HOW I IMPLANT A MEDIAL UKA

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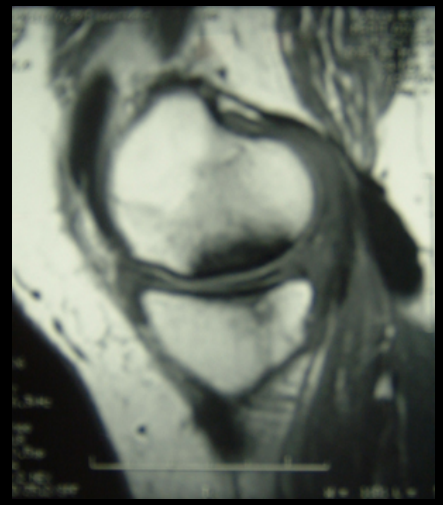
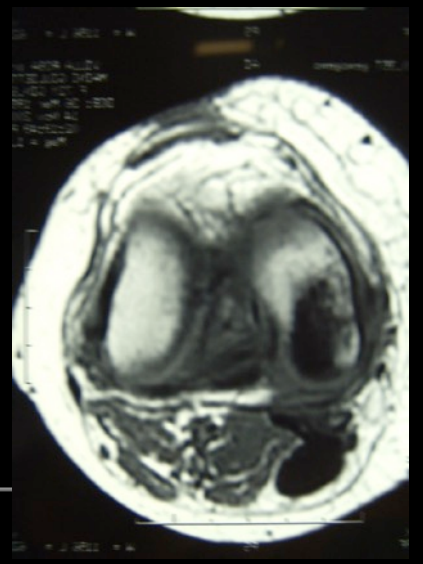
IDEAL PATIENT SELECTION

Desease	Unicompartmental arthritis or osteonecrosis
Age	60 years
Level of Activity	No extremely phisically active
ROM	Pre-operative ROM ≥ 90°
	Fixed flexion contracture < 5°
Angular of deformity	<10° to 15°
Weight	Not obese (ideal <82 kg)





CONTROINDICATION TO UKA

INFLAMMATORY ARTHROPATY

BI/TRICOMPARTMENTAL OA

MAJOR BONE LOSS

FIXED FLEXION CONTRACTURE >10°

UKA MAIN AIMS

Fill the femoral and tibial osteochondral defects

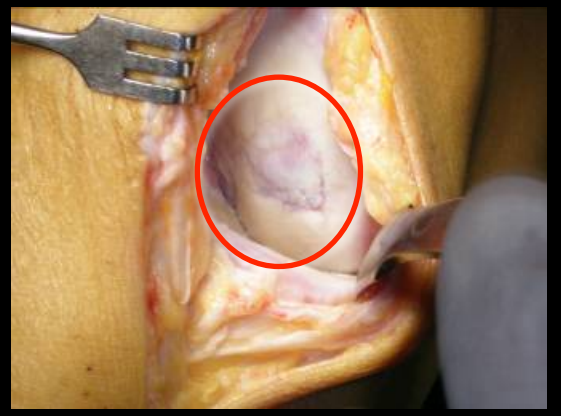
Preserve the direction and height of the physiological articular rim and the tibial slope

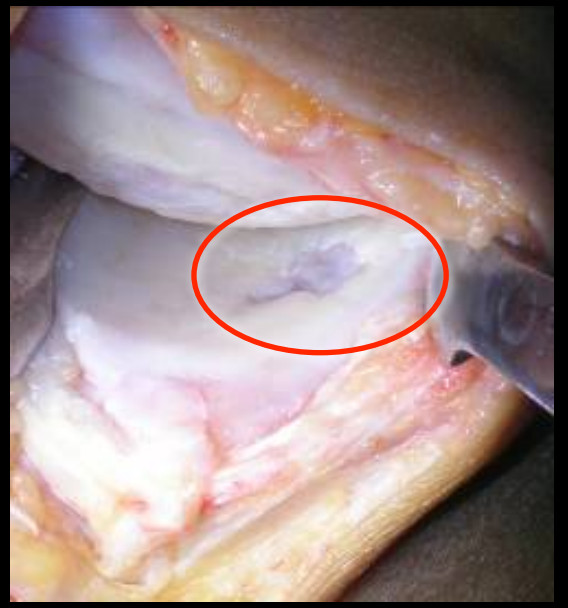
Preserve ligaments' function and tension

Preserve shape and size of the femoral condyle

Obtain a complete postoperative range of motion with no alteration of normal knee kinematic

Restore the physiological axes orientation as they were before the pathology (a varus knee remains varus)





