

# RECONSTRUCTION DU LCA § OSTEOTOMIE



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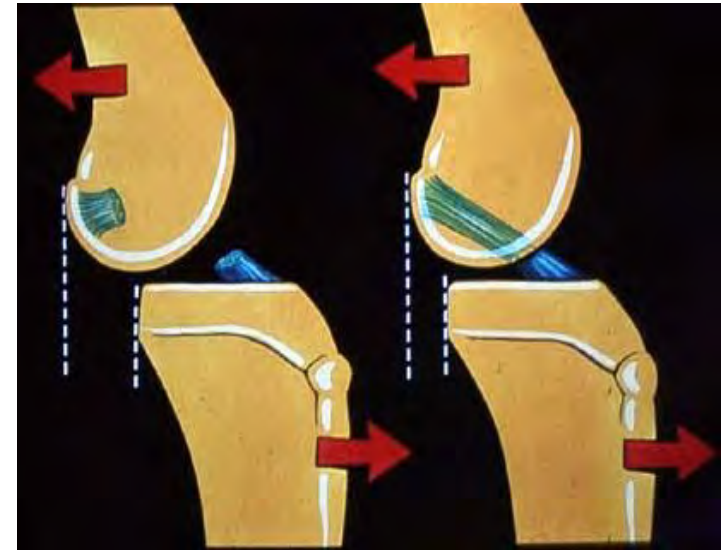
DIU arthroscopie 2019

# Le Ligament Croisé Antérieur

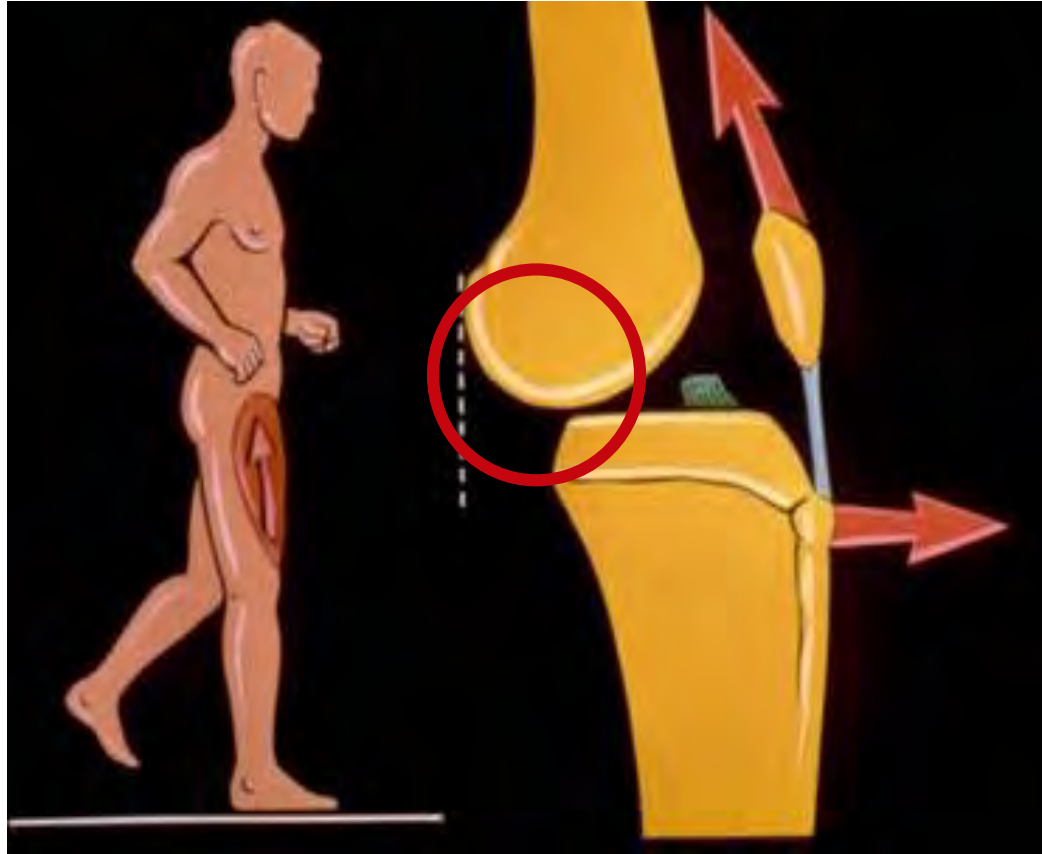
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Limite le déplacement  
antérieur du tibia / fémur

