

# High Energy Tibial Plateau Fractures

Staying out of trouble



How would you classify this fracture?



1. Schatzker IV

2. Schatzker V

3. Schatzker VI

4. Moore 2

5. Who classifies fractures?



# Take home points

- Classification = analysis
- Dislocations are different
- Specific techniques helpful
- Restore alignment and surface = don't give up

Why are we teaching it this way?



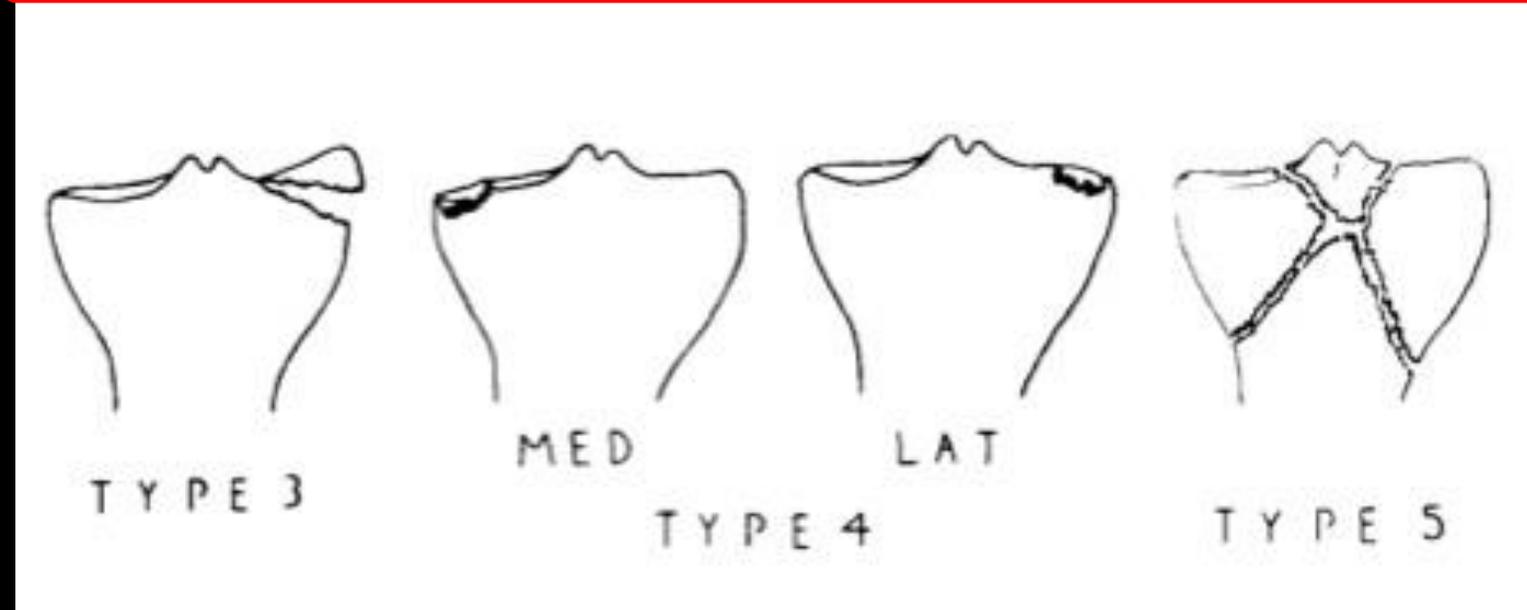
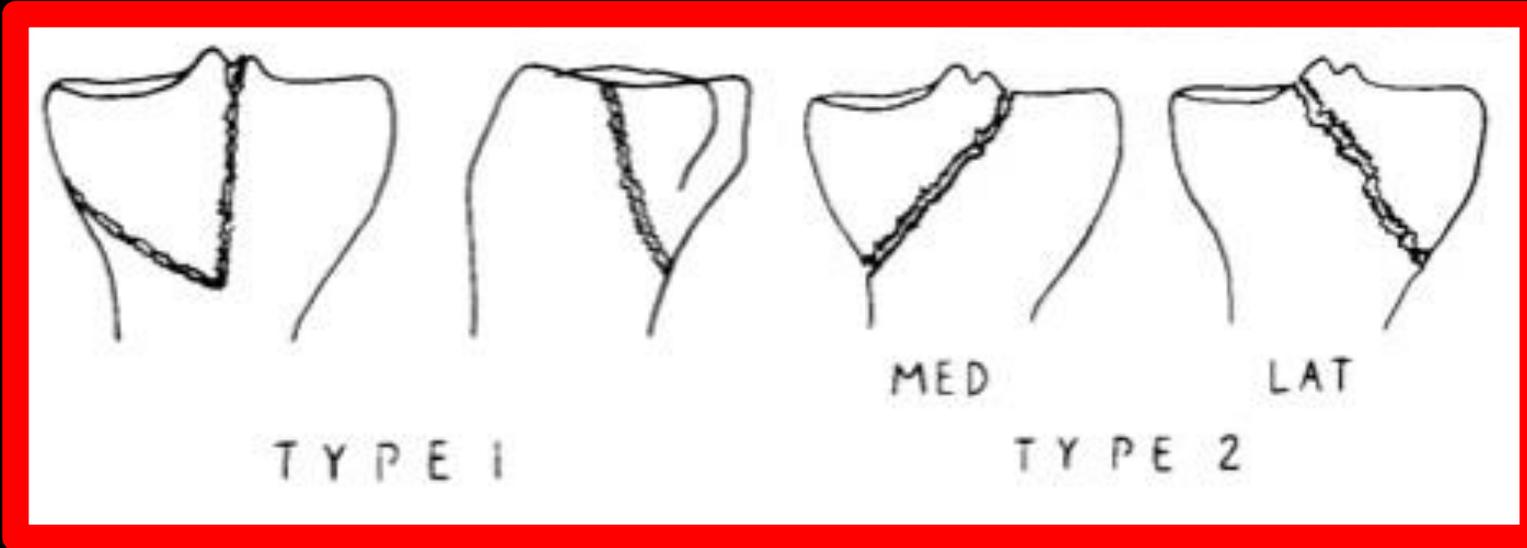
Are we ever fixing these patterns?

# Fracture dislocations



Not really described by Schatzker

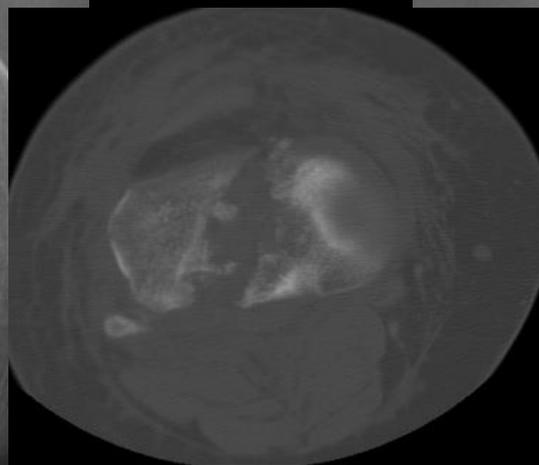
# So how to classify?