MINIMALLY INVASIVE UKA
vs.
TRADITIONAL UKA SURGERY TECHNIQUE

Smaller incision and better cosmesis

Less tissue trauma

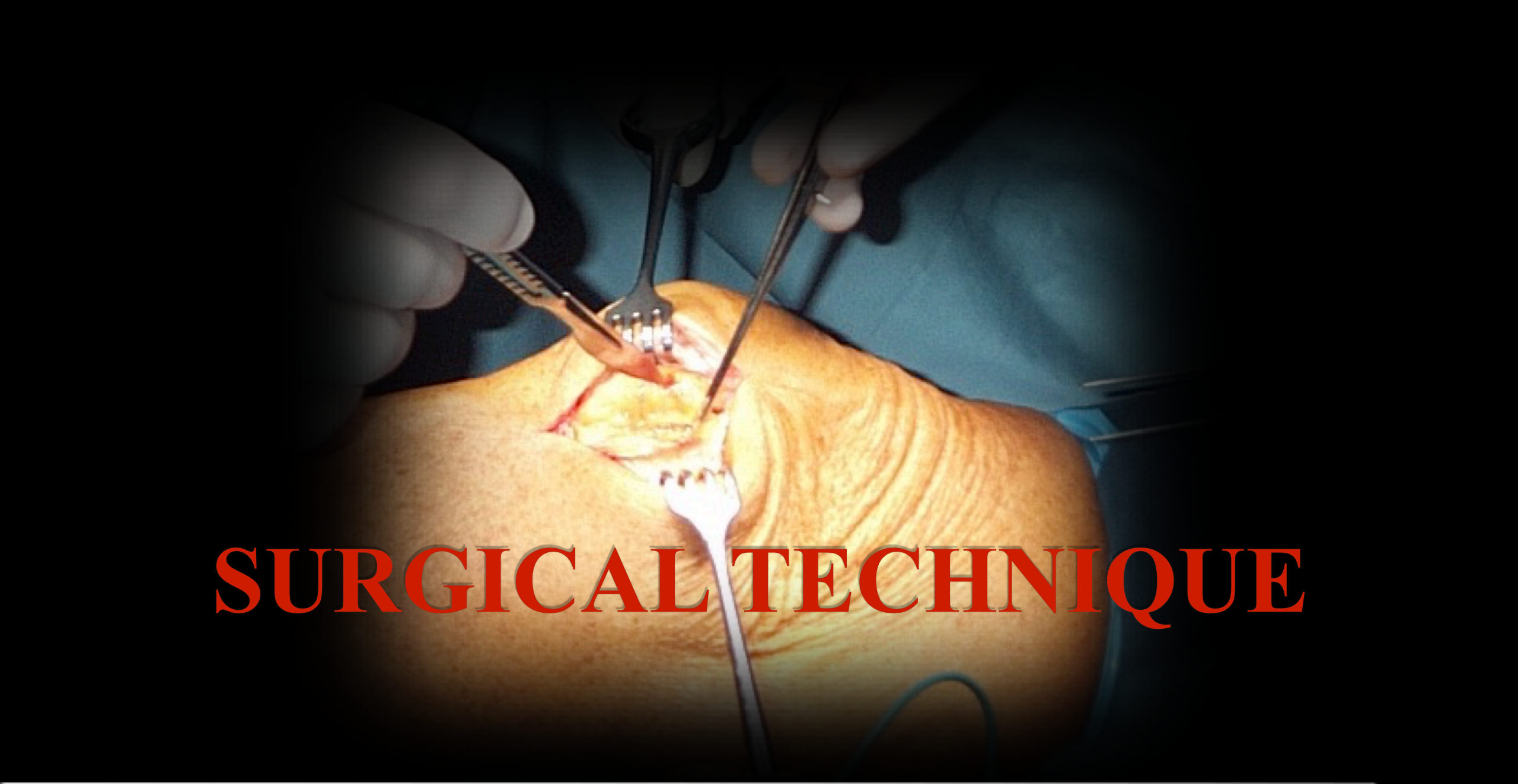
Minimal blood loss

No patellofemoral dislocation

Reduced pain

Shorter recovery time

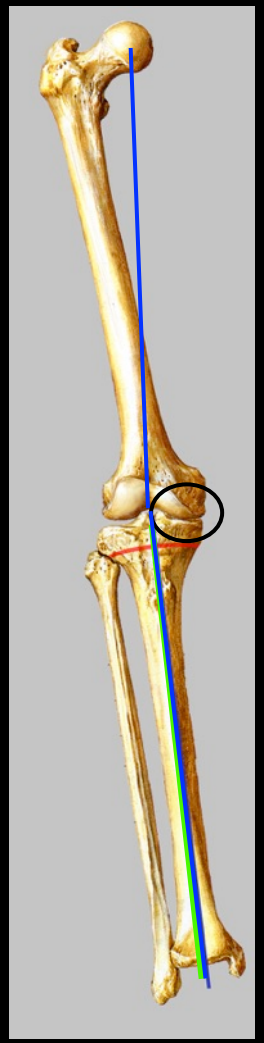
Fewer complication



SURGICAL TECHNIQUE

SURGICAL TECHNIQUE

Normal knee



Pre-op alignment

Post-op alignment

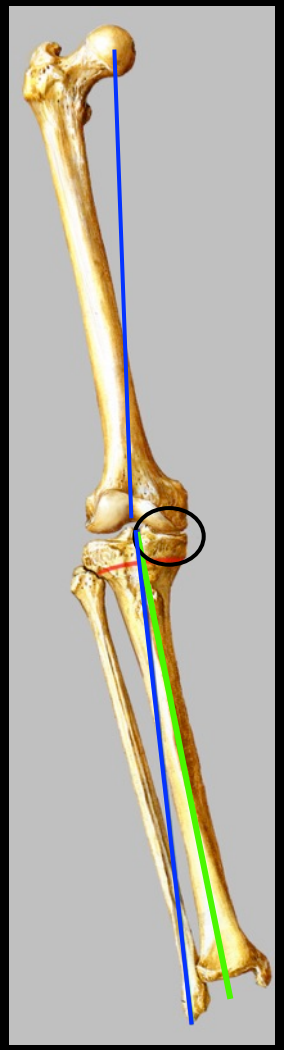
Tibial mechanical axis

Femoral mechanical axis

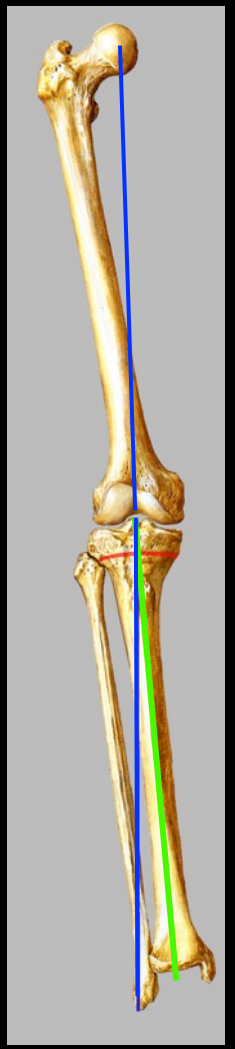
Epiphysial axis

Growth plate

Varus knee



Pre-op alignment



Post-op alignment

SURGICAL TECHNIQUE

" … When stress is applied to the sligtly flexed joint it is possible to correct the angular deformity to the neutral position …"

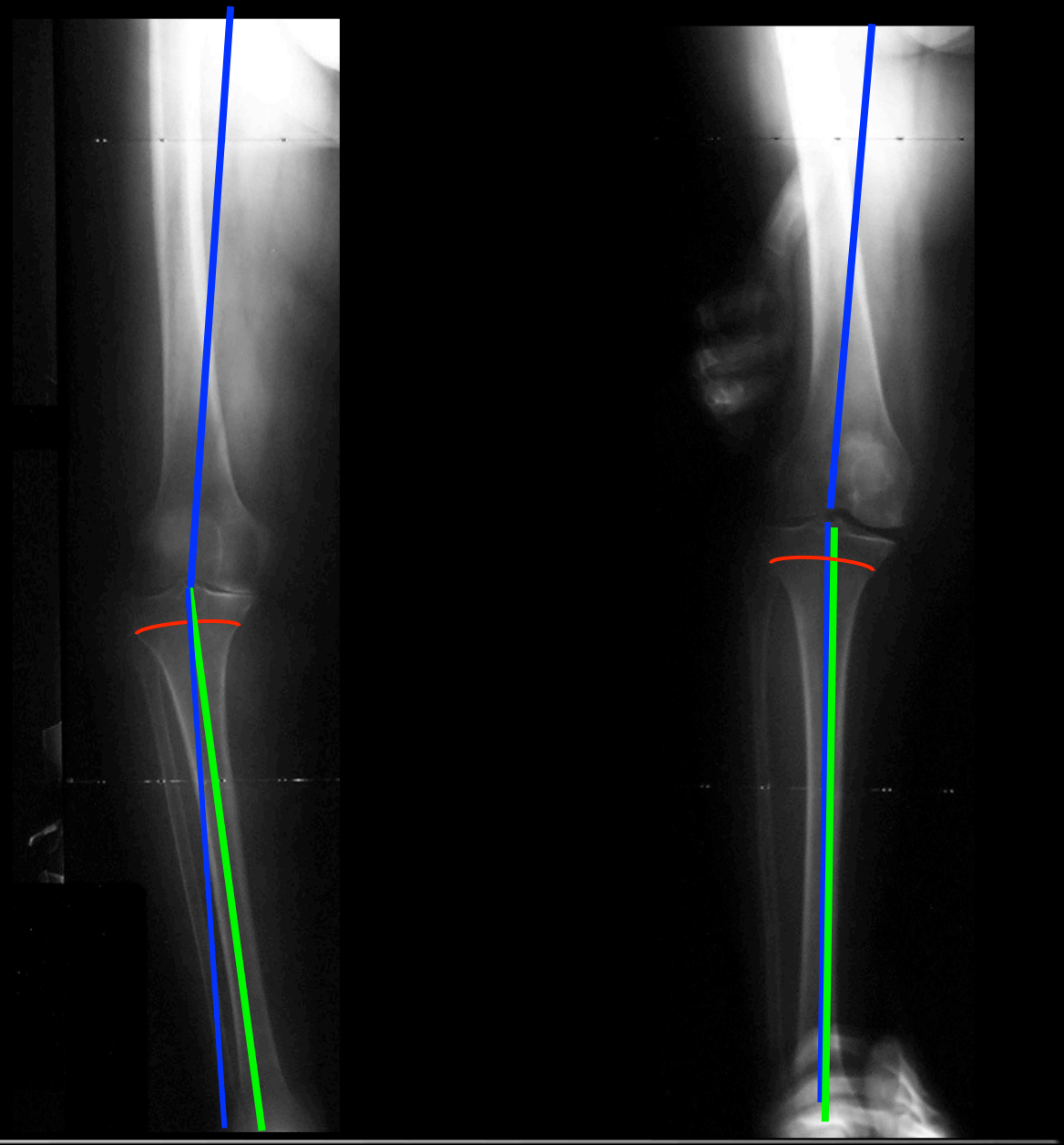
"…Overcorrection of the deformity on stress suggests the presence of ligament damage as well as articular surface erosion."

Gibson PH, Goodfellow JW. J Bone Joint Surg Br. 1986 Aug;68(4):608-9.
White SH, Ludkowski PF, Goodfellow JW. J Bone Joint Surg Br. 1991Jul;73(4):582-6

SURGICAL TECHNIQUE

PLANNING ON X-RAYS

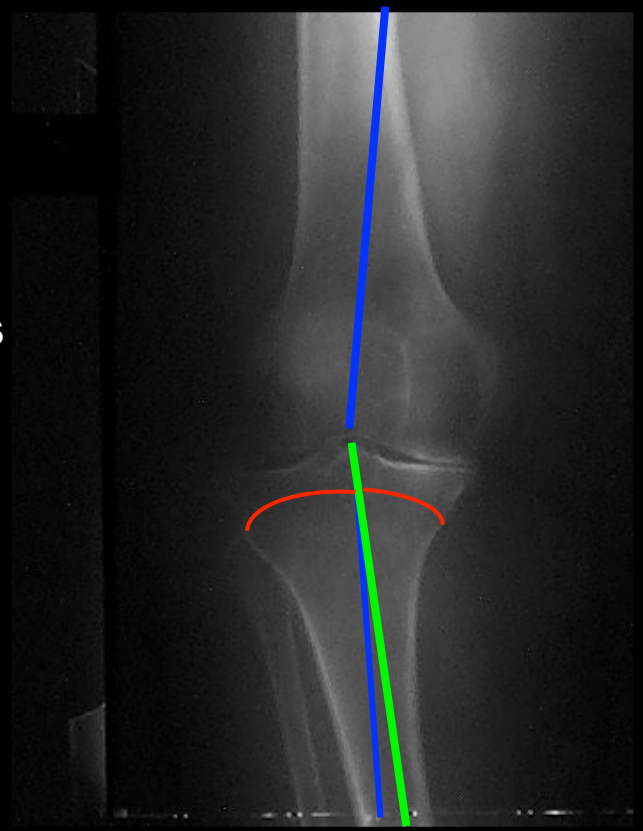
- Tibial mechanical axis
- Femoral mechanical axis
- Epiphysial axis
- Growth plate

