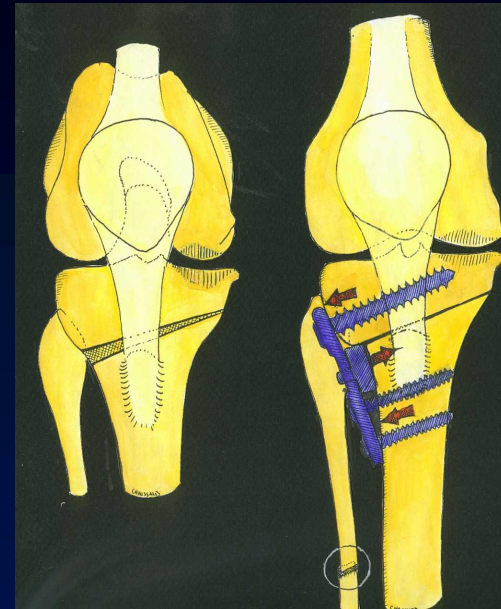


HTO closing wedge : how I do

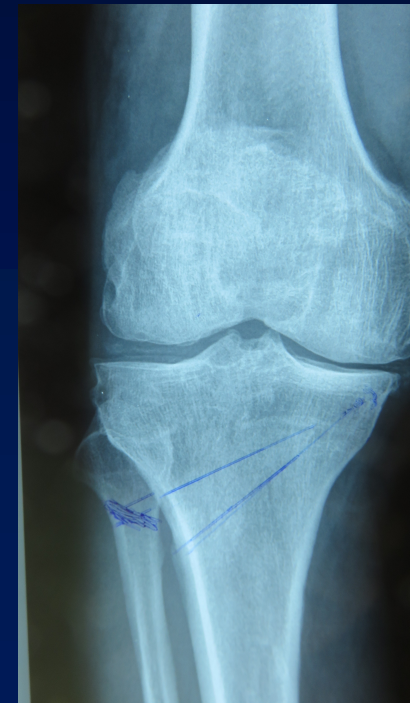


François Kelberine, Jean Philippe Vivona

Aix en Provence

Planning

- ✓ Based on long film X ray
- ✓ Normo or hypercorrection
- ✓ Medial hinge in cancellous bone
- ✓ Souple fixation / plate

