion in subtalar joint maintained
 - Motor weakness
 - Unable to SLHR in late stage
 - “Too many toes” sign



Classification

- Stage III
 - Progressive deformity, mainly through spring ligament
 - ‘Fixed’ Hindfoot valgus
 - Transverse tarsal abduction
 - Limited subtalar motion
 - Achilles contracture
 - Unable to SLHR



Classification

- Stage IV
 - Chronic disease state
 - Fixed hindfoot deformity
 - Leads to eccentric loading and development of ankle arthrosis



Summary

- Posterior Tibial Tendon Dysfunction is the most common cause of Adult Acquired Flatfoot
- Orthotics play a major role
- Neuropathic deformity, Rigid deformity, and associated degenerative changes often require fusion

Lesser Toe Deformity

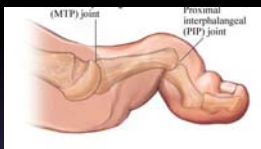


Hammer Time



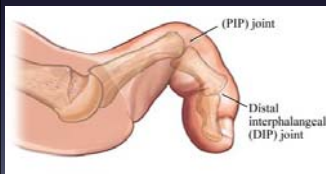
- Hyperflexion of PIP joint
- Extension +/- contracture of MP joint

Hammer Toe



Claw Toe

MP Hyperextension with PIP and DIP flexion



Mallet Toe

Hyperflexion at DIP joint



Heel Pain

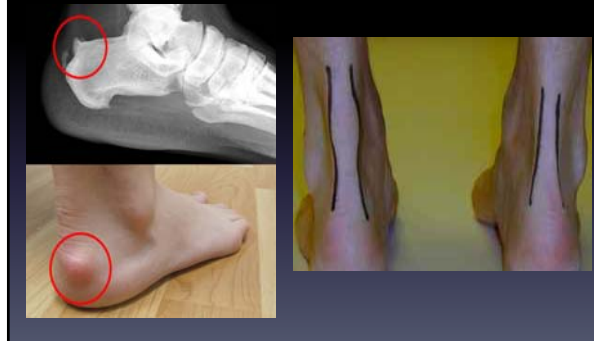
- Plantar Fasciitis (Most Common)
- Achilles Tendonitis
- Stress Fracture
- Tarsal Tunnel

Plantar Fasciitis



- Tender to palpation at plantar tuberosity of calcaneus
- Pain upon waking "First few steps.."

Achilles Tendonitis



Thank You!