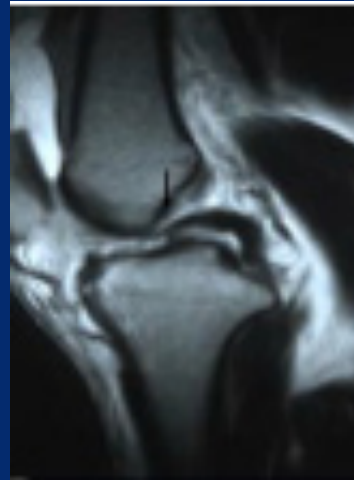


Arthroscopic PCL reconstruction

How I do



François Kelberine, Jean Philippe Vivona

Aix en Provence, France



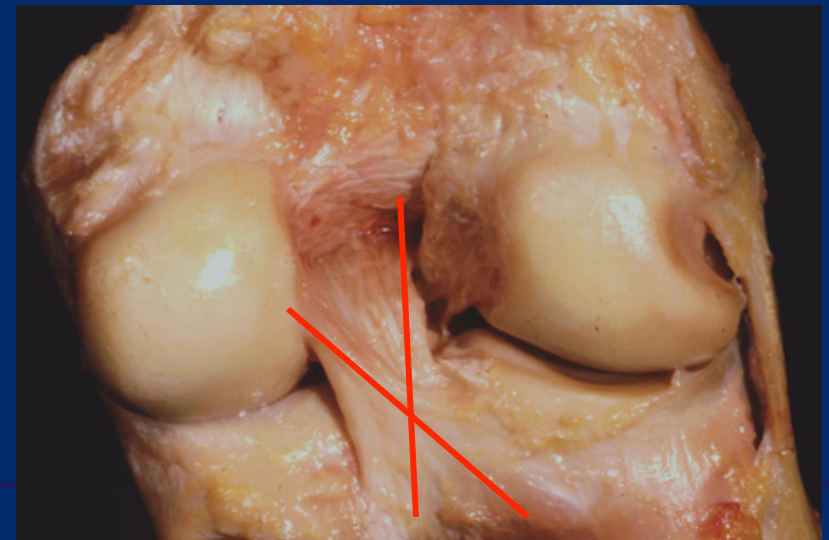
✓ Basic anatomy

✓ Choice of the Graft

✓ Tibial & Femoral Tunnels

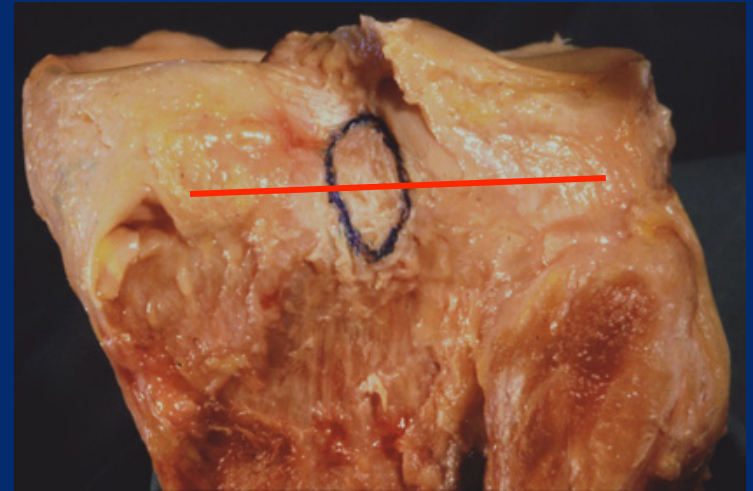
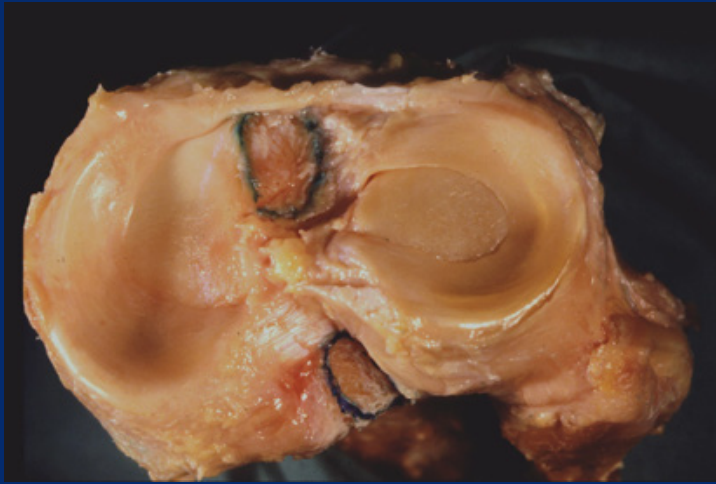
✓ Fixation