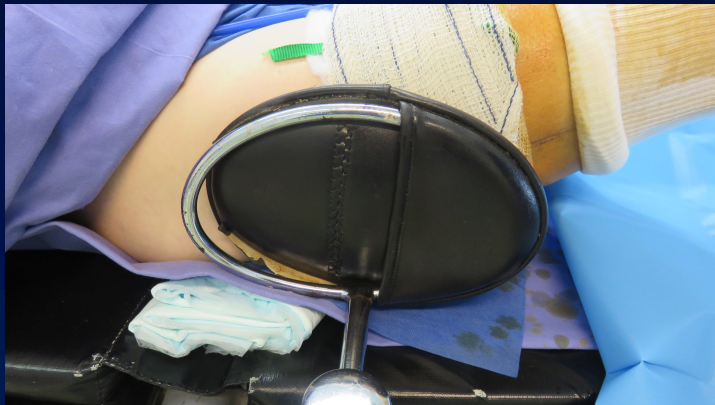


Patient's setting

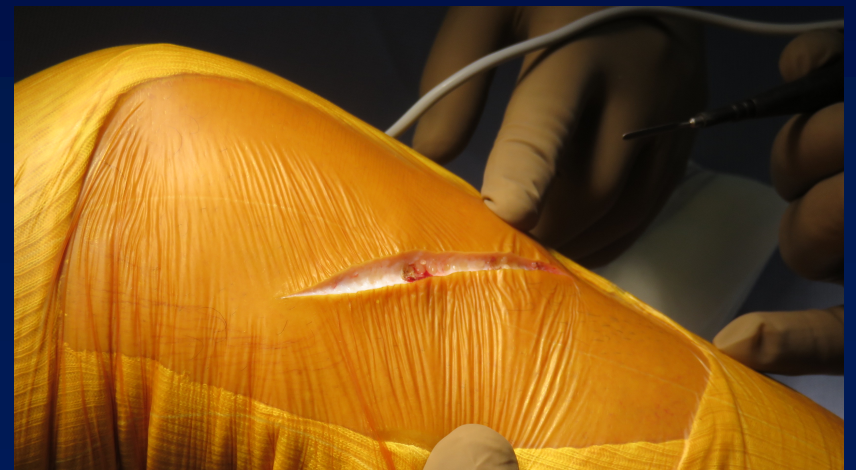
Supine position

Pad under buttock / foot vertical

Post on the lateral aspect of the thigh

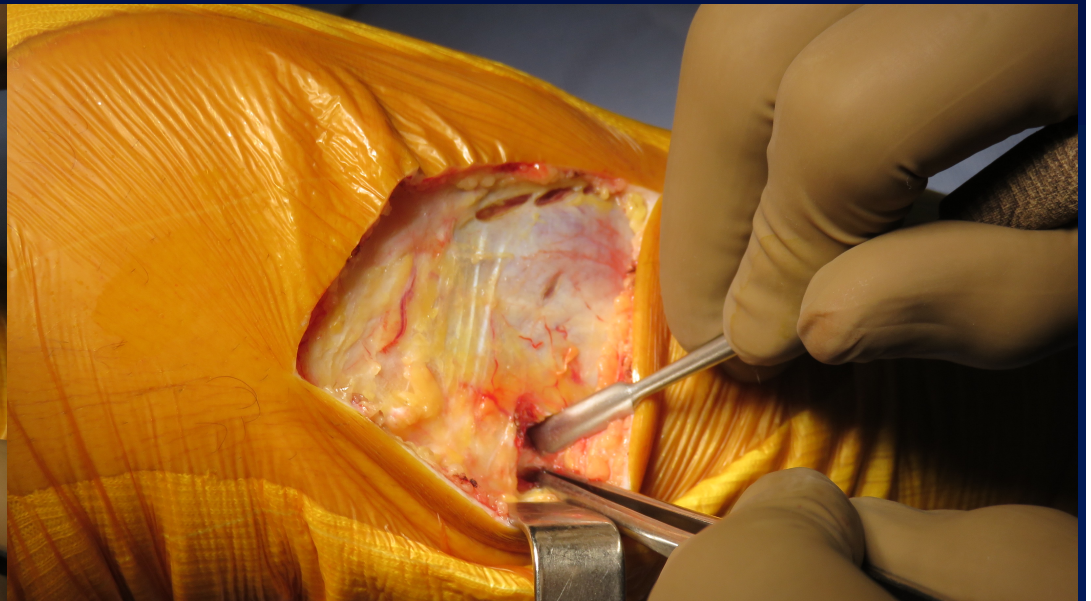
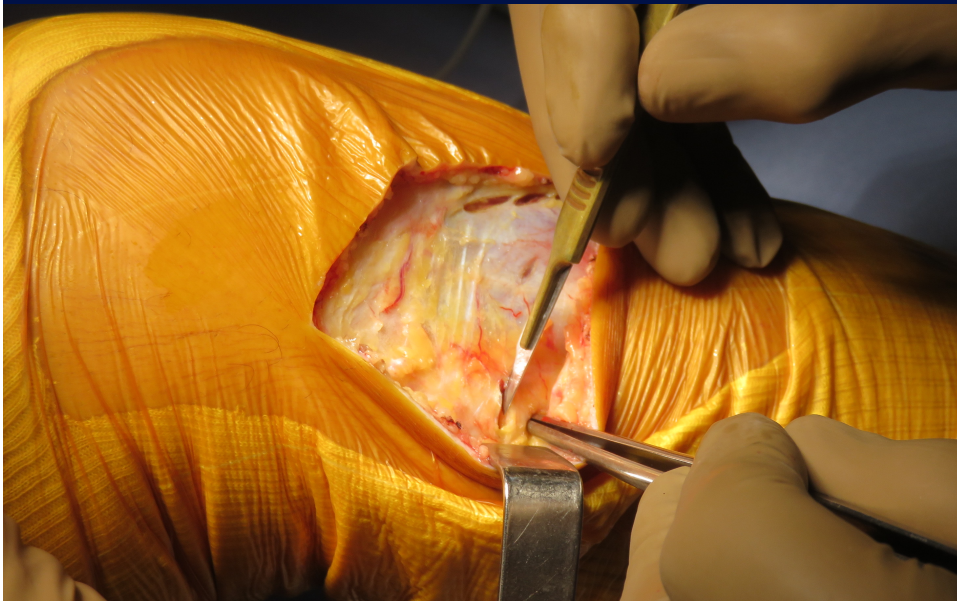


Lateral approach



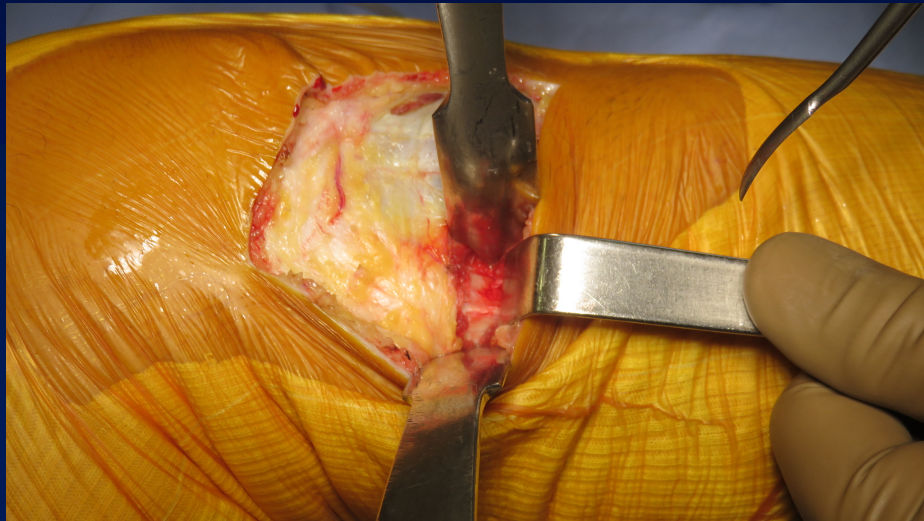
Fibular osteotomy first

1. Gentle Muscular Detachment
2. Flexed knee
3. Three retractors
4. Two oblique cuts from lateral to medial
& 2 mm bone washer resection



