



PTG sur cal vicieux

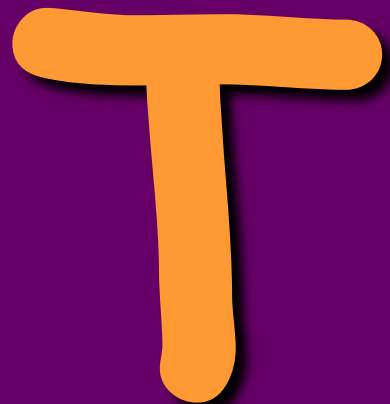
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Centre Albert Trillat, CHU Lyon Nord*

DIU Chirurgie du genou - Lyon

Fevrier 2017



Articulation



frontal

>10°



Articulation



Sagittal >15°



Articulation



Horizontal

Déformation intra-articulaire

- ✓ La déformation est facilement corrigée grâce à l'adaptation des coupes osseuses ...

F

Knee joint

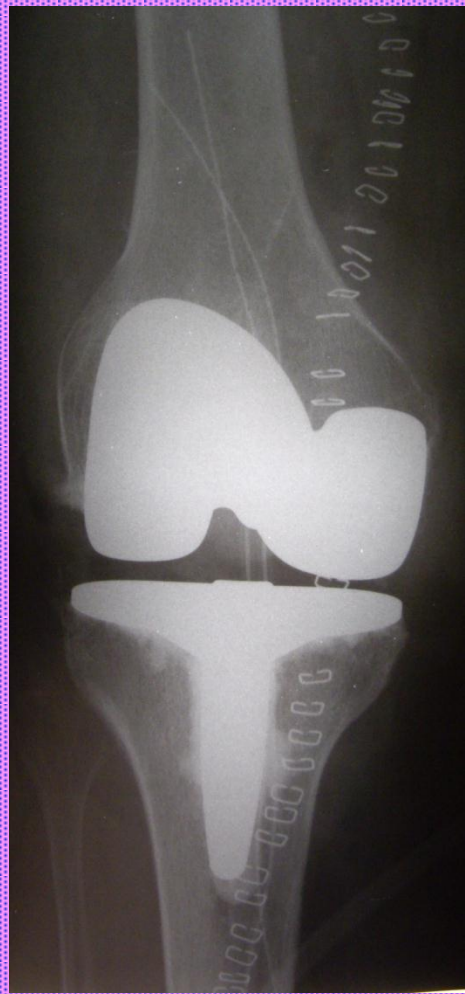
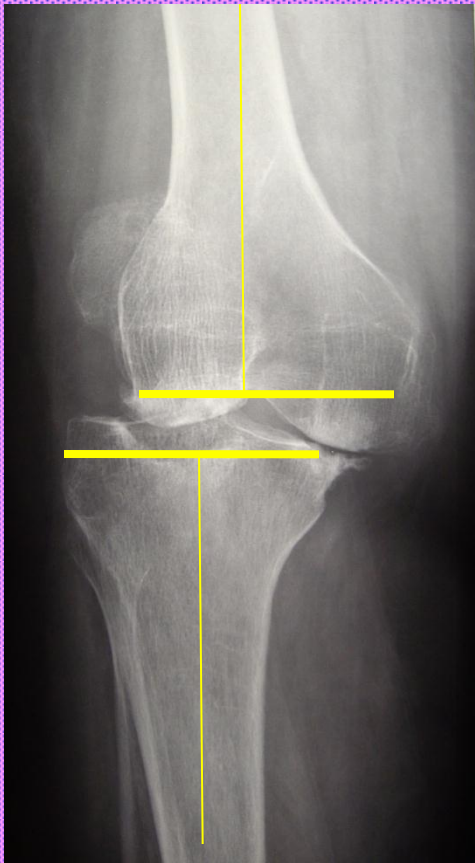
T



F

Knee joint

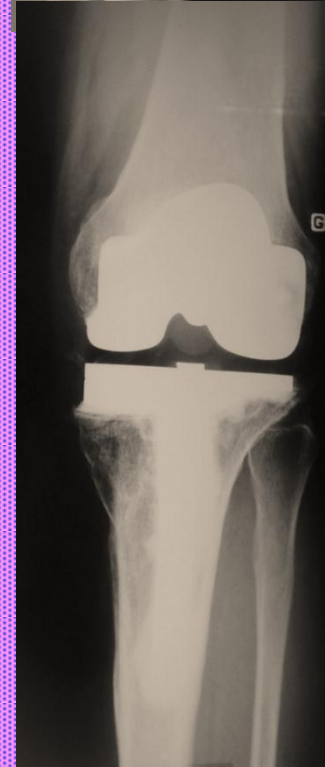
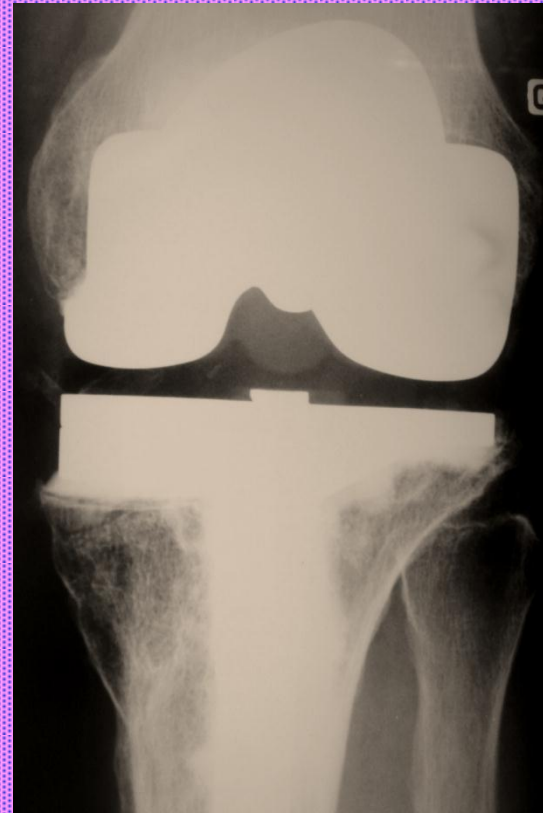
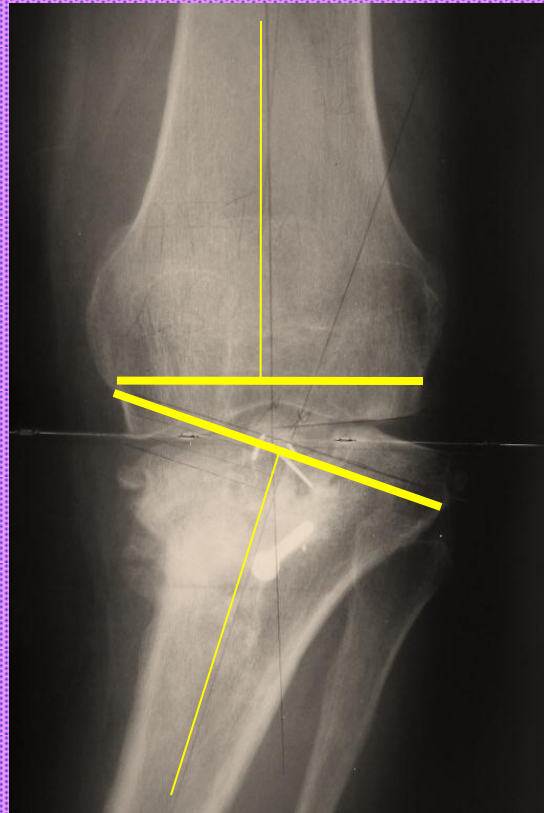
T



Déformation intra-articulaire


- ✓ La déformation est facilement corrigée grâce à l'adaptation des coupes osseuses ...
- ✓ Quilles longues et cales métalliques...

Dan...rolande 62 years

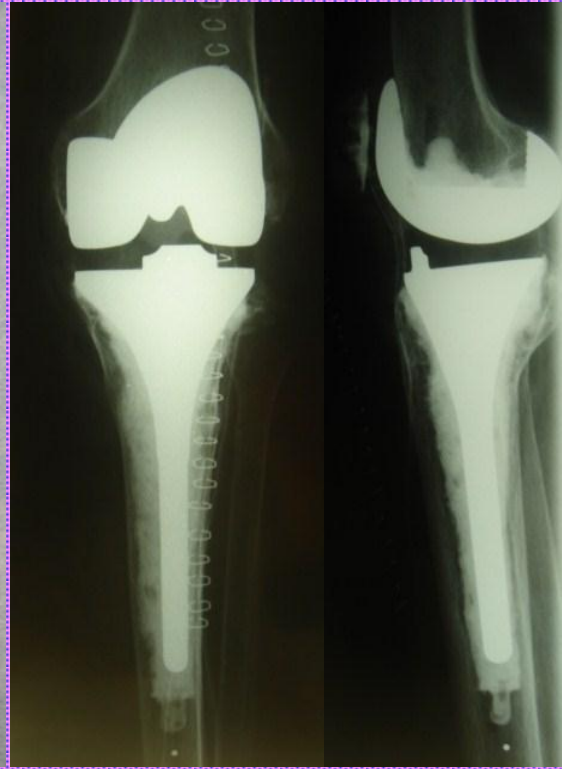


Cale métallique

Déformation intra-articulaire

- 
- ✓ La déformation est facilement corrigée grâce à l'adaptation des coupes osseuses ...
 - ✓ Quilles longues et cales métalliques...
 - ✓ PTG sur mesure

Per...france 65 years

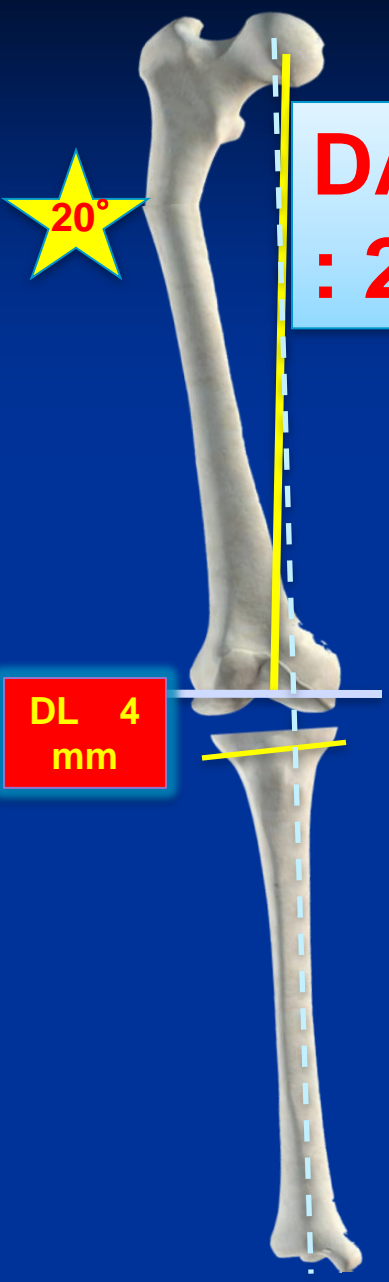


Déformation extra-articulaire

Mécanique

(angle ou axe)

