

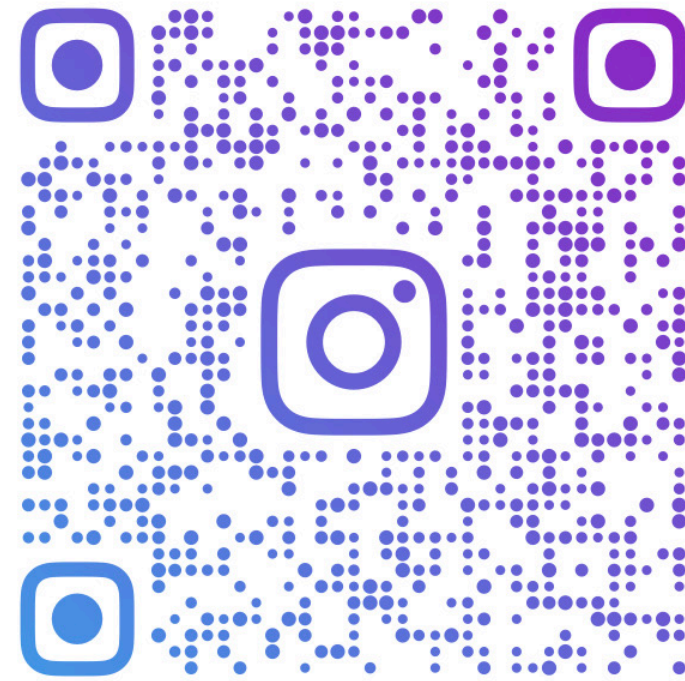
ACL PCL LCM



IML

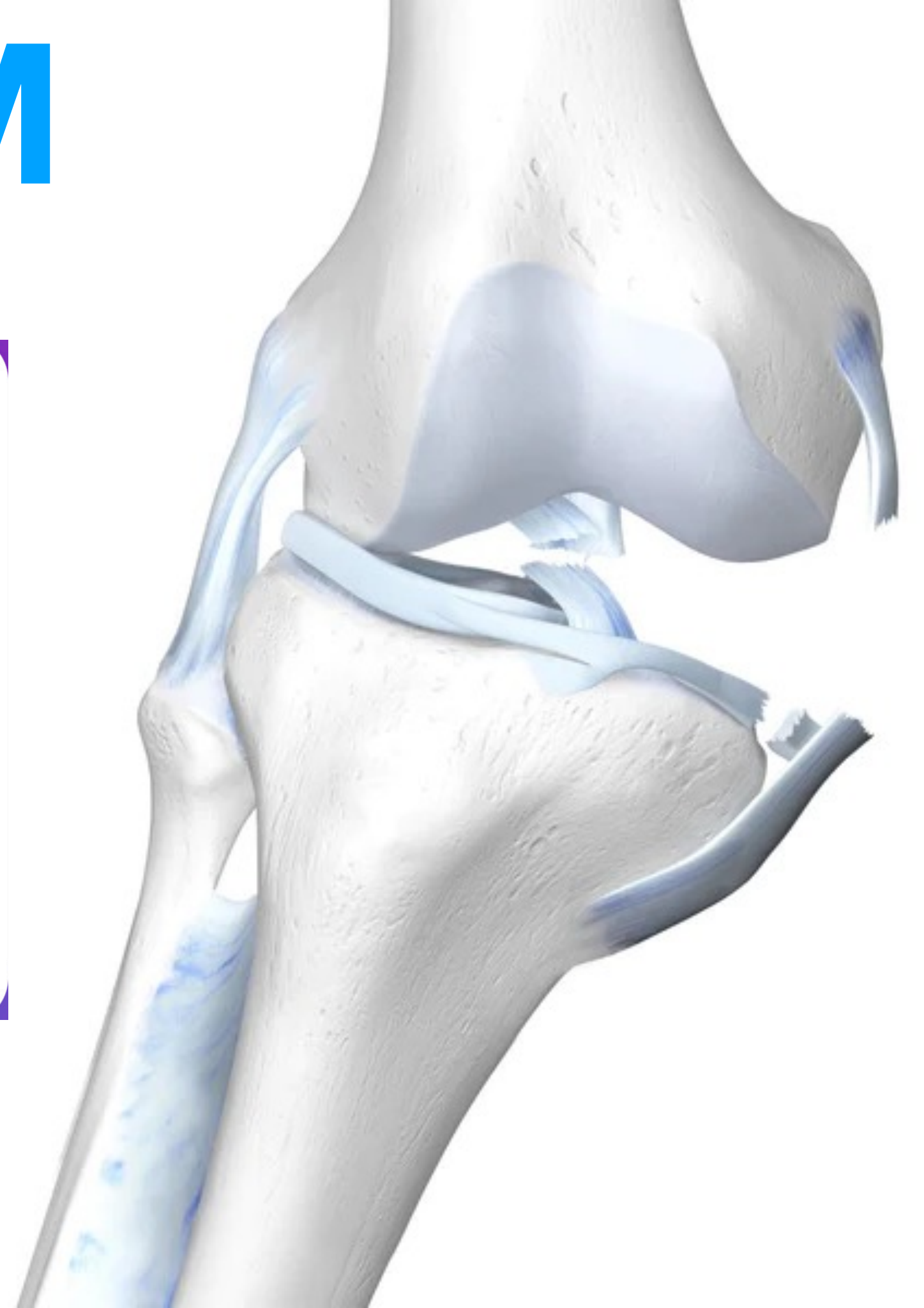


Institut du Mouvement et de l'appareil Locomoteur