Translation Tibiale  
Antérieure



# Augmentation de la TTA Translation Tibiale Antérieure



*Augmentation contraintes postéro-internes*

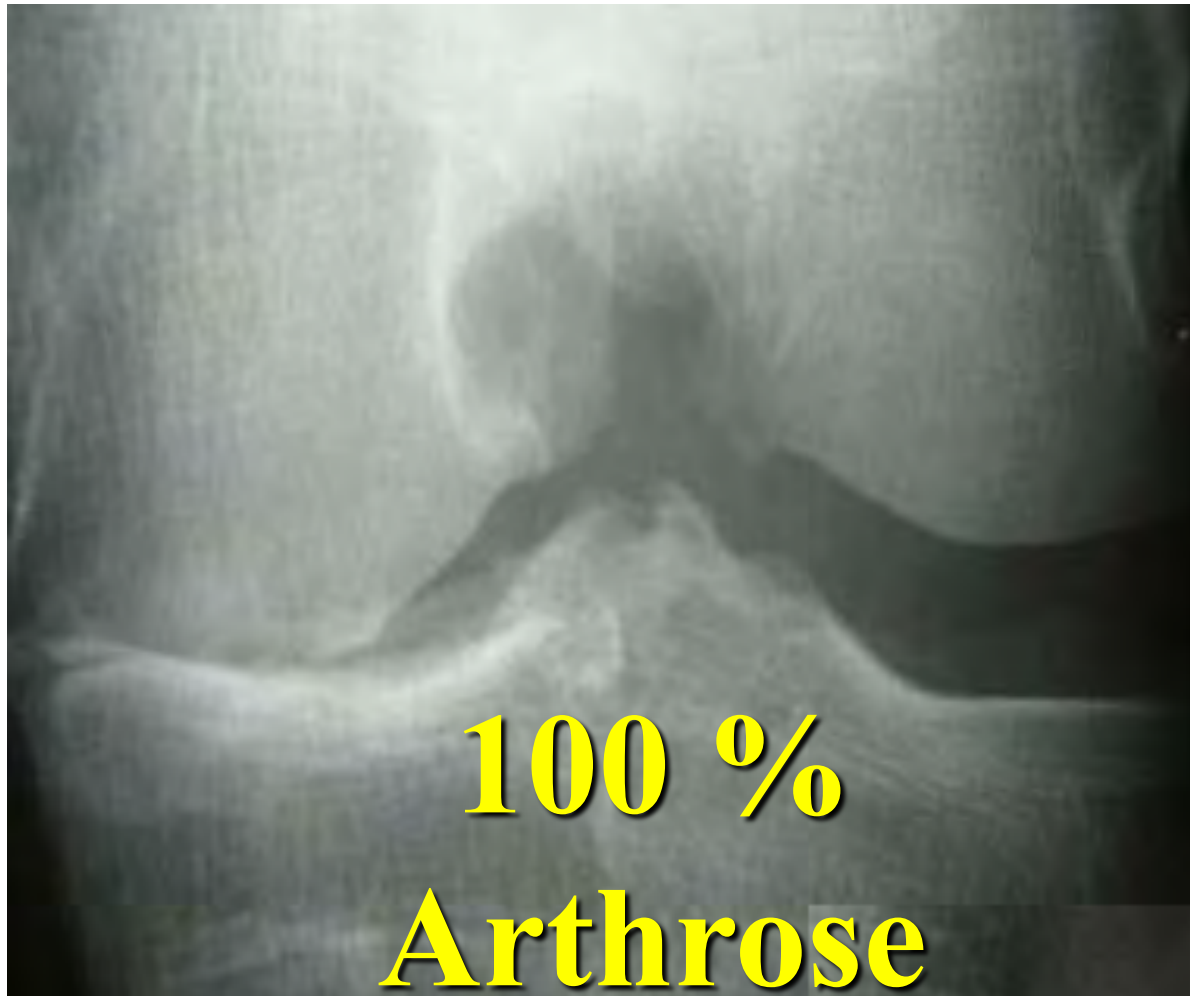
**Evolution naturelle  
après  
rupture du LCA**

# Translation antérieure fixée "cupule postéro interne"



# LCA + ménisque 25 ans

*(A Trillat - thèse Ph. Neyret RCO 1988)*



75 %  
Interne

25 %  
Globale

**100 %  
Arthrose**

# Rupture du lca chez l'adulte

## Histoire naturelle



THE JOURNAL OF  
BONE AND JOINT  
SURGERY

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### PARTIAL MENISCECTOMY RELATED TO THE STATE OF THE ANTERIOR CRUCIATE LIGAMENT

REVIEW AT 20 TO 35 YEARS

P. NEYRET, S. T. DONELL, H. DEJOUR

*From Centre Hospitalier Lyon Sud, Lyon, France*

Follow-up	Degenerative changes
20-24 years	61% pre OA - OA
25-29 years	71% pre OA - OA
30-34 years	86% pre OA - OA



# Caractères de l'arthrose sur laxité chronique antérieure



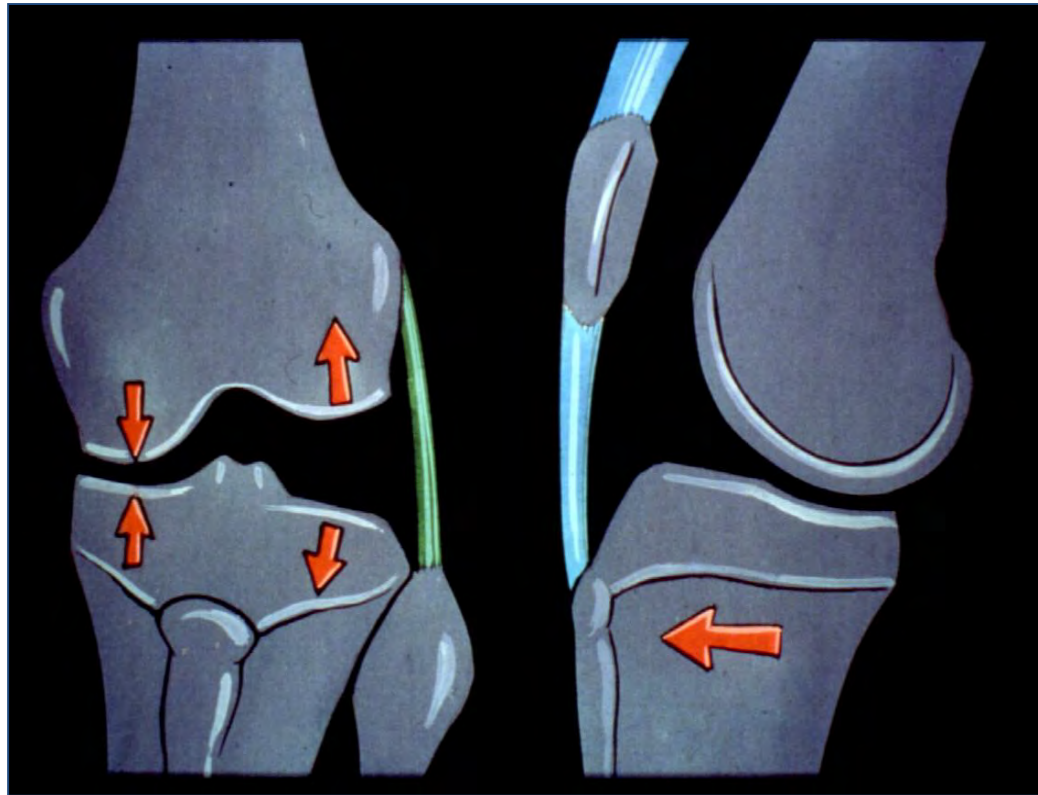
# FACTEURS ETIOLOGIQUES DE L'ARTHROSE

- Facteurs biochimiques
- Facteurs aggravants (ménisques, poids, ATCD chir.)
- Facteurs biomécaniques +++  
(déséquilibre frontal et sagittal)

