

# History

21 year old male with worsening left foot pain  
and popping

Concern for tarsal coalition

# Radiograph



# Findings

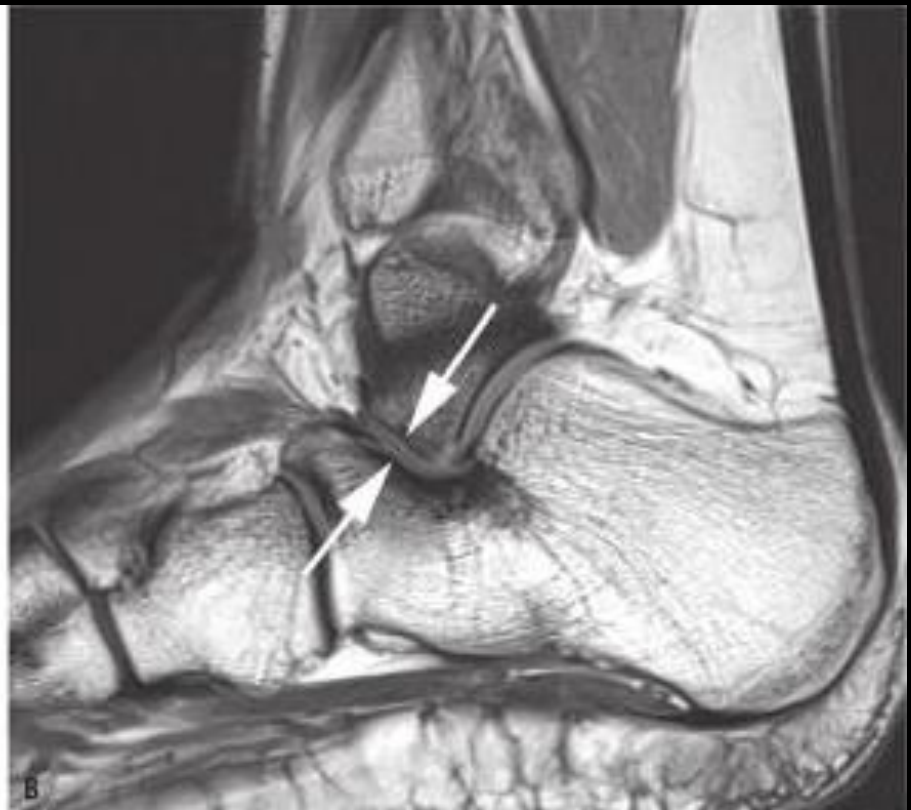
- No coalition seen
- Accessory anterolateral facet of the talus, narrowing the critical angle of Gissane
  - Can be associated with tarsal coalition
  - CT/MR recommended
- No dorsal talar beaking

# Accessory Anterolateral Facet

- Anterior/distal extension of lateral process of the talus
  - Articulated w extended facet of ant process of calcaneus
- Painful talocalcaneal impingement
- Associated with rigid flatfoot
- Associated with dorsal talar beaking (29%)
- Surgical removal of this facet can allow for subtalar joint-sparing flatfoot reconstruction
  - Facet excision, peroneal/gastrosoleus lengthening, calcaneal lengthening