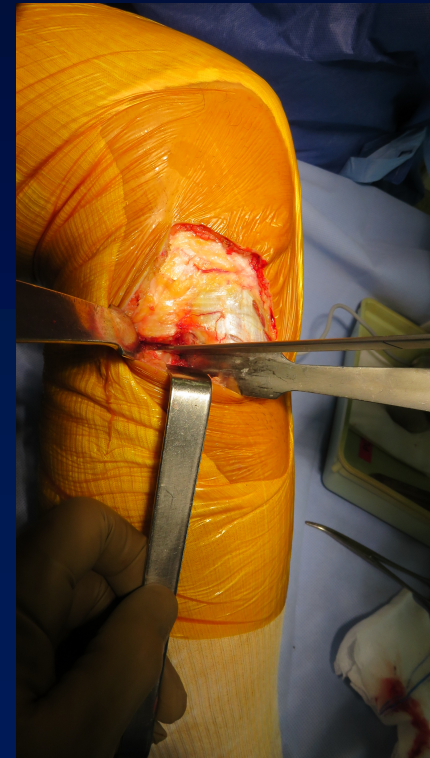
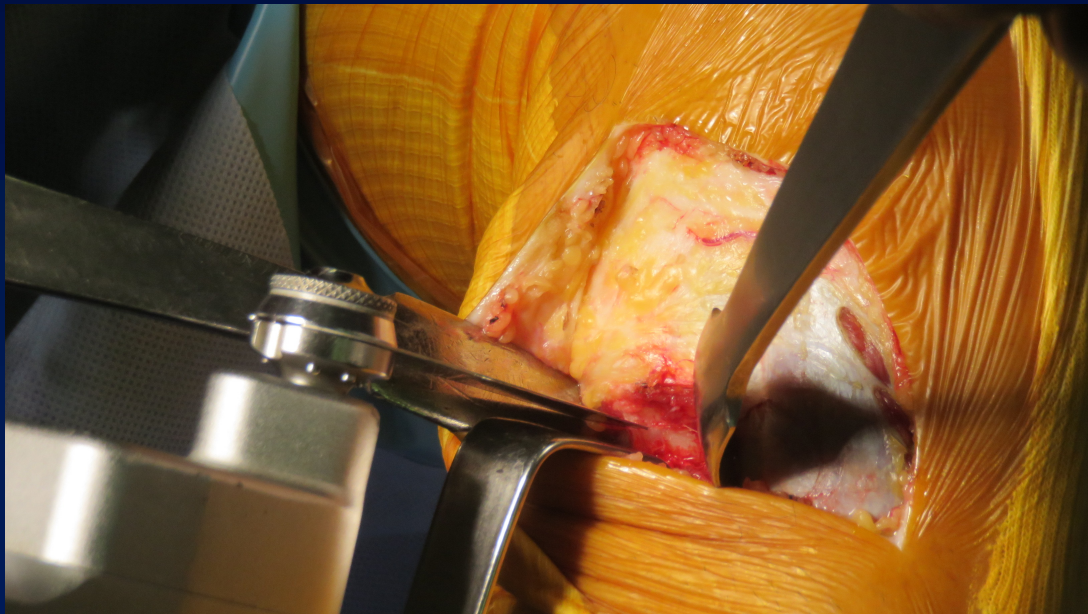
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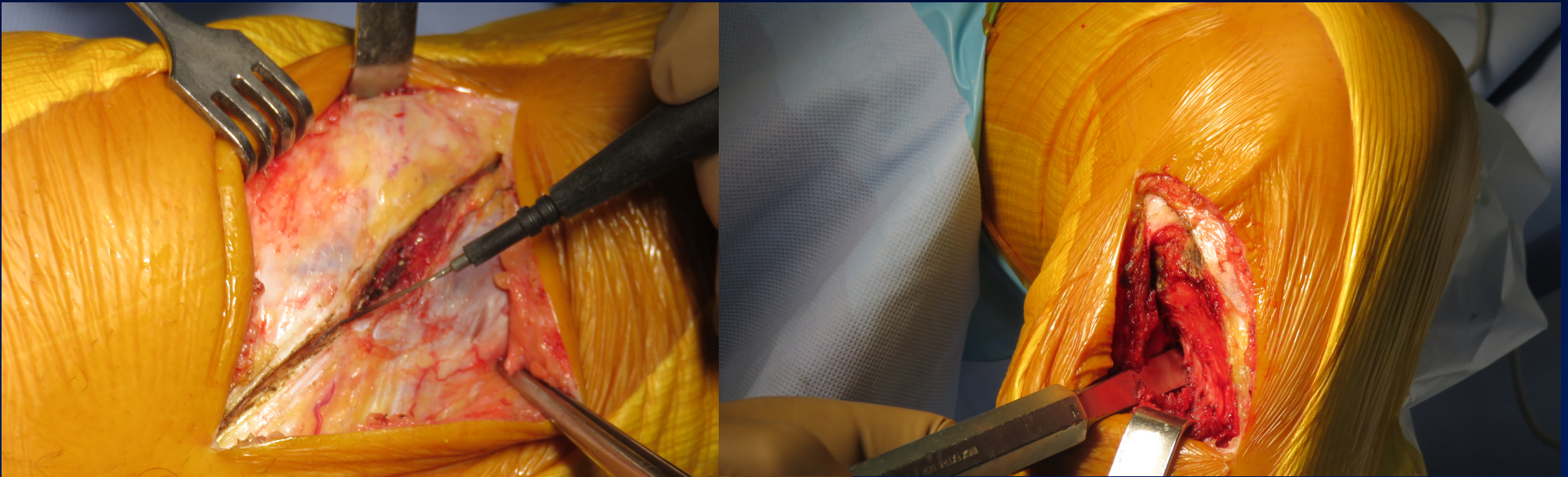
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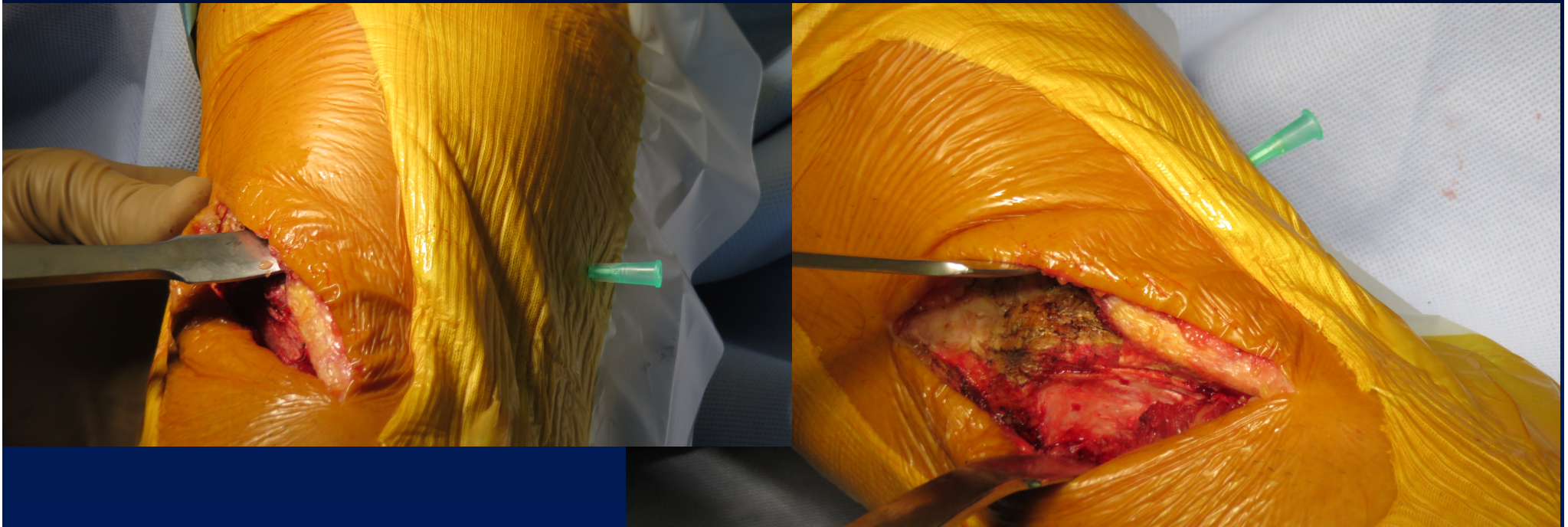
Tibial Exposure