# Déséquilibre frontal

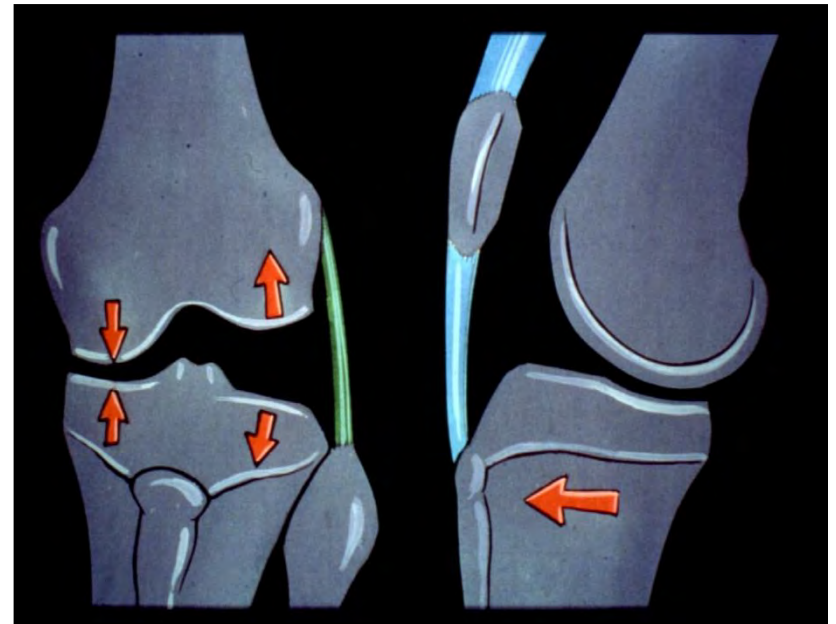
- Genu varum constitutionnel
- Genu varum acquis  
(usure ou laxité)