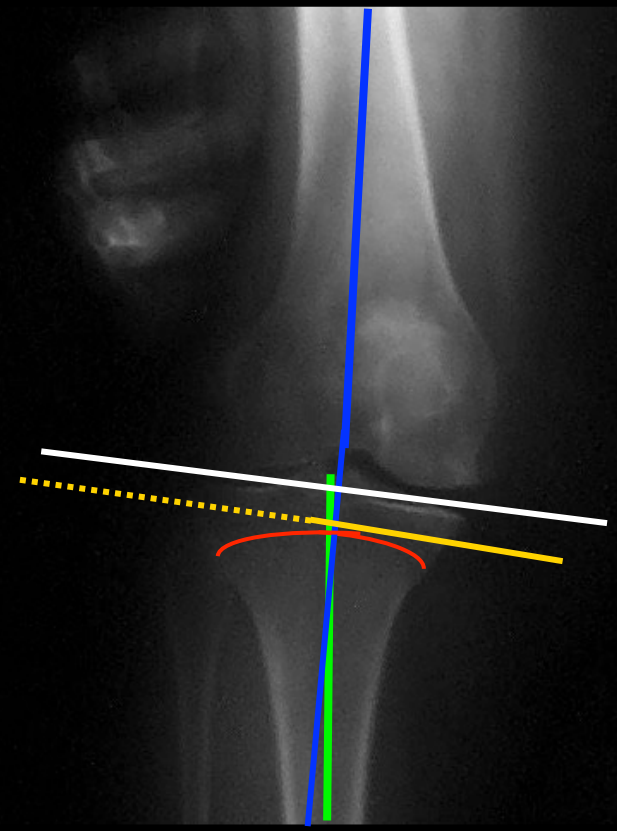


SURGICAL TECHNIQUE

PLANNING ON X-RAYS

- Tibial mechanical axis
- Femoral mechanical axis
- Epiphysial axis
- Growth plate
- Femoral joint line
- Tibial cut

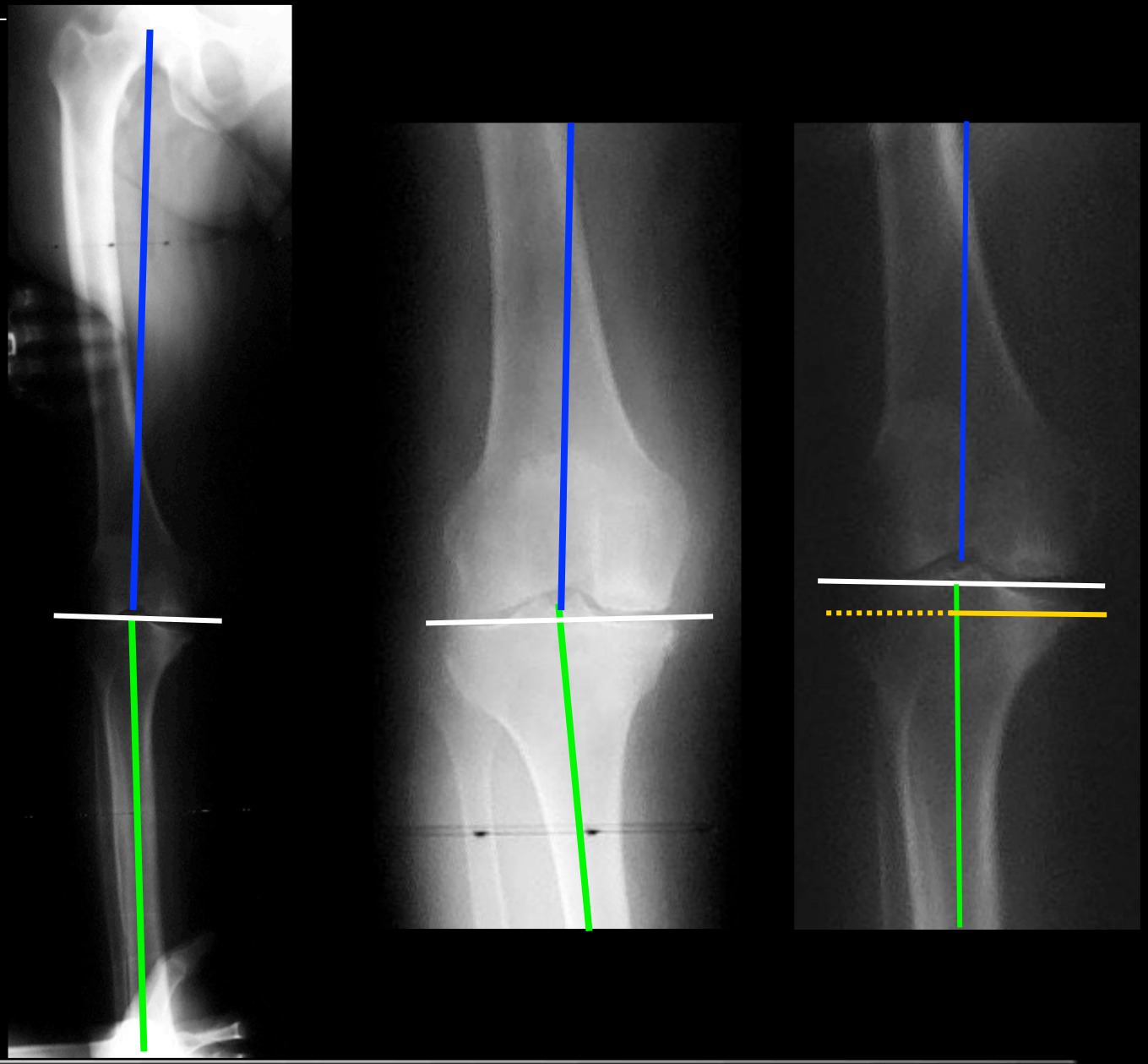




SURGICAL TECHNIQUE

PLANNING ON X-RAYS

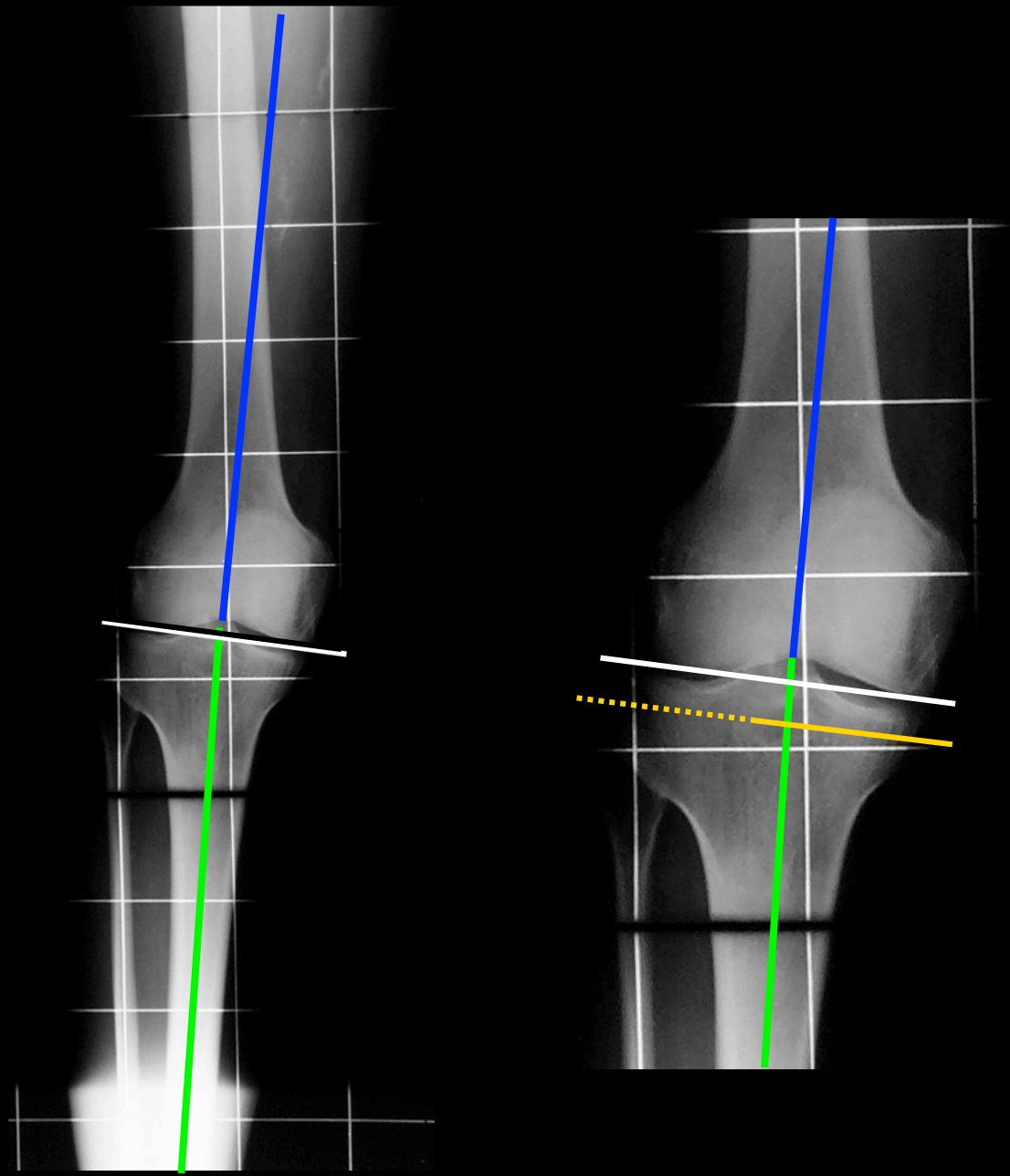
- Tibial mechanical axis
- Femoral mechanical axis
- Femoral joint line
- Tibial cut