✓ SB vs DB

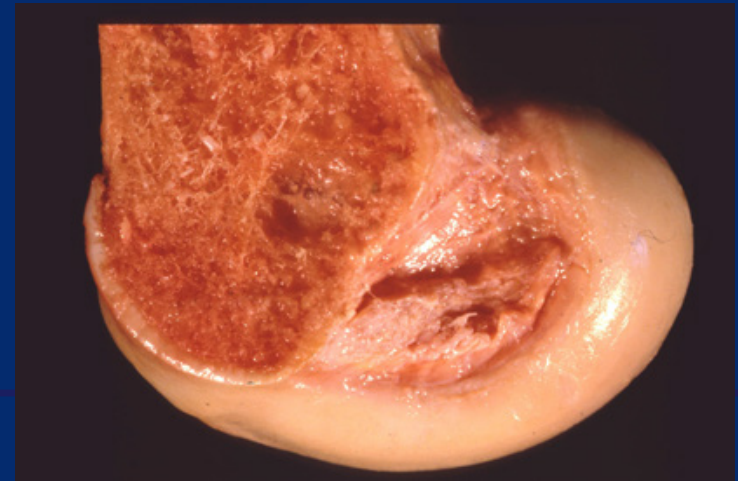


Basic PCL anatomy

✓ Tibial attachment

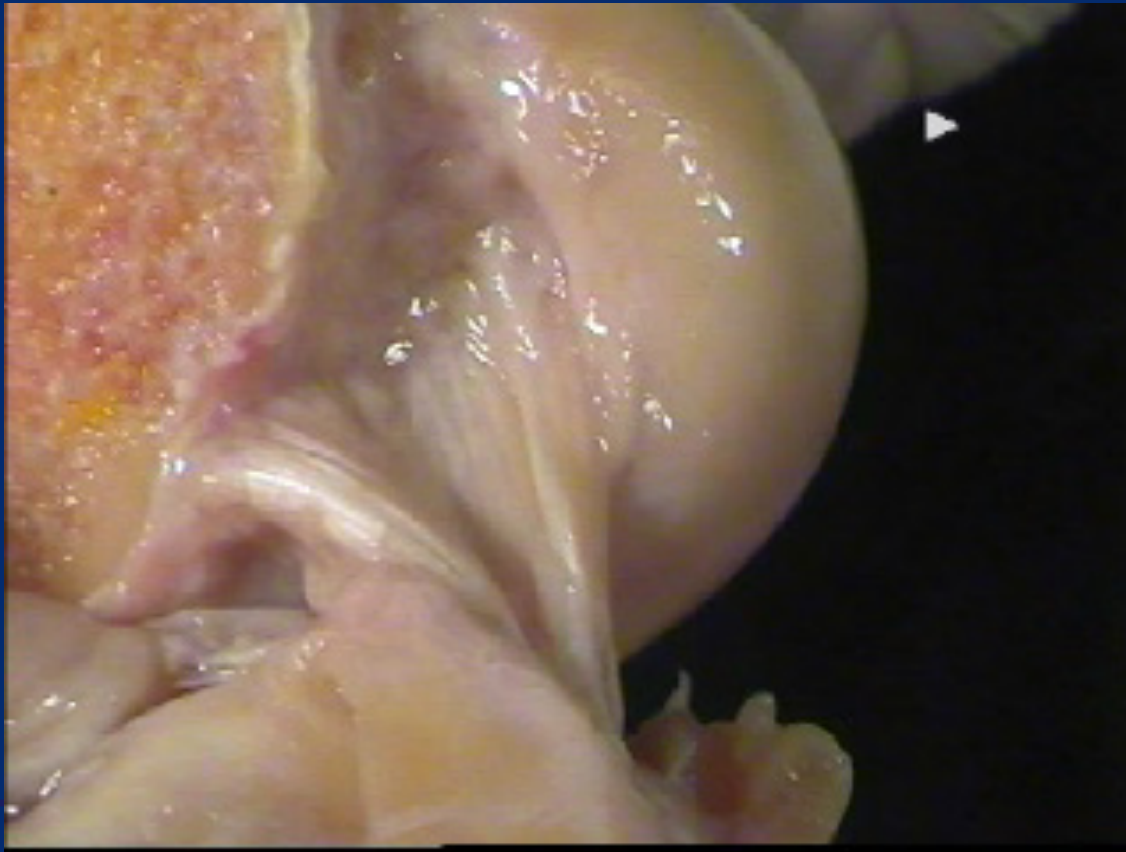


✓ Femoral attachment



Basic PCL anatomy

- ✓ Biomechanics of both bundles



Choice of graft

- ✓ Keep intact the dynamic stabilizers
- ✓ Autograft (quad tendon or hamstring)
 - ✓ Can be splitted for DB



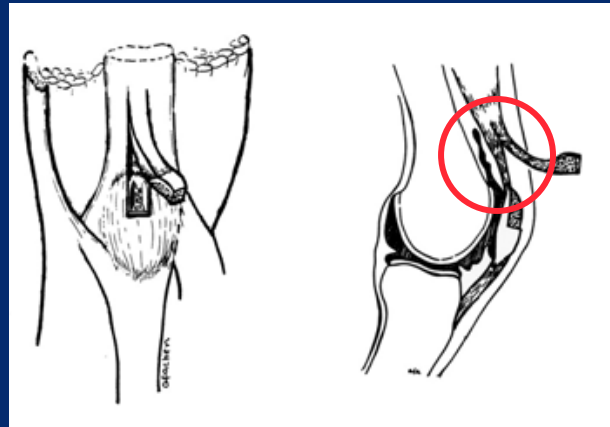
- ✓ Allograft is a viable option (multiligament injuries)

