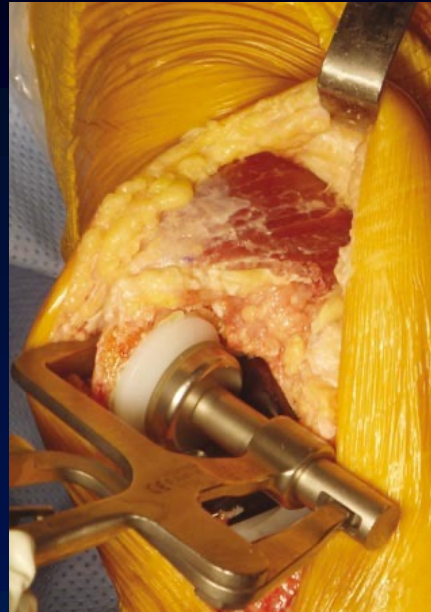


Primary TKA

How to achieve optimal patellar tracking



François Kelberine, Gaspard Fournier, Jean Philippe Vivona

Aix en Provence

What is of importance?

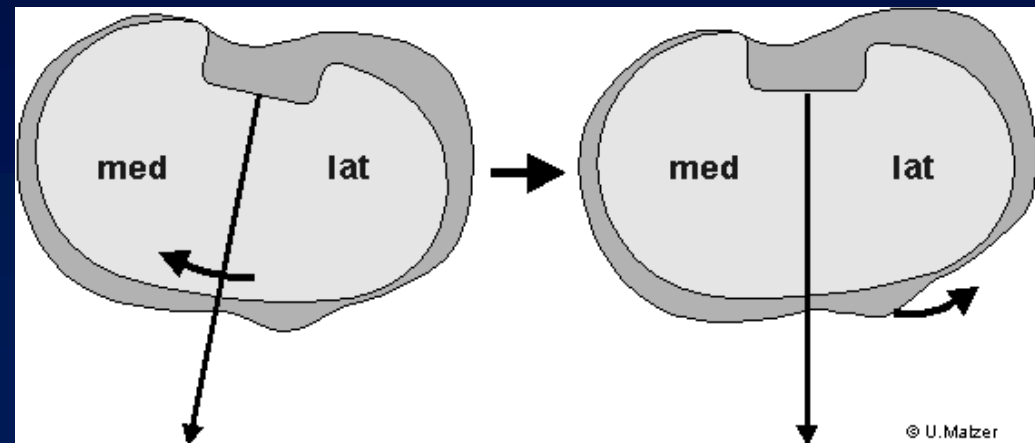
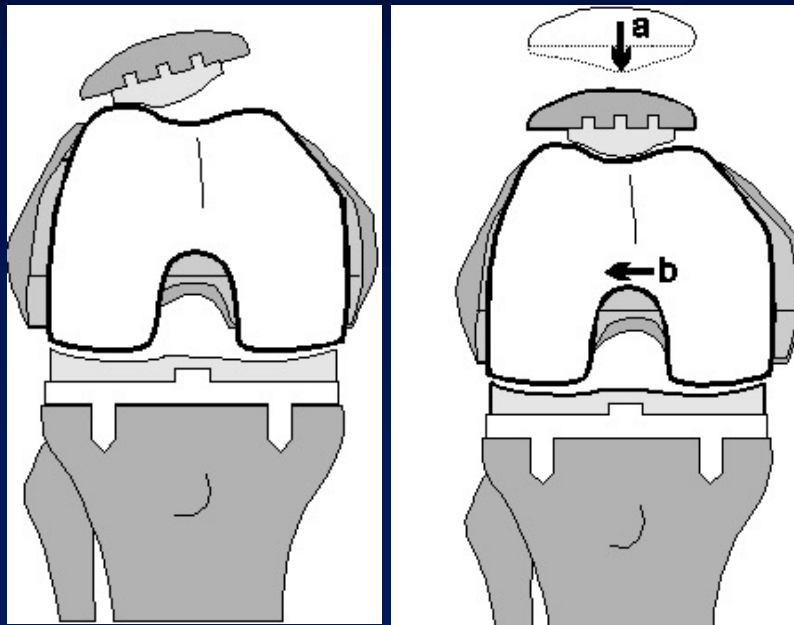
- Centered = proper patellar tracking
- Bone vascularity
- Thickness
 - Too much : overload
 - Not enough : fracture
- Stability of component



