MALLEOLAR FRACTURE REDUCTION

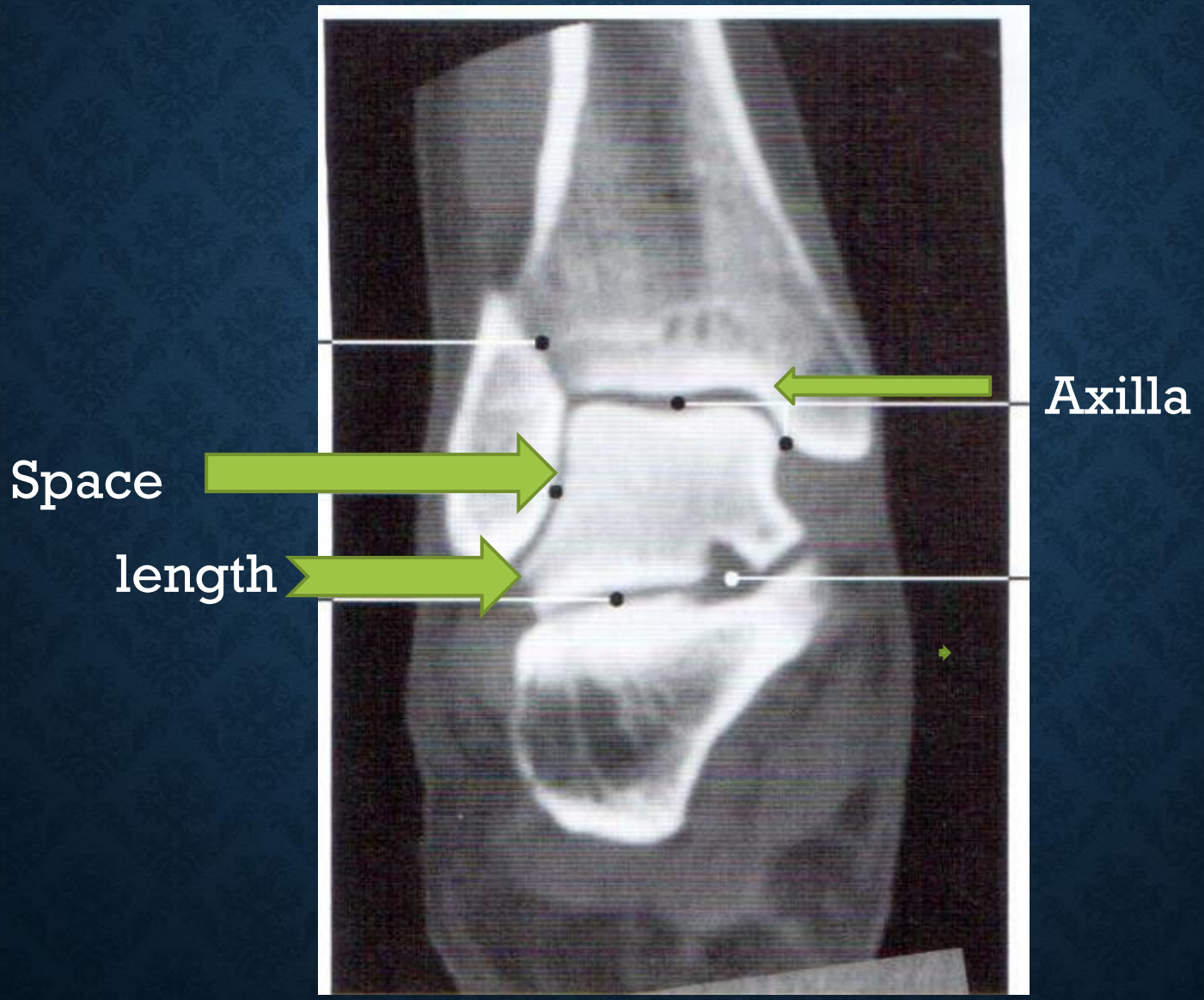
Goals of Surgical Treatment

Shep Hurwitz, MD

No Conflicts to Report, No Promotions Here

DISPLACED ANKLE FRACTURES

- Medial and Lateral Malleoli confer some mechanical stability
- Ligaments help, as does the syndesmosis
- Early reduction and stabilization lead to better functional results
- Confounding elements of the injury include plafond damage, loose body formation, Chondrolysis and posterior malleolus fracture