SURGICAL TECHNIQUE

PLANNING ON X-RAYS

- Tibial mechanical axis
- Femoral mechanical axis
- Femoral joint line
- Tibial cut

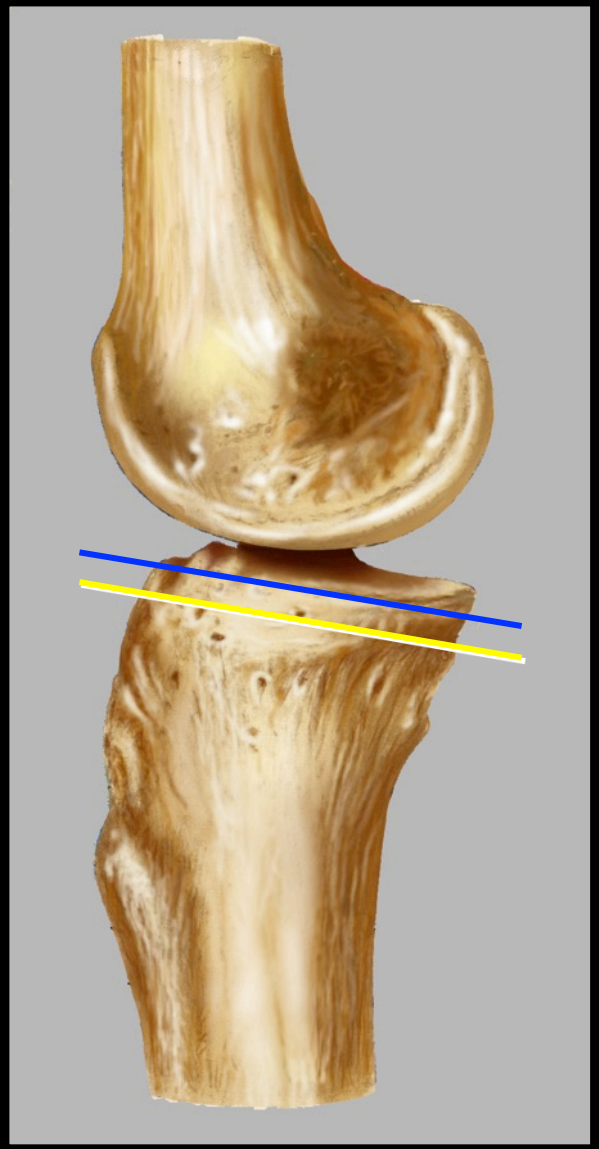


SURGICAL TECHNIQUE

PLANNING ON X-RAYS

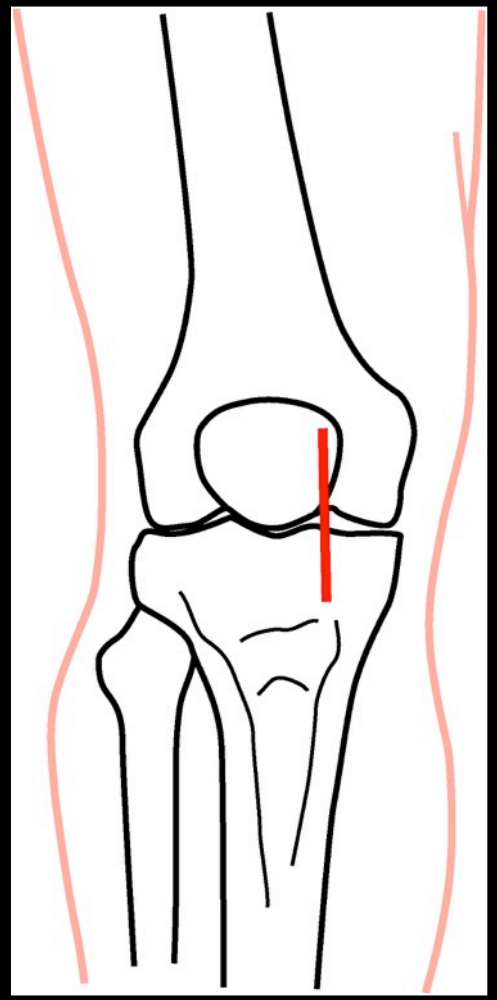
— Tibial slope

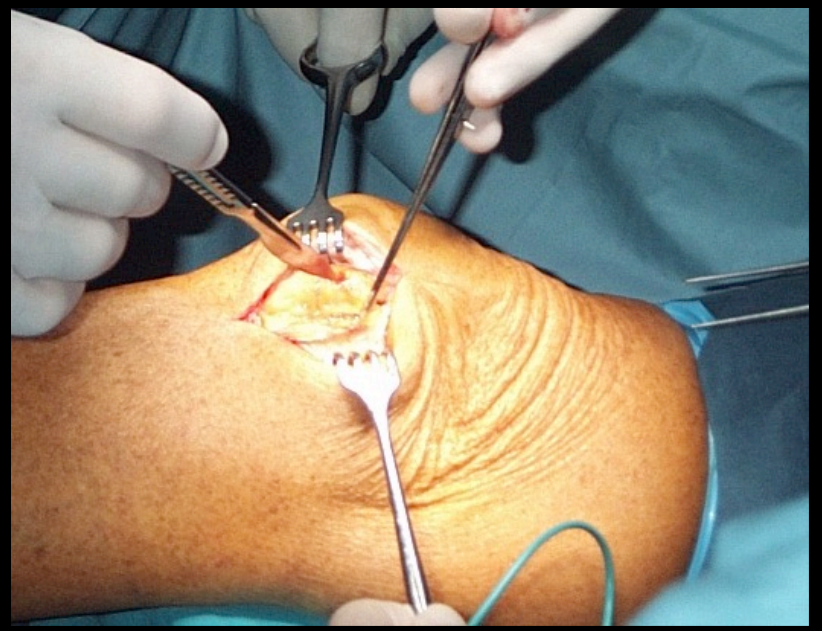
— Tibial cut