# Accessory Anterolateral Facet



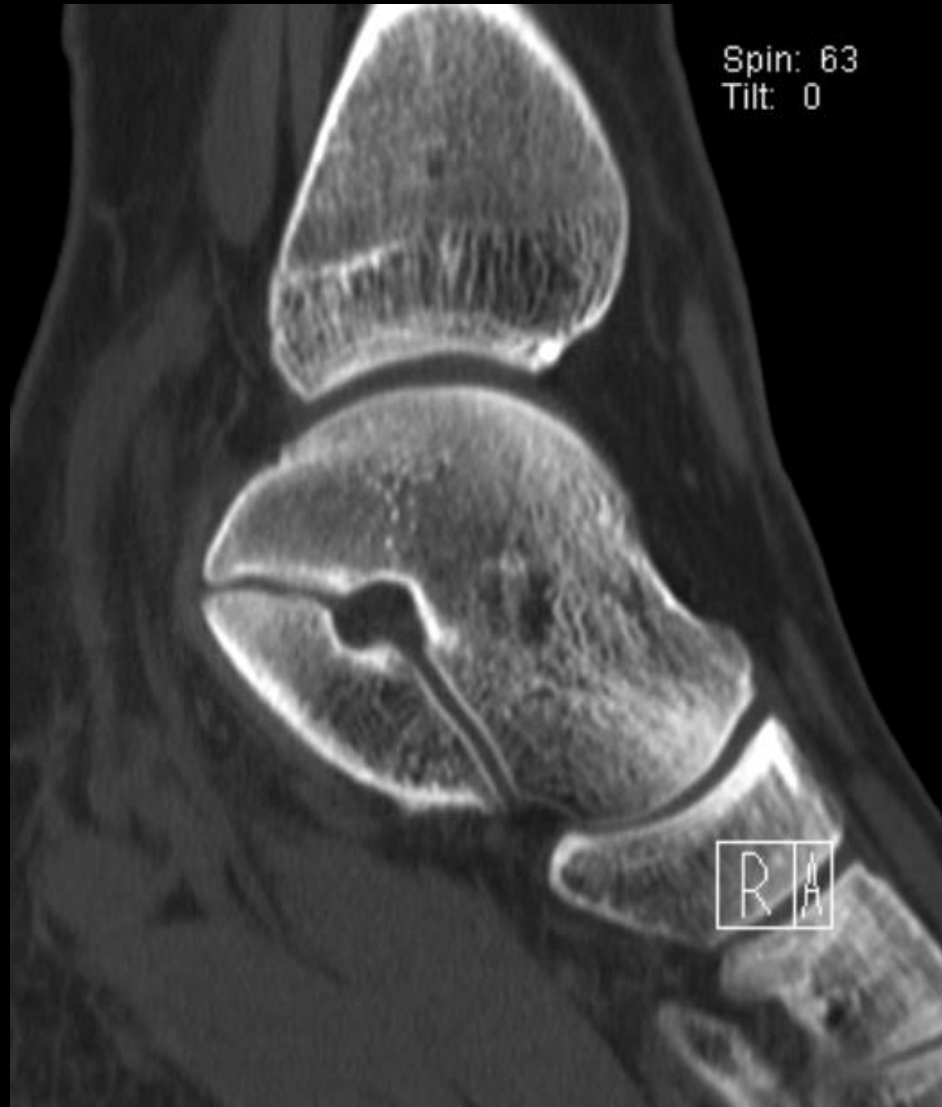
CT



CT

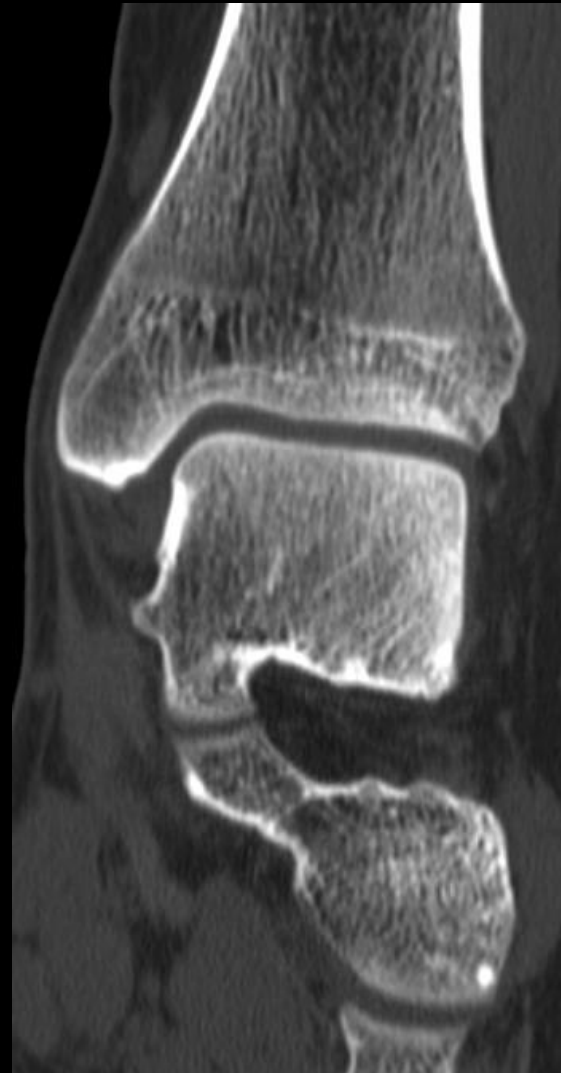


# CT

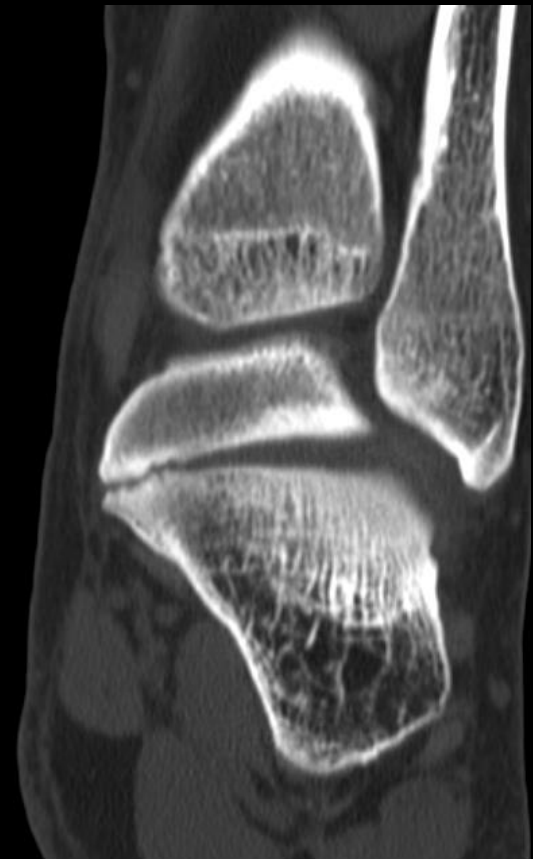




CT



# CT



# Findings

- Anteromedial aspect of posterior subtalar joint
  - Irregularity of the articular surface
  - Narrowing of the joint space
  - Subchondral sclerosis
- Accessory anterolateral facet of the talus

# Diagnosis

- Extra-articular talonavicular coalition
- Anterolateral facet of the talus

# Tarsal Coalition

- Abnormal union of 1/more hind/mid foot bones
  - Osseous (Synostosis)
  - Cartilaginous (Synchondrosis)
  - Fibrous (Syndesmosis)