1. Muscular & PT release
2. Retractors
3. Needle in the medial joint line



Tibial Exposure

1. Muscular & PT release
2. Needle in the medial joint line
3. Retractors



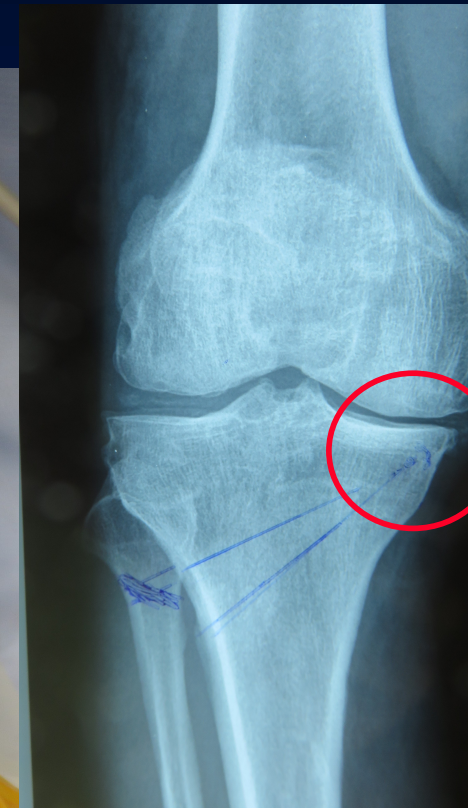
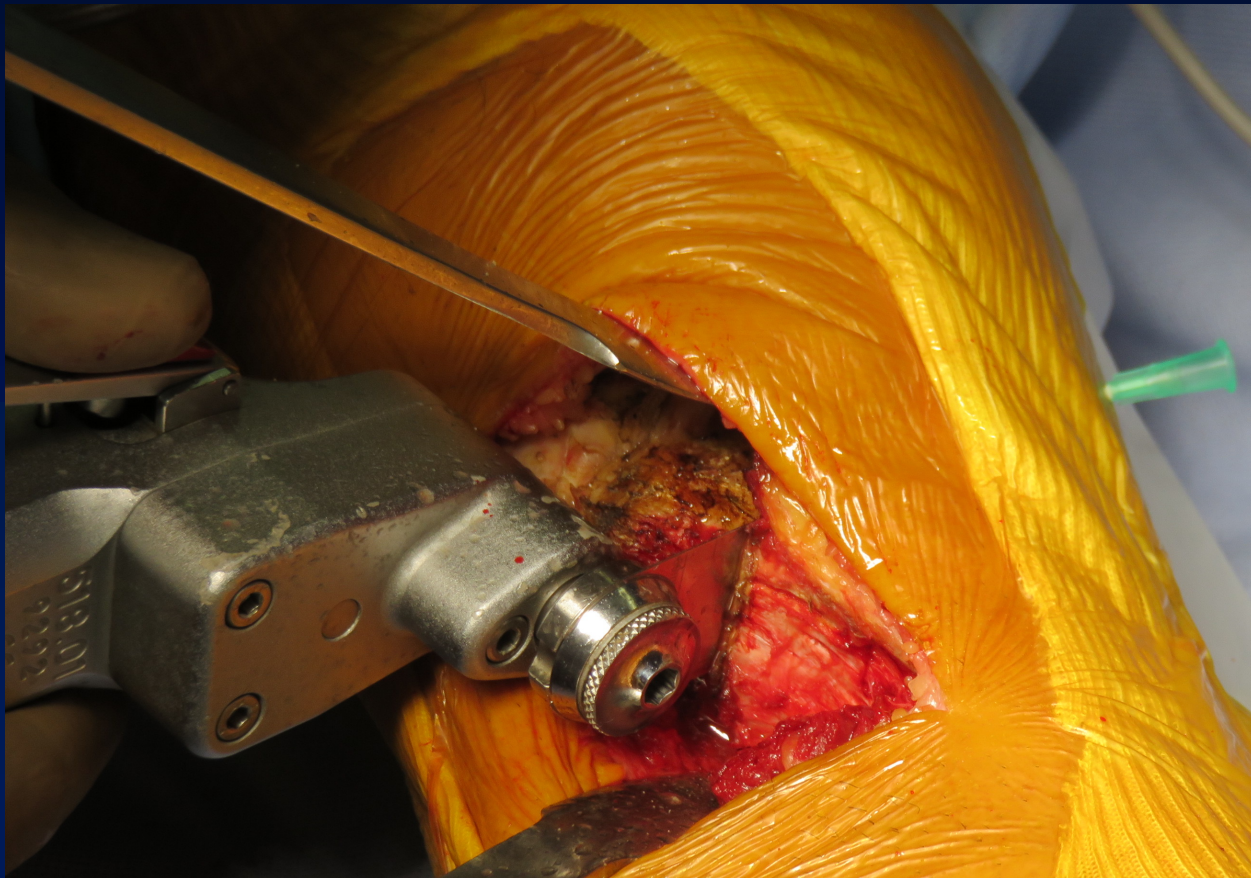
Tibial cuts