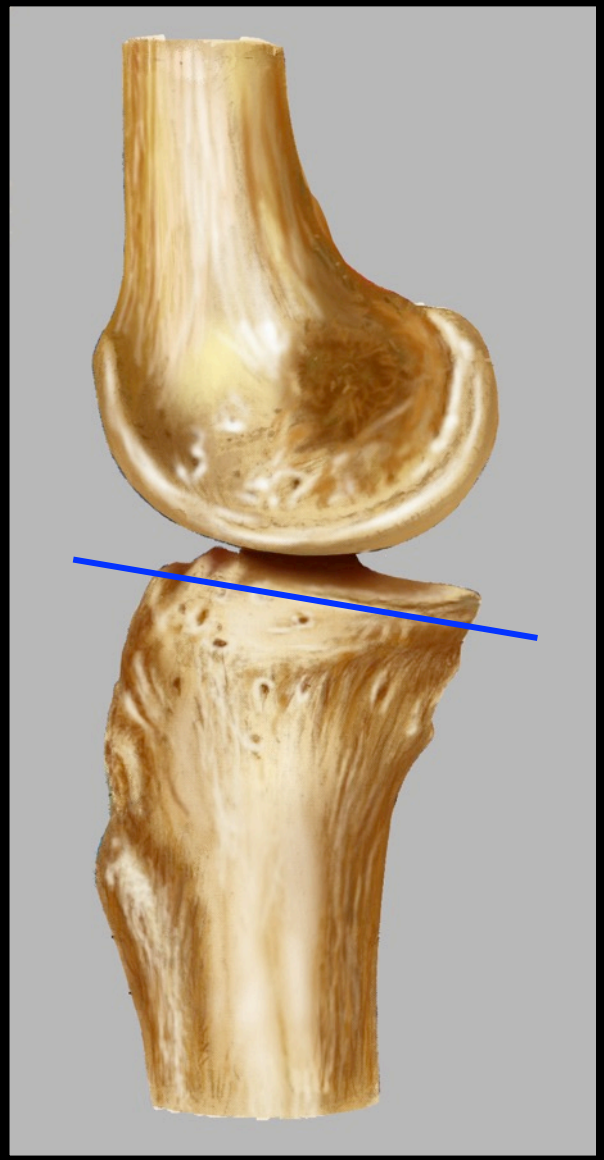
OPERATIVE STEPS

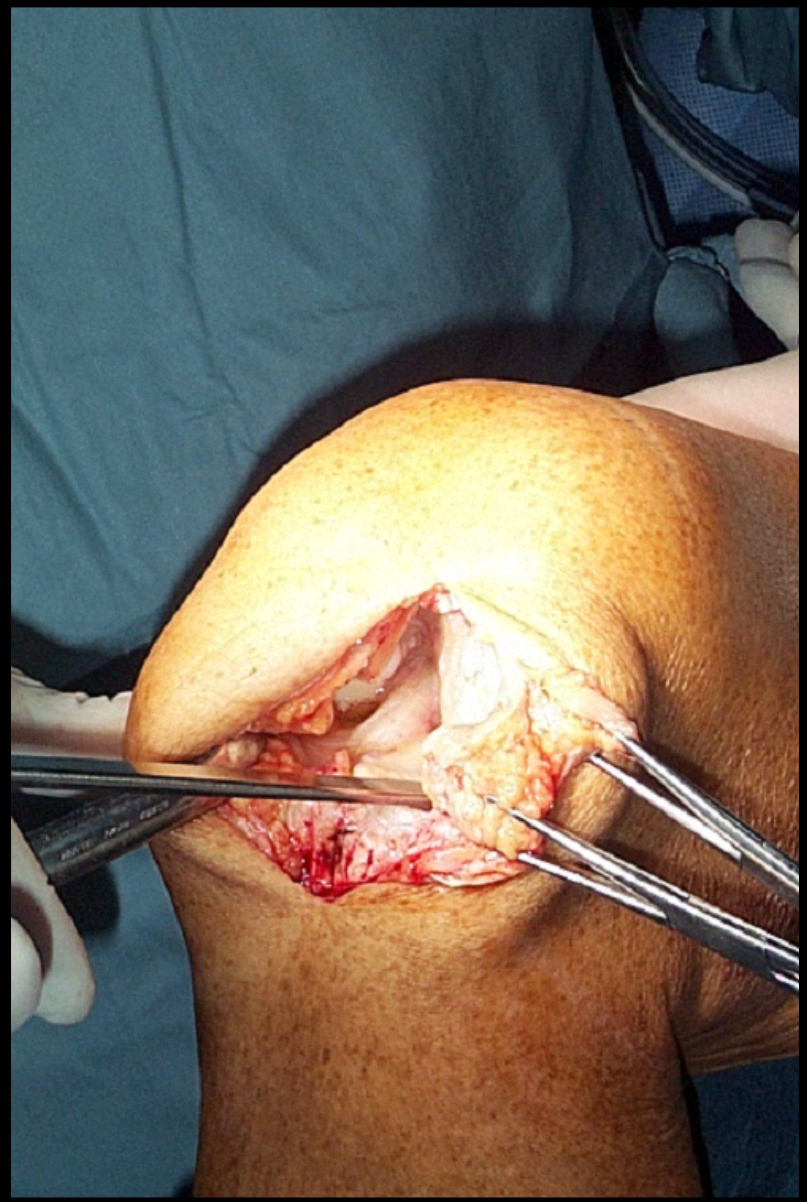
INCISION



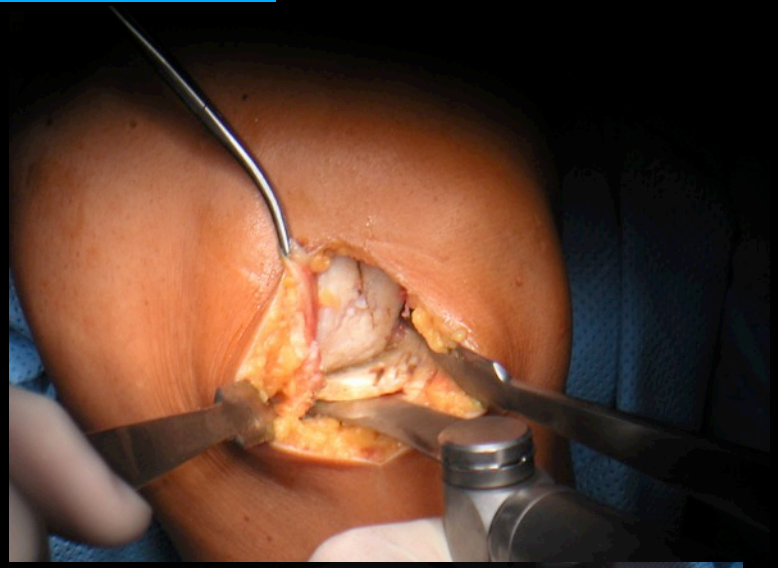


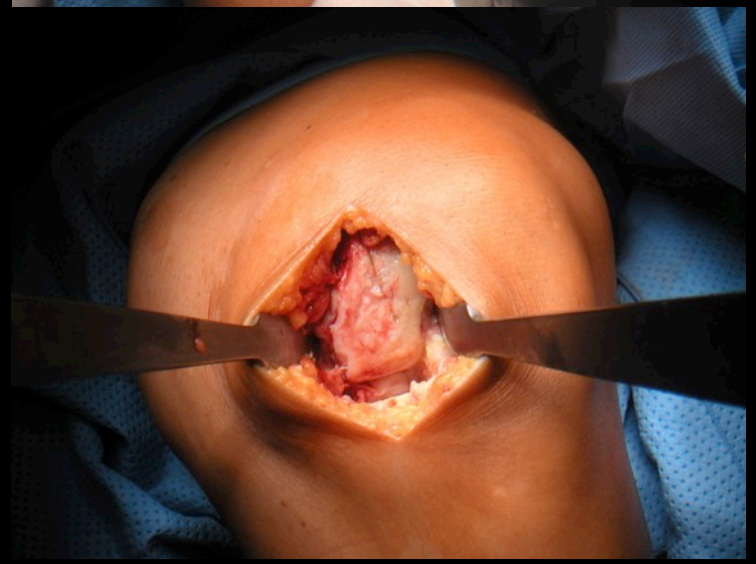
TIBIAL SLOPE ASSESSMENT

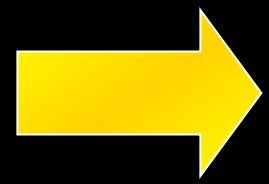




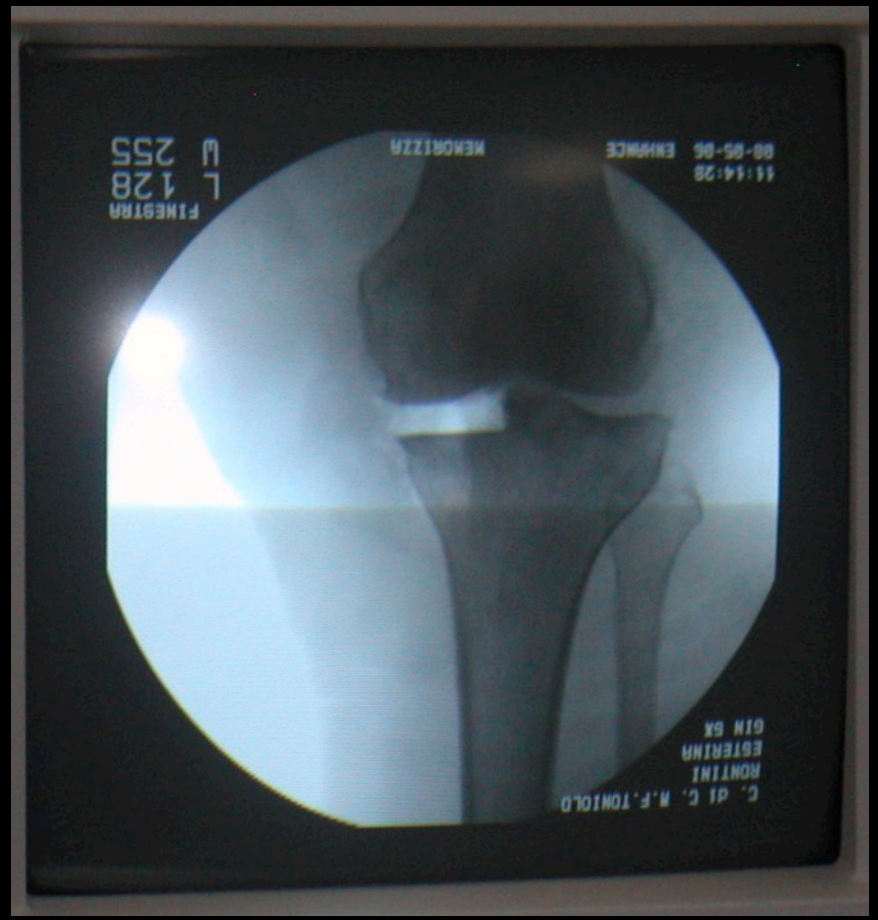
TIBIAL CUT



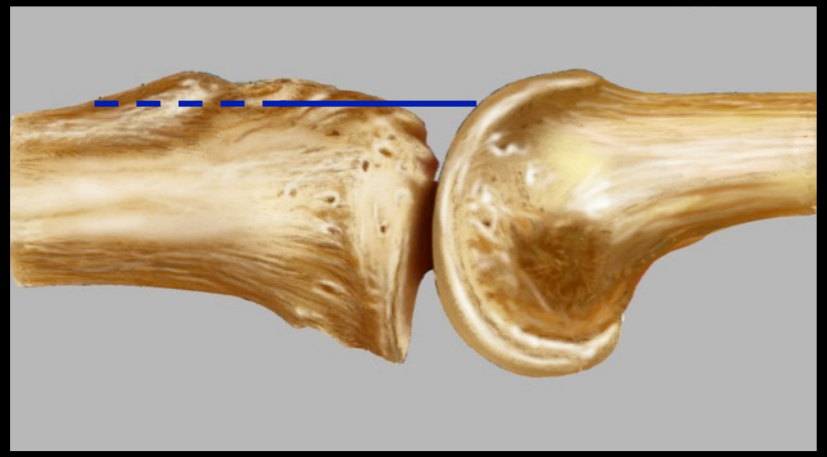