Quad tendon harvesting

✓ Preparing

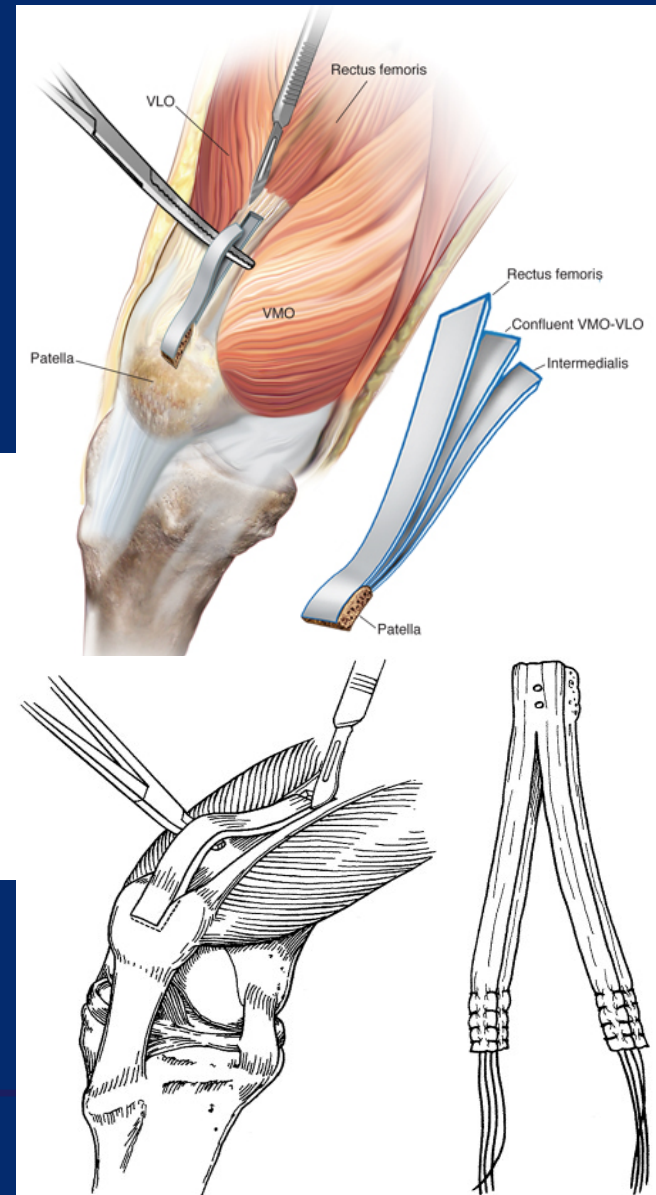
- ✓ Trapezoidal shape/block
- ✓ Splitted in length

✓ Pitfall



✓ Sizing

- ✓ Bone block 12 / 14mm
- ✓ Sof tissue 10 mm
- ✓ 2 ≠ sizes (PM & AL)



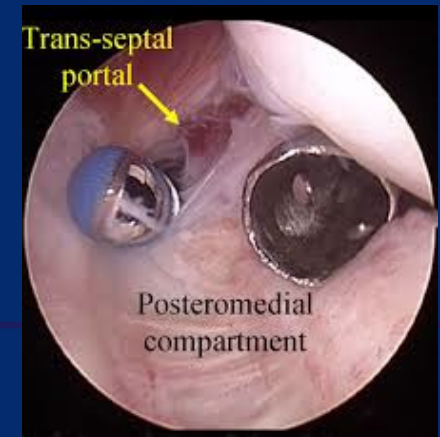
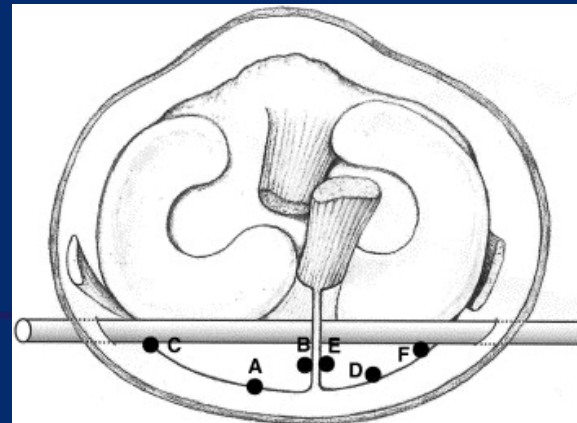
Portals