et non pas anatomique



20°

DAR : 2°

DL 4 mm

20°

DL 14 mm

Défaut d'axe réel : DAR
Détonte Lig. : DL



DAR : 8°

DL 37 mm

20°

CV 20°

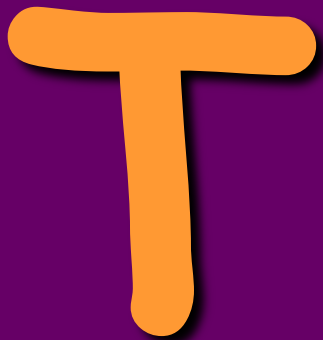


DAR : 18°

Déformation extra-articulaire



Knee joint



frontal



Knee joint



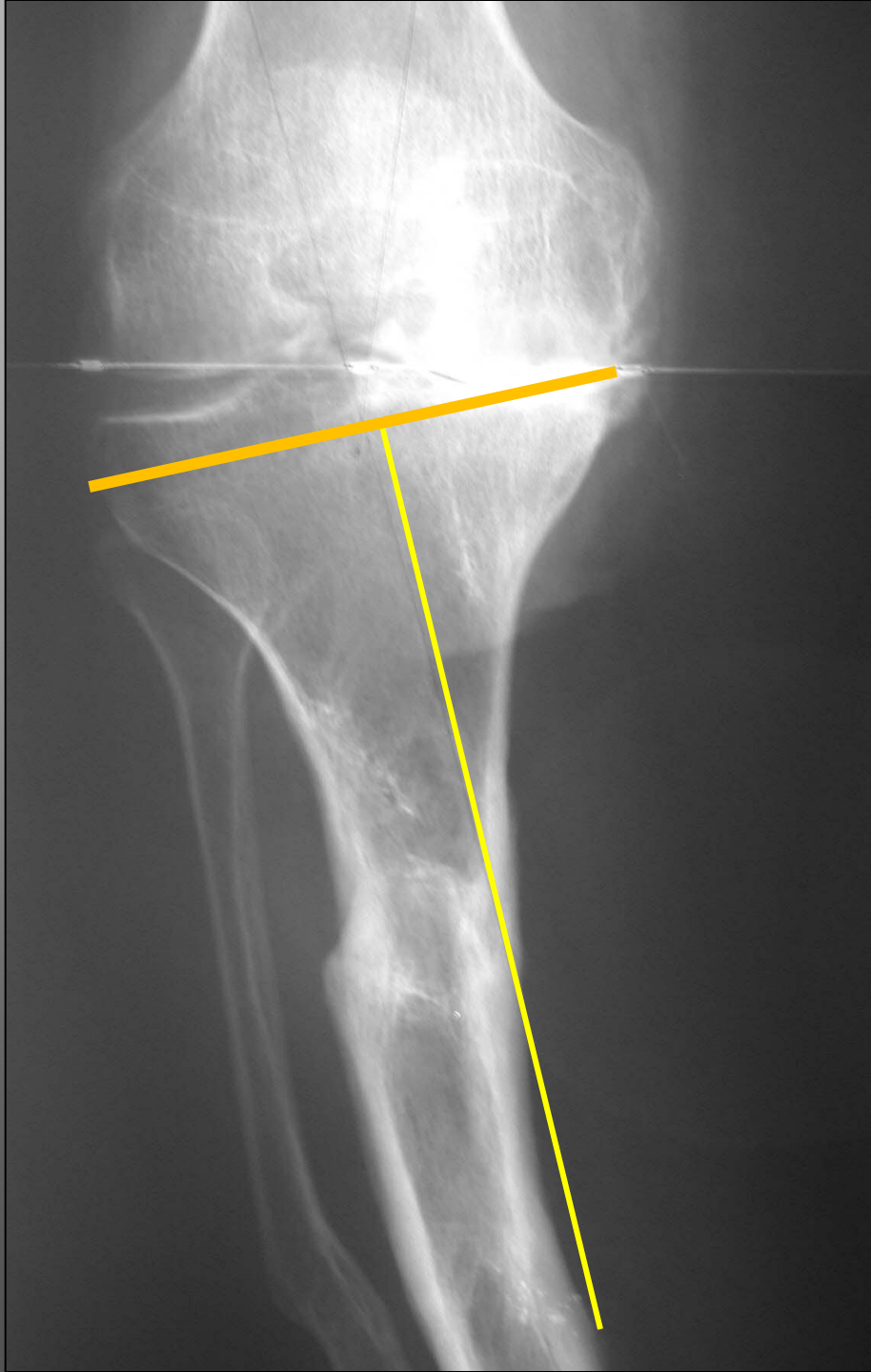
Sagittal



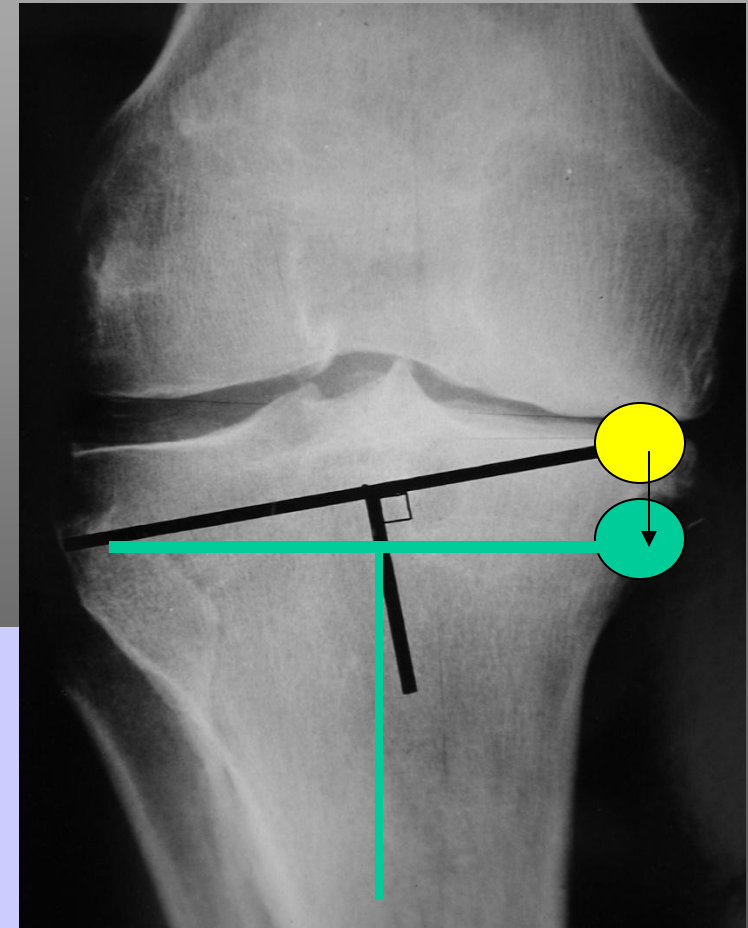
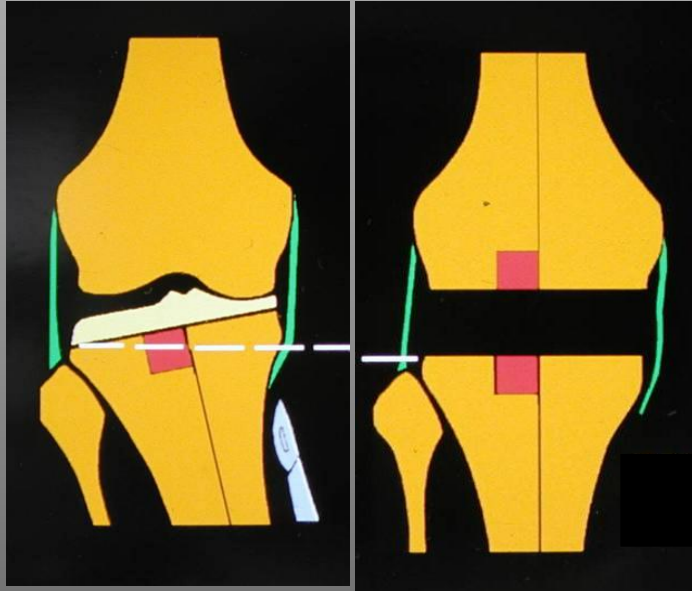
Knee joint

Horizontal

Varus



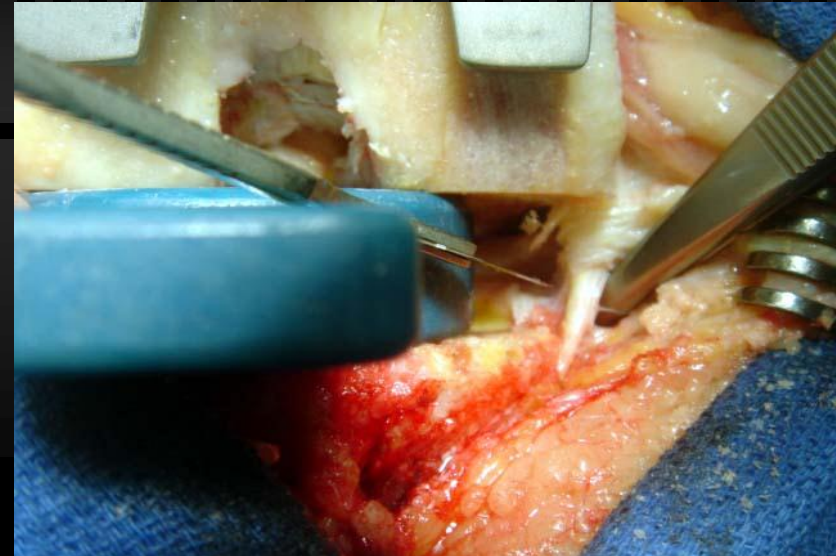
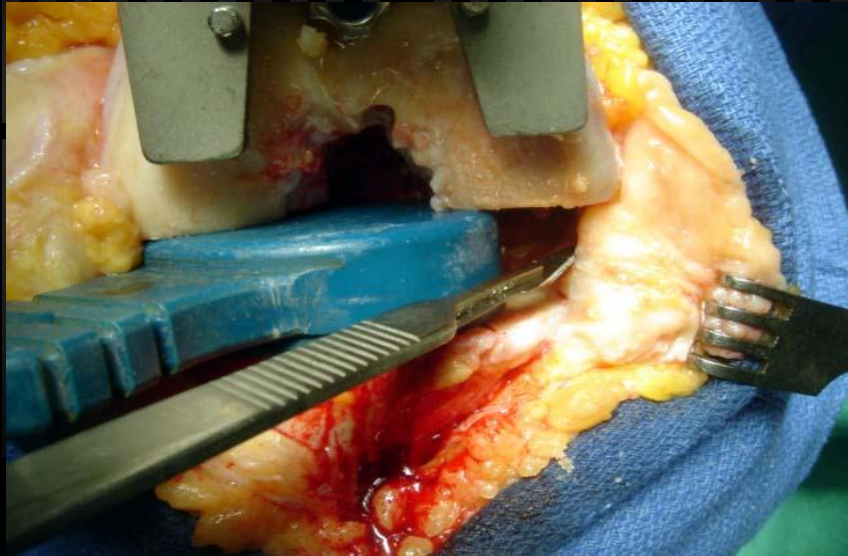
Tibia: Déformation en varus



“LAXITE”
due à une coupe asymétrique

OPTION 1

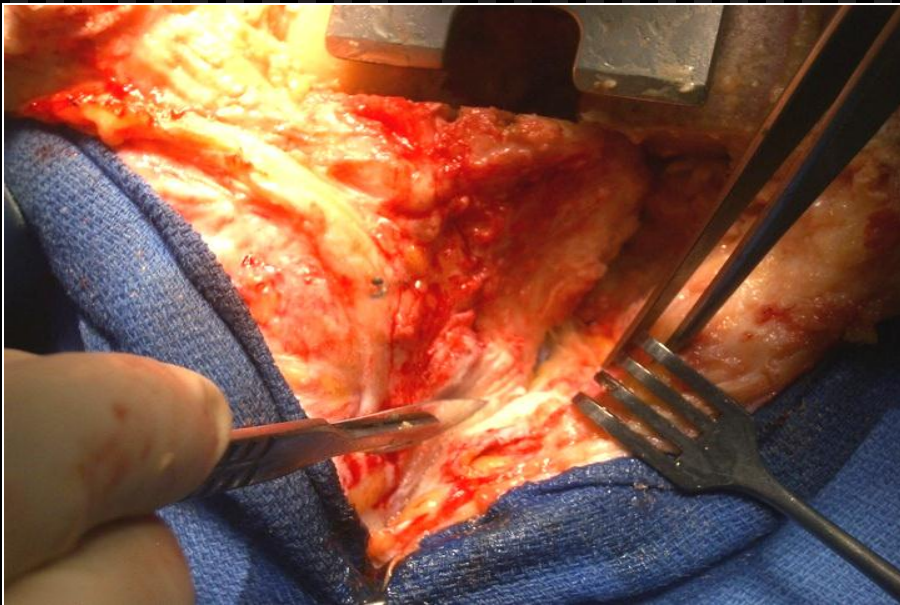
- Pie Crust du LCM superficiel



Pour les varus modérés

OPTION 2

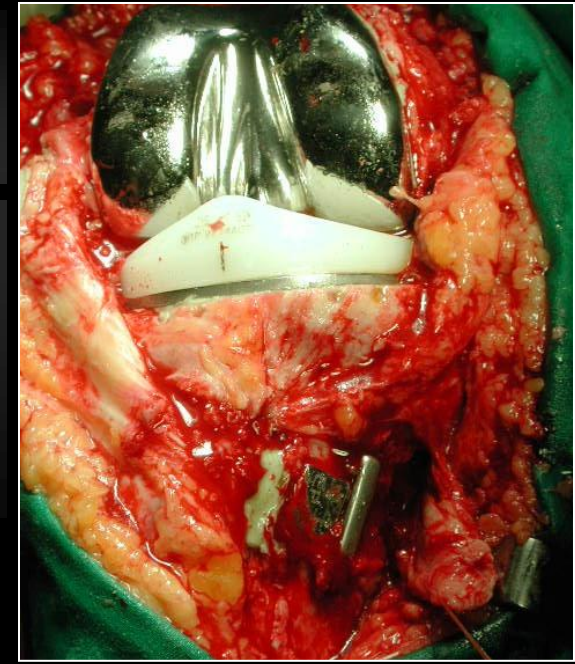
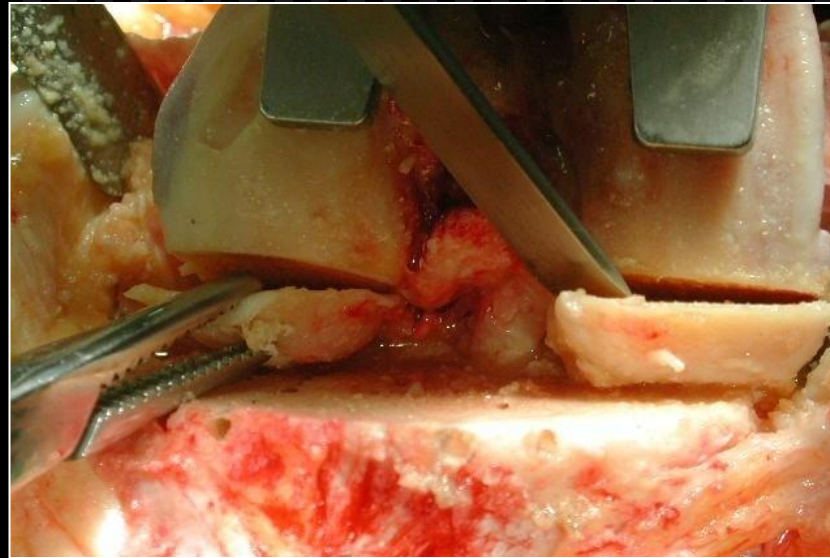
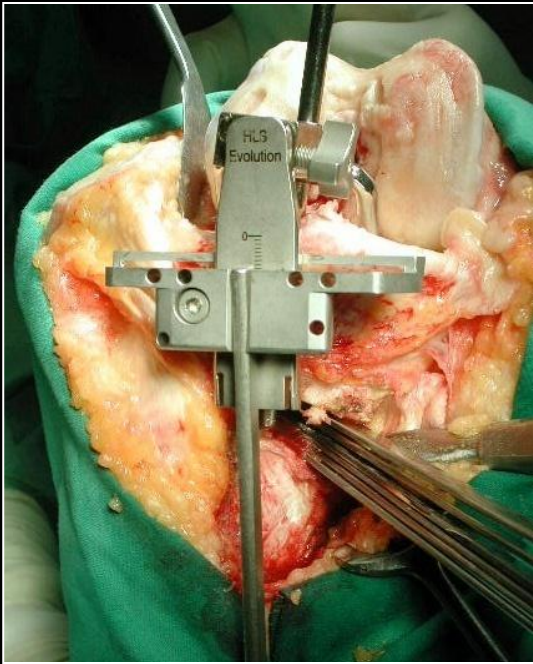
- Release du LCM superficiel distal au tibia +
release du Semi-Membraneux