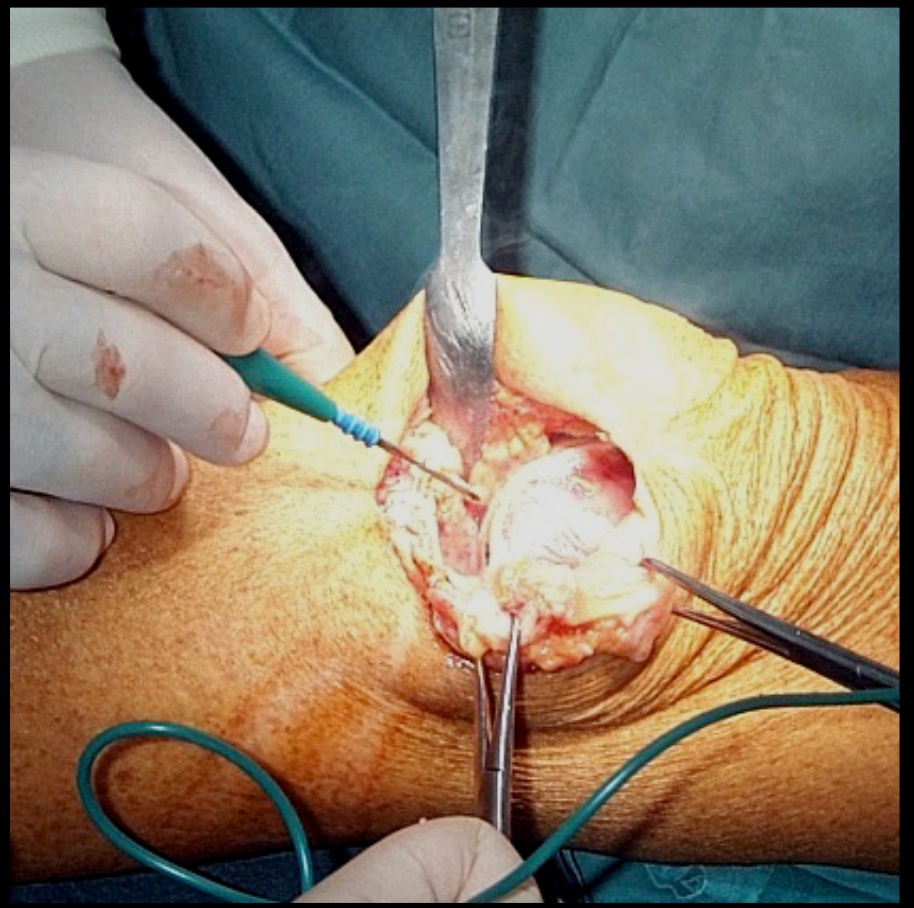


FLUOROSCOPY WITH THE KNEE IN STRESS

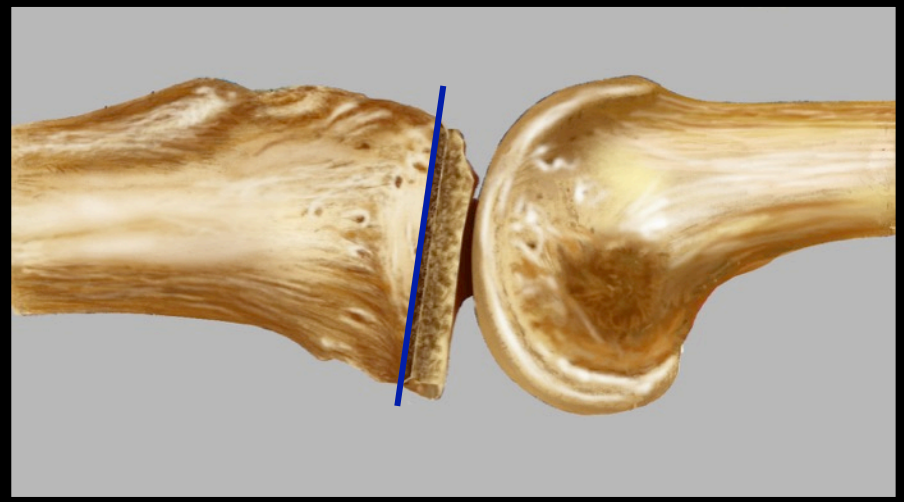


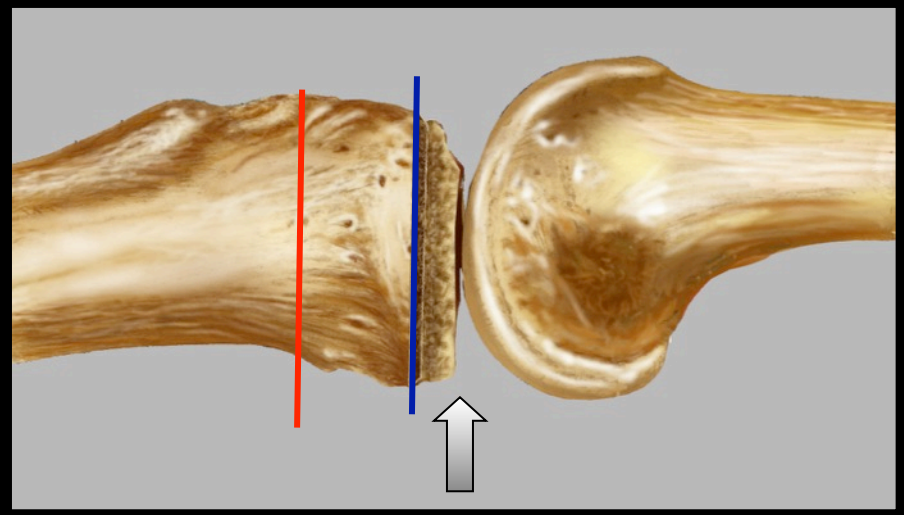
ASSESSMENT OF THE MOST ANTERIOR POINT OF THE DISTAL FEMORAL CUT

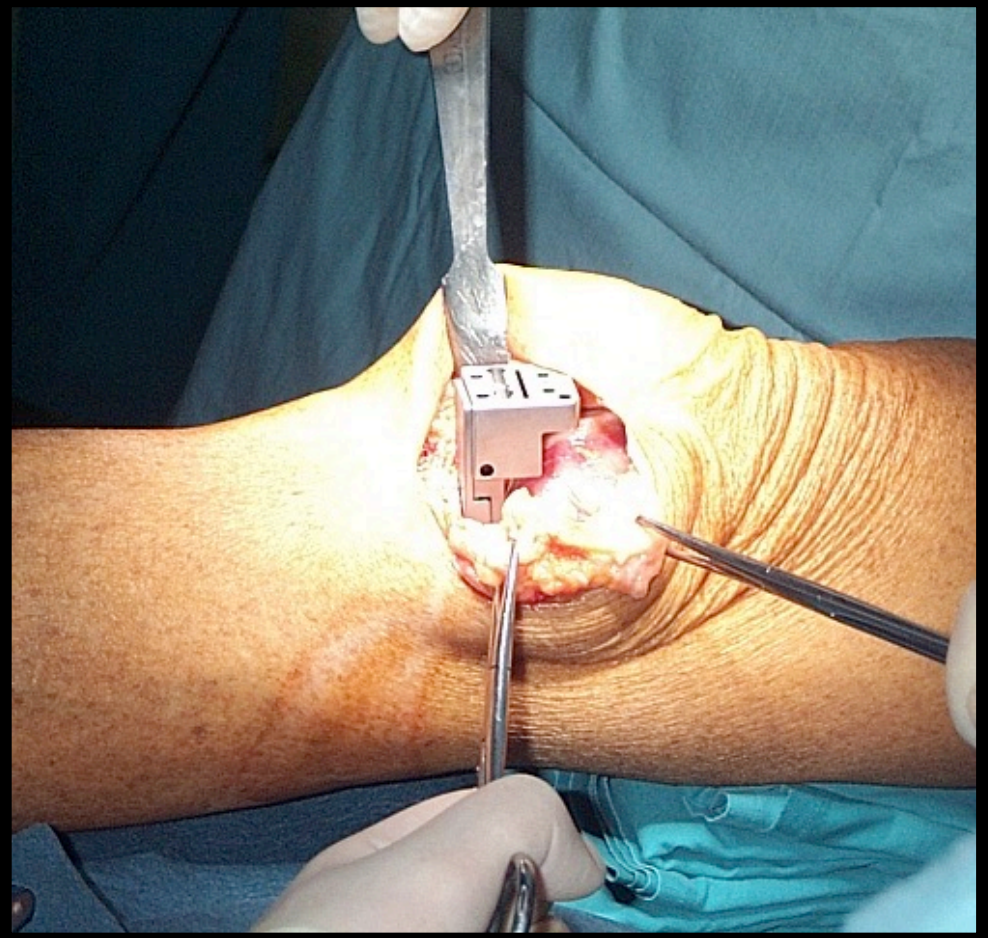




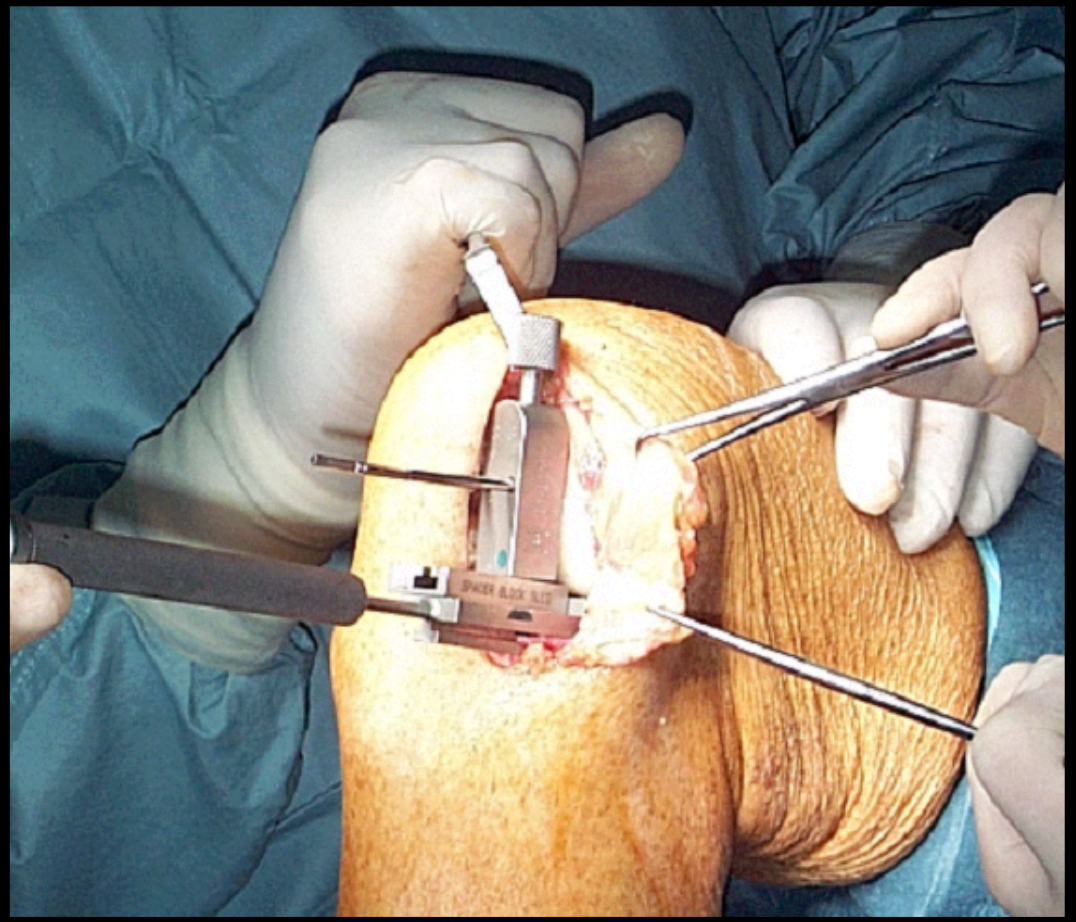
FEMORAL DISTAL CUT