✓Posteromedial



✓Transeptal



Arthroscopic debridement

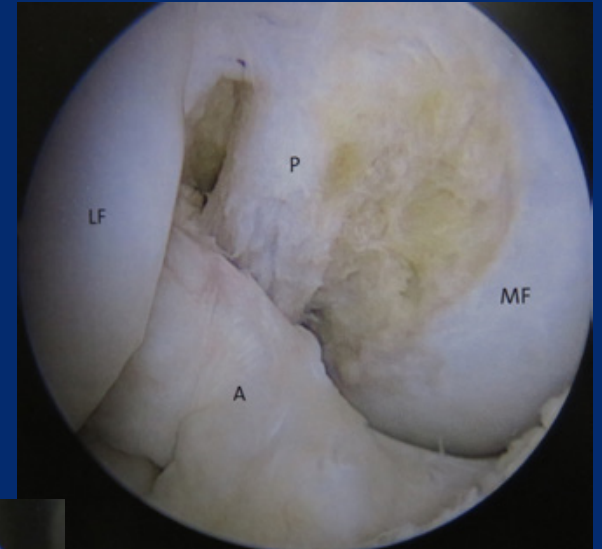
✓ Keep intact some remnants

✓ Intact bundle if possible

✓ Posterior release

✓ Septum

✓ Tibial ridge



Tibial tunnel

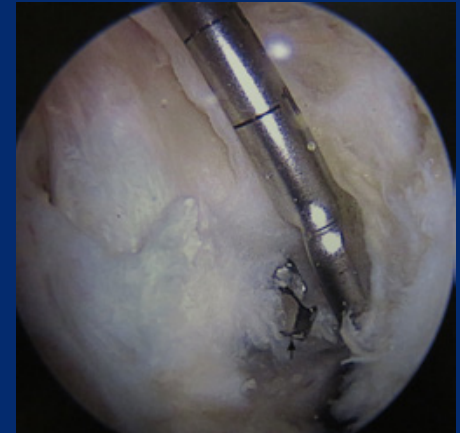
✓ C-arm?



✓ Protect post structures

✓ Special guide

✓ Curette



✓ Double sized tunnel



✓ Bone block close to post cortex



Femoral tunnel(s)

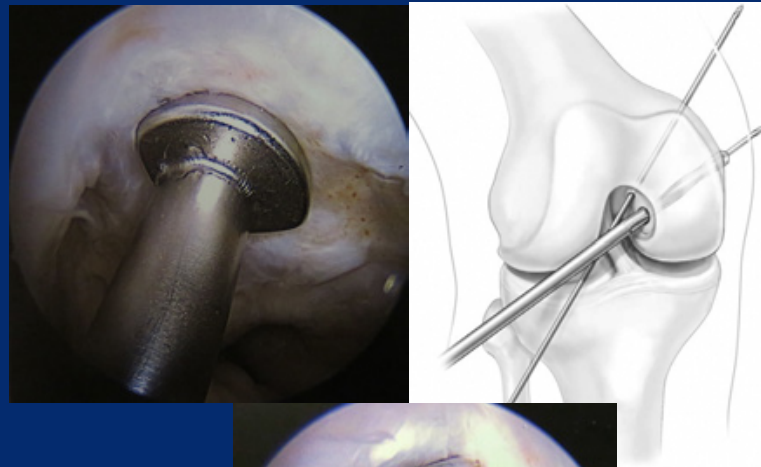
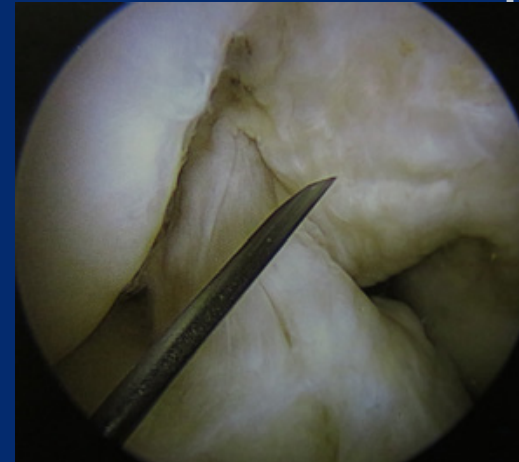
✓ Accessory inferolateral portal