Pour les genu varum sévères

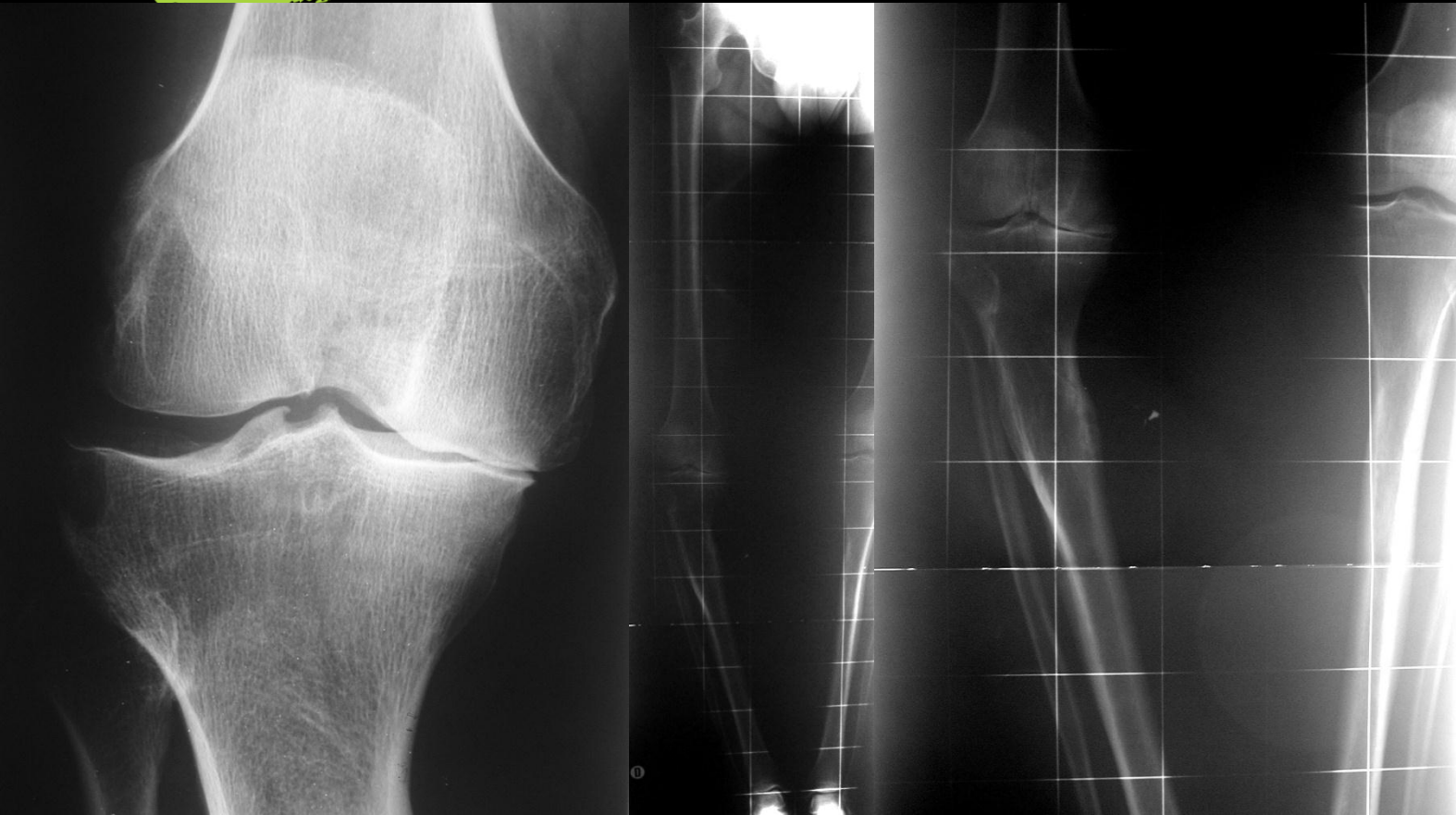
OPTION 3

- Ostéotomie+PTG



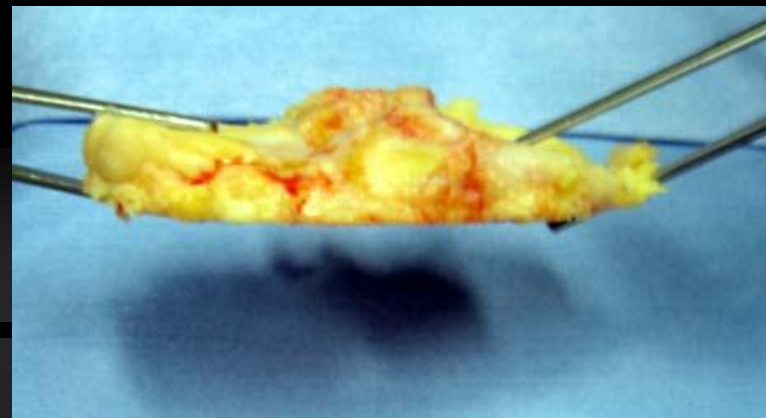
Pour les cals vicieux sévères en varus

Cal vicieux post traumatique en Varus

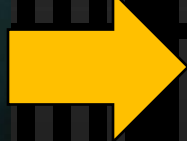


De M... Jacques

Cal vicieux post traumatique en Varus



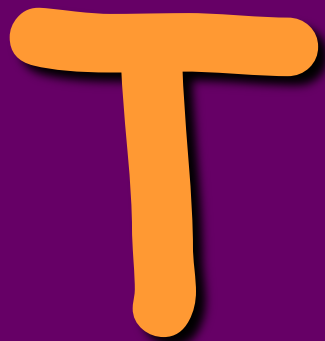
Cal vicieux post traumatique en Varus



+6 mois

+12 mois

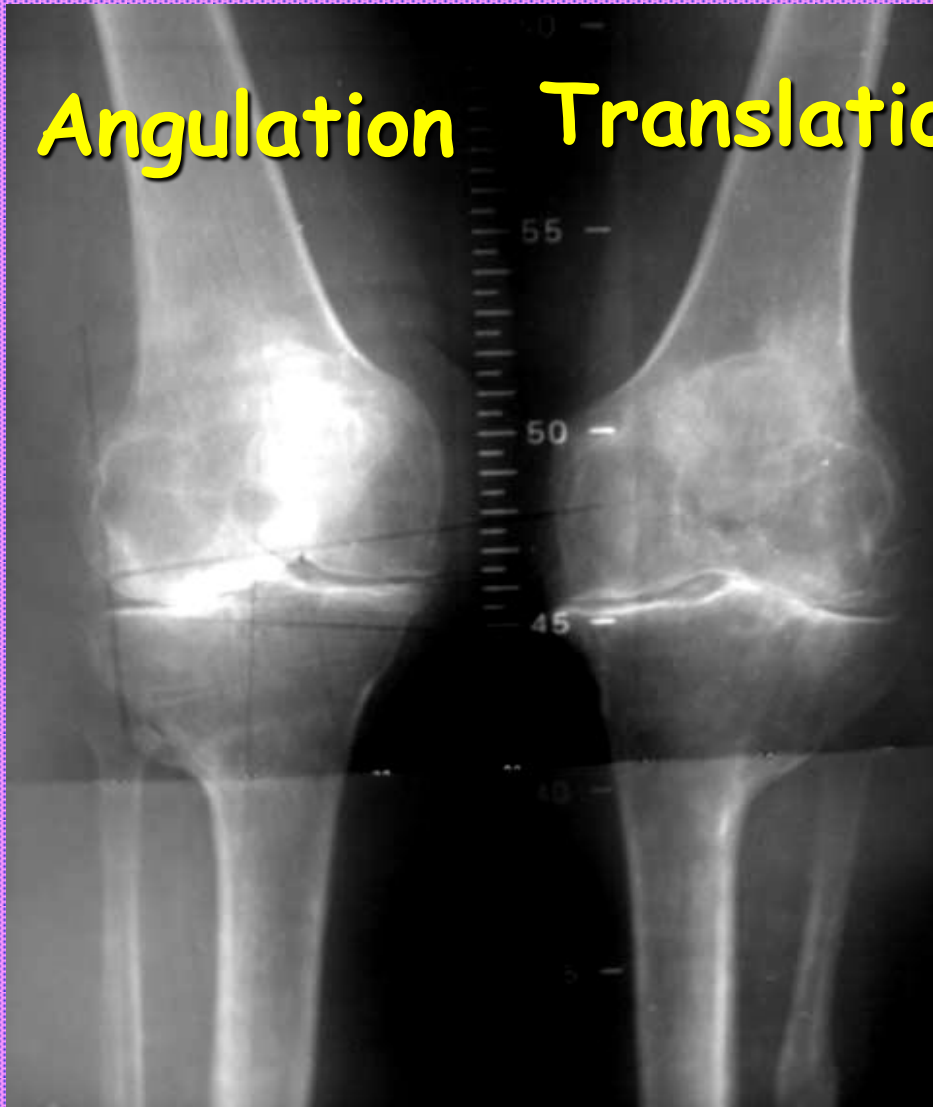
Déformation extra-articulaire



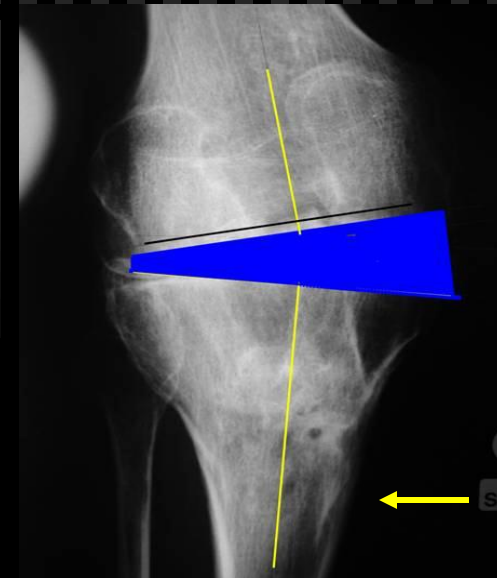
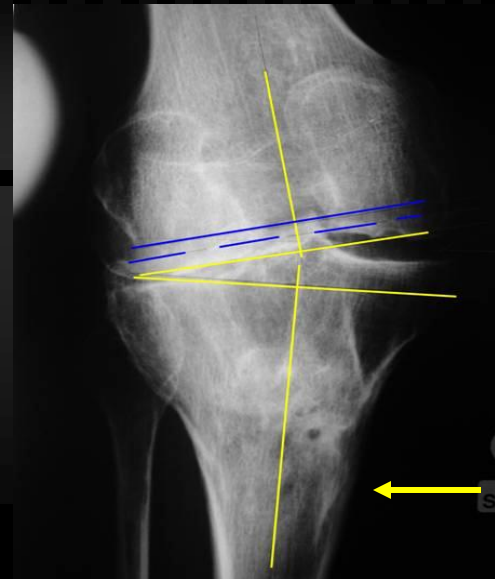
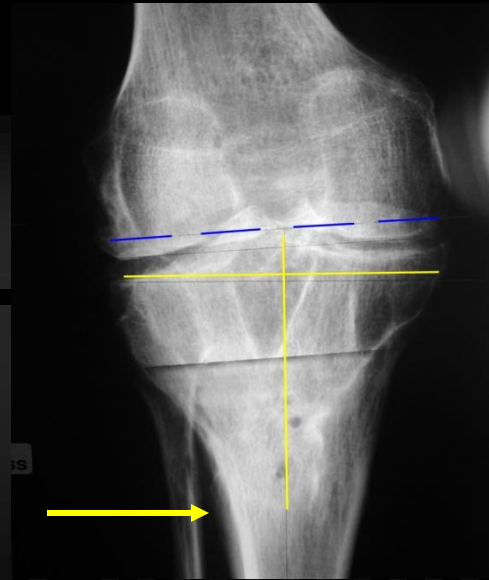
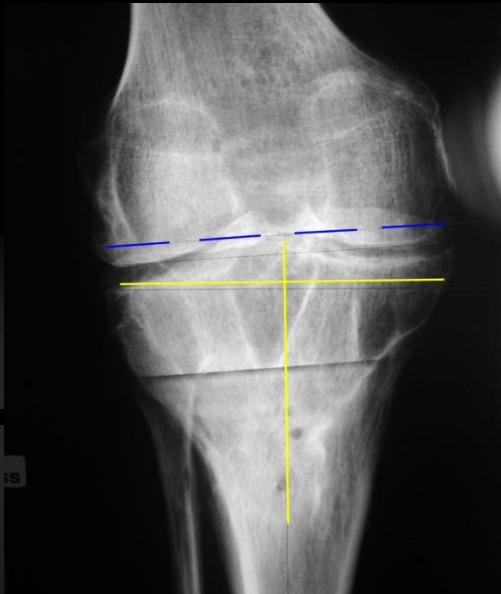
frontal

Déformation en valgus

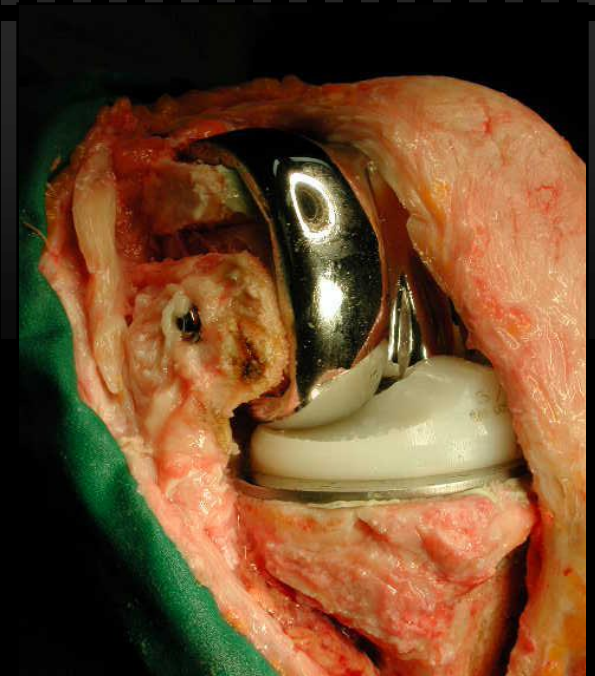
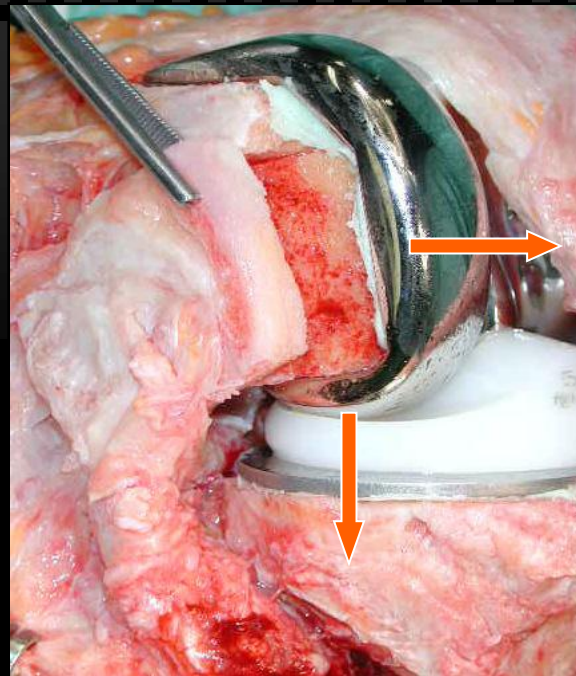
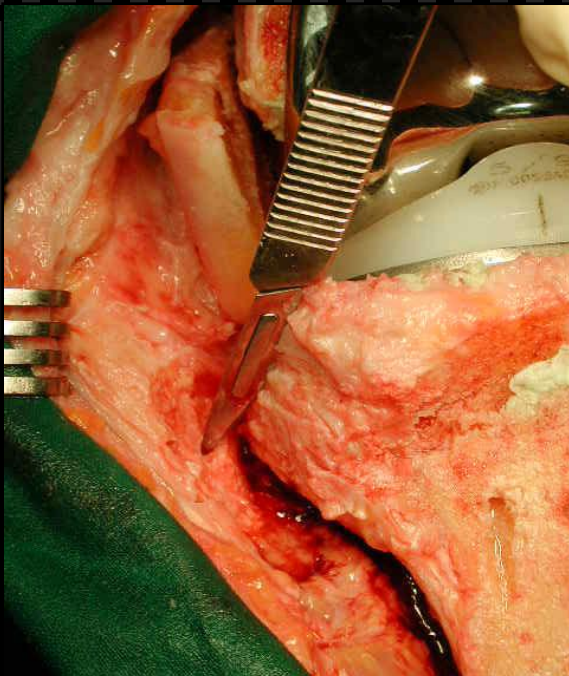
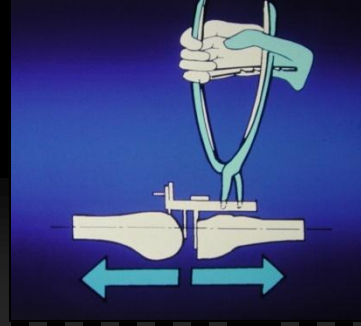
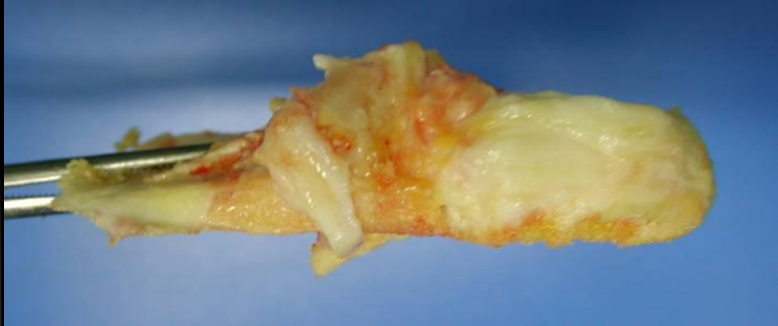
Angulation Translation