1. First from lateral to medial
2. Target = needle (cancelous bone of medial plateau)
3. No X-ray routinely
4. Pay attention to obliquity / slope

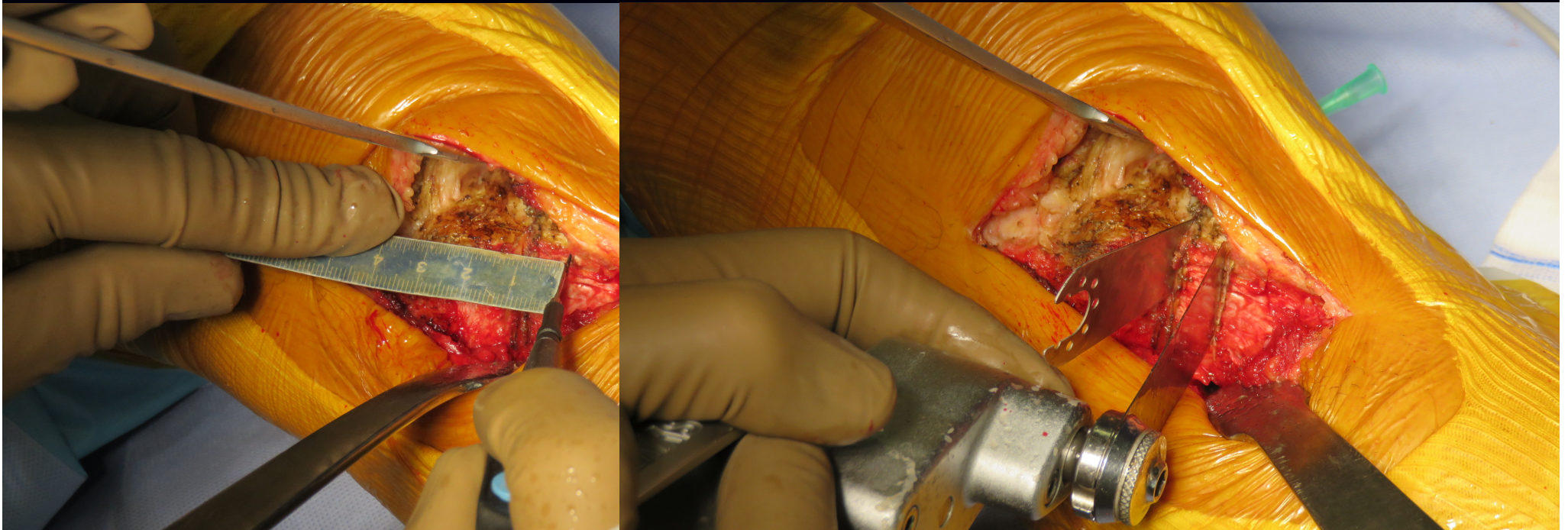
5.

6.

7.