✓ AL & PM bundles location

✓ Guide

✓ Cartilage

✓ Bridge



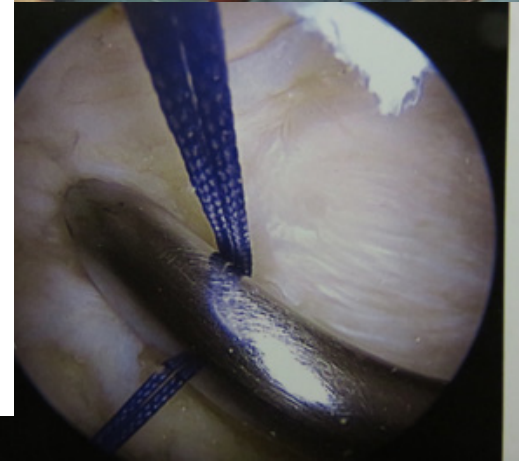
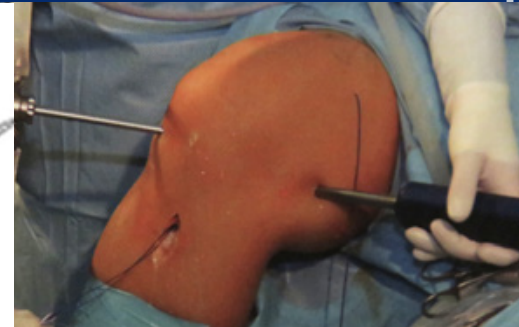
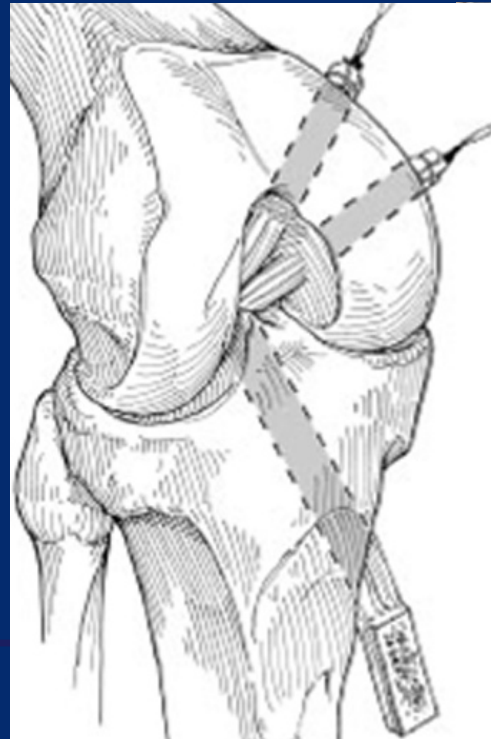
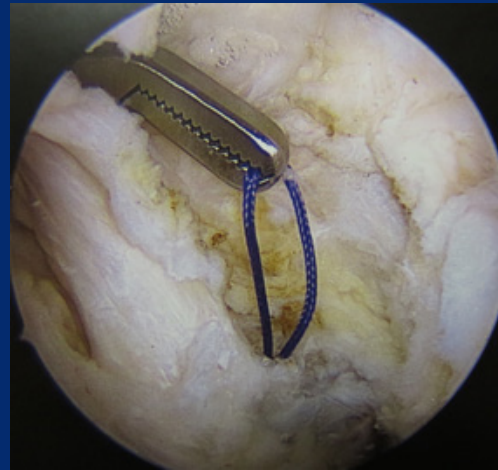
Graft passage

