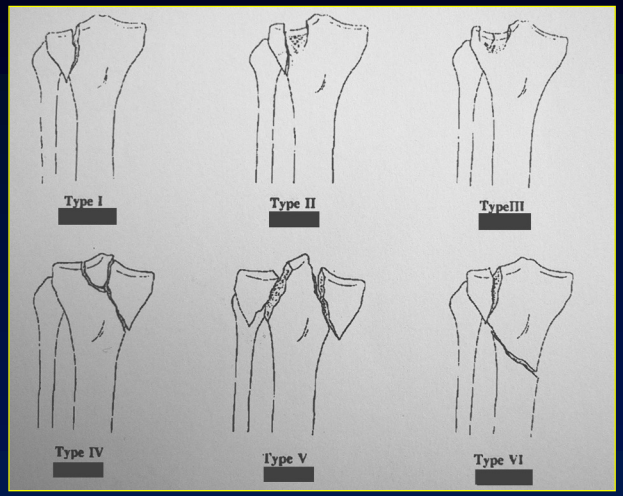
Tibial Plateau Fractures
Rationale for Fixation



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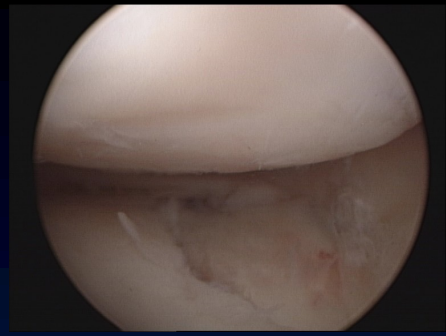
Gap - France

4 Goals

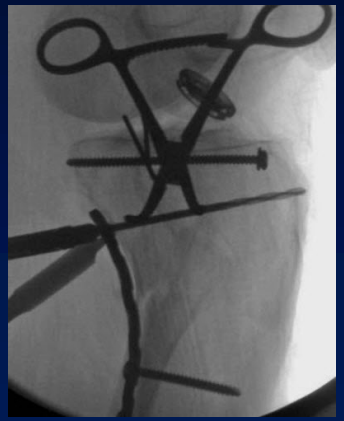
- ✓ Restore anatomy
  - ✓ Articular surface
  - ✓ Alignment
- ✓ Stability to allow rehab as fast as possible
- ✓ Respect soft tissues
  - Skin
  - Vascularity
- ✓ Think about biology

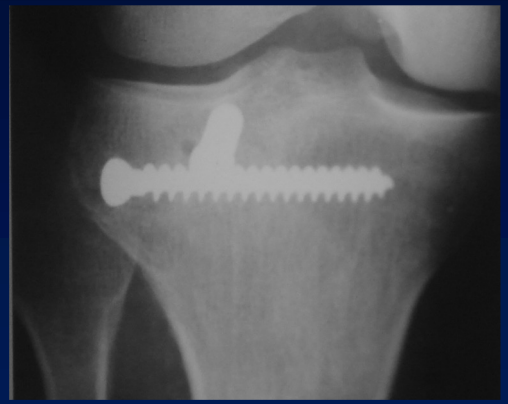
Restore anatomy (ORIF)

Cartilage surface (level & junction)



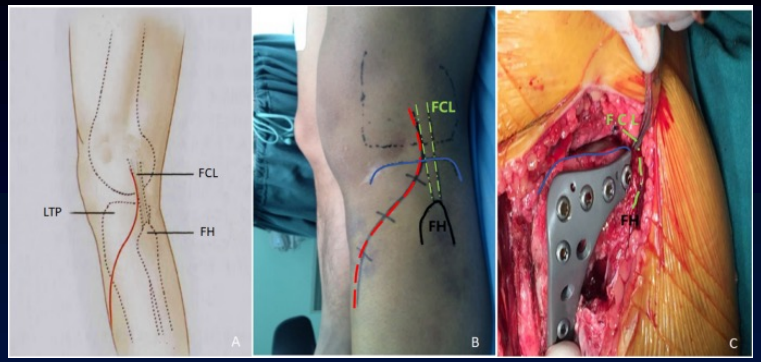
- ✓To be supported
- ✓Fragments : screws
- ✓Small fragments : pins