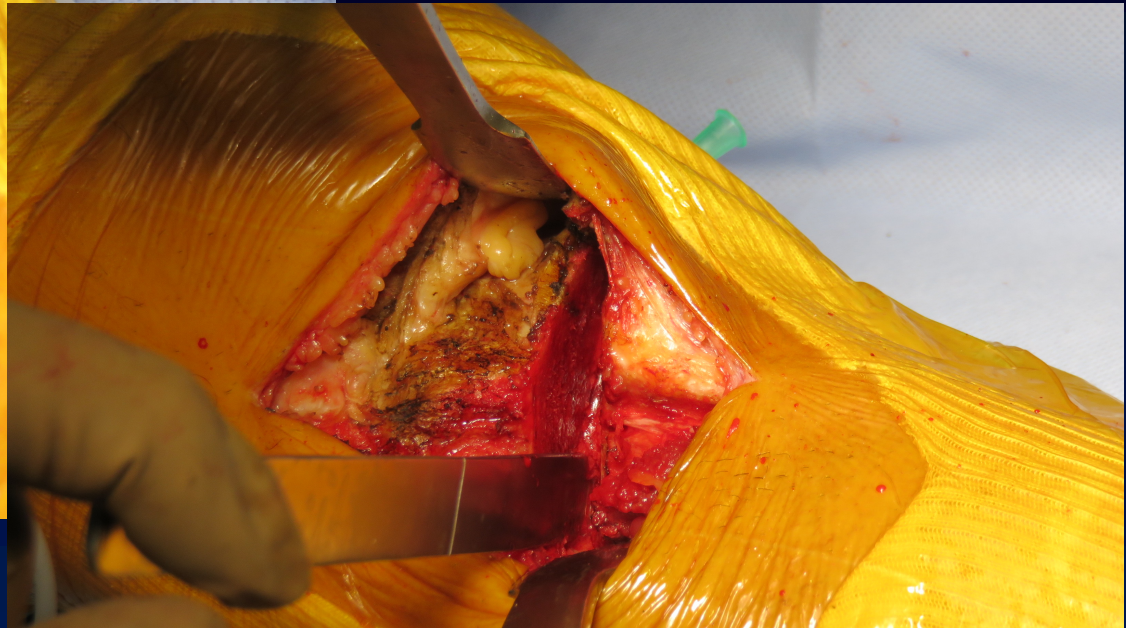
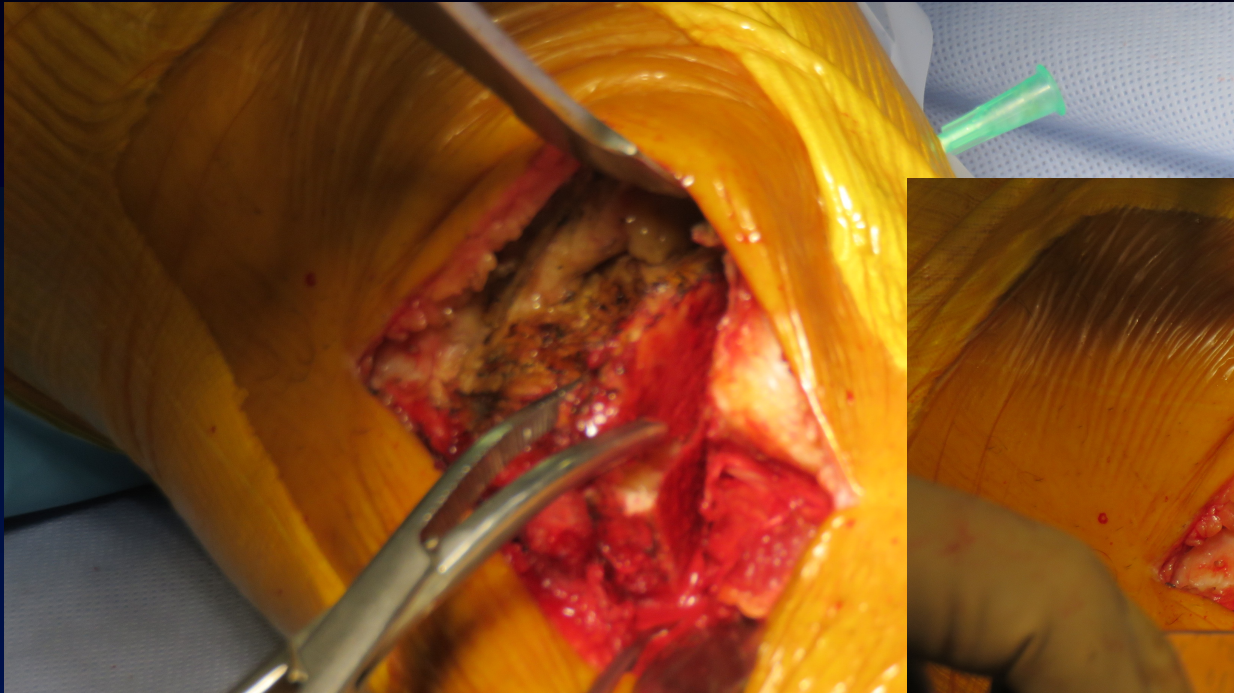


Tibial cuts



4. Pay attention to obliquity / slope
5. Second cut parallel to the blade after measurement
6. Bone removal
7. Cut tibial posteromedial cortex