# Déformation en Varus



- Aggrave les autres facteurs

# Varus asymétrique



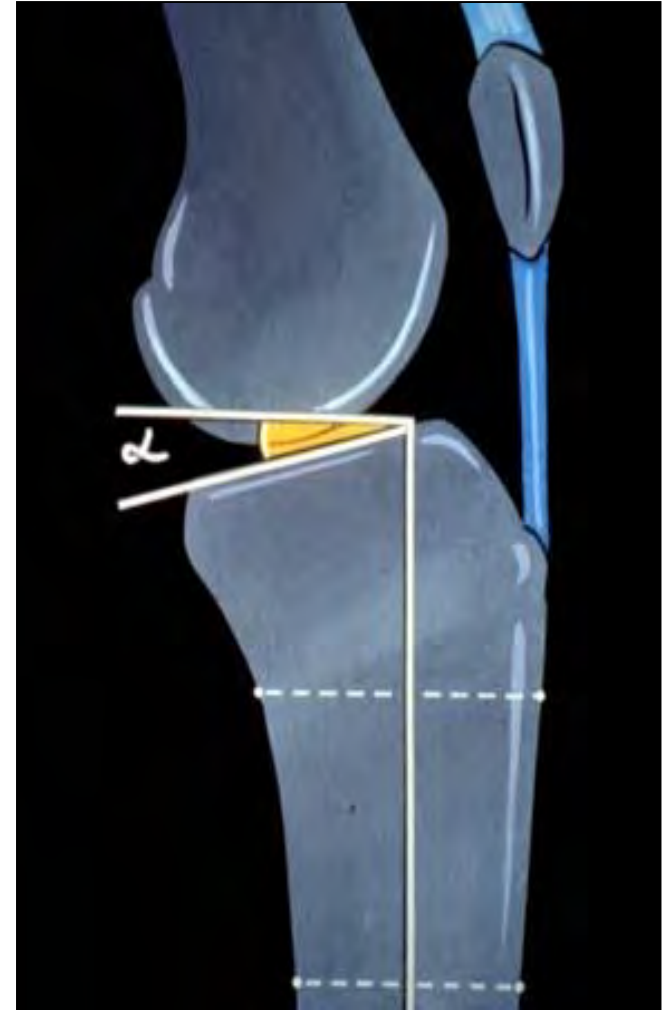
# Déséquilibre sagittal ++

- Translation tibiale antérieure
- Pente tibiale

# Déséquilibre Sagittal

*(Translation tibiale antérieure)*

- Laxité chronique
- Pente tibiale excessive
- Méniscectomie interne

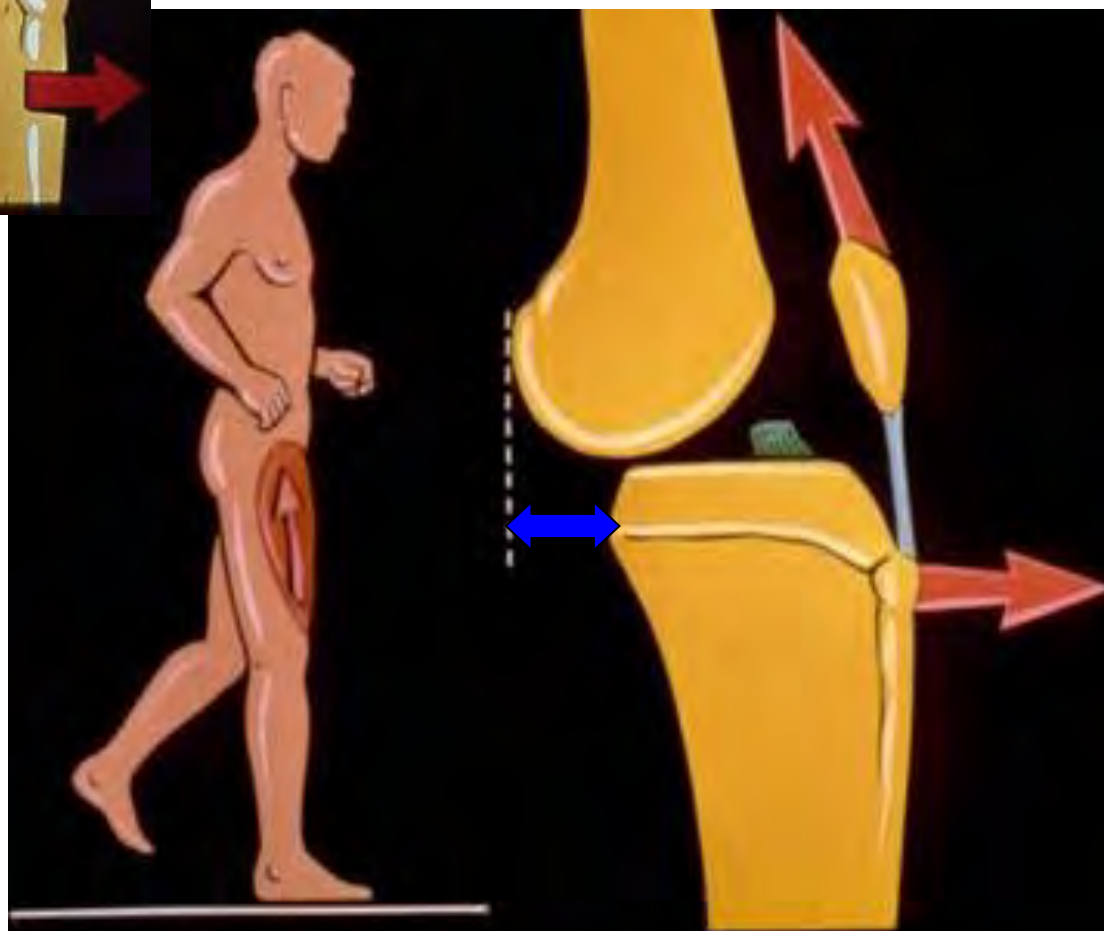
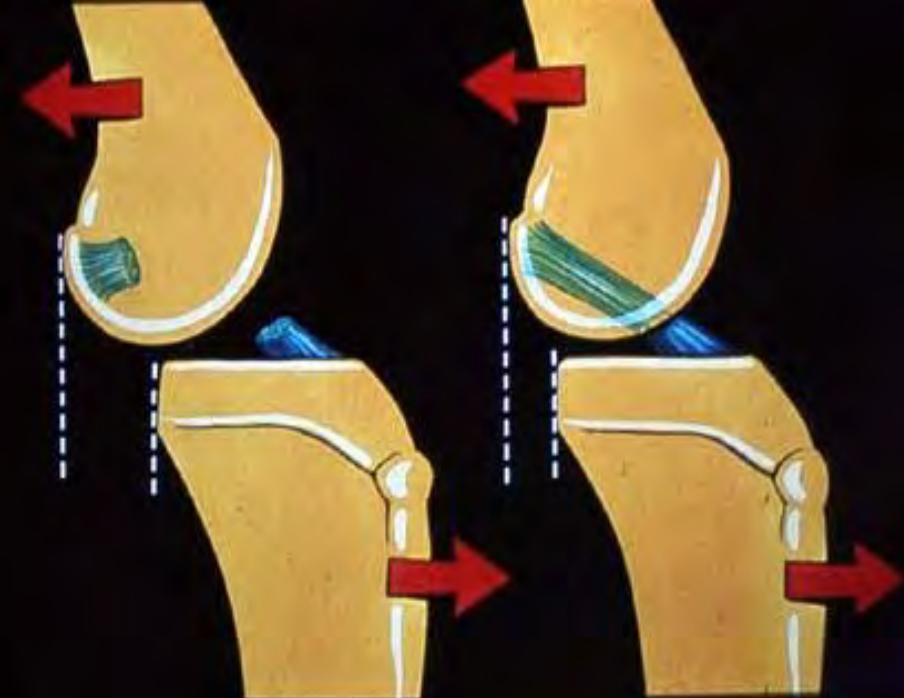




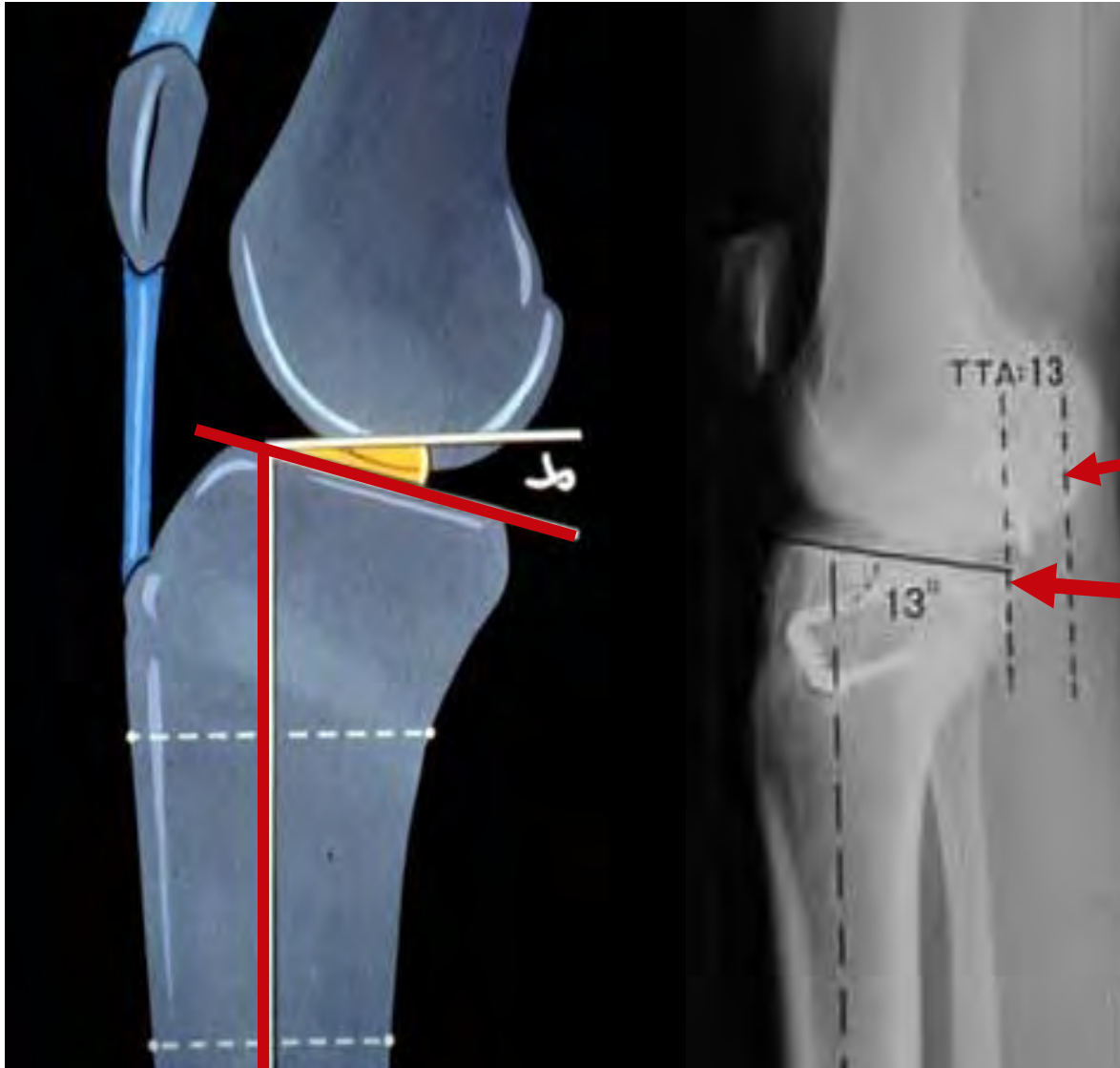
Tension excessive  
sur la greffe du LCA