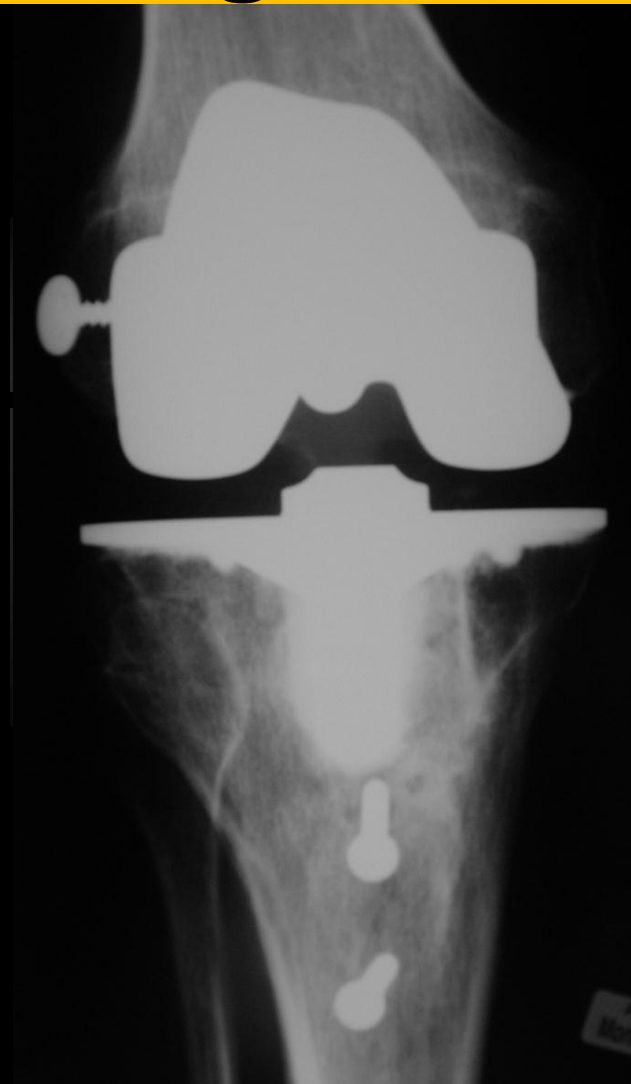
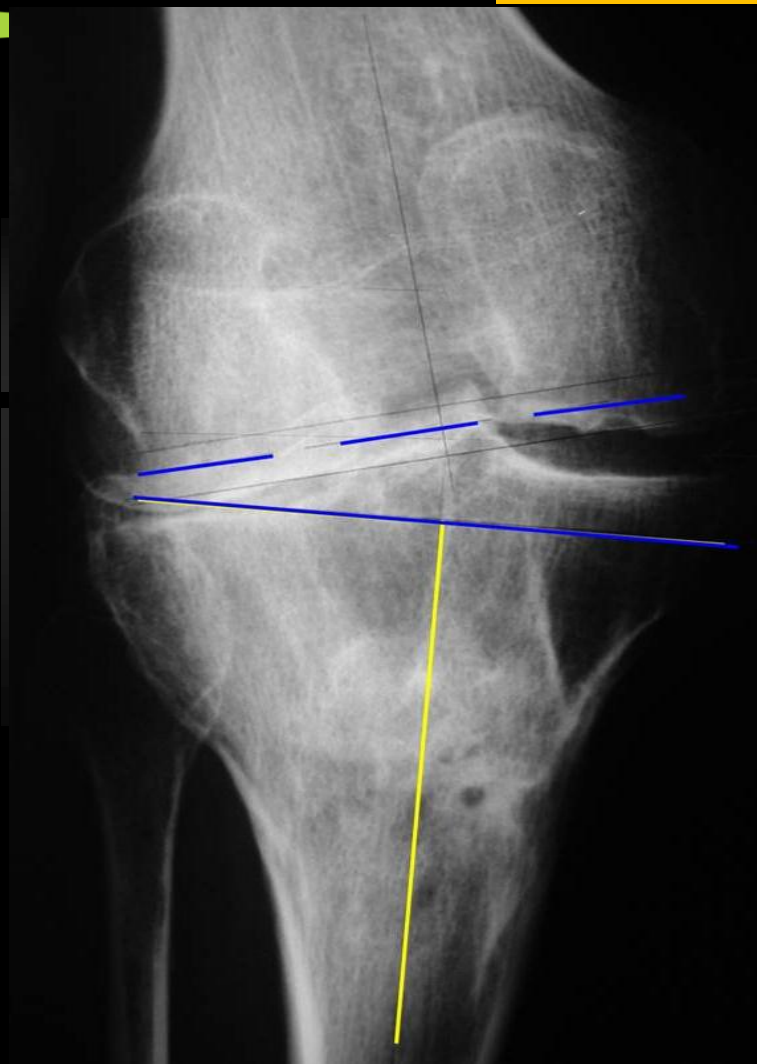
Cal vicieux tibial en Valgus