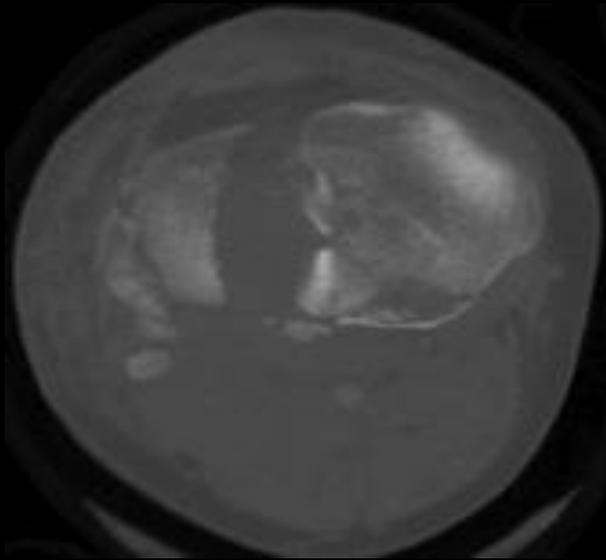


# Moore facts

- Type 1 Posterior medial “split”
  - Rare ligament injuries
  
- Type 2 Whole medial condyle
  - Ligament esp MCL/LCL
  - Eminence
  - Peroneal nerve
  - Lateral articular