Distension



# Translation tibiale antérieure



Ménisque  
interne

Pente Tibiale  
>10-12 °

# Rupture du lca chez l'adulte

## Classification

« **Isolé** »

Complete  
Partielle

Evoluée

Laxité  
avec  
pré-arthrose

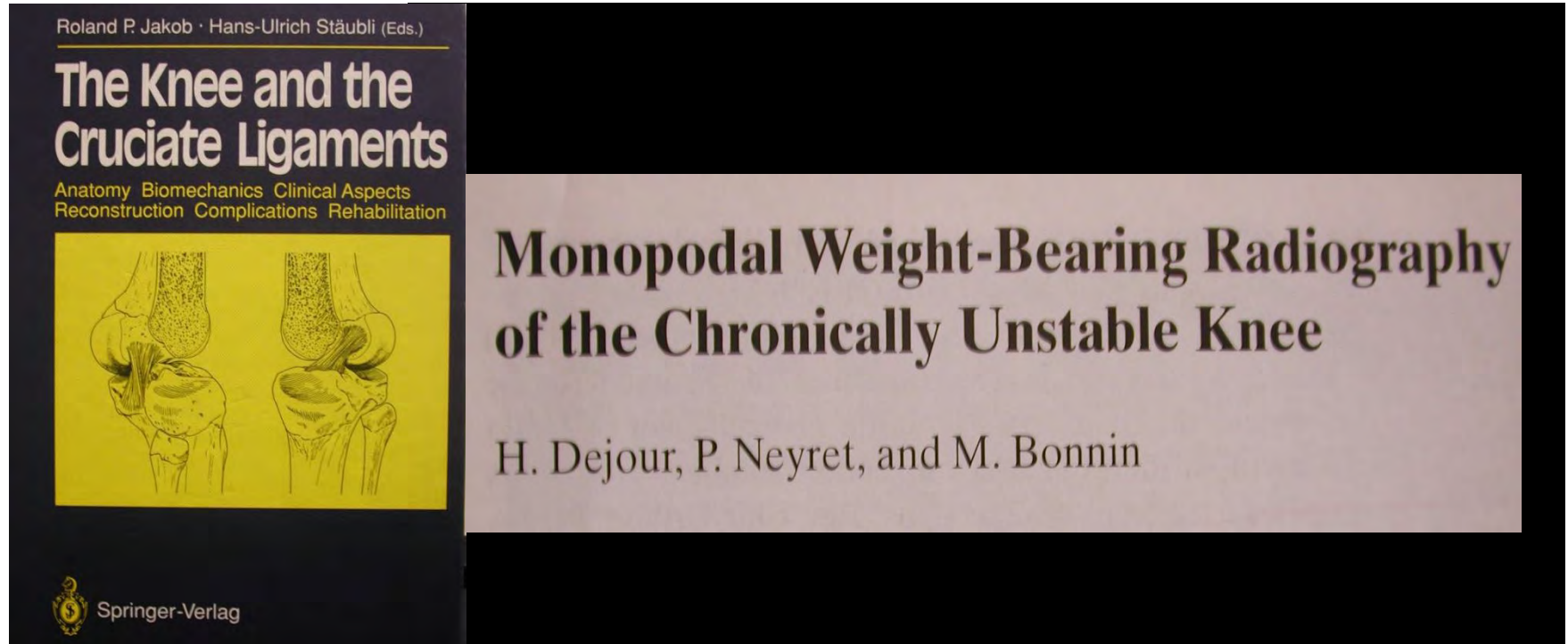
Arthrose

Posterolatérale < 5%

25-35ans



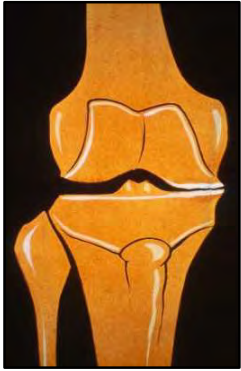
# Reconstruction du LCA + OTV



« ACL deficient knee with a frontal or sagittal imbalance that appears on monopodal stance cannot be compensated for by a simple ligamentous ACL graft »