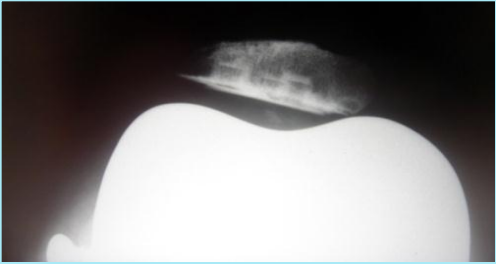


Cal vicieux tibial en Valgus



Cal vicieux tibial en Valgus

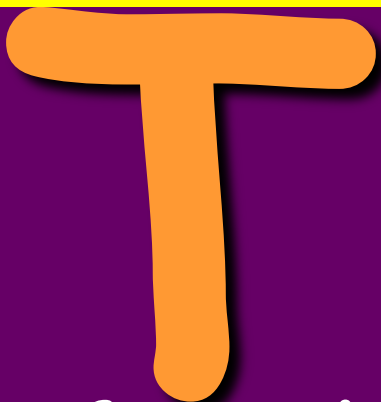




Déformation extra-articulaire



Knee joint



frontal



Knee joint



Sagittal



Knee joint

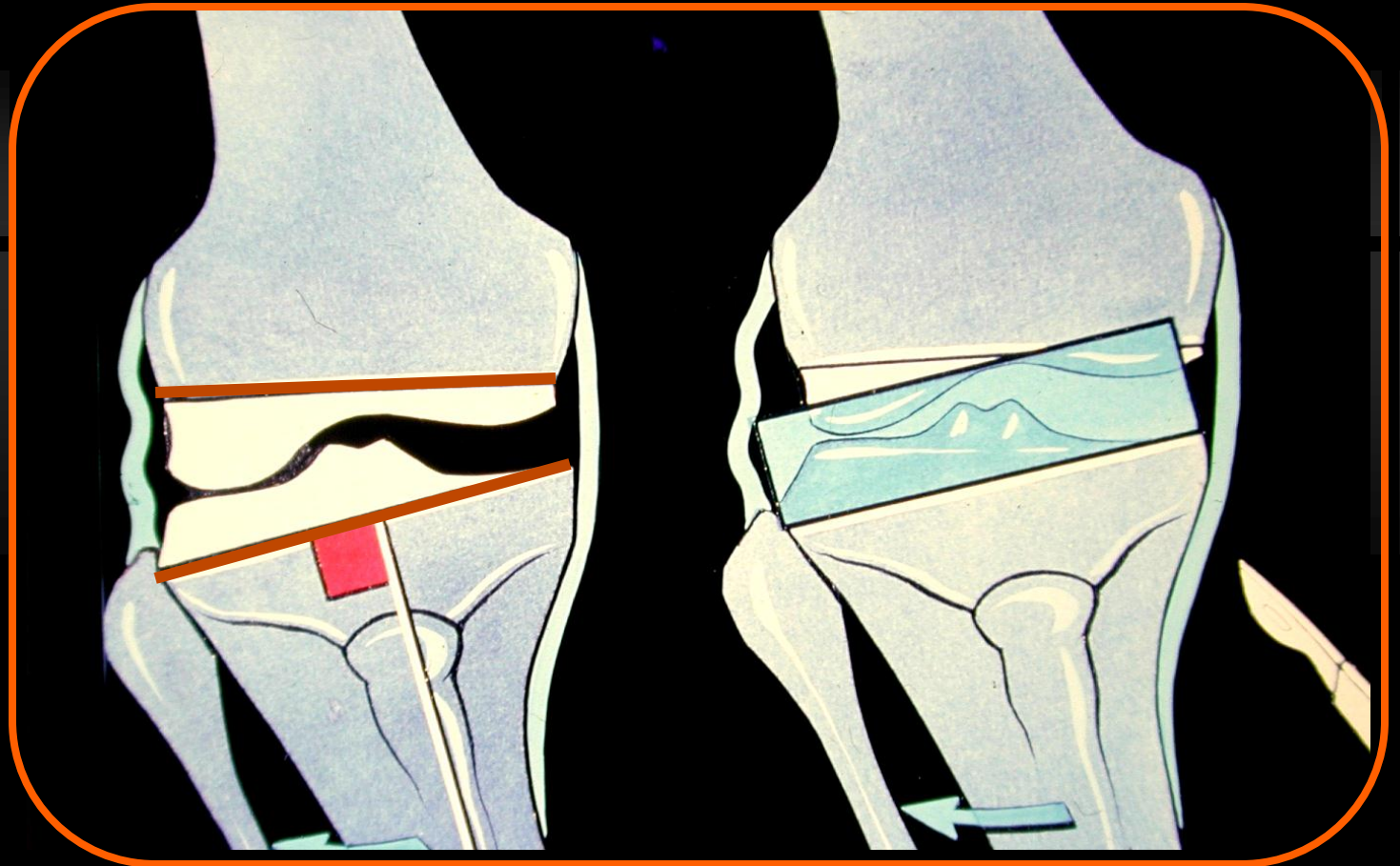


Horizontal

Cal vicieux fémoral en varus

EXTENSION GAP

Asymétrique

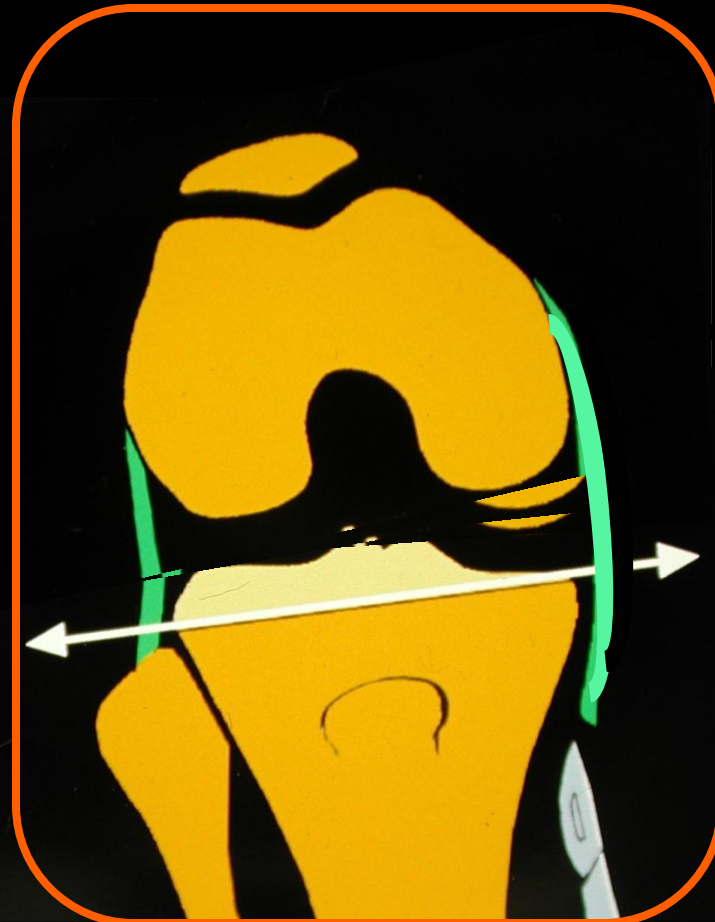


Cal vicieux fémoral en varus



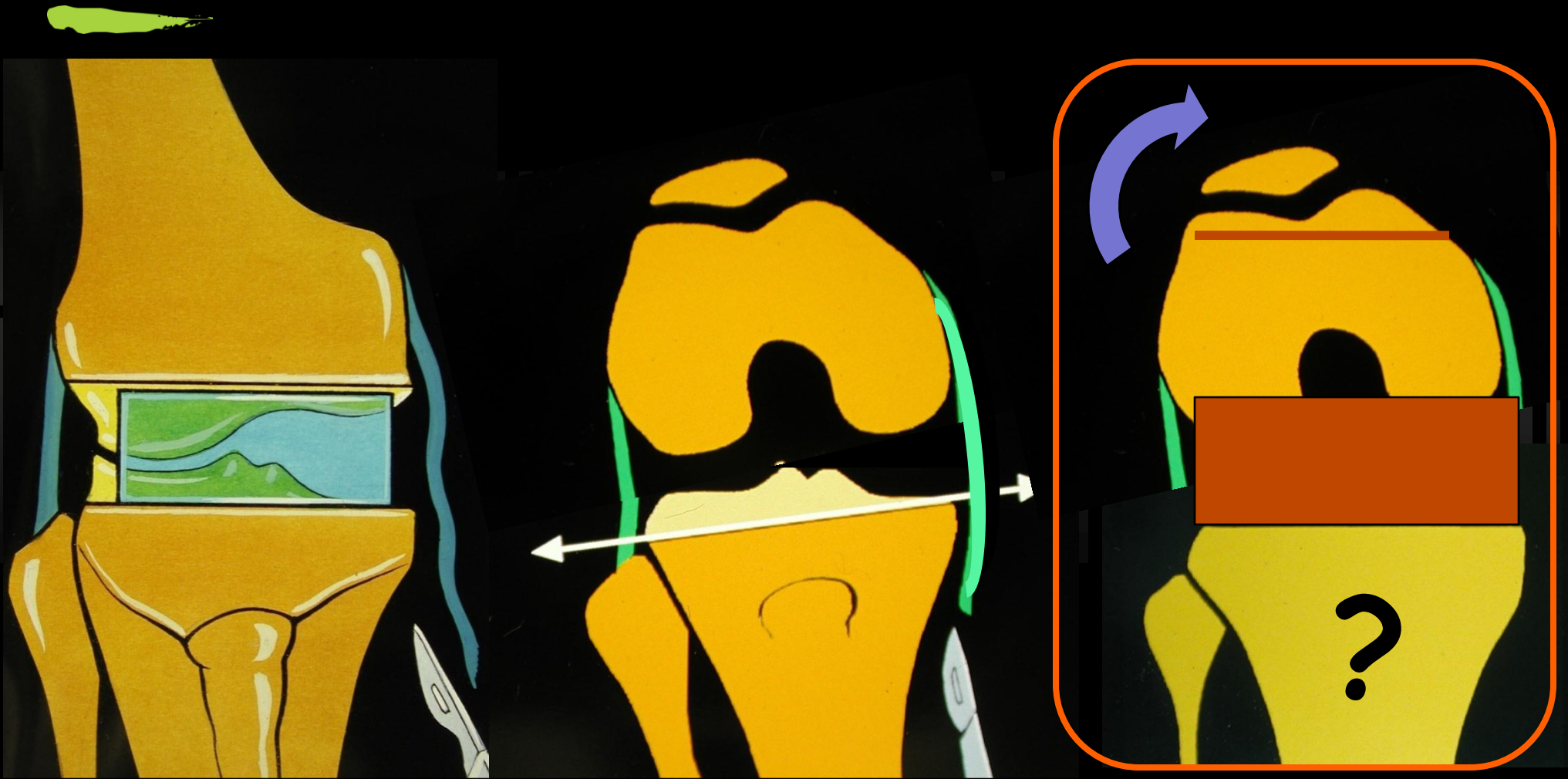
RELEASE

Cal vicieux fémoral en varus



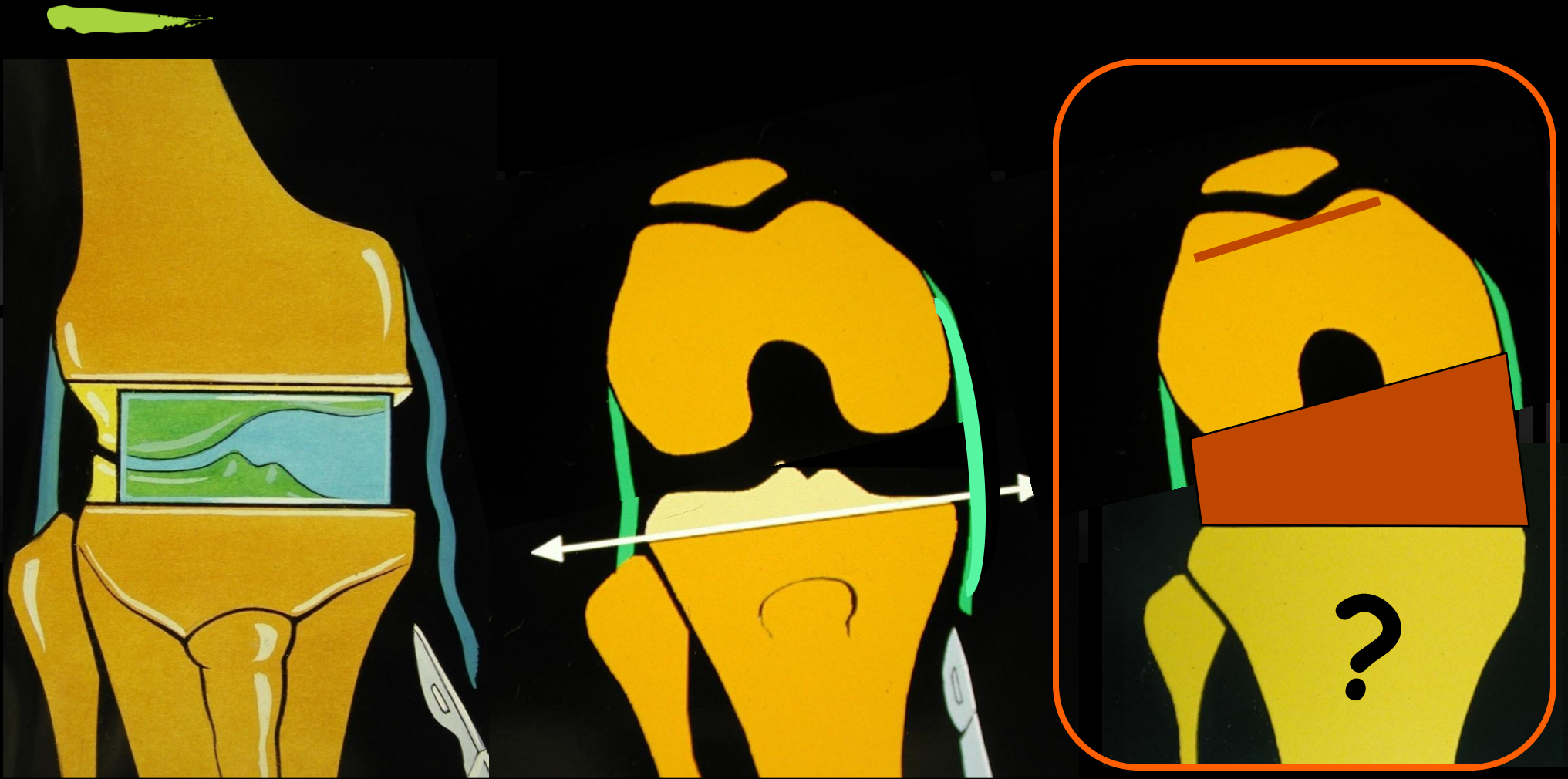
Discordance
flex. / ext.

Cal vicieux fémoral en varus



Rotation interne du fémur... Patellofemoral tracking

Cal vicieux fémoral en varus



Prothèse plus contrainte

Cal vicieux fémoral en varus

• On pourrait suggérer pour compenser l'asymétrie de la coupe fémorale distale:

- soit accepter une laxité interne
- Soit mettre de la rotation interne dans le carter fémoral.



Prothèse plus contrainte



Fémur en rotation interne

Cal vicieux fémoral en varus

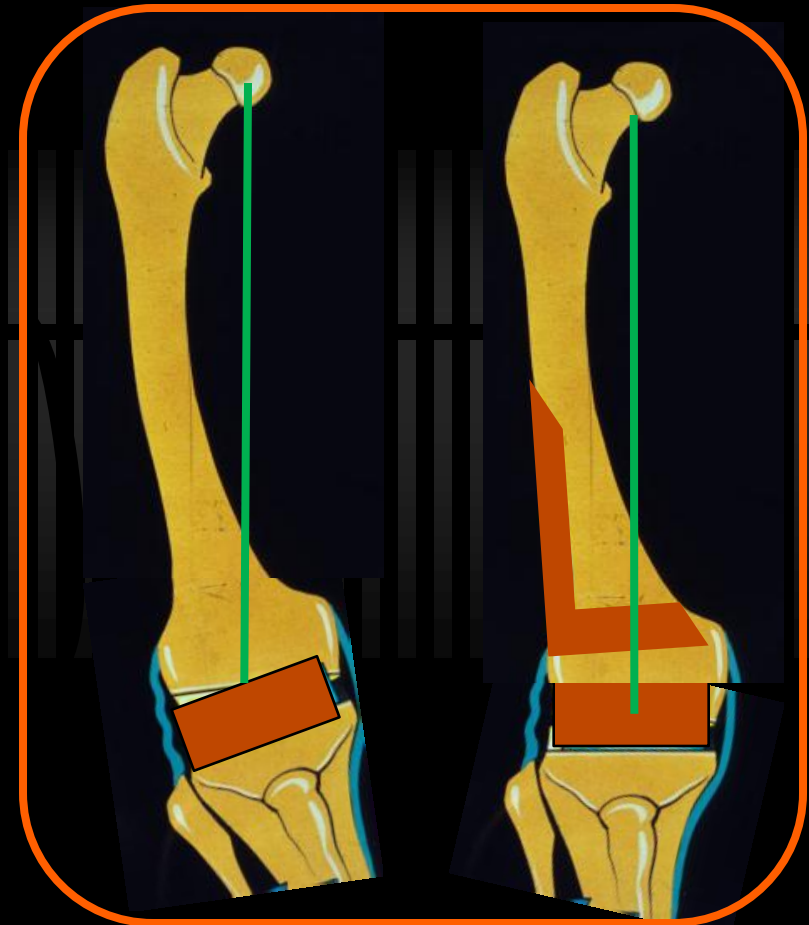
• En cas de déformation extra-articulaire fémorale modérée en varus ($<6^\circ$) nous préférons accepter un varus résiduel modéré du composant fémoral (et ne pas mettre de rotation interne dans l'implant fémoral)...



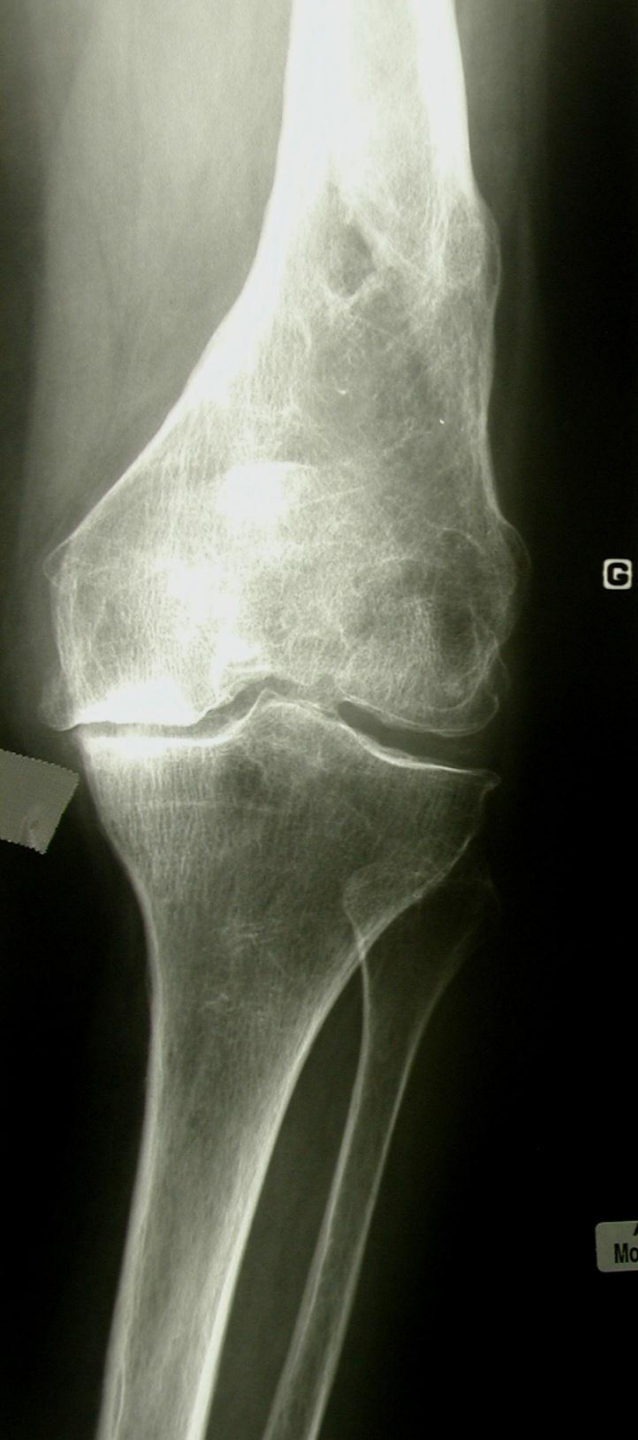
Varus résiduel

Cal vicieux fémoral en varus

• En cas de déformation fémorale extra-articulaire majeure en varus ($>6^\circ$), on doit discuter une ostéotomie fémorale associée (chirurgie en 1 ou 2 temps)

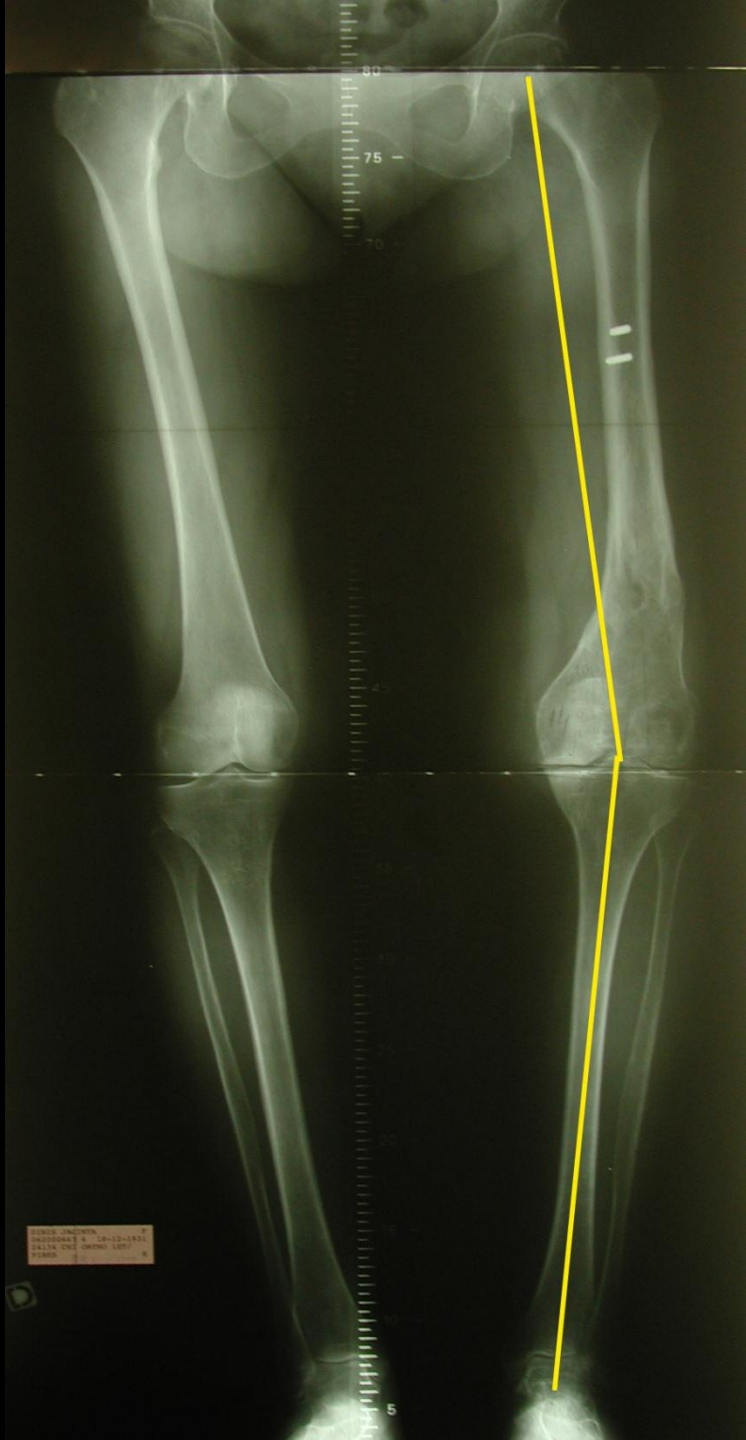
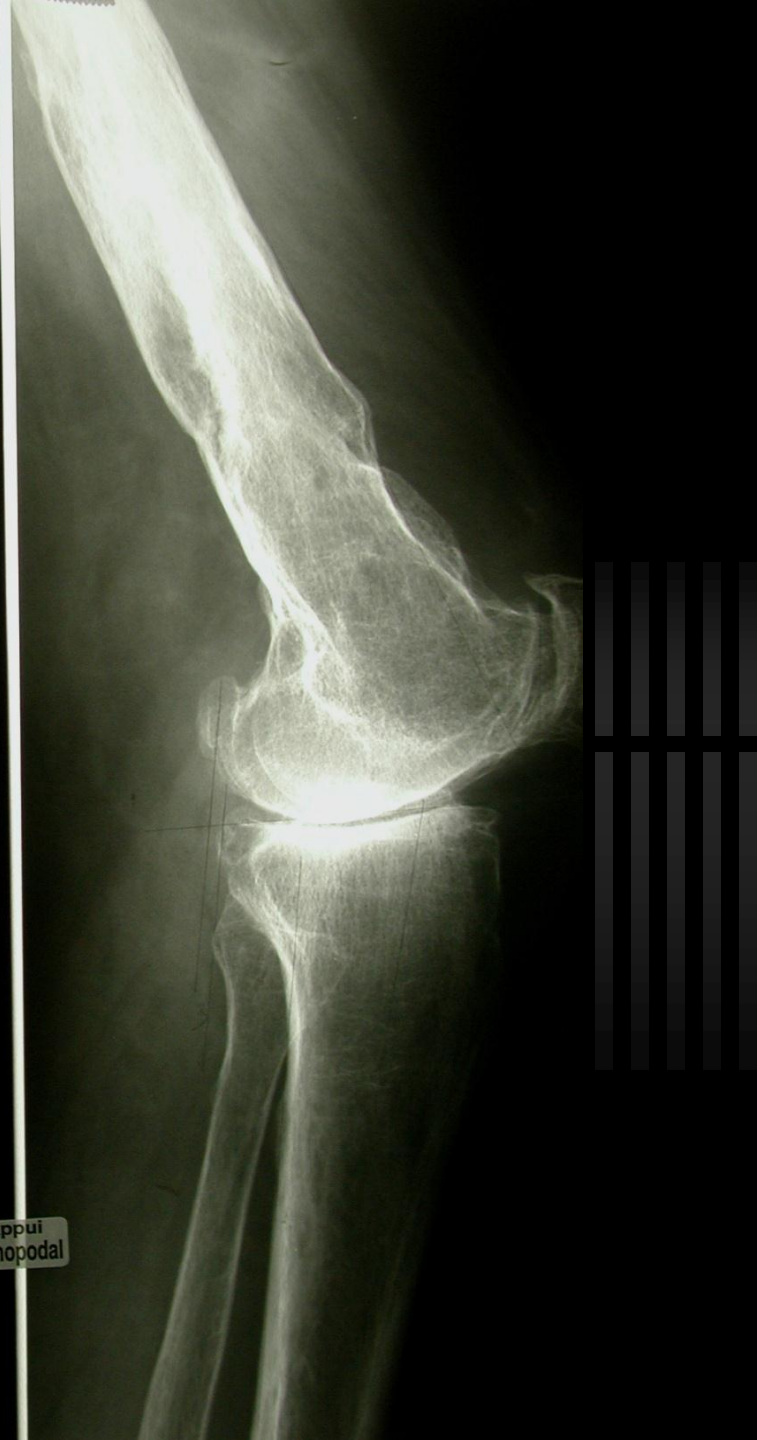