Rotational alignment

Berger Clin Ortop 1998, Barrak Clin Ortop 2001

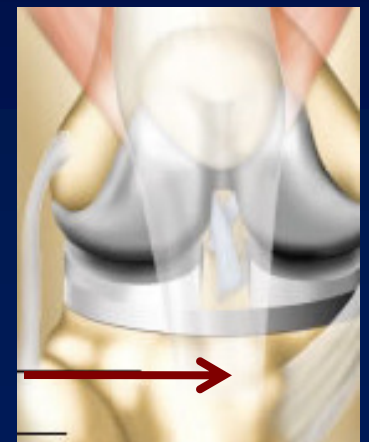
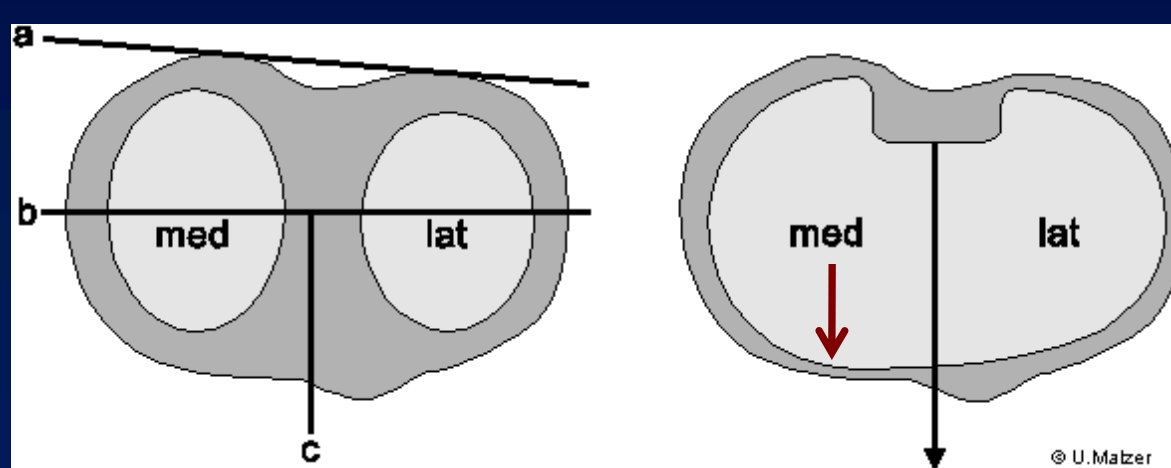
- External rotation of both femoral and tibial components
- Lateralization of the trochlea and medialization of tibial tubercle



Rotational alignment

- 3° ER especially in valgus deformity
- Cover the lateral plateau and pivot to align with anterior bony edge of the medial one
- Medial border of patellar tendon (patella reduced)
- Check/ROM

Hepistein & Ranawat *Current Opinion Orthop* 2008
Ikeuchi *JBJS* 2007



Pay attention with robotic

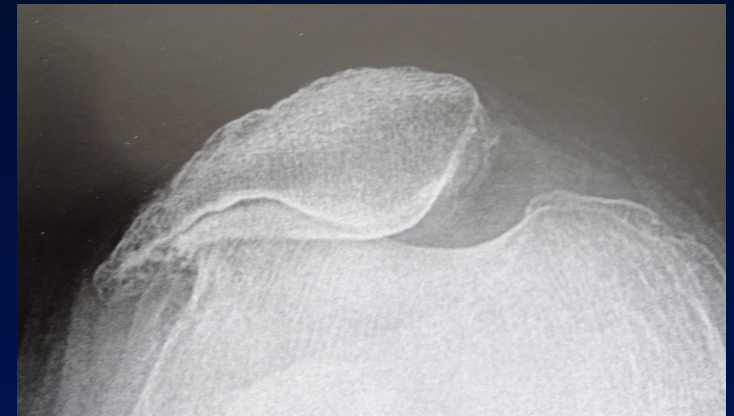
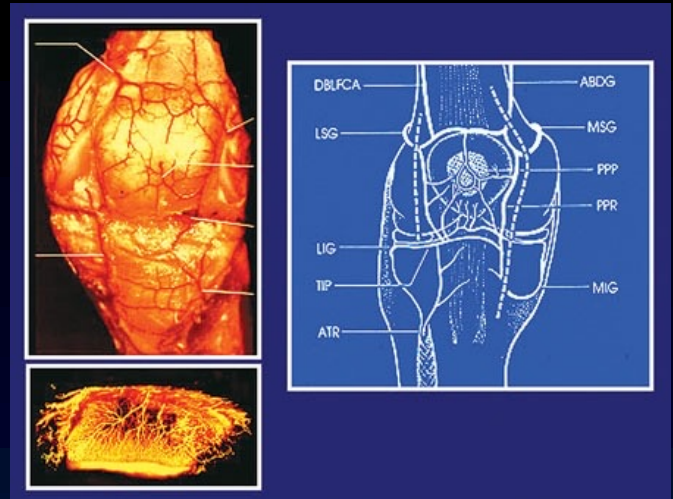
✓ Focus tibio femoral kinematics