# Reconstruction du LCA + OTV

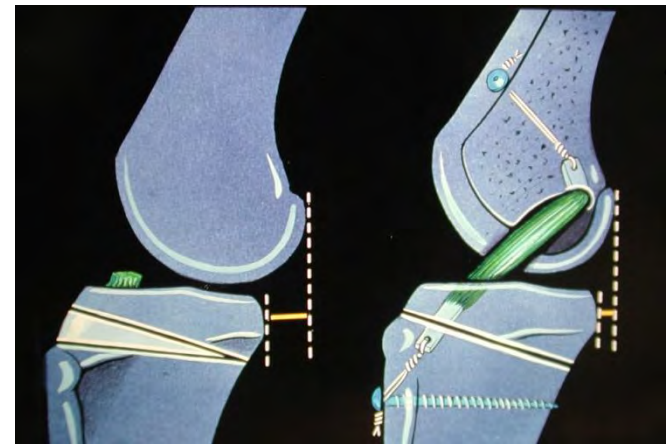
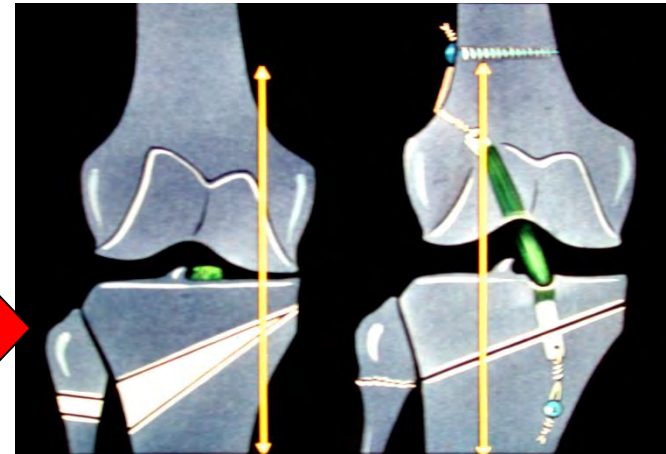
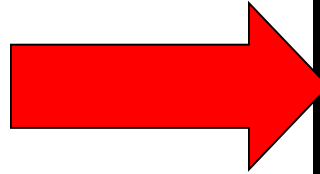
## Déséquilibre Frontal



Pincement FT  
interne



“laxité” externe



## Déséquilibre Sagittal

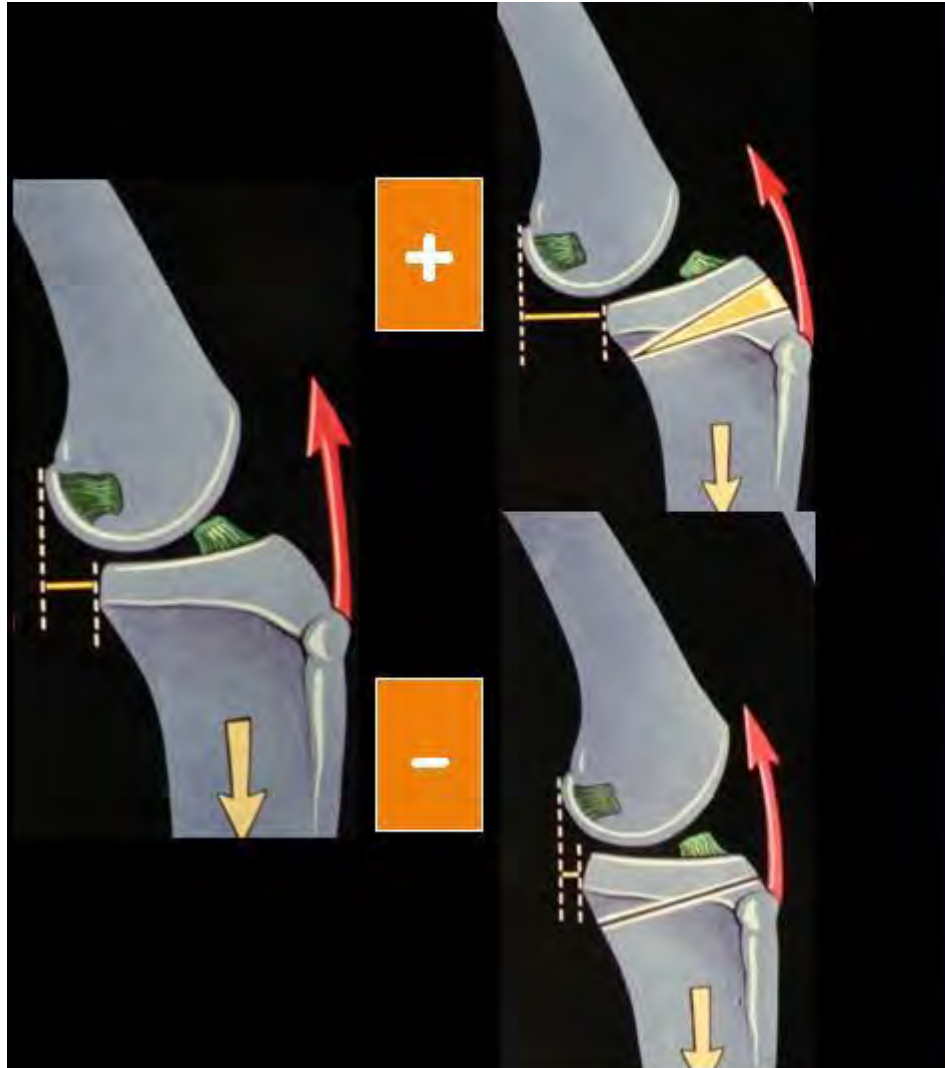
# Reconstruction du LCA + OTV

- 1- Installation
- 2- Prélèvement
- 3- Arthroscopie
- 4- Tunnels fémoral et tibial
- 5- OTValgisation**
- 6- Calibration of tibial tunnel**
- 7- fixation fémorale
- 8- fixation tibiale (double fixation)