Axilla
Space
length

RETURN TO A NEAR ANATOMIC STATE

Medial malleolus relies on the axilla

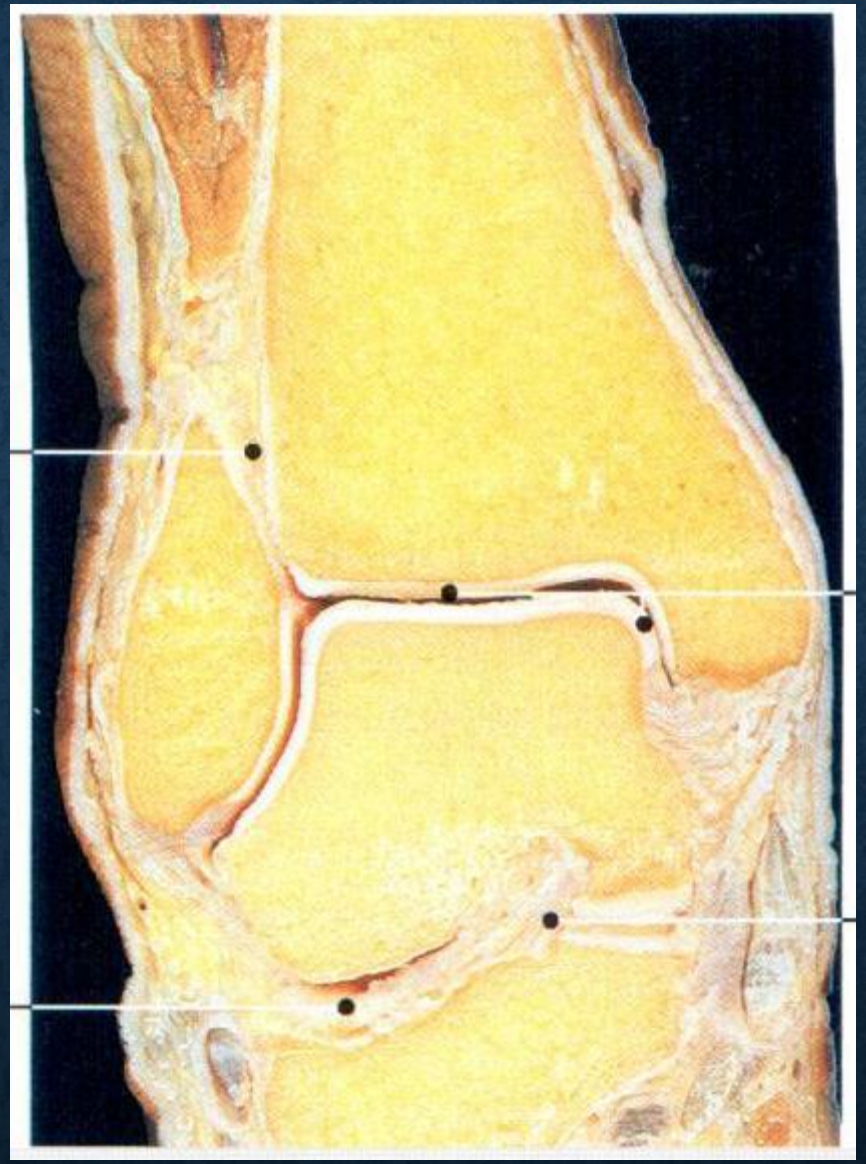
The lateral malleolus is length and buttress of the talus

SURGICAL APPROACH

- In order to visualize the axilla, an anterior or anterio-medial approach, otherwise you are required to use fluoro for multiple views
- The lateral malleolus can be exposed from any vantage point of the fixation since fluoro will be used to determine length and lateral joint space
- Keep length of incisions to minimum