**Medial plateau fracture dislocations**





# Common displacements

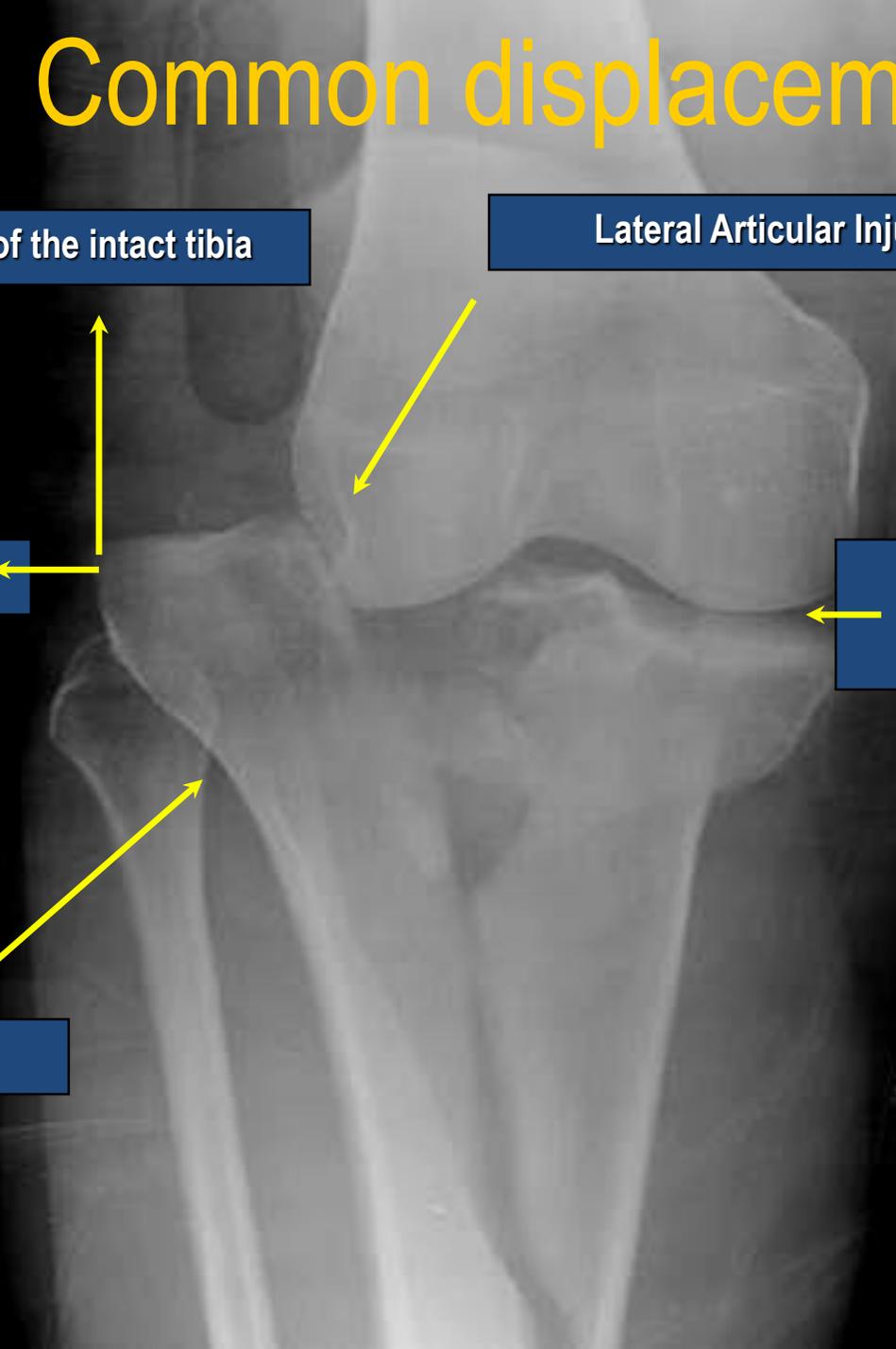
Shortening of the intact tibia

Lateral Articular Injury

Lateral Displacement

Medial Plateau Maintains a Normal Anatomical Relationship with the Distal Femur

Intact lateral column



Think about common injury  
mechanisms

# Mechanism of injury



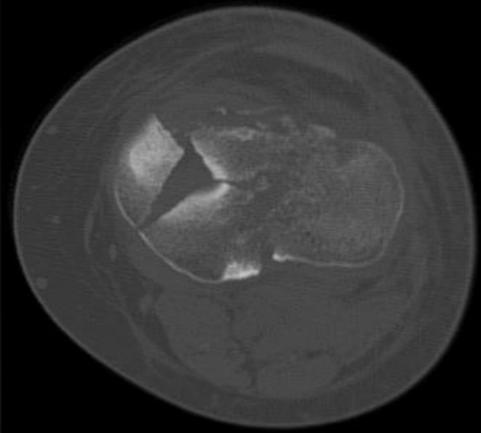
**Varus  
Hyper-extension  
