

**Tibial or Femoral Osteotomy in Femoro tibial Osteoarthritis ?**

**Ph Neyret**  
S Lustig, E Servien, G Demey

Centre Albert Trillat, Lyon, France.

Coming soon in  
**new edition of Knee surgery**  
Insall Scott Kelly

**OSTEOTOMY FOR THE ARTHRITIC KNEE:  
A EUROPEAN PERSPECTIVE**

Sébastien LUSTIG, Elvire Servien, Guillaume Demey, Philippe Neyret  
Centre Albert Trillat. Groupement hospitalier Lyon Nord.  
69004 LYON - France

**Selecting the appropriate knee**

Anatomical criteria

- ✓ Stage of Osteo-arthritis
- ✓ Analysis of the deformity and its reductibility
- ✓ Ligament status
- ✓ Range of motion

**Selecting the appropriate knee**


**Selecting the patient**

Clinical conditions

- ✓ Age and expectation
- ✓ Weight
- ✓ General medical status

**No True Algorithm**


Anatomical criterias	Clinical criterias
<ul style="list-style-type: none"> <li>• Stage of OA</li> <li>• Analysis of the deformity and its reductibility</li> <li>• Ligament status</li> <li>• Range of motion</li> </ul>	<ul style="list-style-type: none"> <li>• Age and expectation</li> <li>• Activity</li> <li>• Weight</li> <li>• General medical status (cardiovascular diabetes, plavix...)</li> <li>• Infection history</li> </ul>

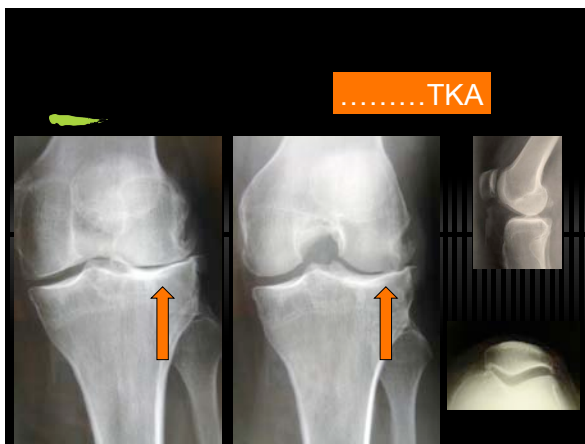
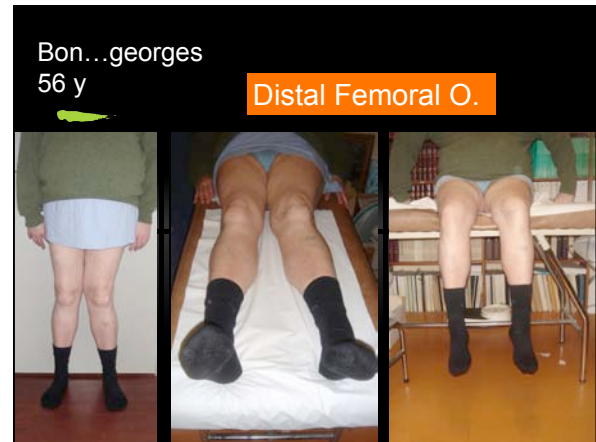
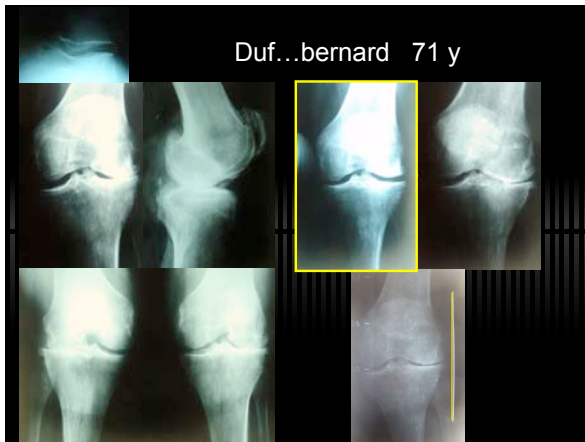
Osteotomy            Total Knee arthroplasty

Unicompartmental knee arthroplasty

Duf...bernard 71 y

.....TKA





Selecting the appropriate knee

Anatomical criteria

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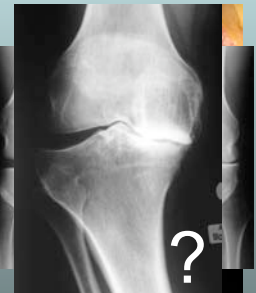
### Stage of OA