✓ Take care of rotation of implants

Vascularity

- Avoid lateral retinaculum release (especially in medial approach)
- In case of hyperpressure perform lateral partial resection (template in place)



Patella Cut



- Below the lateral subchondral bone...

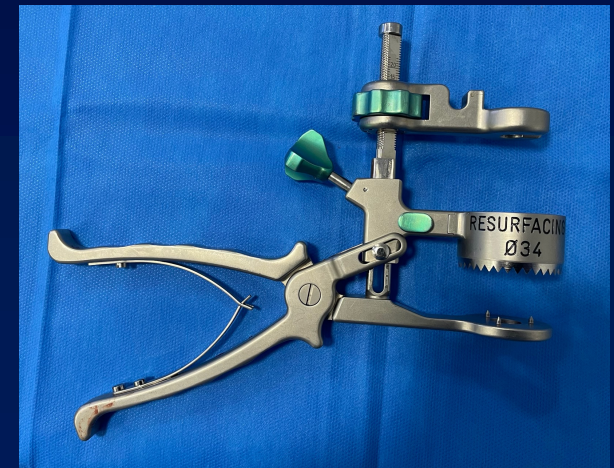
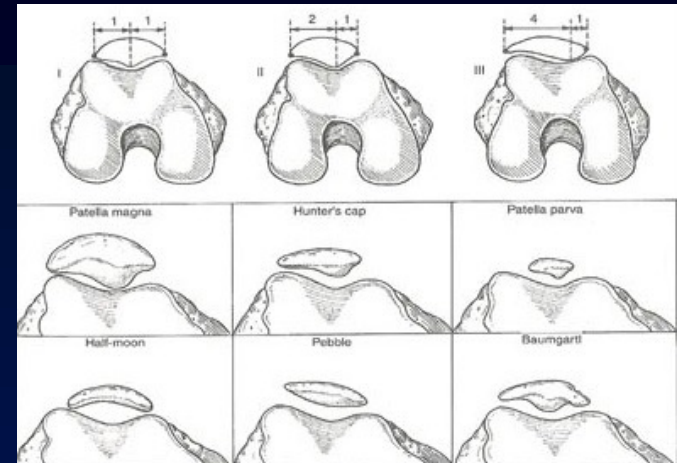
- Avoid asymmetric cut