# Tarsal Coalition

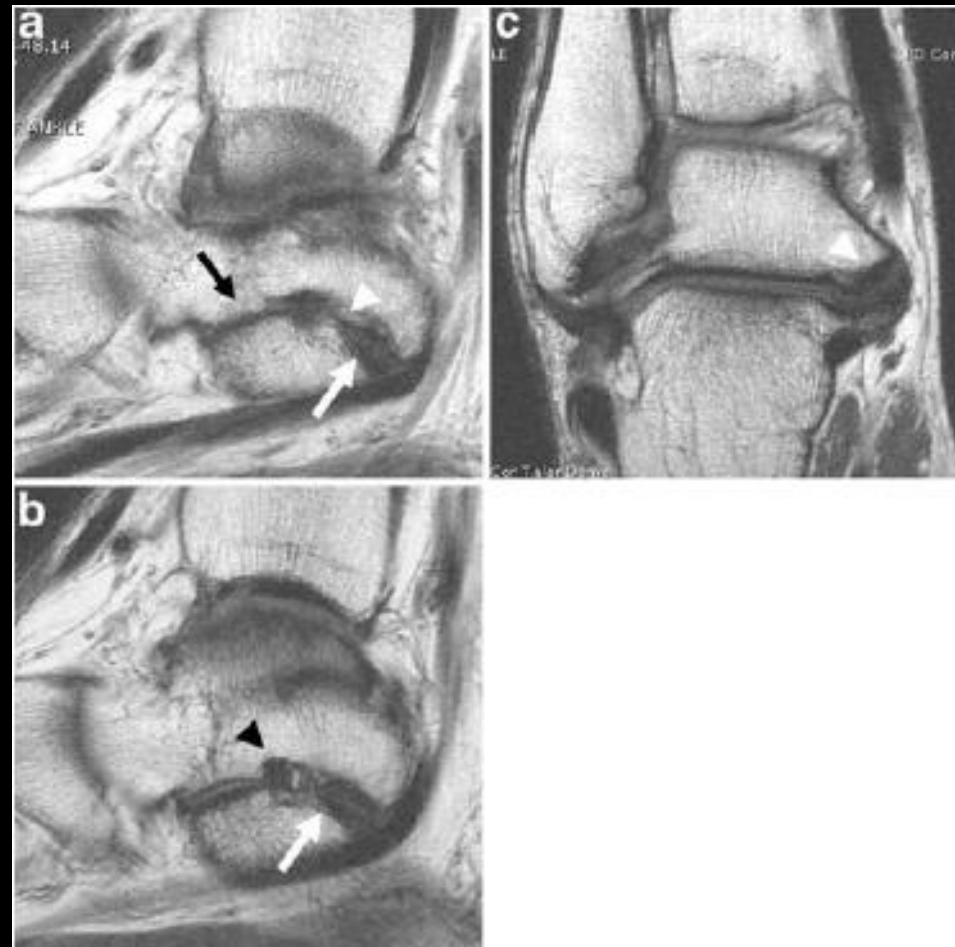
- 1% incidence
- 50% bilateral
- 90% talocalcaneal or calcaneonavicular

# Tarsal Coalition

- Insidious, non-specific, variable presentation
  - 8-12 yo in calcaneonavicular
  - 12-16 yo in talocalcaneal
- Pain/stiffness
- Sprains
- Flatfoot

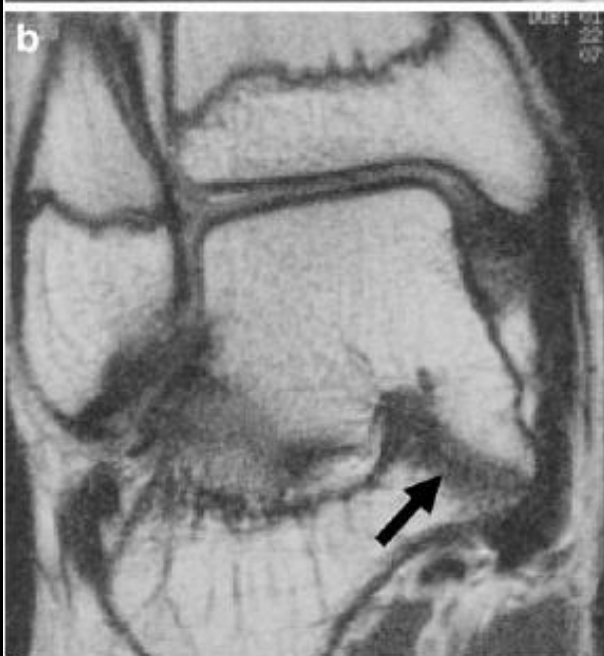
# Talonavicular Coalition

- Extra-articular
- Posterior to sustentaculum tali
- Normal middle subtalar joint