✓ Shuttle relay

✓ Suture retriever

✓ Killer turn

- ✓ Tunnel 1mm larger
- ✓ Posterior bone plug
- ✓ Push-pull technique



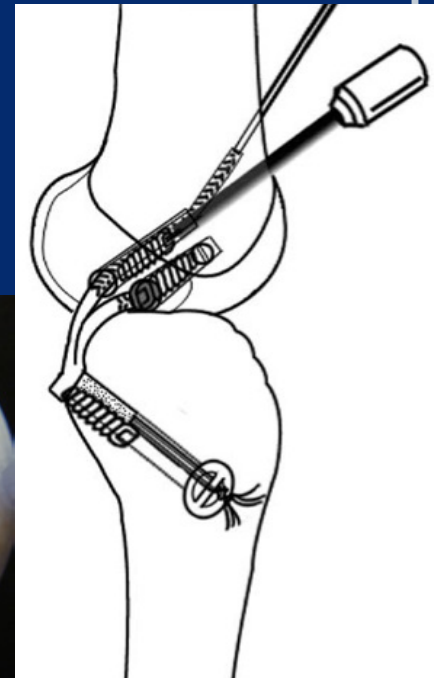
Fixation

- ✓ Self locking @ tibial level+screw

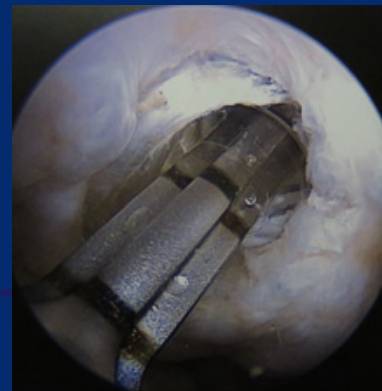


- ✓ Screw fixation @ femoral site

- ✓ Full extension for PM
- ✓ 30° of flexion for AL
(less tension during ROM)

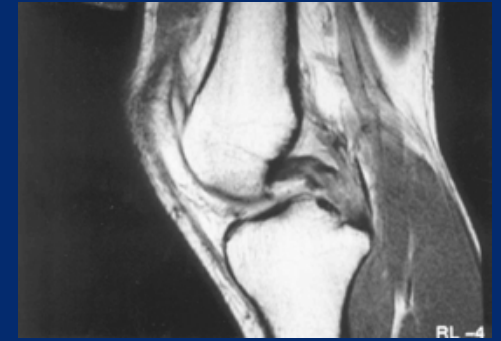


- ✓ As closer as possible
the articular aperture
(in/out or out/in)



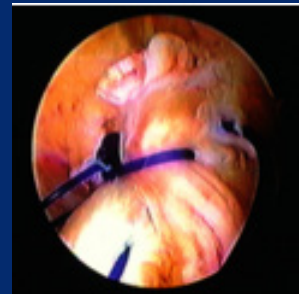
SB/DB

✓ Depends on clinical status

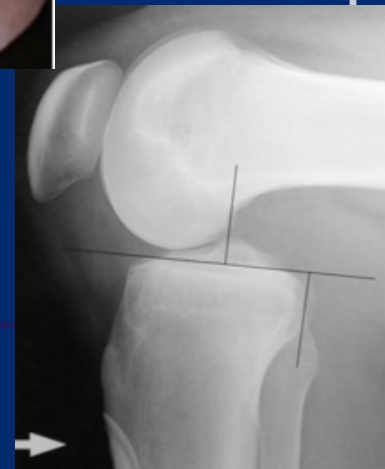


✓ Isolated PCL tear has some healing potential (stretching before rupture)

✓ Proximal (peel off)



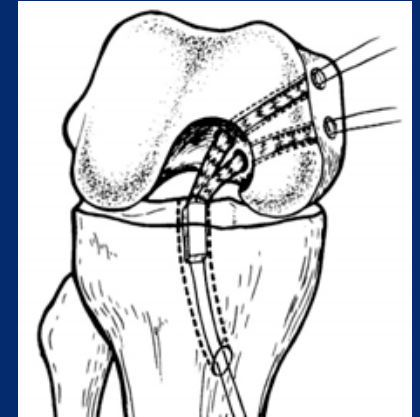
✓ Over 12mm of post laxity, other ligaments may be injured



Take home messages

✓ Assessment

- ✓ Stress X rays > MRI



✓ Don't be afraid of posterior portals

✓ Chronic reconstruction

- ✓ Check alignment (post slope)
- ✓ Open wedge HTO : flexion + valgus
- ✓ Can be combined with PCL reconstruction