Varus résiduel excessif

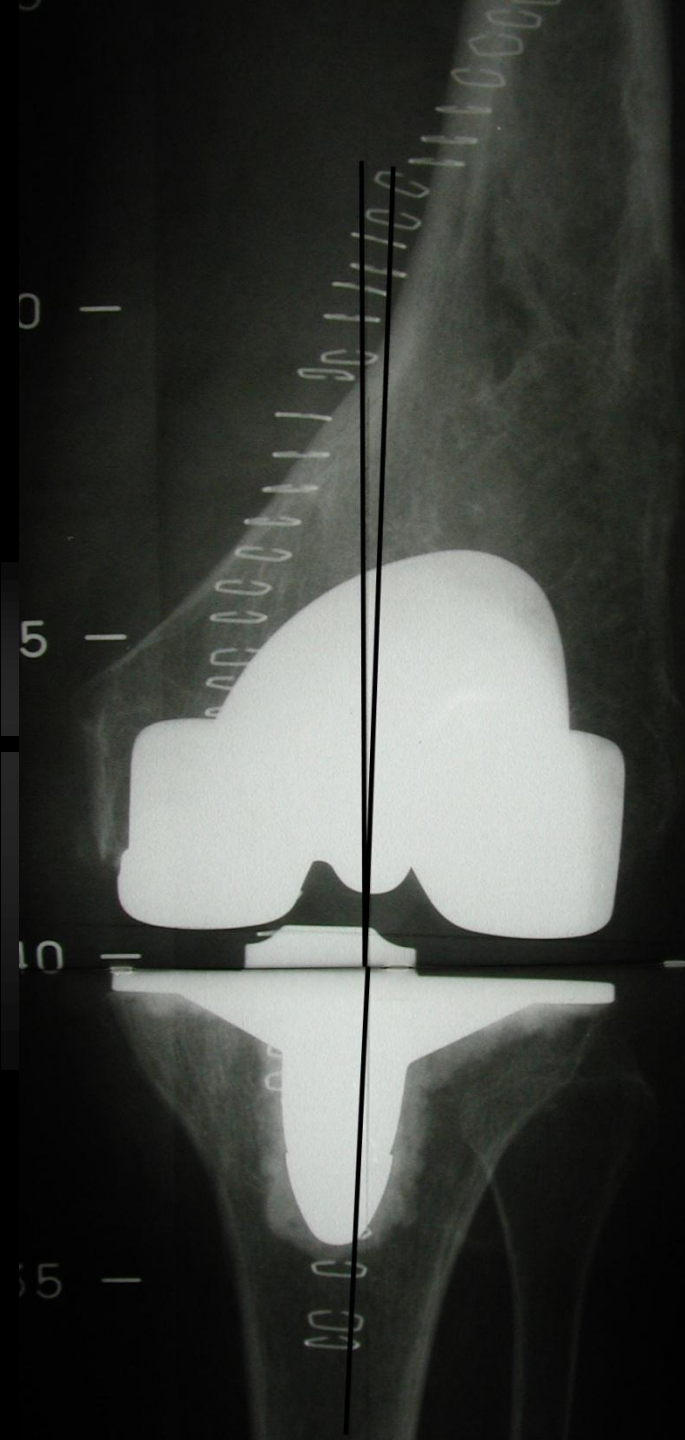


G

Appui
Monopodal

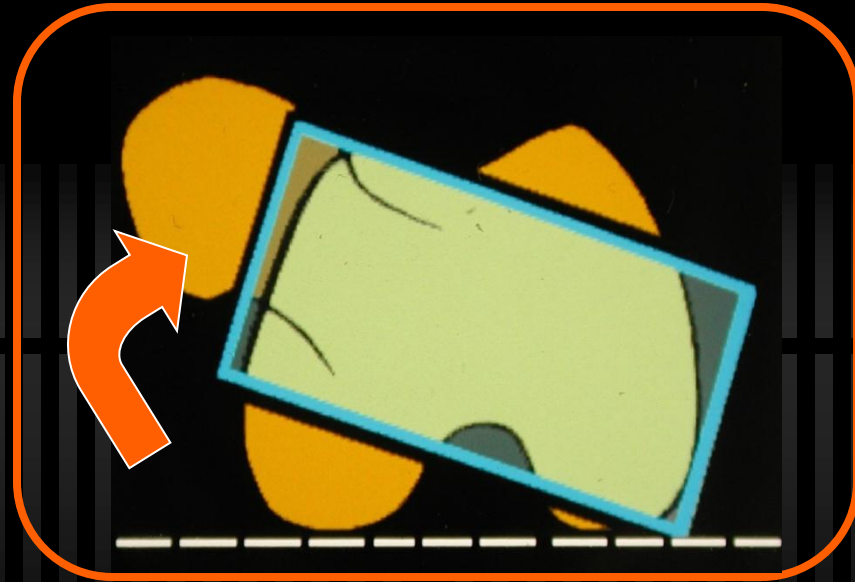
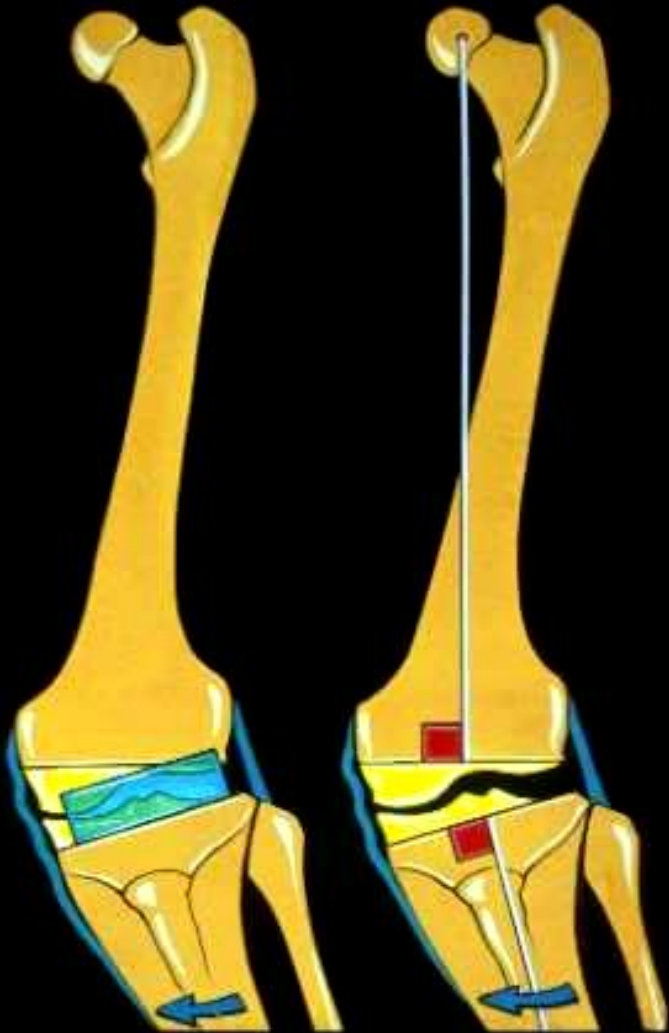


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MILVA CNR MACRO 1007
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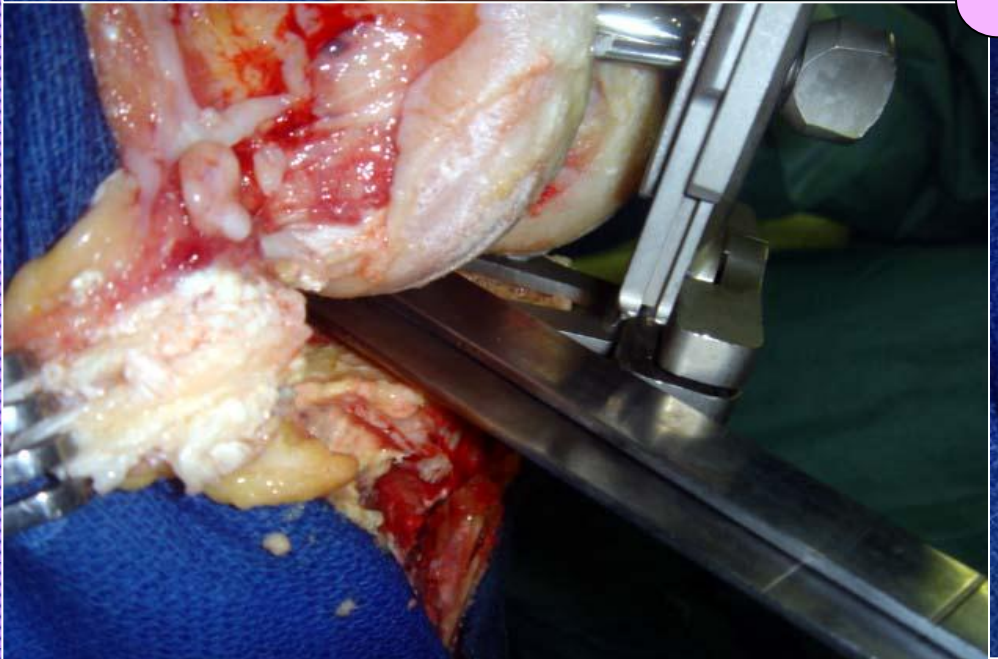
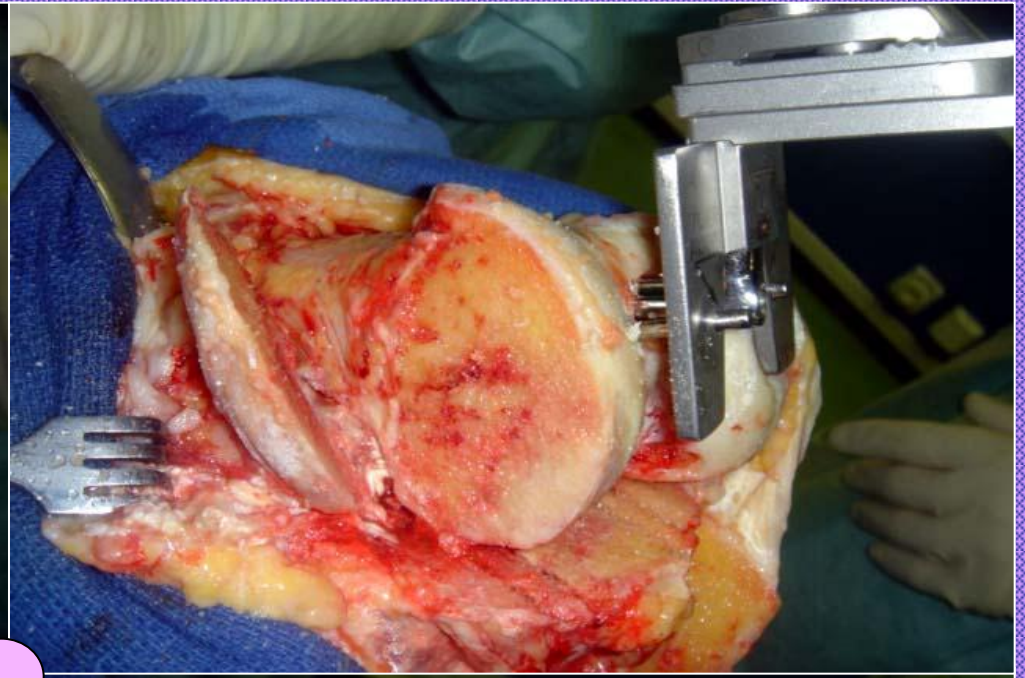
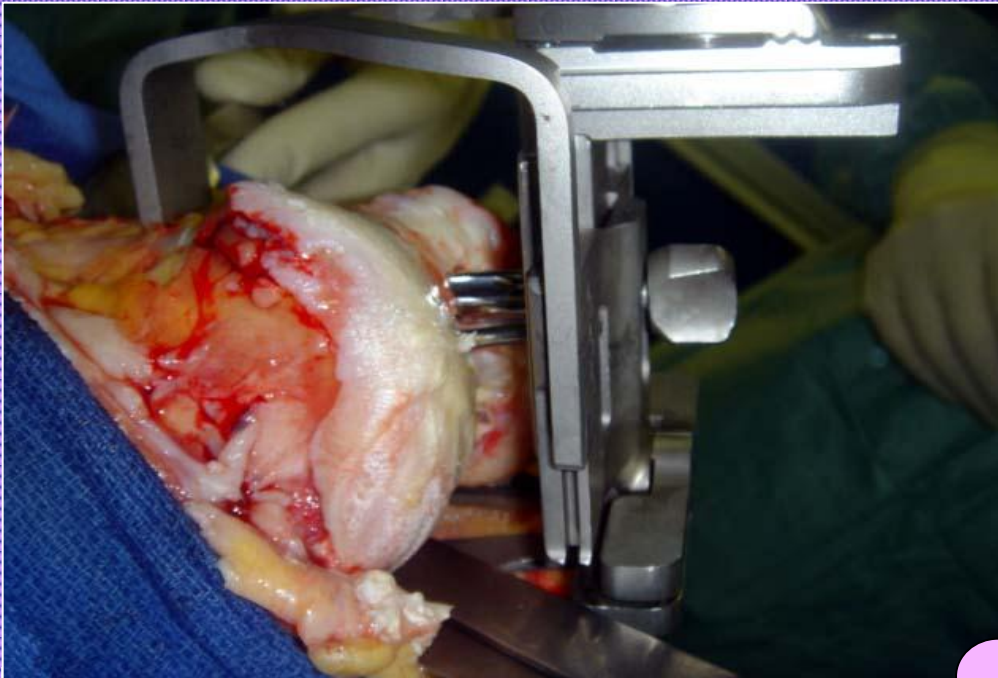


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Cal vicieux fémoral en valgus



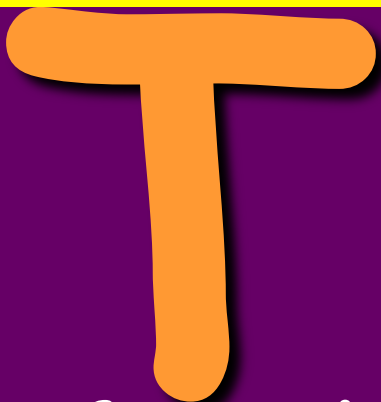
Rotation externe
du composant fémoral?