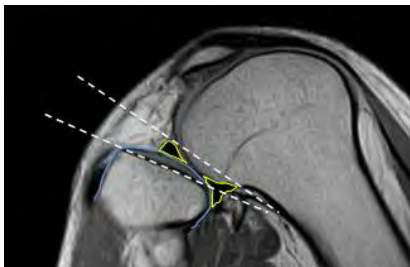


# Reconstruction du LCA + OT fermeture antérieure





# Major Anatomic factors: Tibial slope



- X-Ray Analysis : monopodal weight bearing X-rays
- Telos™ 15 KG : Laximetry

- New dynamic vision
- MRI Analysis
- Bone and meniscal slope

## Posterior tibial slope

1. Increases load in ACL
2. Role in pivot shift
3. Consider soft tissue (meniscus)

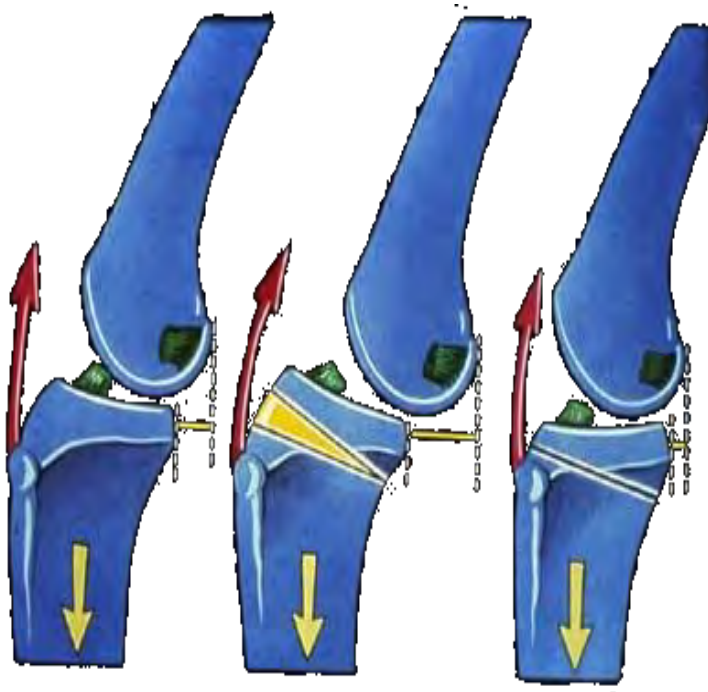
## Make a accurate pre-operative diagnosis

### Tibial slope measurements $> 12^\circ$

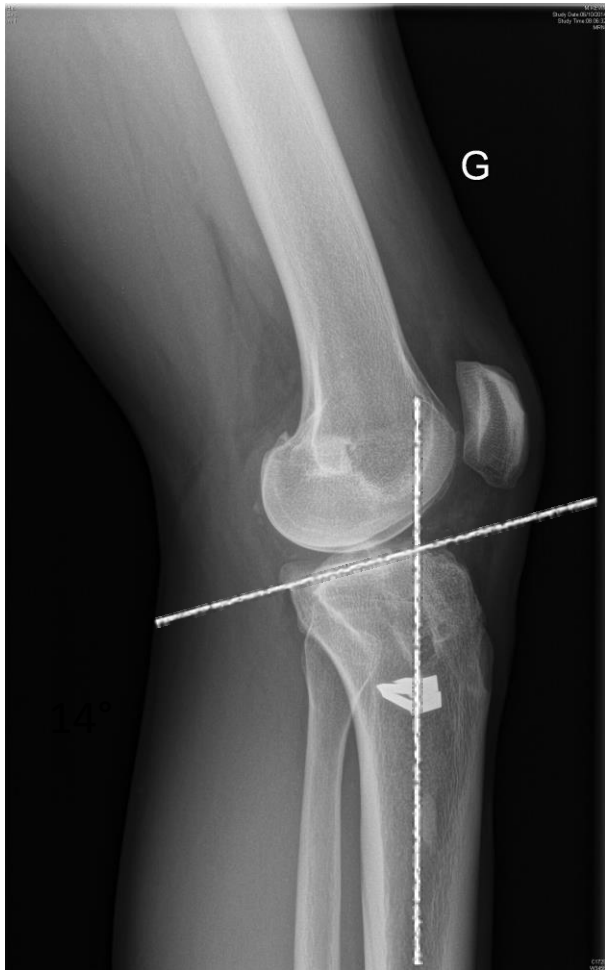
1. Standard ACL reconstruction
2. Combined ACL reconstruction