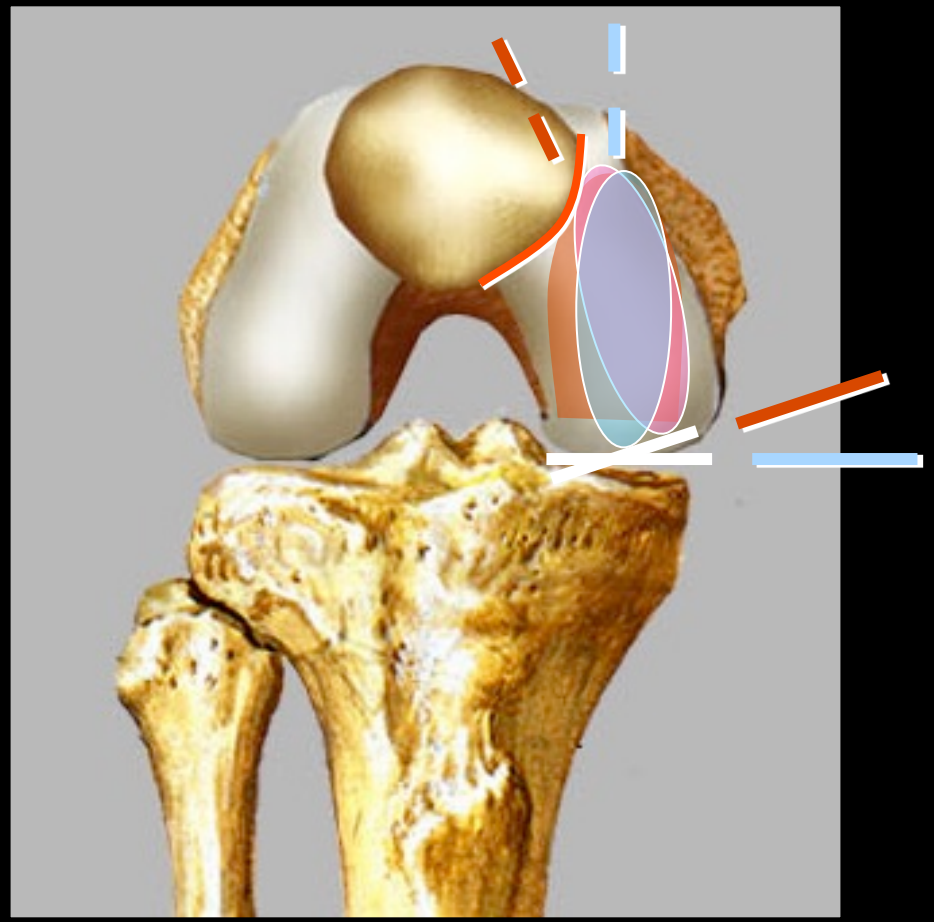






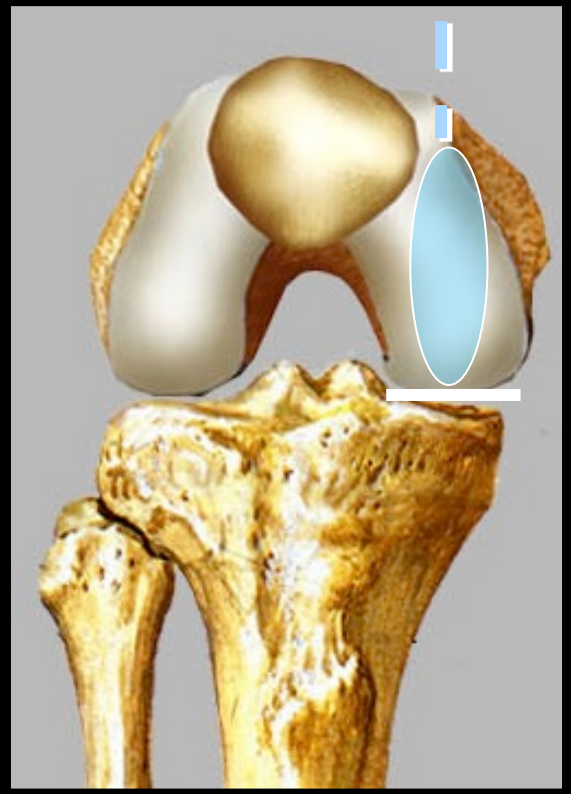
FEMORAL COMPONENT SIZING





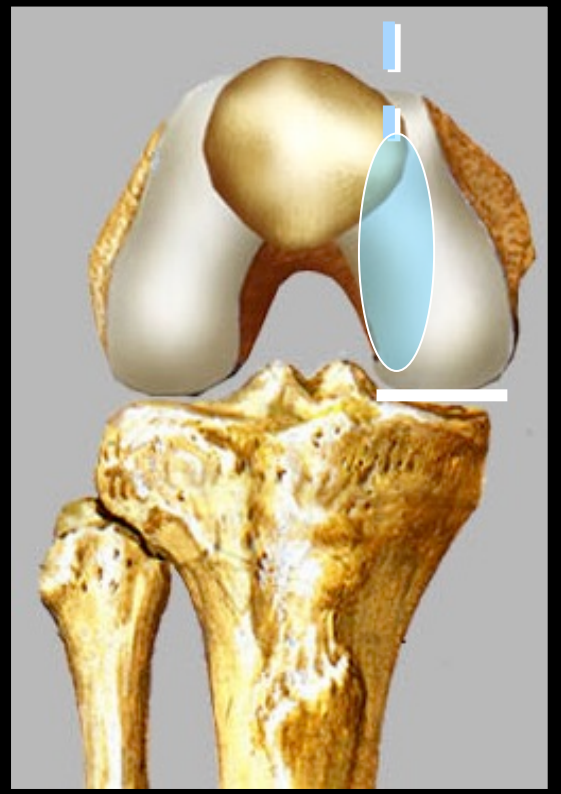
COMPONENT MALPOSITIONING

FEMORAL COMPONENT TOO MEDIALLY

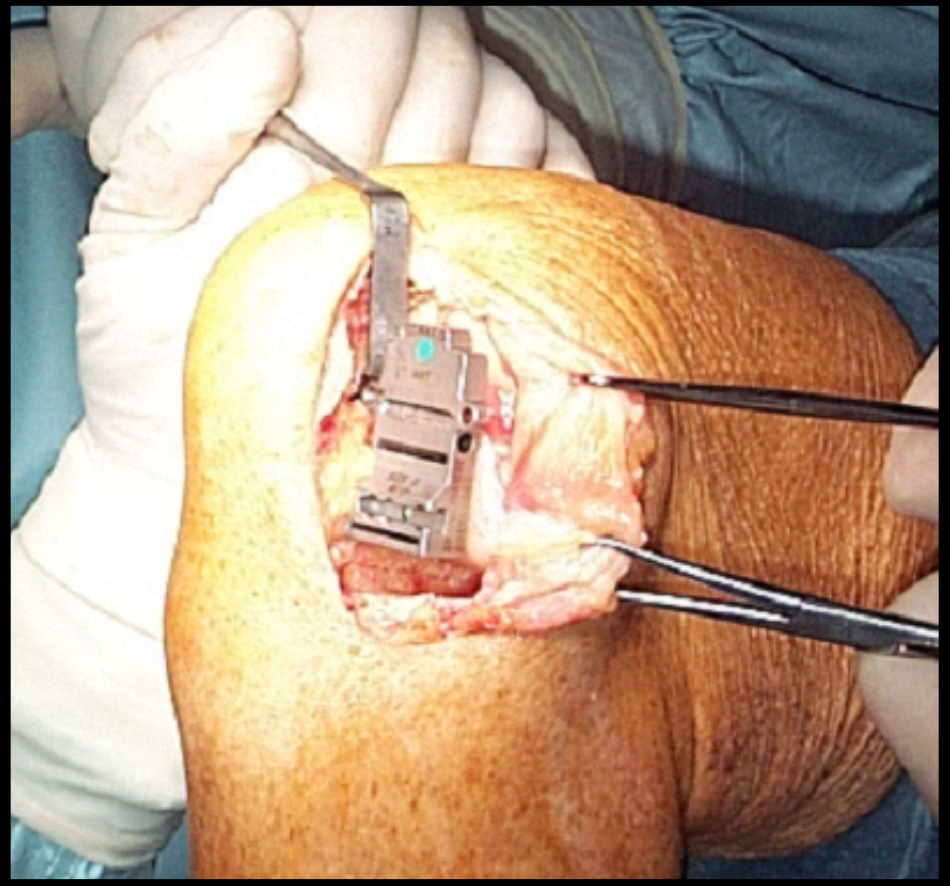


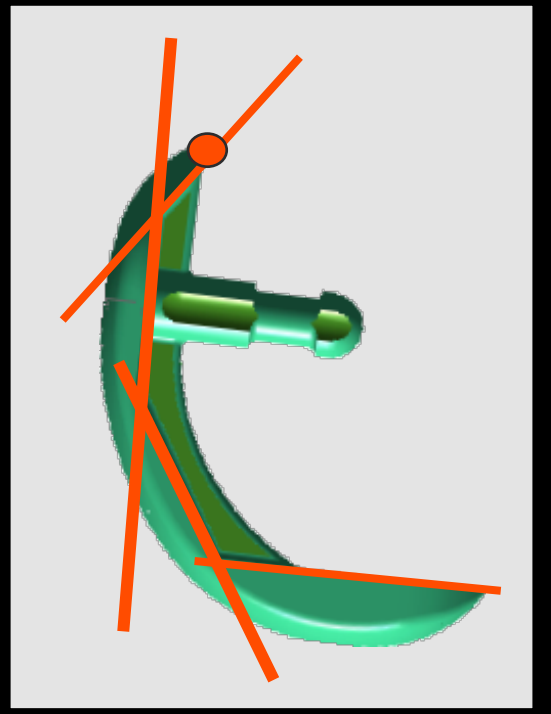
Medially tibial component subluxation