Déformation extra-articulaire



Knee joint



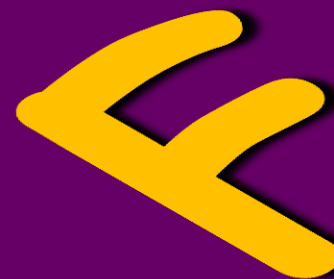
frontal



Knee joint



Sagittal

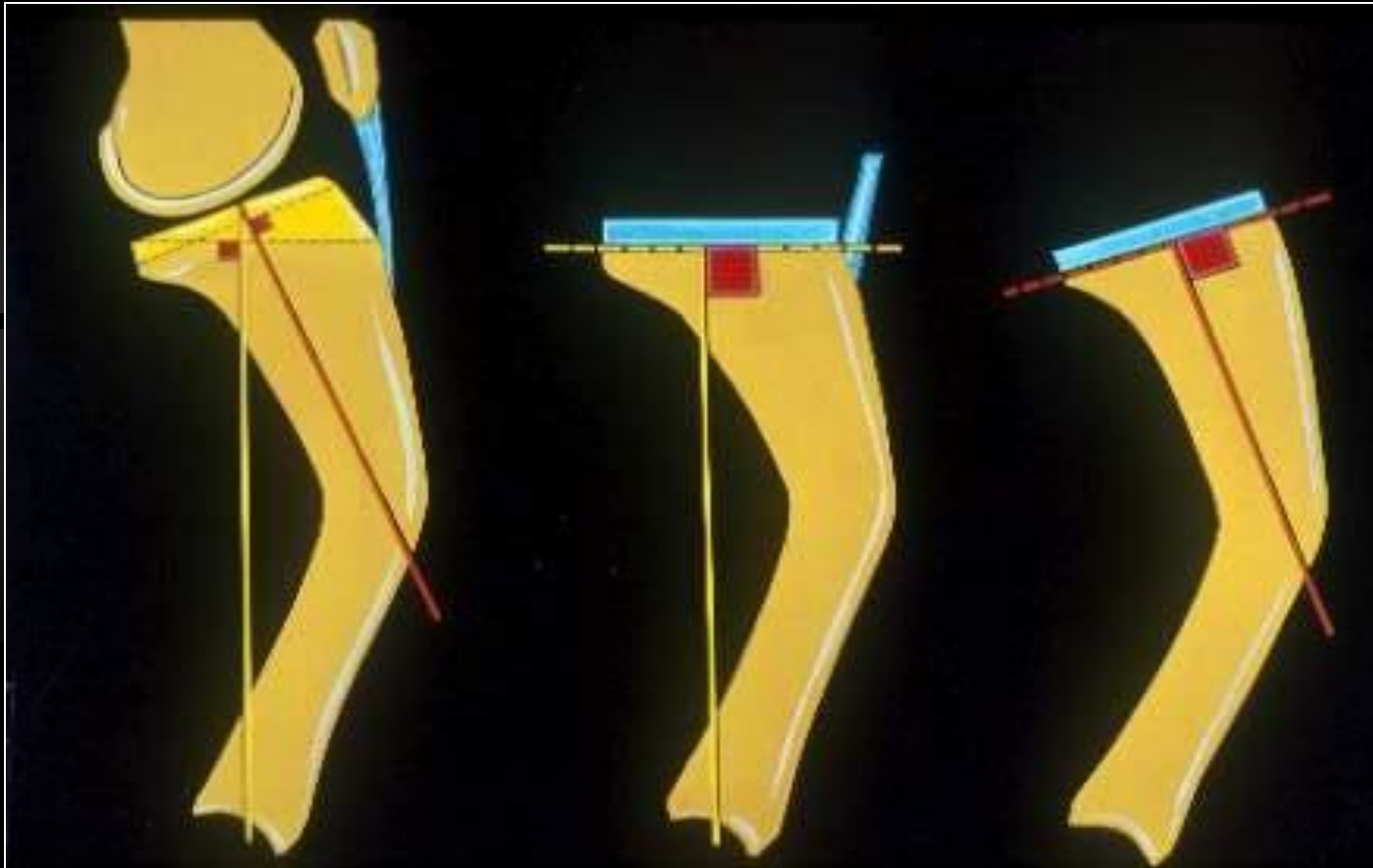


Knee joint

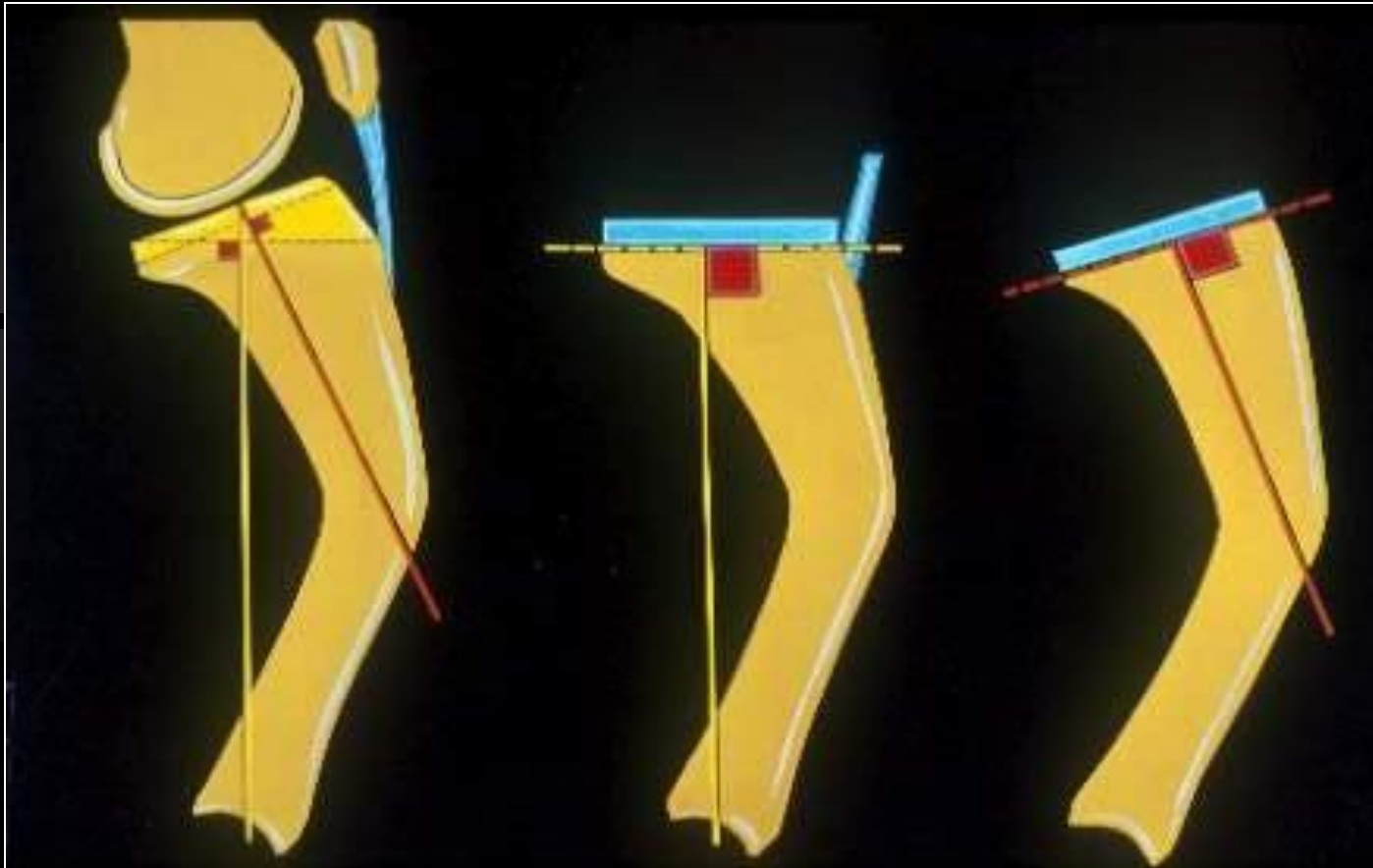


Horizontal

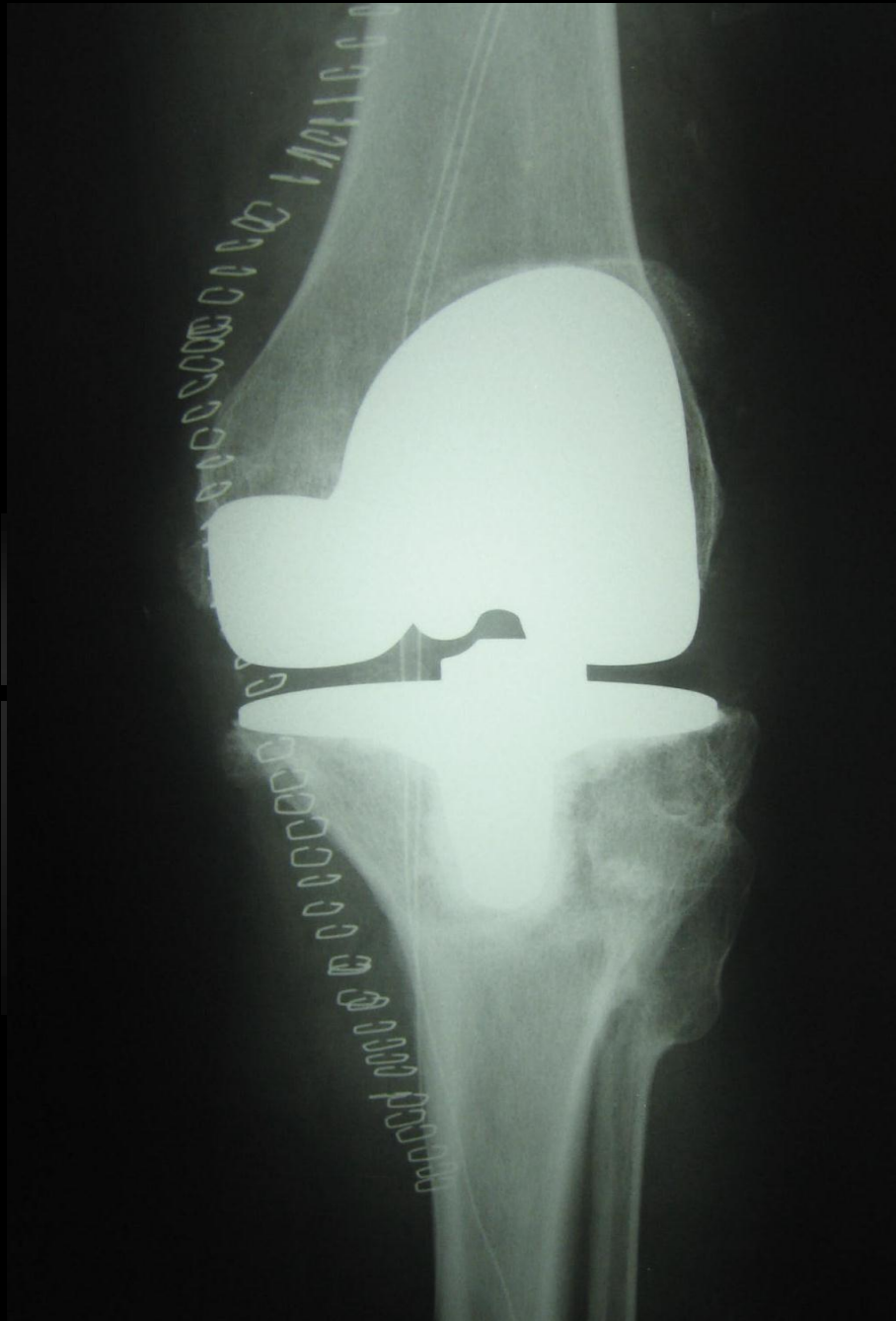
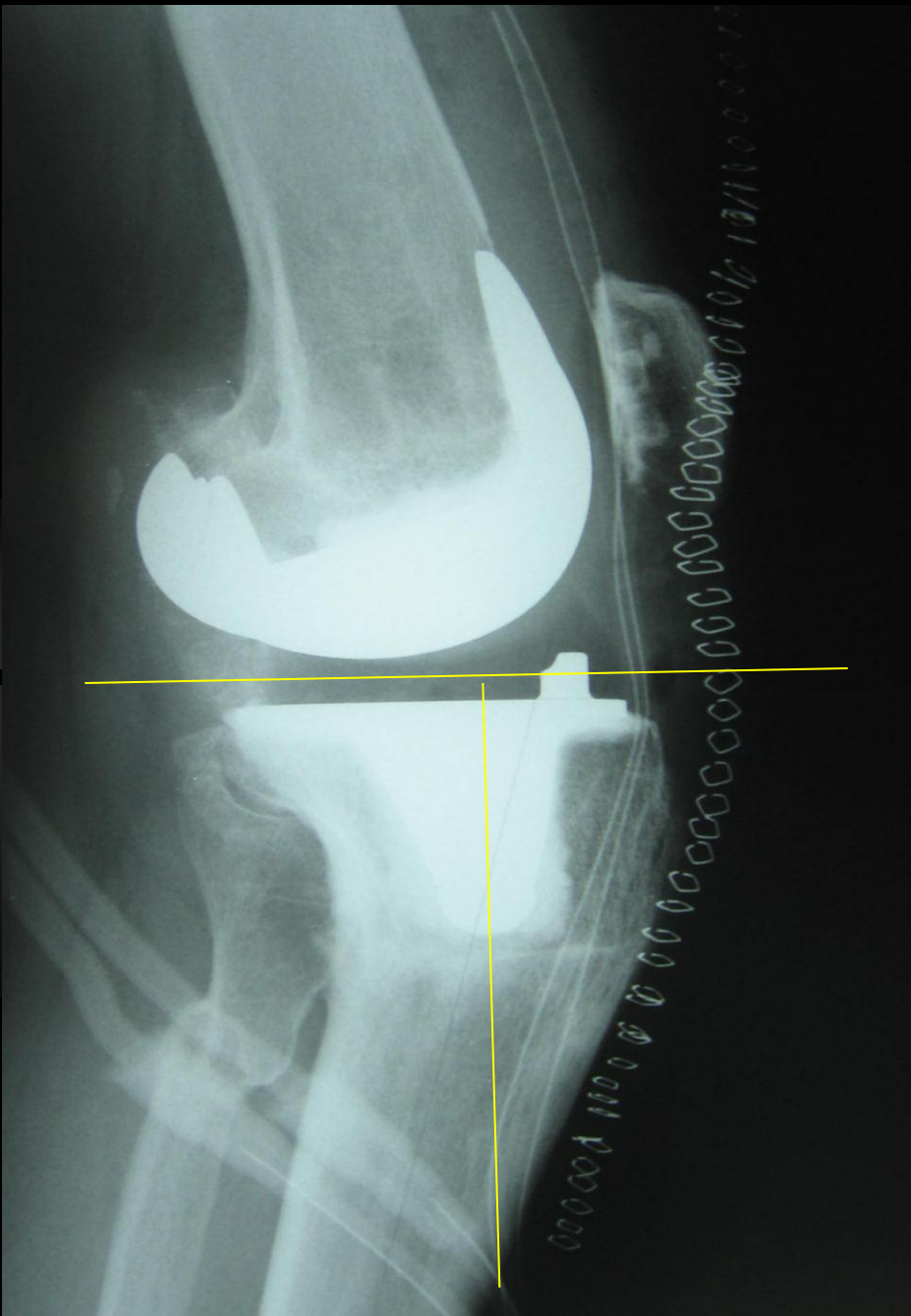
Plan sagittal