Mechanism**

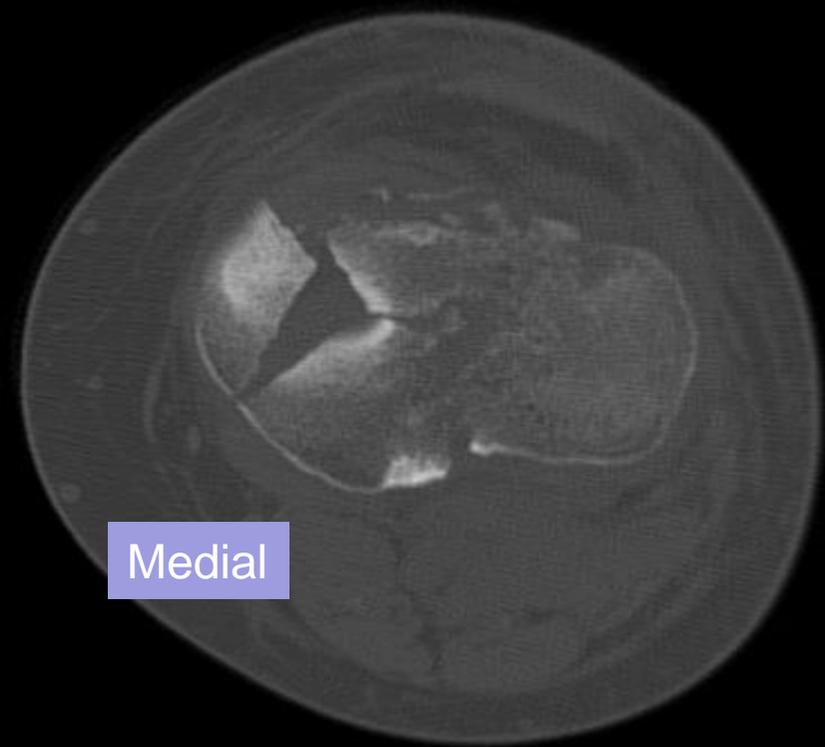


**Anteromedial articular crush  
Varus  
Recurvatum**

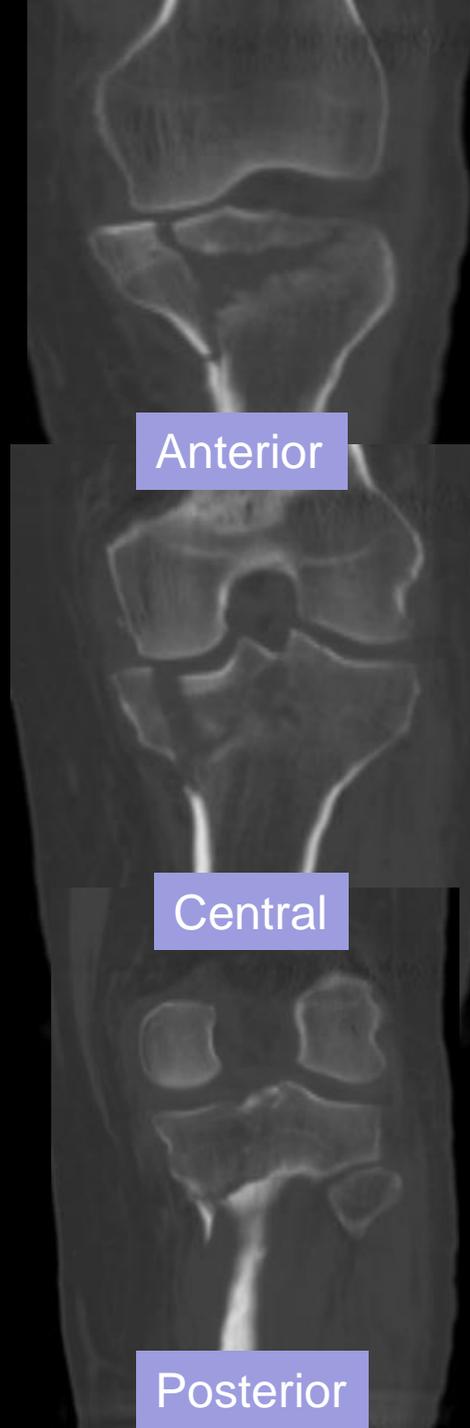


# Varus hyperextension plus fibular head





Medial



Anterior

Central

Posterior



Medial

Central

Lateral



4 Month Postop



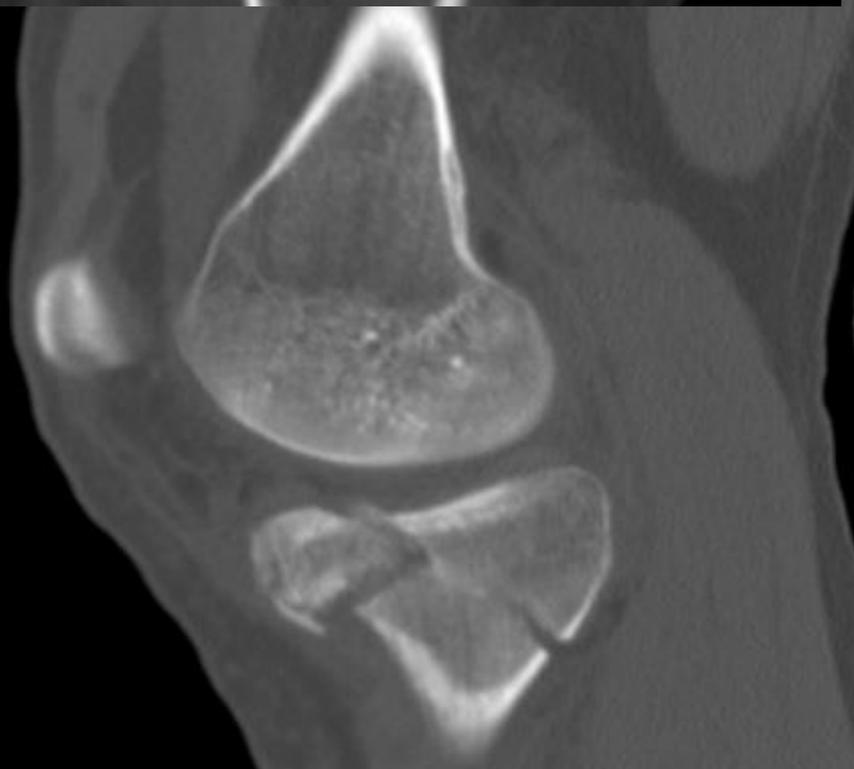
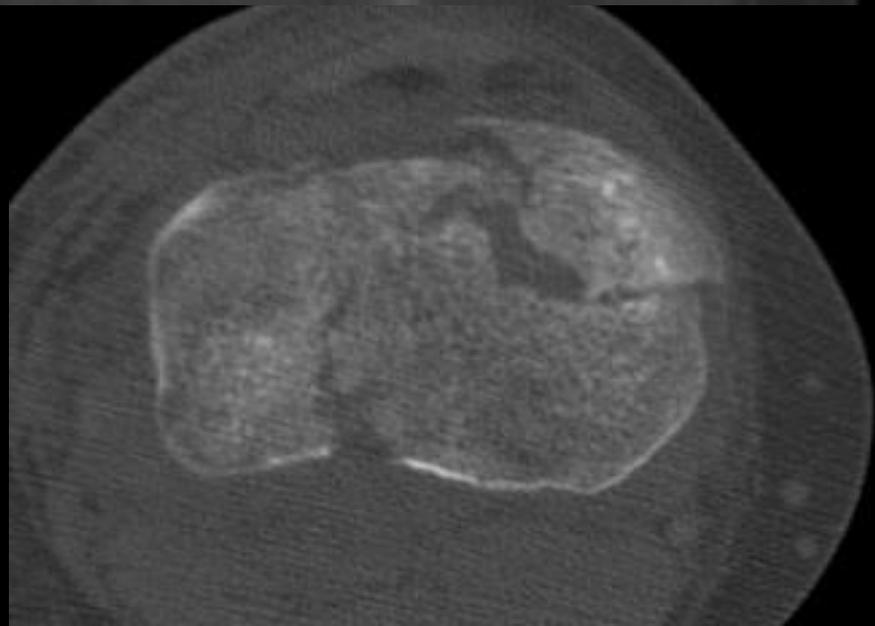
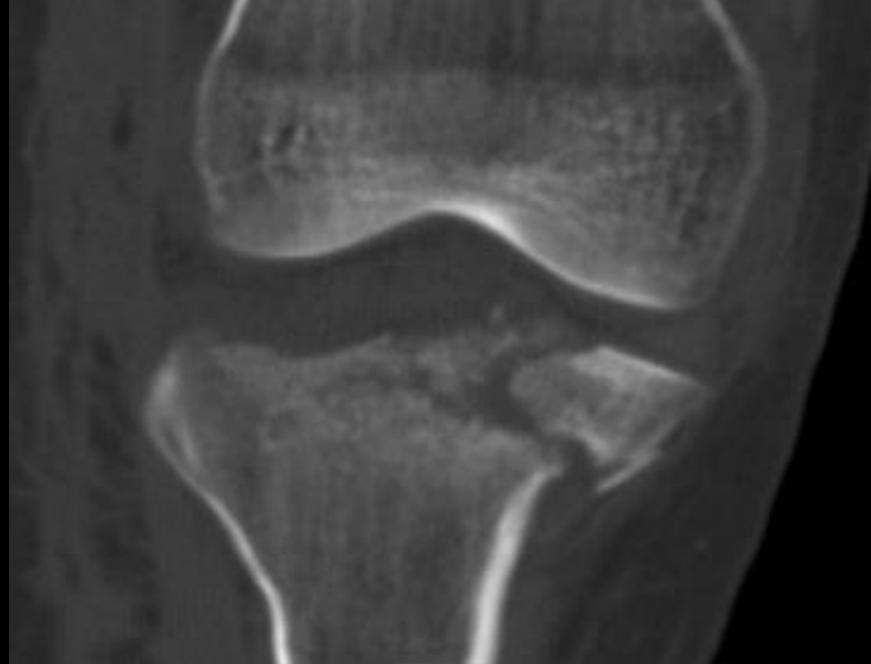
Dangers of mistaken identity