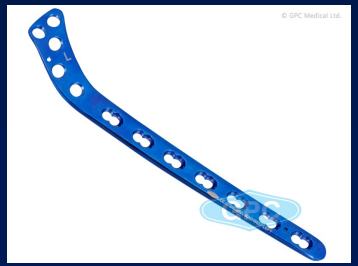




Restore anatomy (ORIF)

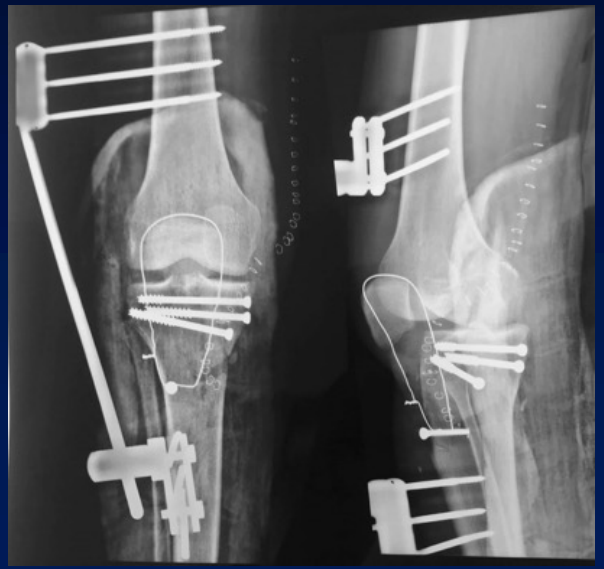
- ✓Epiphyseal bone
- ✓Alignment
- ✓Combination screws / plate (locked or not)
- ✓Anatomic plate or standard

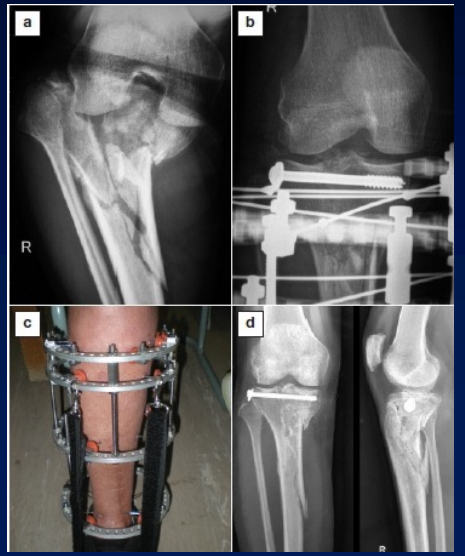




Restore anatomy (ORIF)

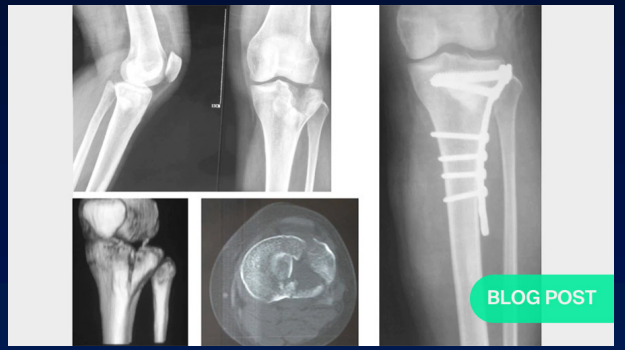
- ✓Combination screws or pins
- ✓External fixator