- Osteonecrosis
- Osteoarthritis (IKDC)

Grade A or B

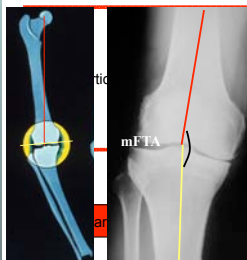
Grade C or D

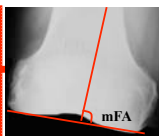
Severe OA with cupula



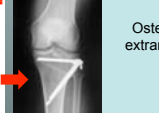
### Analysis of the deformity, its reducibility

- HKA film: mechanical Femoro-Tibial Angle

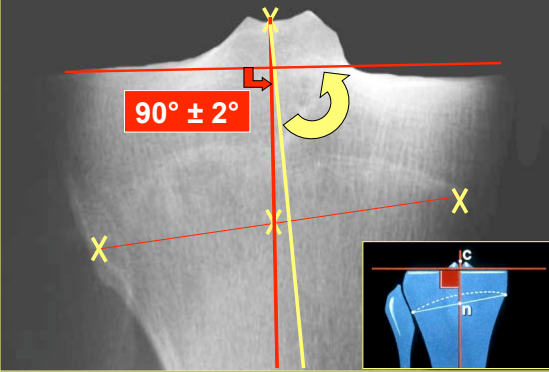




like a spacer to compensate wear



Osteotomy corrects extrarticular deformity

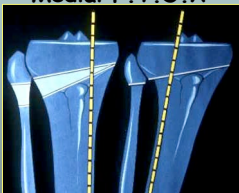


**90° ± 2°**

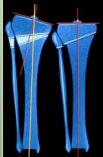
The "extra-articular" tibial deformity

### Corrective vs « Palliative »

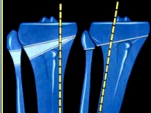
**Medial F.T.O.A**



Hypercorrection




Corrective




Palliative

### Opening vs Closing

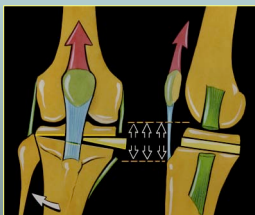


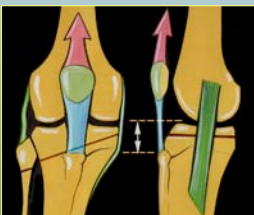
Early O.A.  
Younger patients



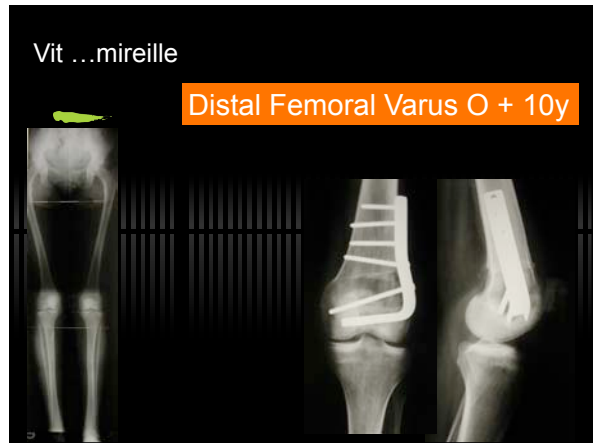
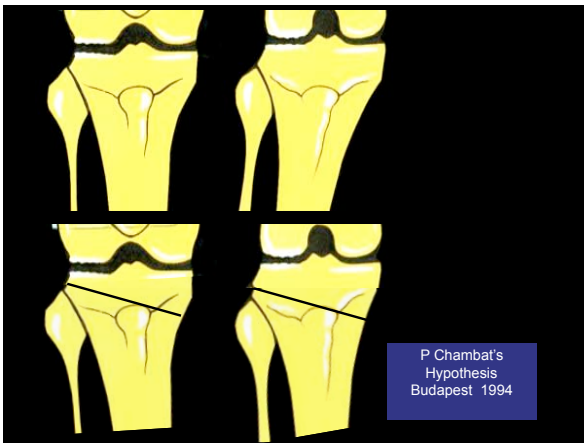
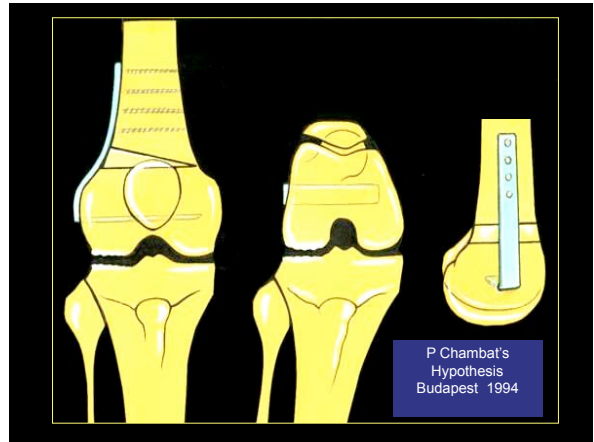
Established O.A.  
Patella Infera  
Posterior cupula