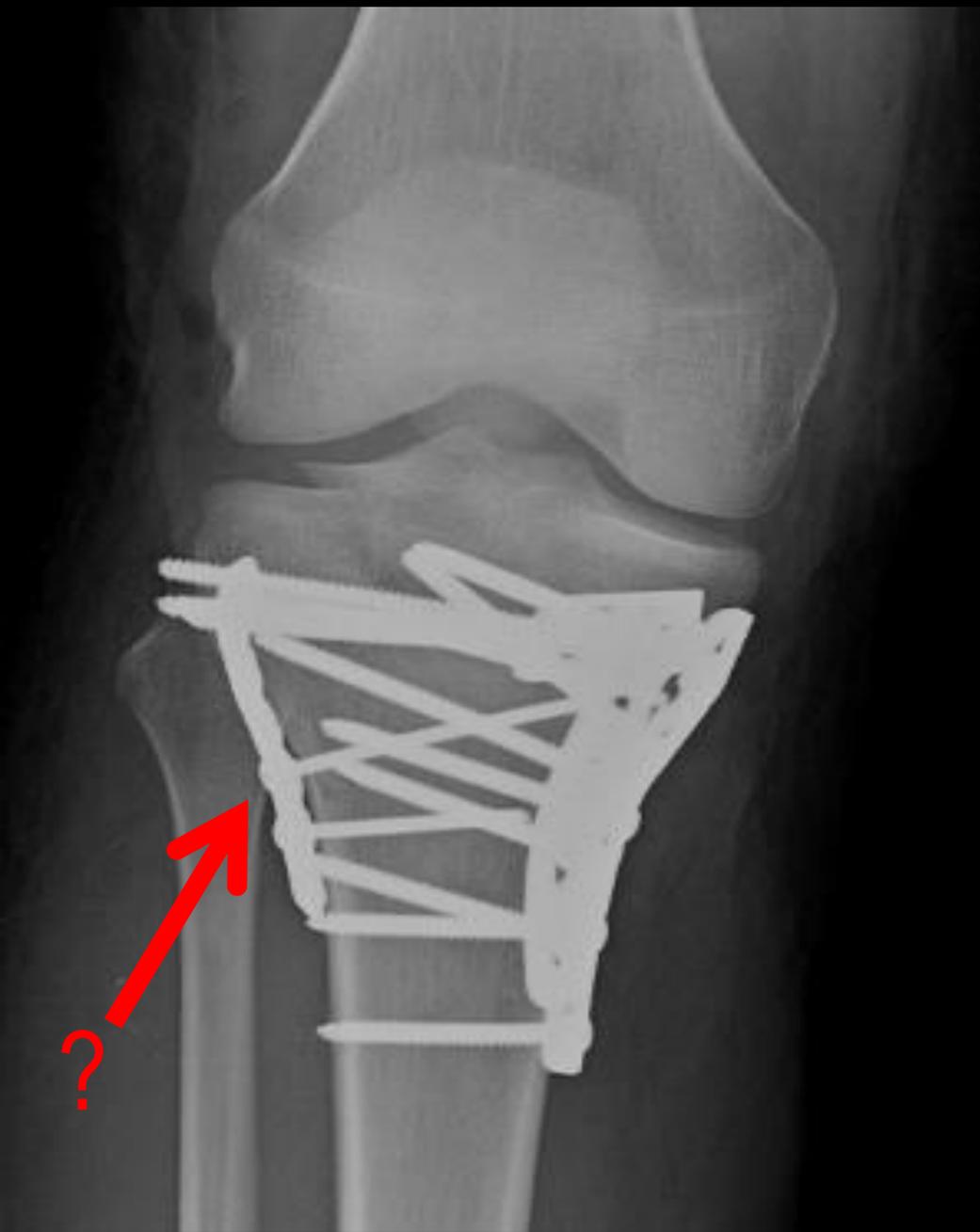


**X-ray**

1 OF 2







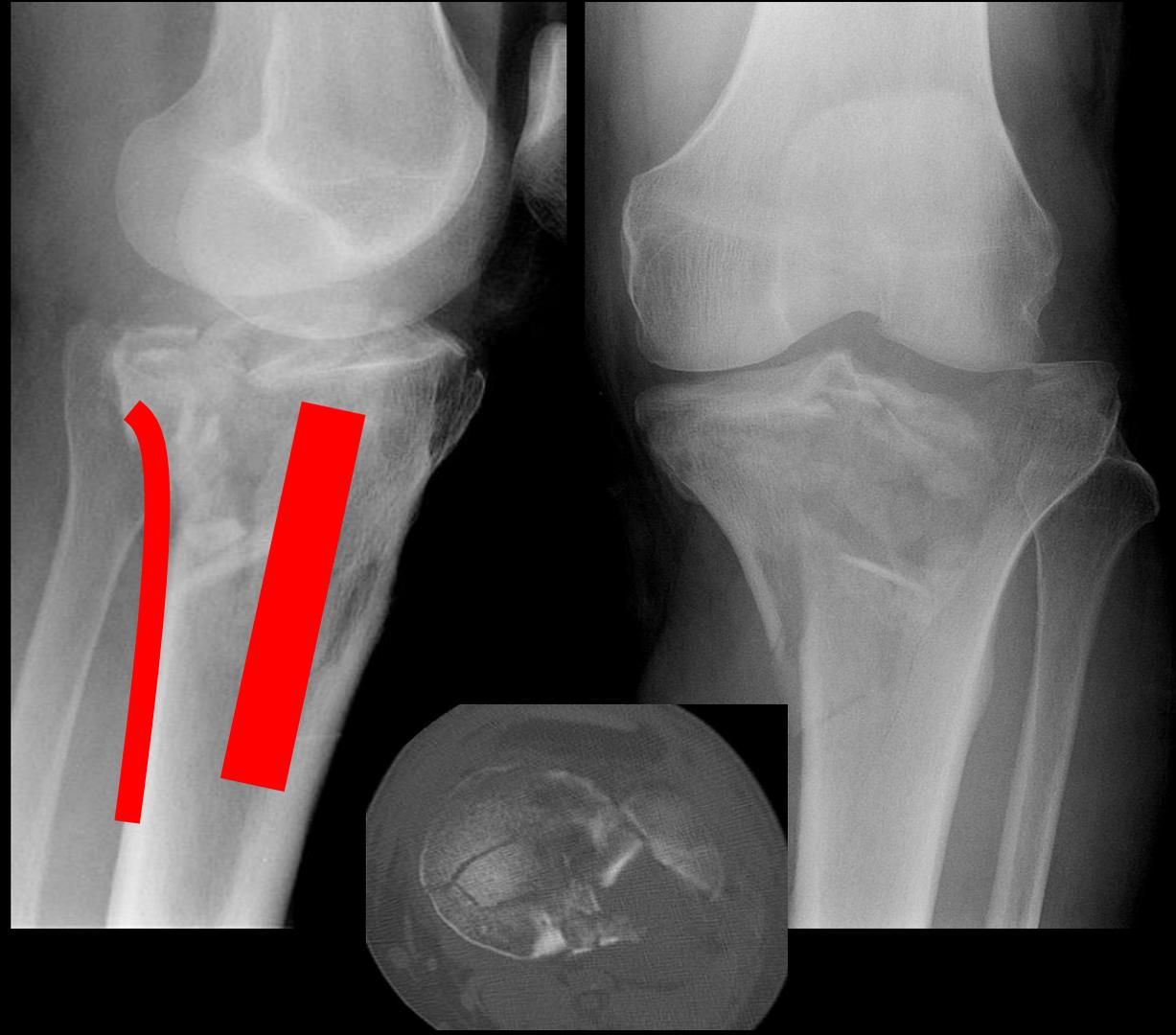


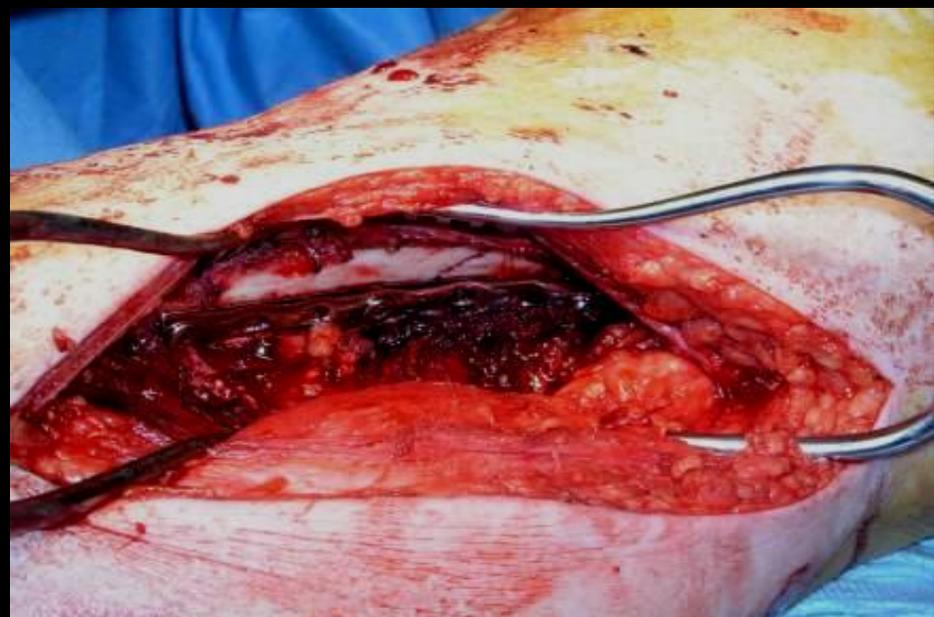
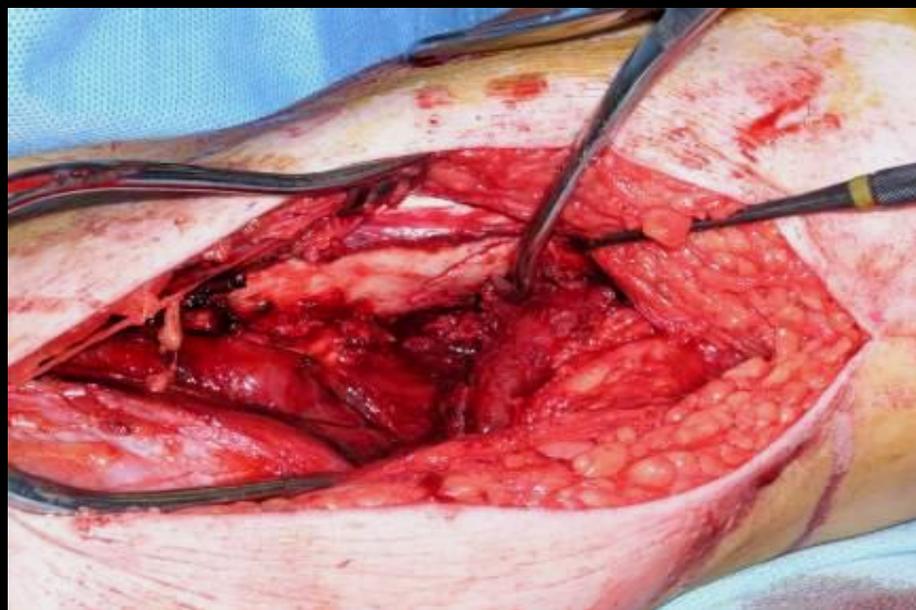
# Surgical techniques for medial patterns

# Control of the metaphyseal apex



Where would  
you put your  
thumb?