Plan sagittal



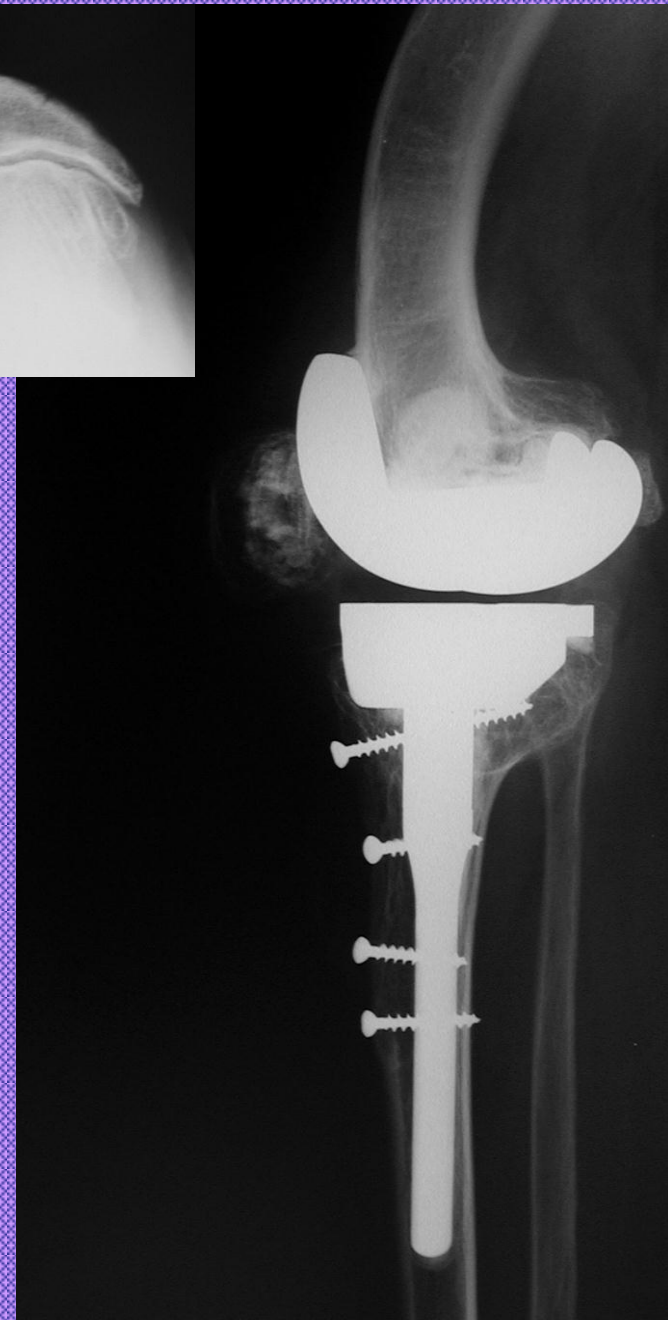
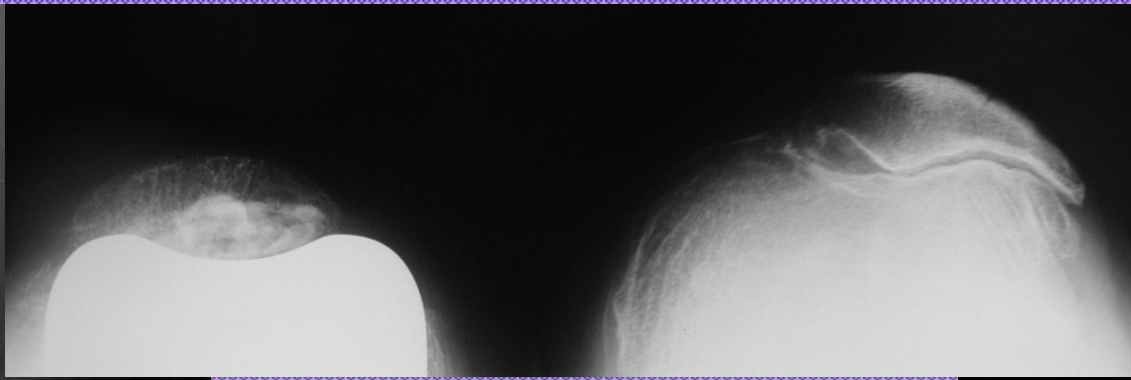
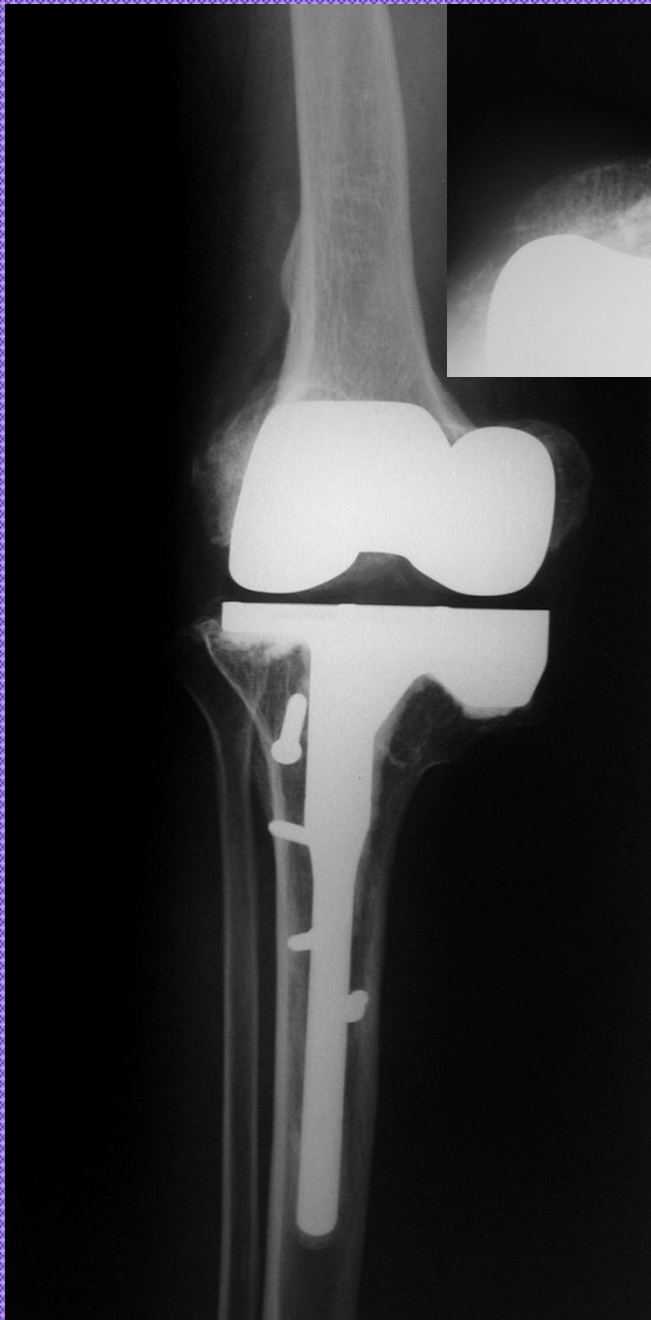




Plan sagittal







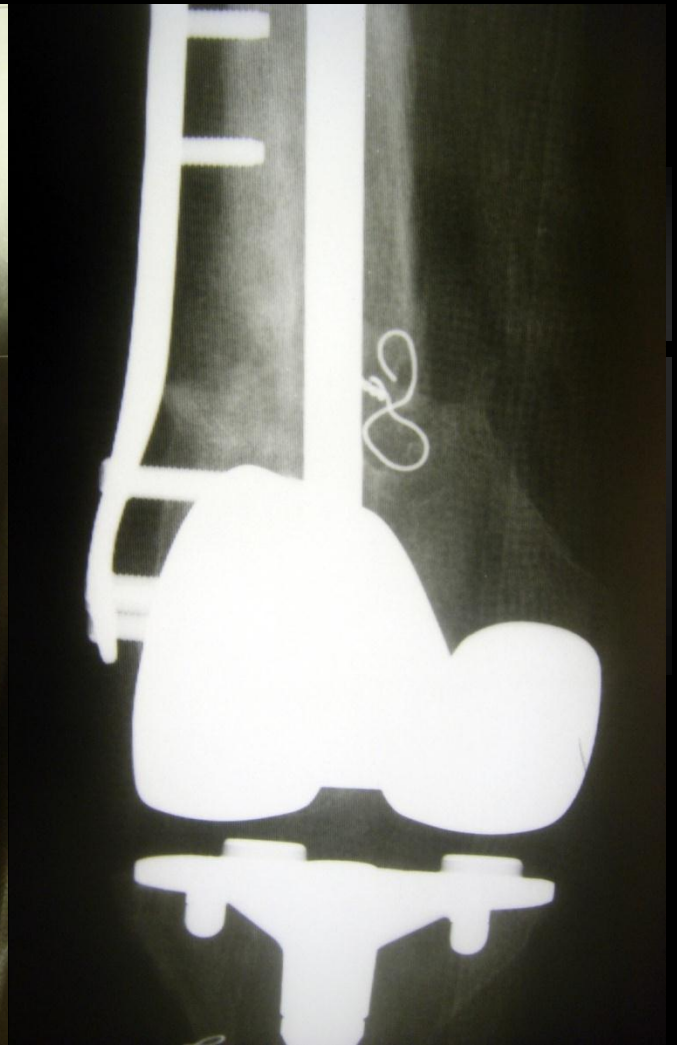
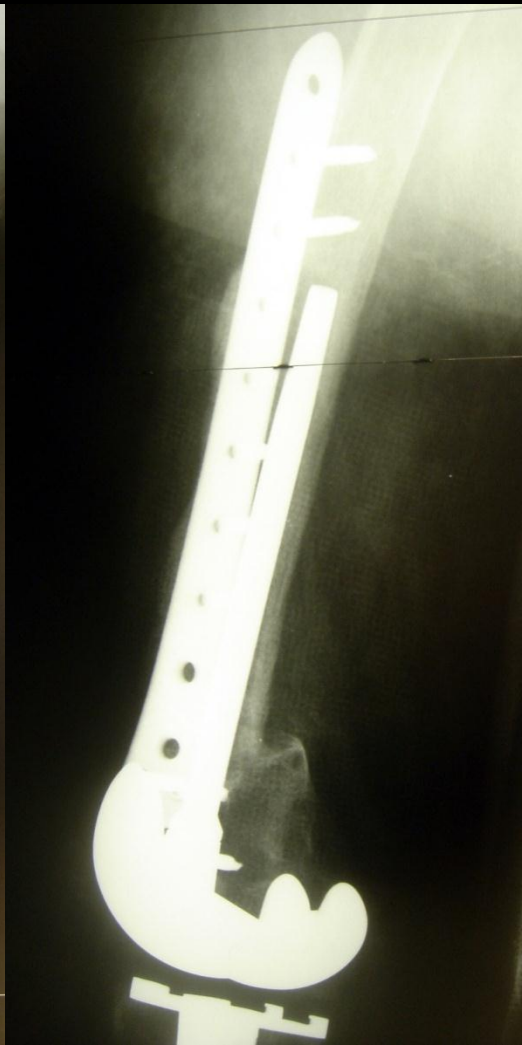
Mor... michelle + 1y



Mor... michelle + 1y



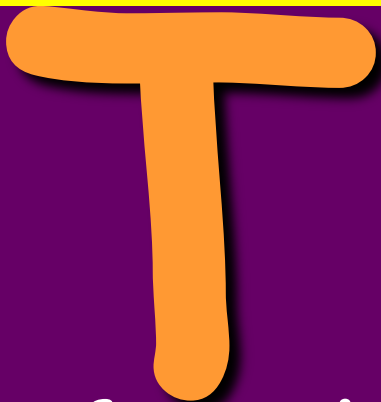
Mor... michelle + 1y



Déformation extra-articulaire



Knee joint



frontal



Knee joint



Sagittal



Knee joint



Horizontal

Malrotation fémorale



M. Lac...

Plan horizontal

Isakos 2001 81 OA on malunion

✓ Rarement isolée

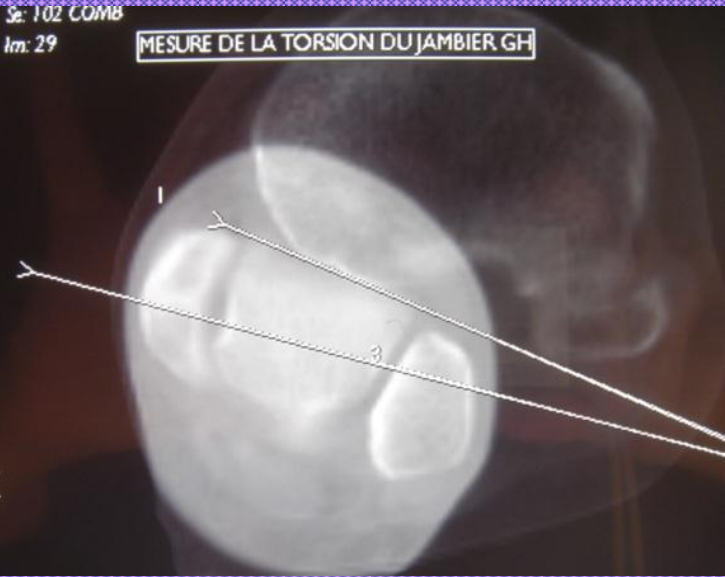
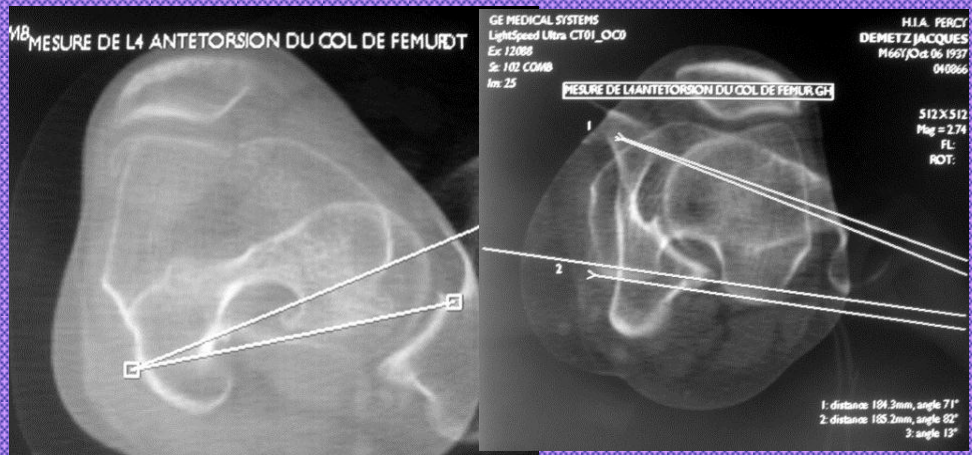
✓ Femur : torsion externe 6 cas (6 AFTI)

torsion interne 1 cas (1 AFTE)

✓ Tibia : torsion interne 1 cas

→ Ostéotomies de dérotation = 2 (20° et 25°)

→ PTG = 6 (7° à 13°)



De M... Jacques

Conclusions

Planning pré-opératoire correct.....

.....Jamais « straight forward surgery »

Déformation extra-articulaire

Mécanique

(angle ou axe)

et non pas anatomique

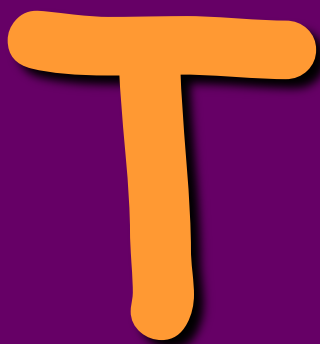


> 8°

Déformation extra-articulaire



Knee joint



frontal

Varus



Merci