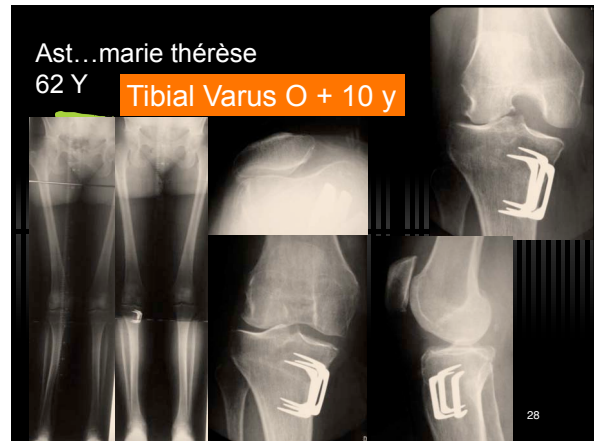
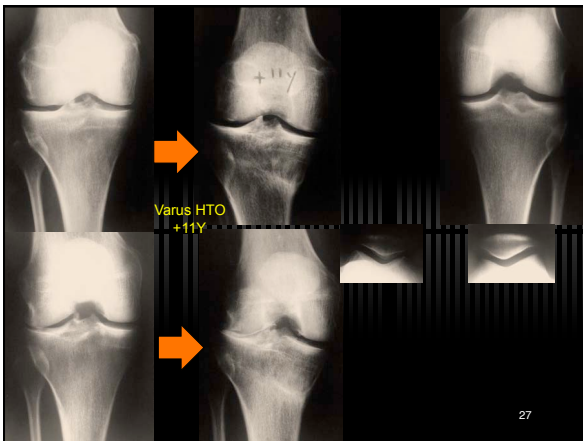
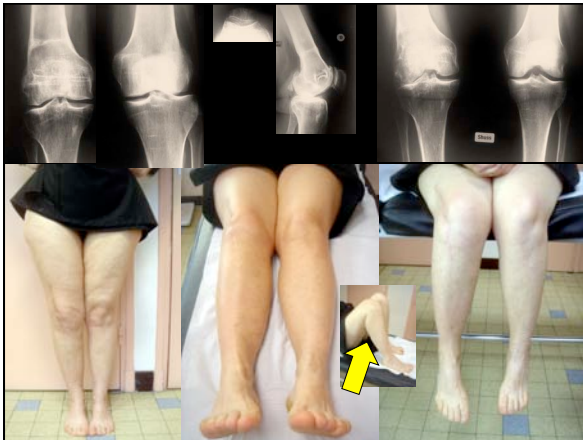
### Opening vs Closing





Lobenhoffer P., Agneskirchner J. & Zoch W. [Open valgus alignment osteotomy of the proximal tibia with fixation by medial plate fixator]. *Orthopade* 33, 153-160, doi: 10.1007/s00132-003-0593-0 (2004).





### Expected result

1. Osteotomy
2. No pain( 95%), Forgotten knee(80%), Stability (90%), Walking distance (no limit), normal Stairs, no limping, no crutch, no swelling.
3. All sports
4. Complete extension, flexion 145° (preop ROM)
5. Restricting surgery, Weight bearing delayed 2 months, (pre-op rehabilitation), Hospitalisation (5 days) and no rehab center. adaptation 3 to 6 months. autonomy and driving

Survival rate: **70% at 10 ys**  
Infection : < 0.5%