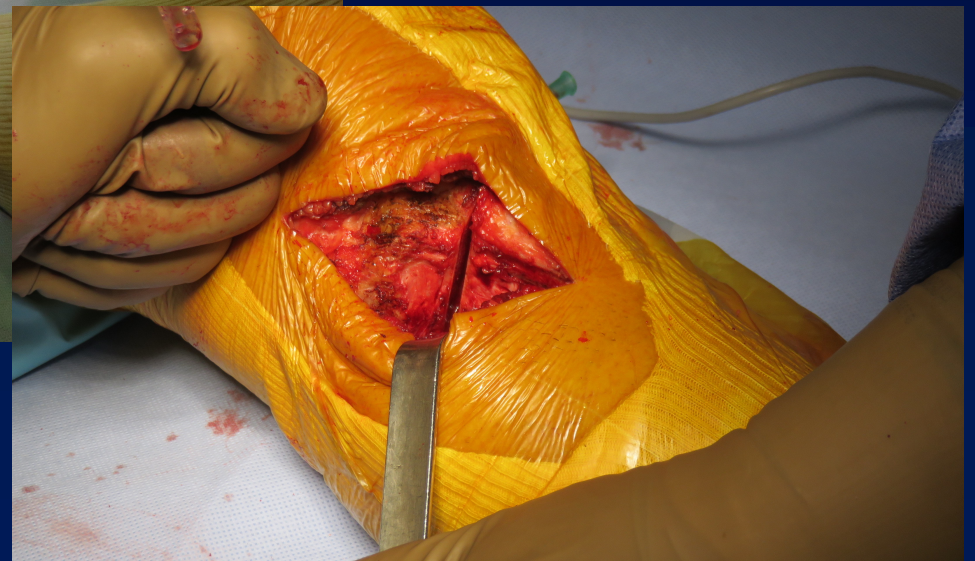
Tibial cuts



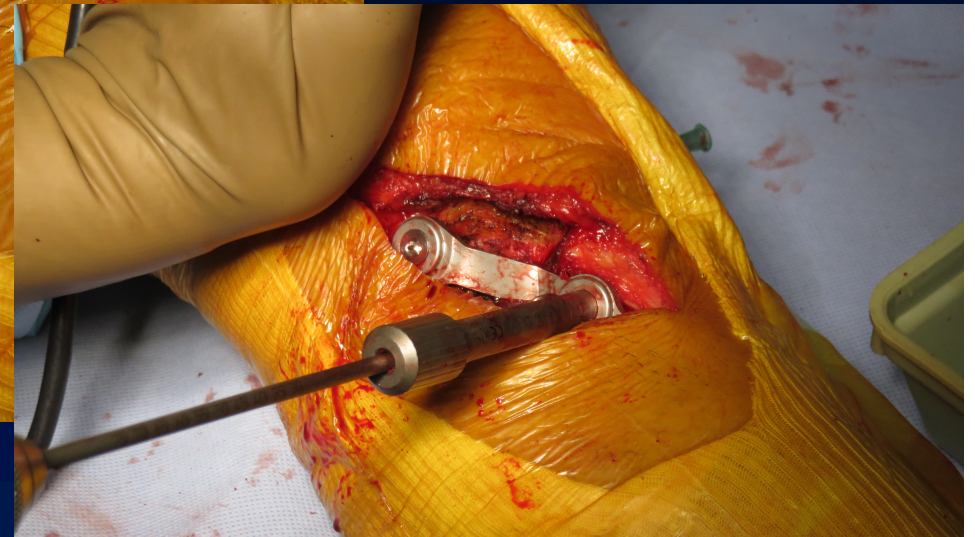
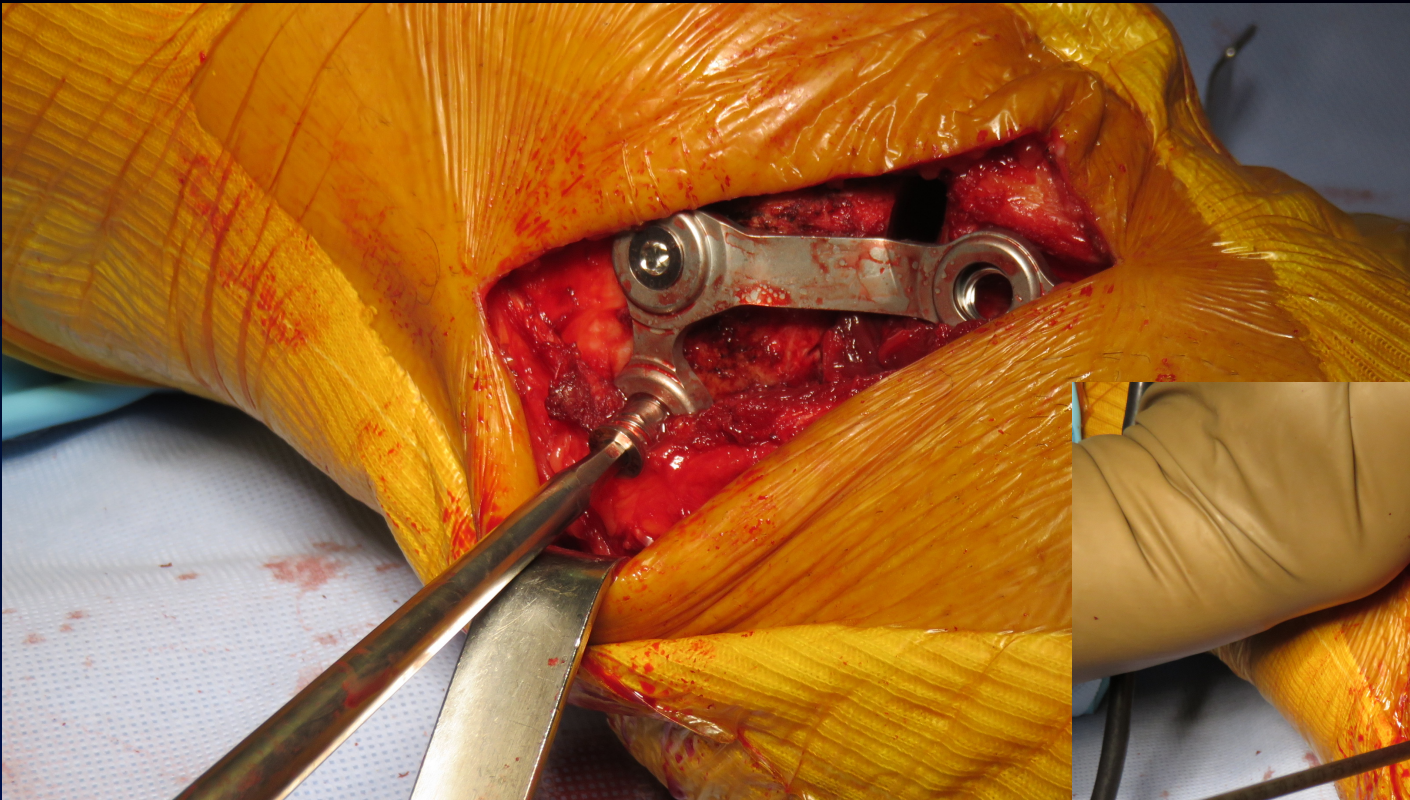
6. Bone removal
7. Cut tibial posteromedial cortex ++