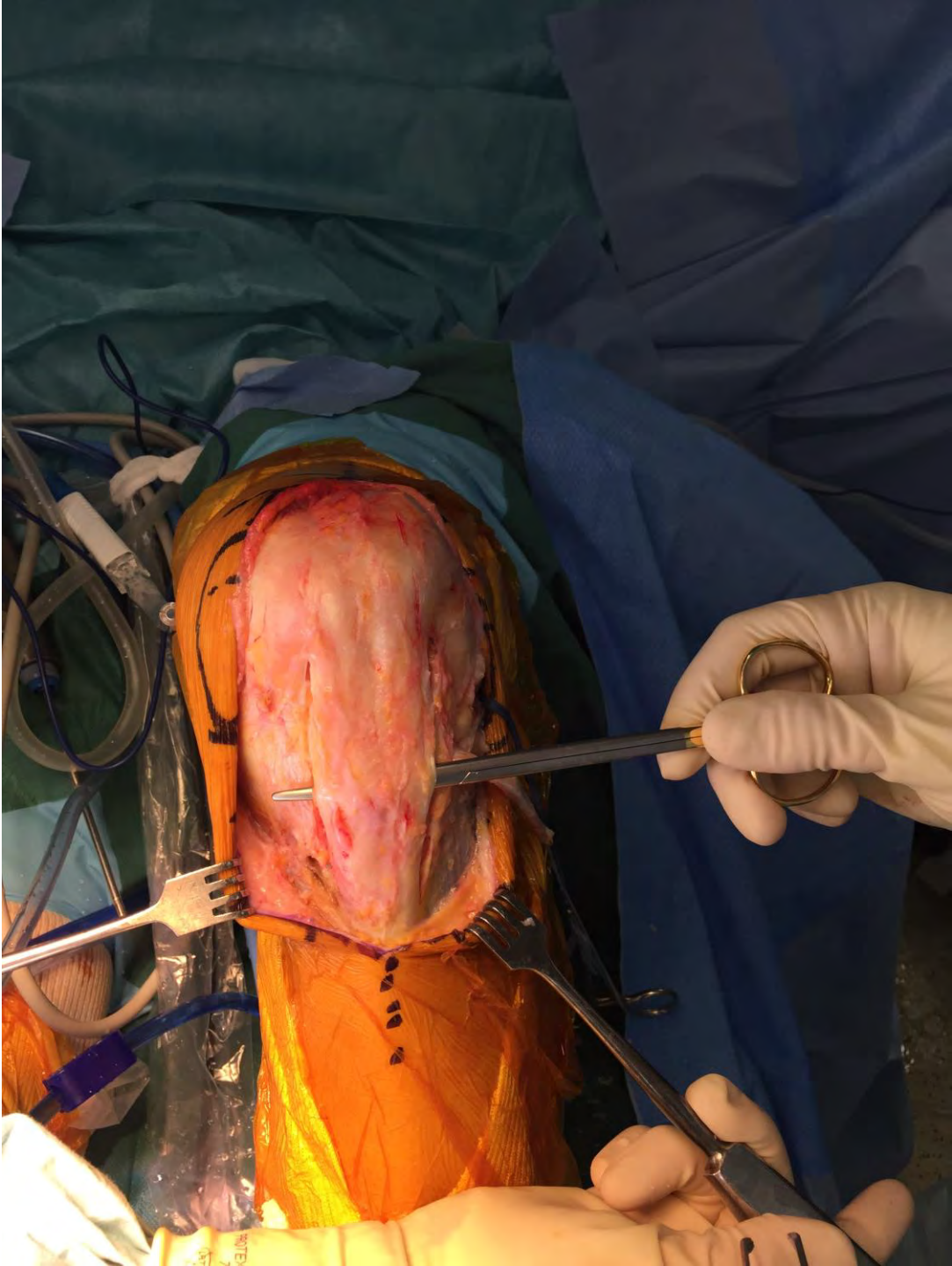
# Correction of the tibial slope

Uncommon for primary ACL grafting  
Think it on failure and re rupture



# Technique Chirurgicale











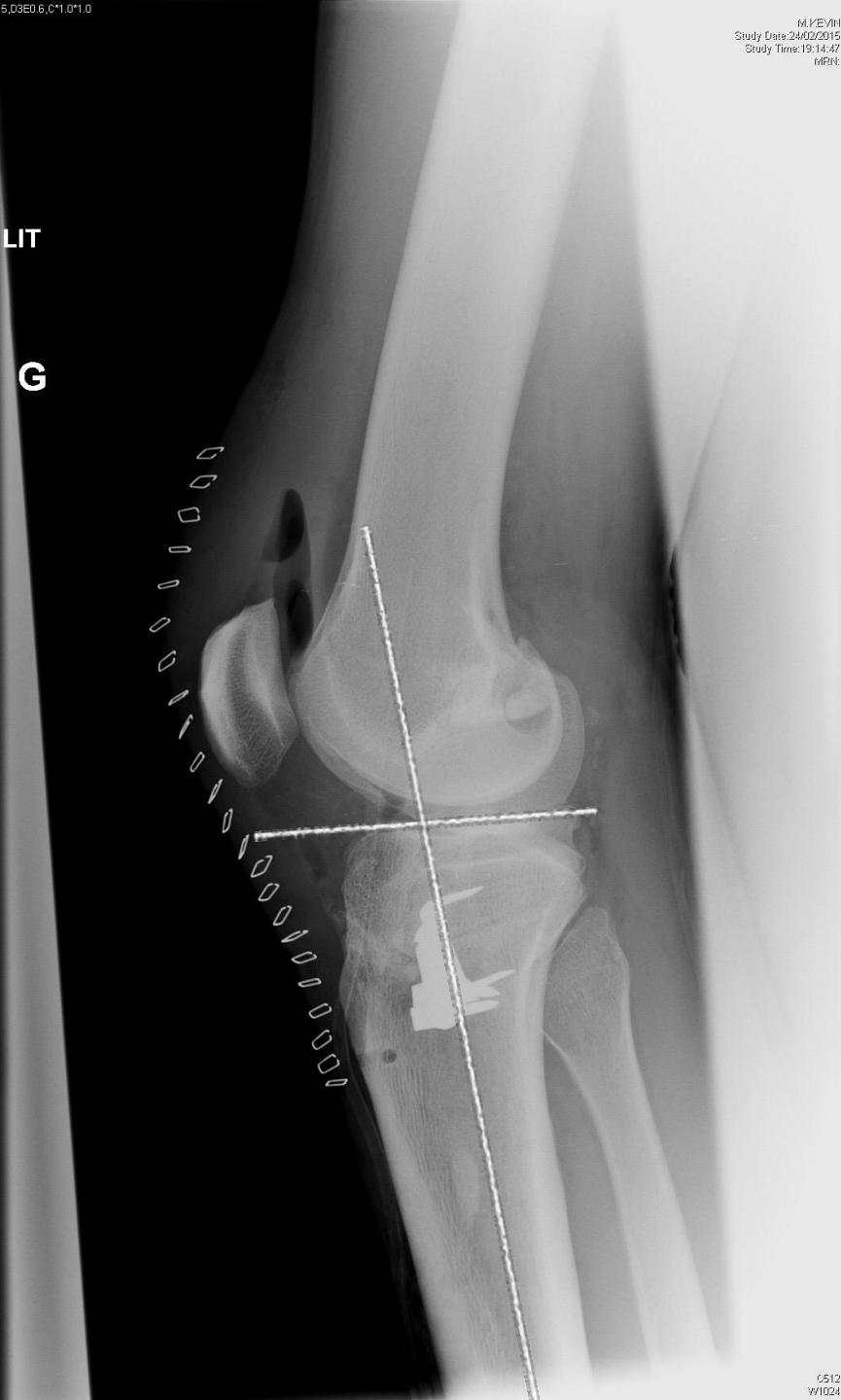






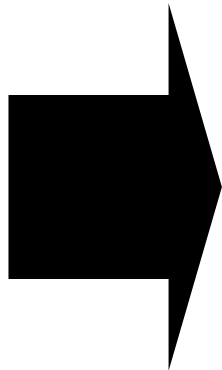
AU LIT

G



***Si déséquilibre  
Frontal ou Sagittal***

La greffe isolée du LCA



• ECHEC

# *Analyse des déséquilibres*

**Frontal**

**Sagittal**