- Avoid too thick or too thin

- Prefer inlay

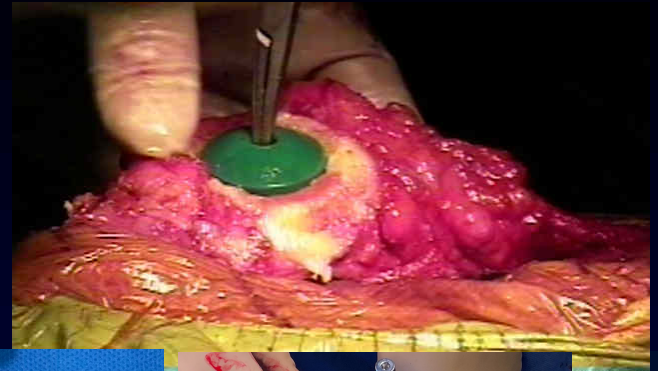
- Medialize

- Landmark = ant cortex

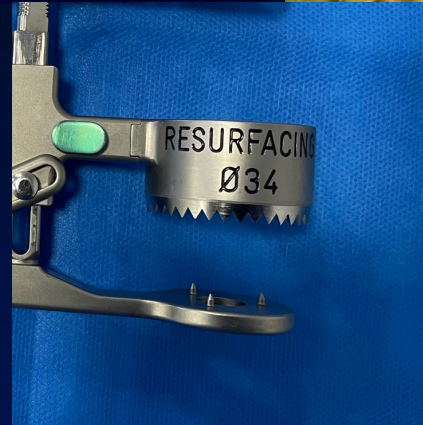


Center the patella

- From sup to inf
- From med to lat



- Don't overhang



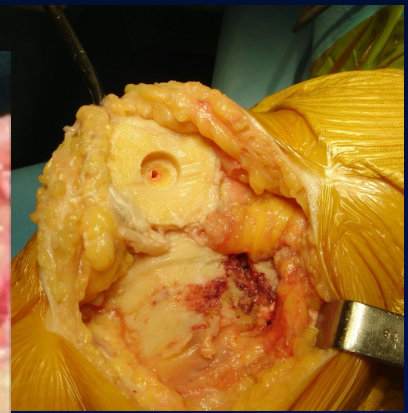
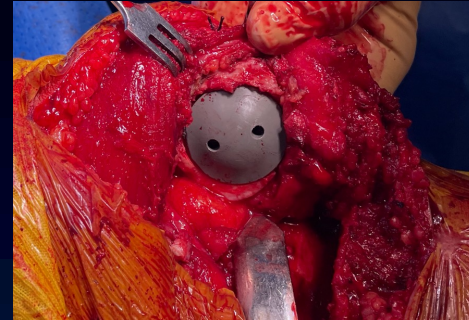
- Medial location optimizes tracking

- Resect lateral facet if need



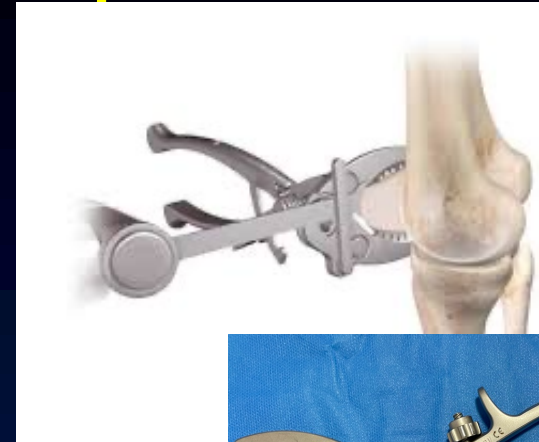
Stability of component

- Bone stock (medial part)
- Component peripheral rim
- Peg (3 small or 1 large?)
- Microperforations in sclerotic bone
- Inlay implant in case of poor bone stock

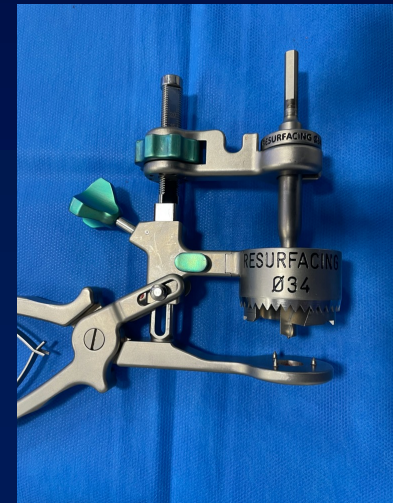
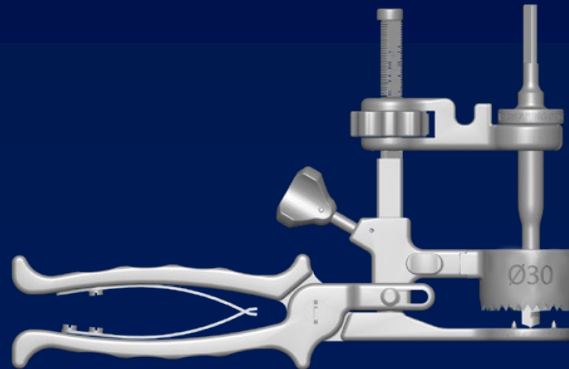


Last step during TKA procedure

- Often quickly done
- ?Dedicated instrumentation?
- Poor accuracy, Poor landmarks
- Not friendly user
- Volume



Hand free cut



Take home messages

- Not the easy part of the procedure
- Pay attention to approach
- Difficult cut and implantation
 - New devices
- Check perop tracking attentively