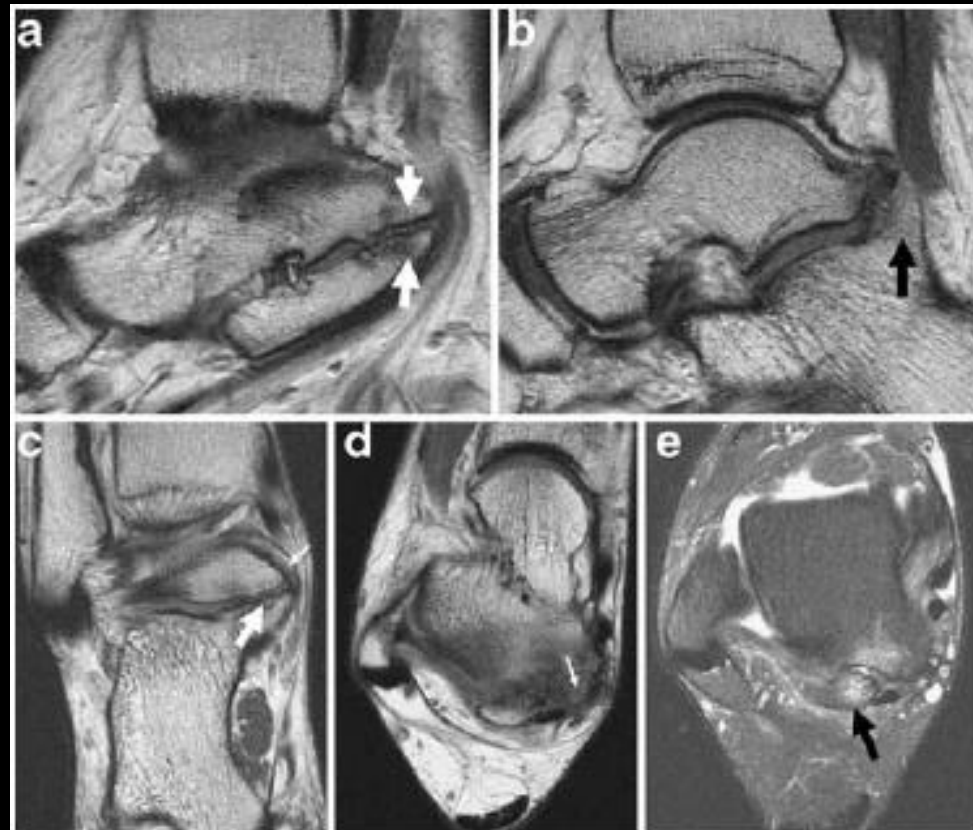
# Talocalcaneal Coalition



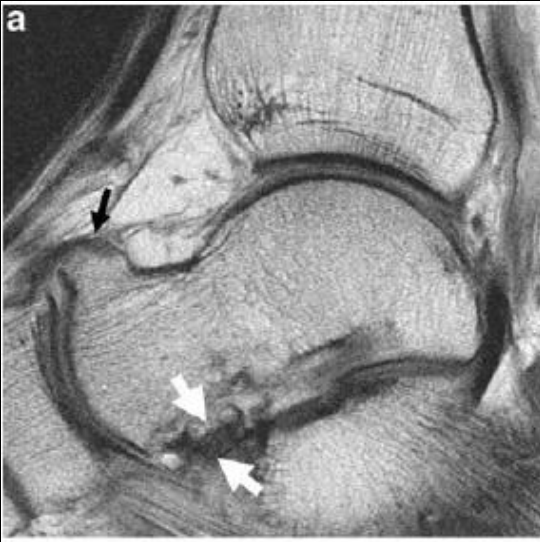
- Fusion of middle articular facet is most common
  - Downward/medial sloping medial facet
  - Hypoplastic sustentaculum tali
  - Talar beak
  - C-sign: Overlapping bone shadows

# Talonavicular Coalition

- Posterior facet
  - Uncommon
  - Usu cartilaginous
  - Posteromedial aspect of facet



# Talonavicular Coalition



- Anterior facet
  - Very rare
  - Usu associated w middle facet coalition



# Bibliography

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- Martus JE, Femino JE, Caird MS et al. Accessory anterolateral talar facet as an etiology of painful talocalcaneal impingement in the rigid flat foot: a new diagnosis. *Iowa Orthop J.* 2008;28:1-8.
- Martus JE, Femino JE, Caird MS et al. Accessory anterolateral facet of the pediatric talus. An anatomic study. *J Bone Joint Surg Am.* 2008;90:2452-9.
- Burdett PH. MRI web clinic: tarsal coalition. *Radsourc.us.* 2008.