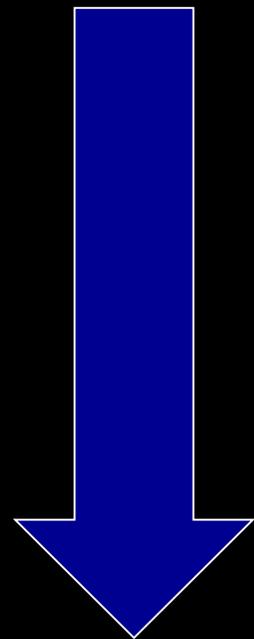






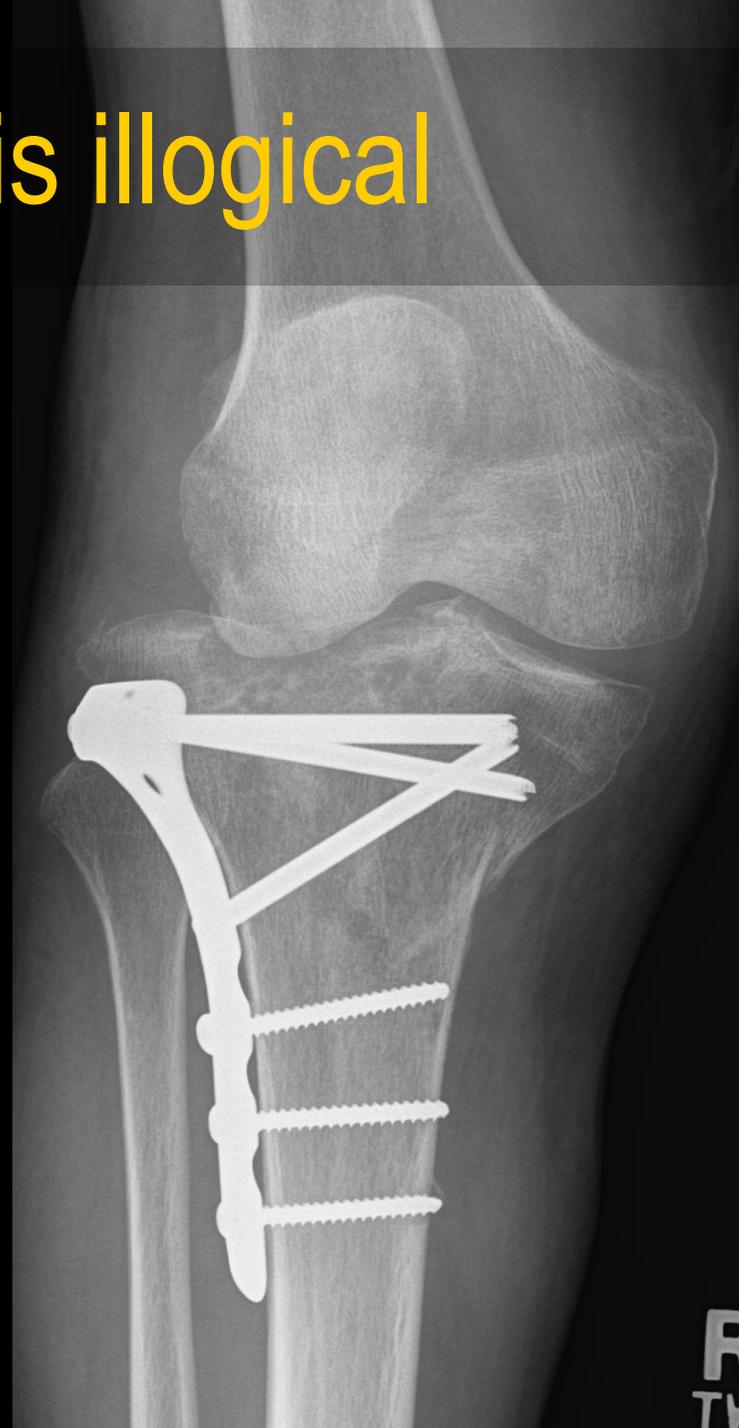
Missed apex: Late Deformity with Weightbearing

Recognize displacements



Treatment Principles

Lateral locked plating is illogical



# Medial buttressing implant +



Osseous stability alone might be inadequate





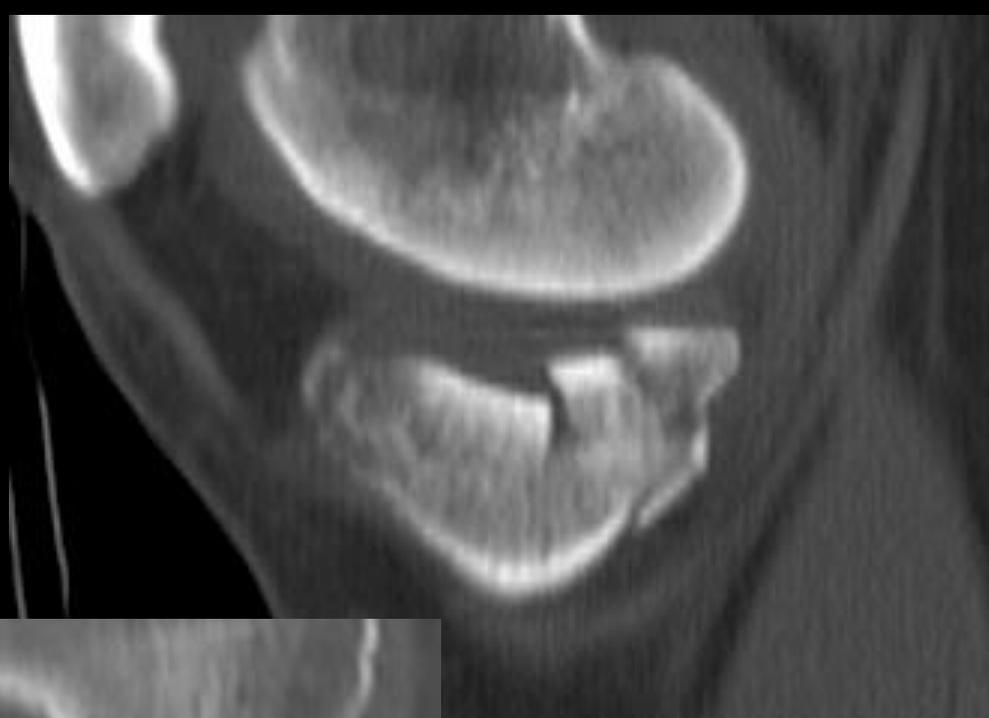
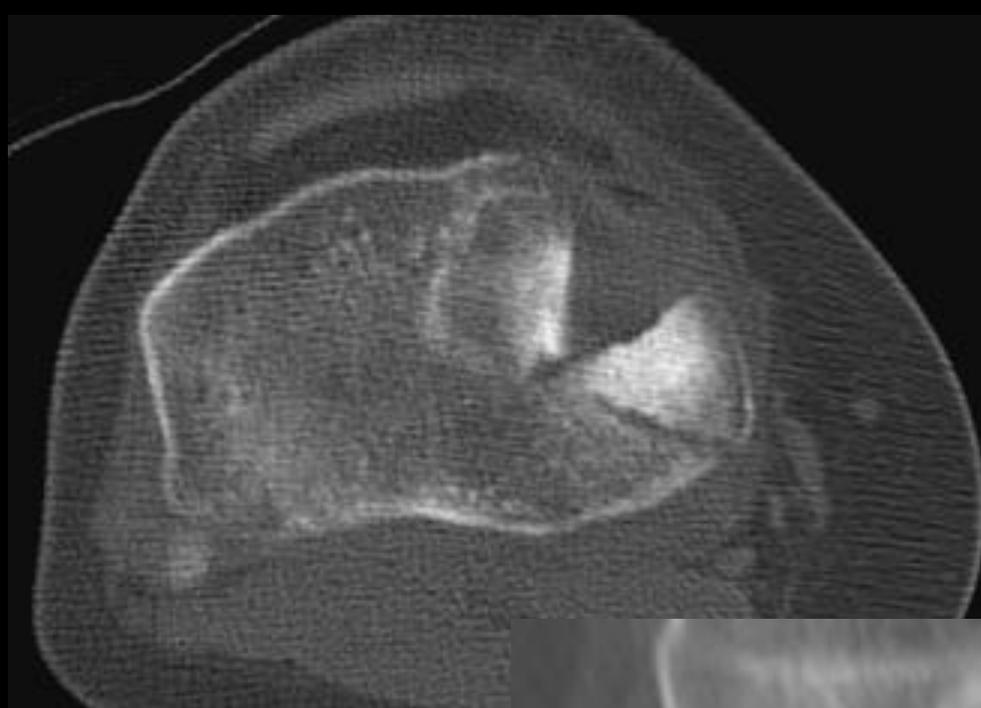
Cases