Impingement between femoral component and medial tibial spine



REMAINING FEMORAL CUTS





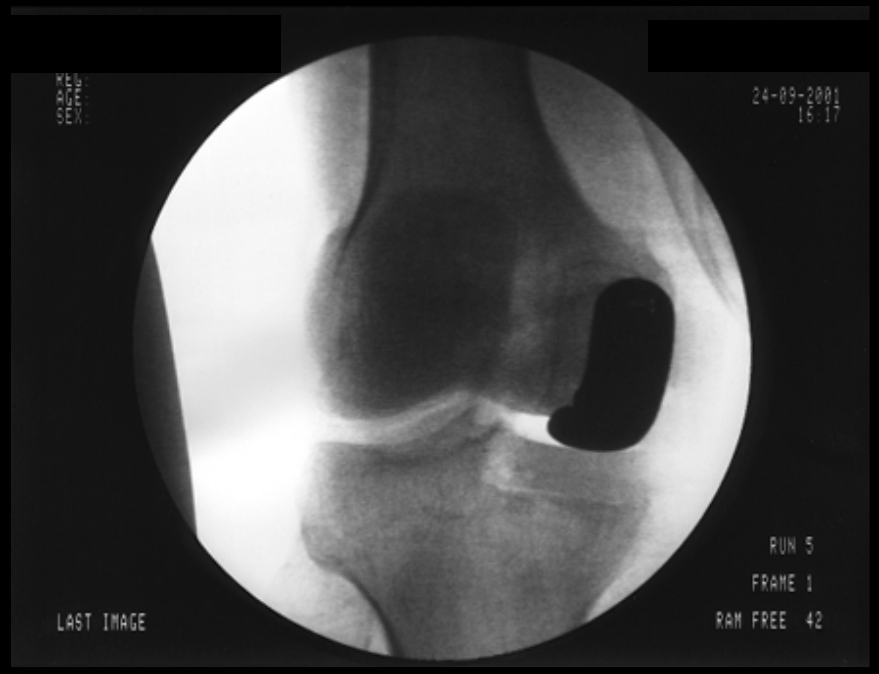
COMPONENT MALPOSITIONING

POOR CONTACT

PROSTHESIS/POST.CUT

SURFACE

THE FINAL IMPLANT



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Thank you

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