TIMING OF SURGERY

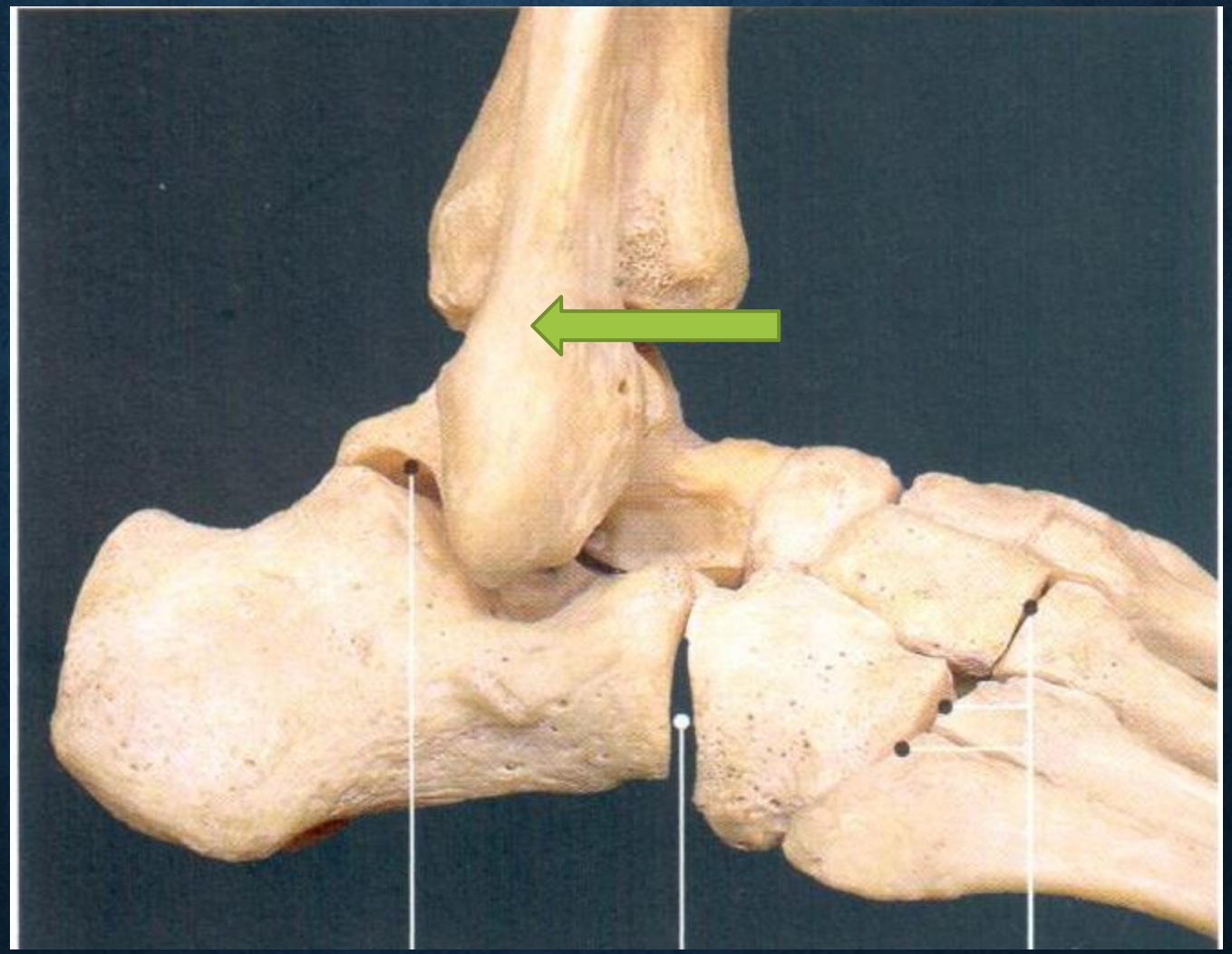
- Not proven to be critical
- Early surgery usually means rehab can start earlier and be more aggressive
- Delays necessitated by other circumstances are sometimes part of the challenge
- Difficult when closed reduction is first line, which then loses reduction and weeks go by…
- Fracture blisters can be a delay that is hard to speed-up



HOUSEKKEPING

Look for loose osteo-cartilaginous loose bodies

Check the syndesmosis manually and the location of the fibula in the incisura



IS FIXATION IMPORTANT- IS THERE AN OPTIMUM CONSTRUCT?

Reduction is most important!

Not Good!

ACCURATE ANATOMIC REDUCTION DOES NOT GUARANTEE A LIFETIME OF ANKLE FUNCTION

But, a poor reduction is likely to lead to early DJD and need for reconstruction

SUMMARY

- Reduction of malleoli is the goal and is achievable in most cases
- Timing is not critical but early surgery can get recovery moving earlier
- Choose your surgical approaches
- Medial axilla is key determinant of medial stability
- Fibular length and lateral joint space are determinants of lateral buttress
- Hardware is not critical element as ling as enough stability obtained to move the foot
- Most of bimalleolar fractures are not challenging reduction or fixation

THESE ARE THE BASICS AND YOU CAN DO THIS-