Stability

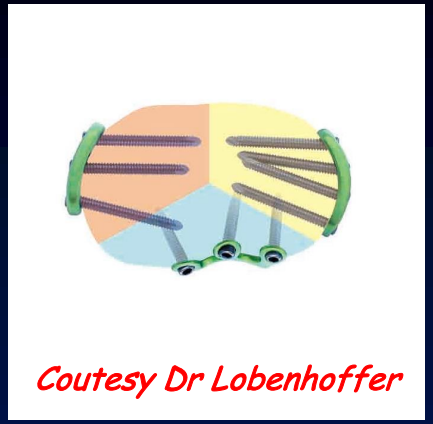
- ✓Includes bone
- ✓Loss of substance (compaction)



- ✓Filling the defect is part of fixation
  - ✓Cement, bone substitute, autograft

Stability

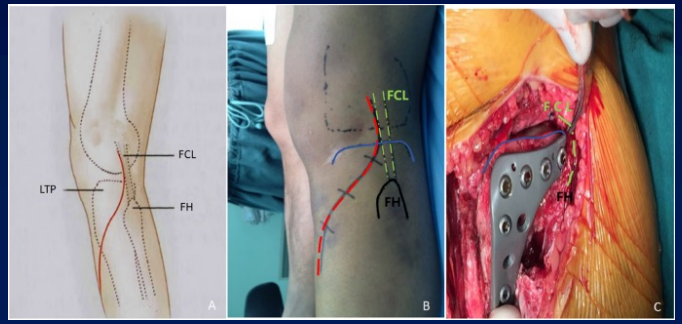
- ✓The best possible for rehab
- ✓« 3 columns » principle
- ✓≠ Weight bearing
- ✓ROM recovery



Coutesy Dr Lobenhoffer

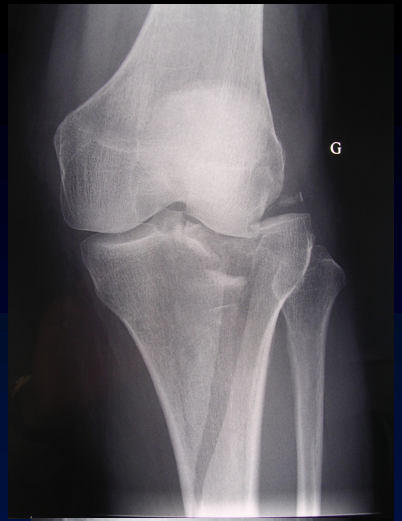
Respect of soft tissues

- ✓Skin allowing approach or not (coverage)
  - ✓ORIF :thickness of material
  - ✓ORIF + flap
  - ✓External fixator



Respect of vascularity

minimal ORIF



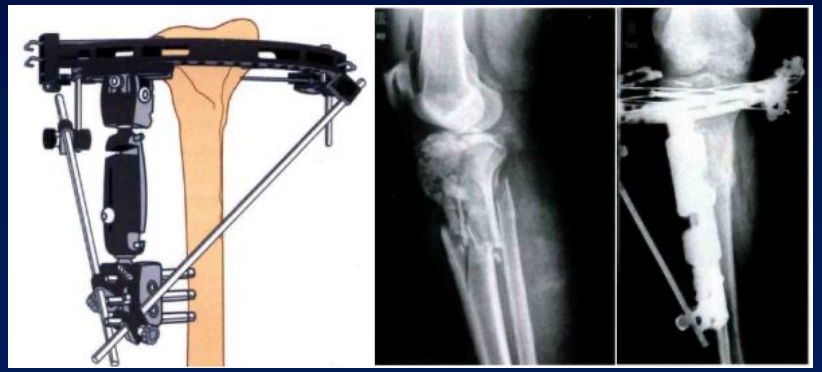
Respect of soft tissues

- ✓Risk of compartment syndrom
- ✓Timing of surgery?
  - ✓Early post approach
  - ✓Delayed lateralor medial approach
- ✓Location of ORIF

Biology

- ✓Static vs Dynamic

- ✓Time to bone healing



Take home messages

- ✓Obviuosly, not only one trauma feature
- ✓Skin status to fix of surgery in time and ORIF
- ✓Multiple choices
  - ✓Anatomical fixation
  - ✓Enough stable to allow rehab