3L



36 yo female  
Stepped off motorcycle







2284167



17:18:55

#0011

R

RDY  
SNAP

Avail: 905

AC#2706196

EDG 1

WIN +3  
ZIEHM



17:18:

#000

EDG



WIN +3

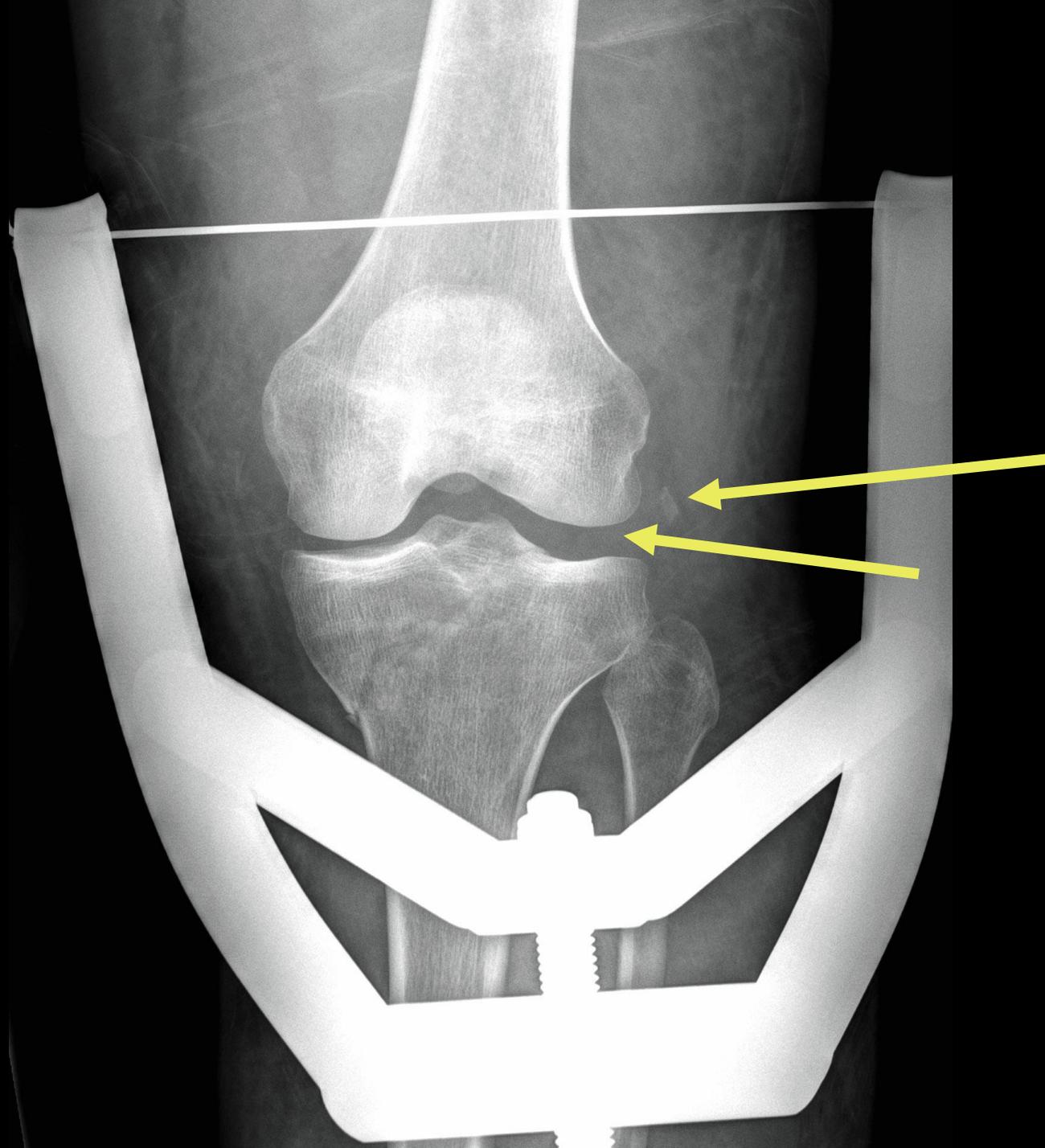


L





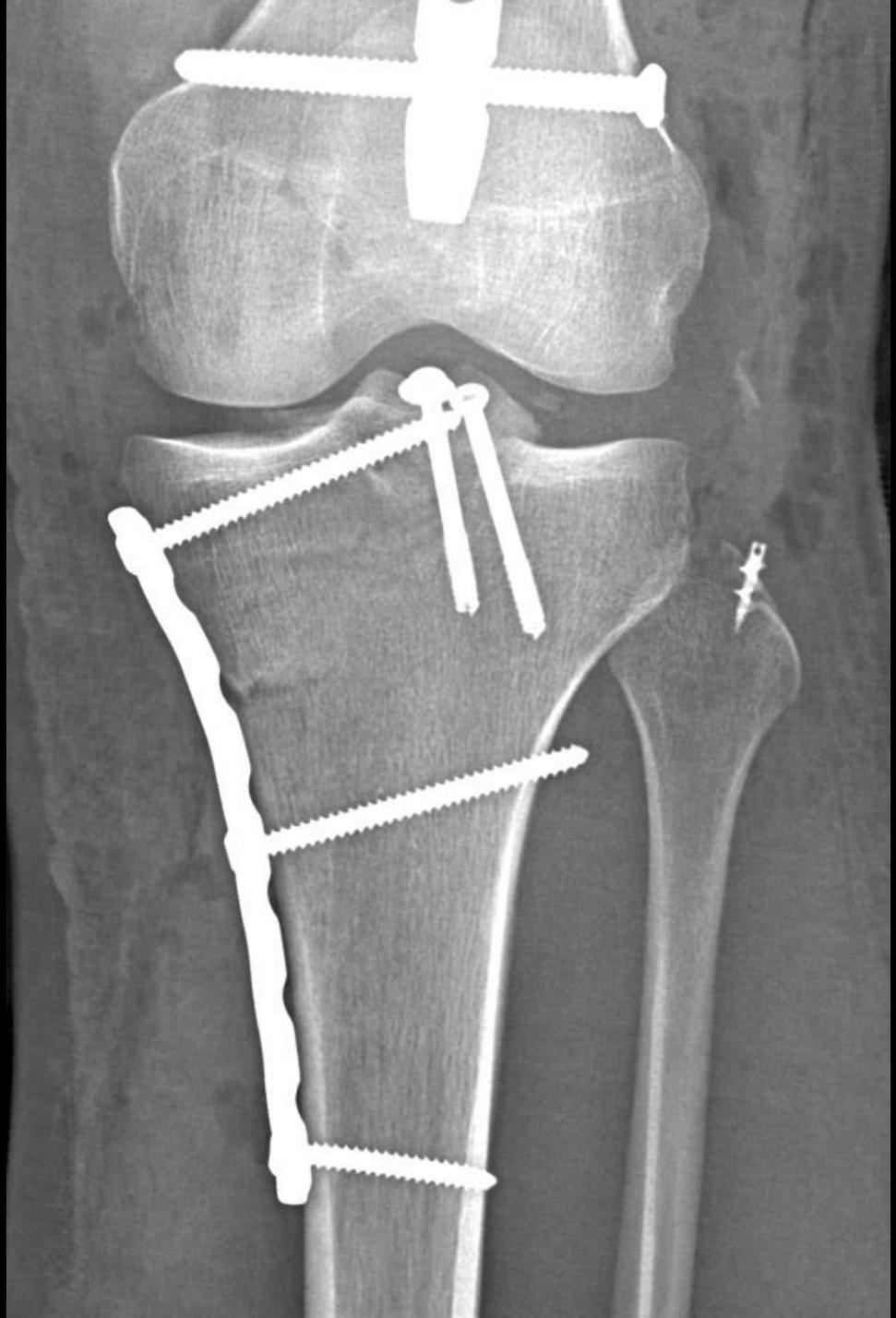
Healed





E, TIBFIB



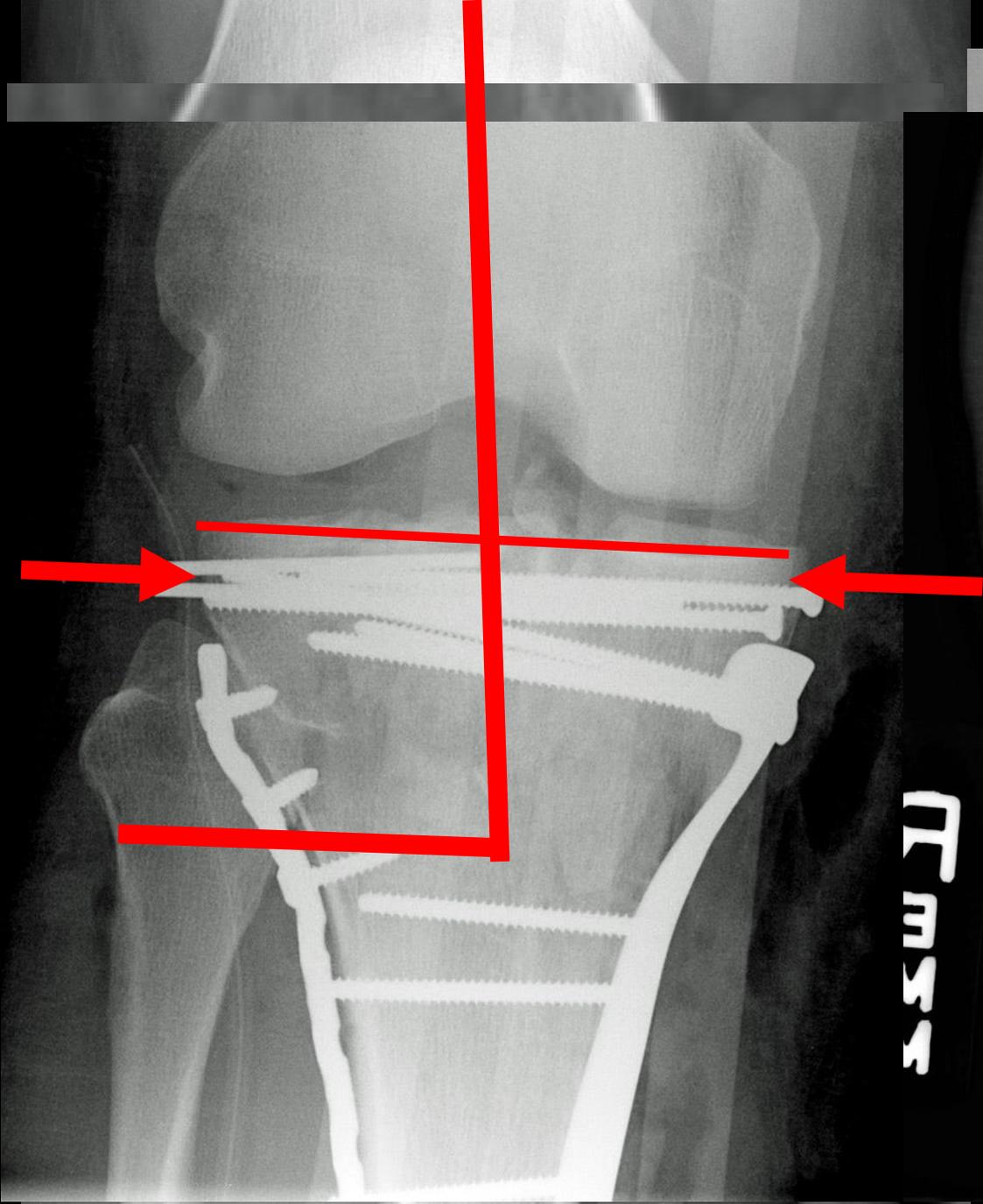


Don't give up



What percentage  
will have TKA?

5-7%





15 year follow up  
Working pain free

Were you awake?



Definitive surgical stabilization of this fracture should include:

1. knee spanning external fixation
2. medial buttress plating for medial fracture
3. lateral and direct medial plates
4. lateral and posteromedial plates
5. lateral locking plate
6. circular, fine wire external fixation



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1. knee spanning external fixation
  2. medial buttress plating for medial fracture
  3. lateral and direct medial plates
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  5. lateral locking plate
- bar, fine wire external fixation

# Take home points

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- Specific techniques helpful
- Don't give up on a plateau