Fixation

1. Progressive reduction by valgus to compact bone. (Pay attention to fibular sliding)



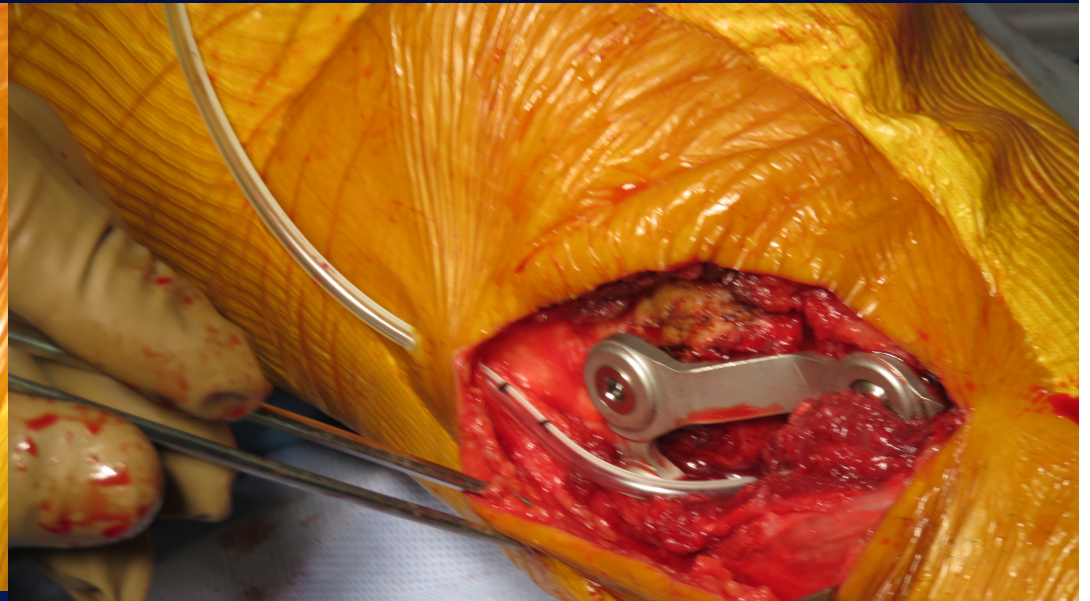
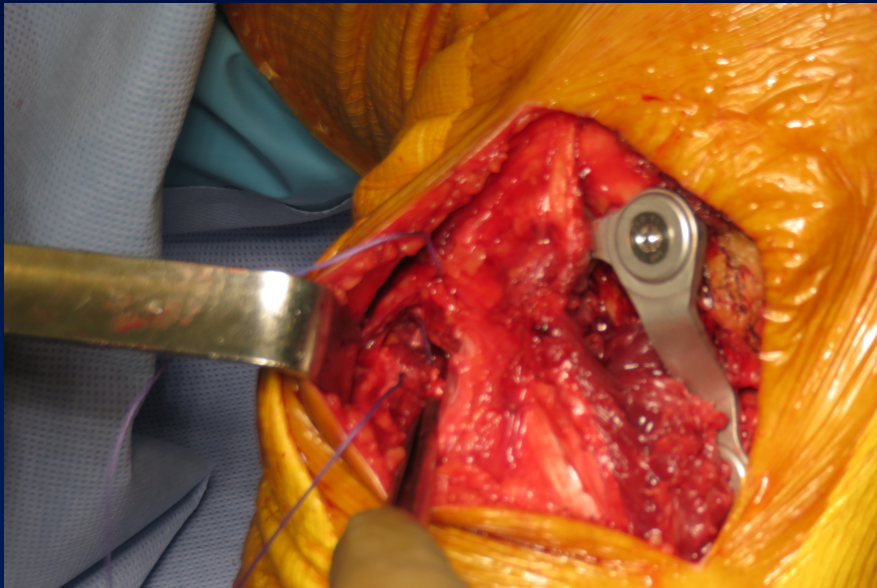
Fixation



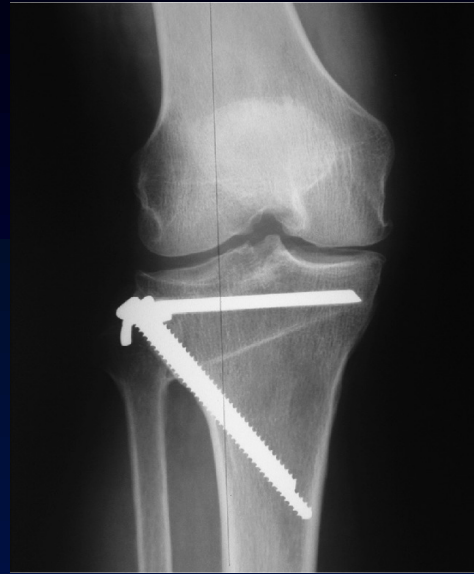
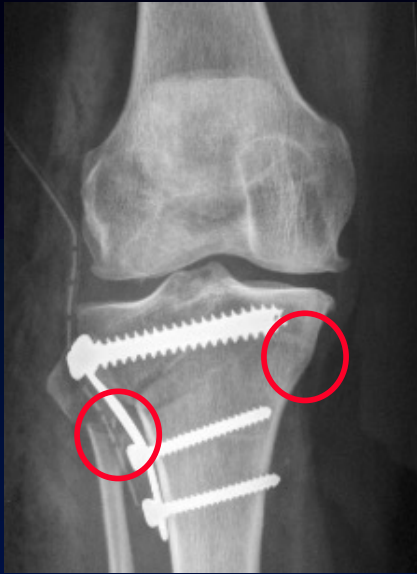
2. Fix the plate proximally
3. Fix the plate distally with distal screw while assistant reduce manually

Closure

- ✓ Drainage
- ✓ Muscle on fibular neck
- ✓ Aponeurosis
- ✓ No block / compartment syndrom!



Dynamic fixation / Post op regimen



1. No limited early motion
2. Massage, quad strenghtening
3. WB to stimulate bone formation
 - ✓ 1/3 @ day 2 with splint
 - ✓ 2/3 @ day 45 w/o splint, cycling, swimming
 - ✓ Progressive to full WB @ 3 month