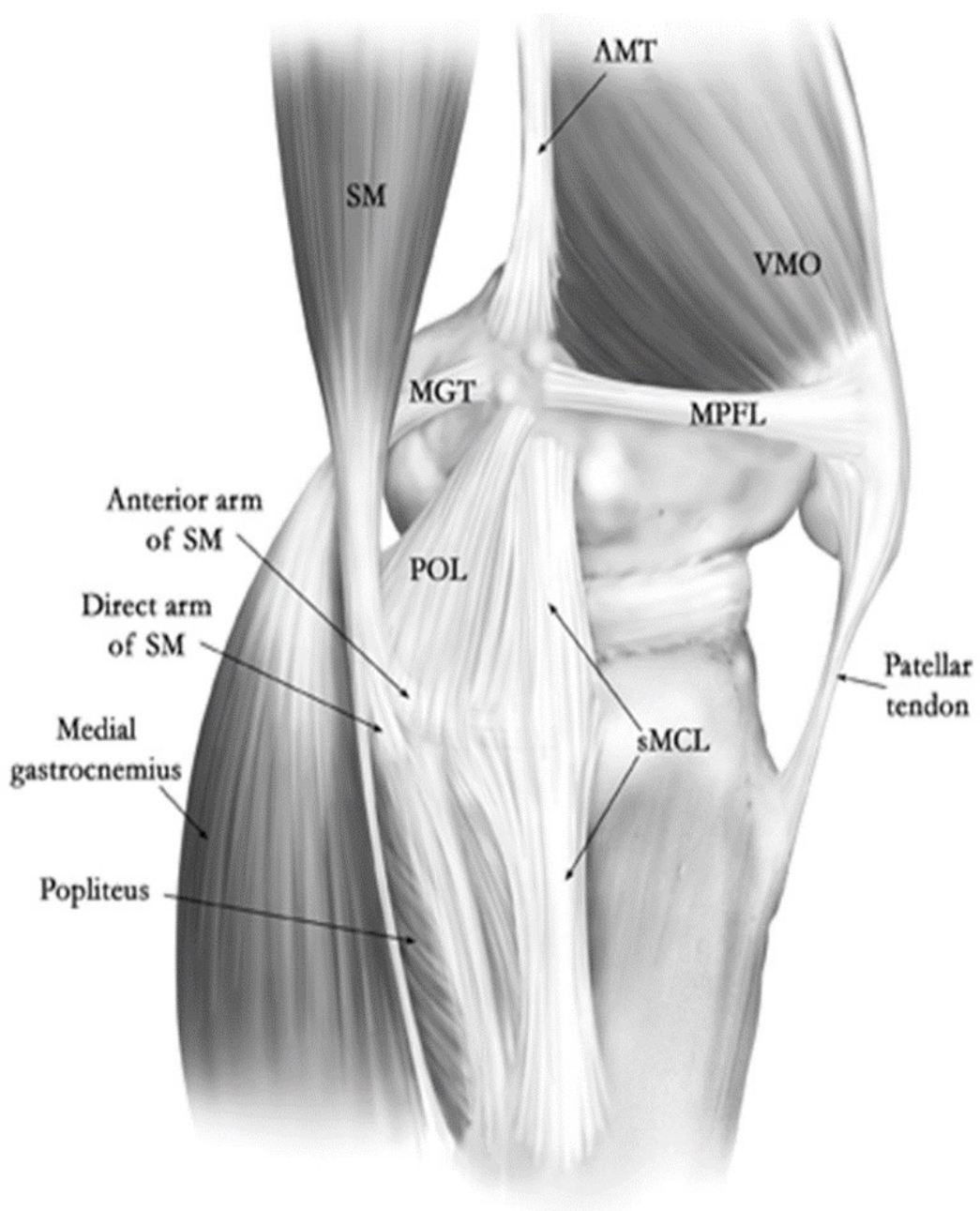
PR.MATT.OLLIVIER

N. BOUGUENNEC, T. NERI, C. HERCE,
C. LUTZ, B. FREYCHET, C.
KAJETANEK, A. HARDY, M. OLLIVIER,
E. CAVAINAC



WHAT ARE WE TALKING ABOUT ?





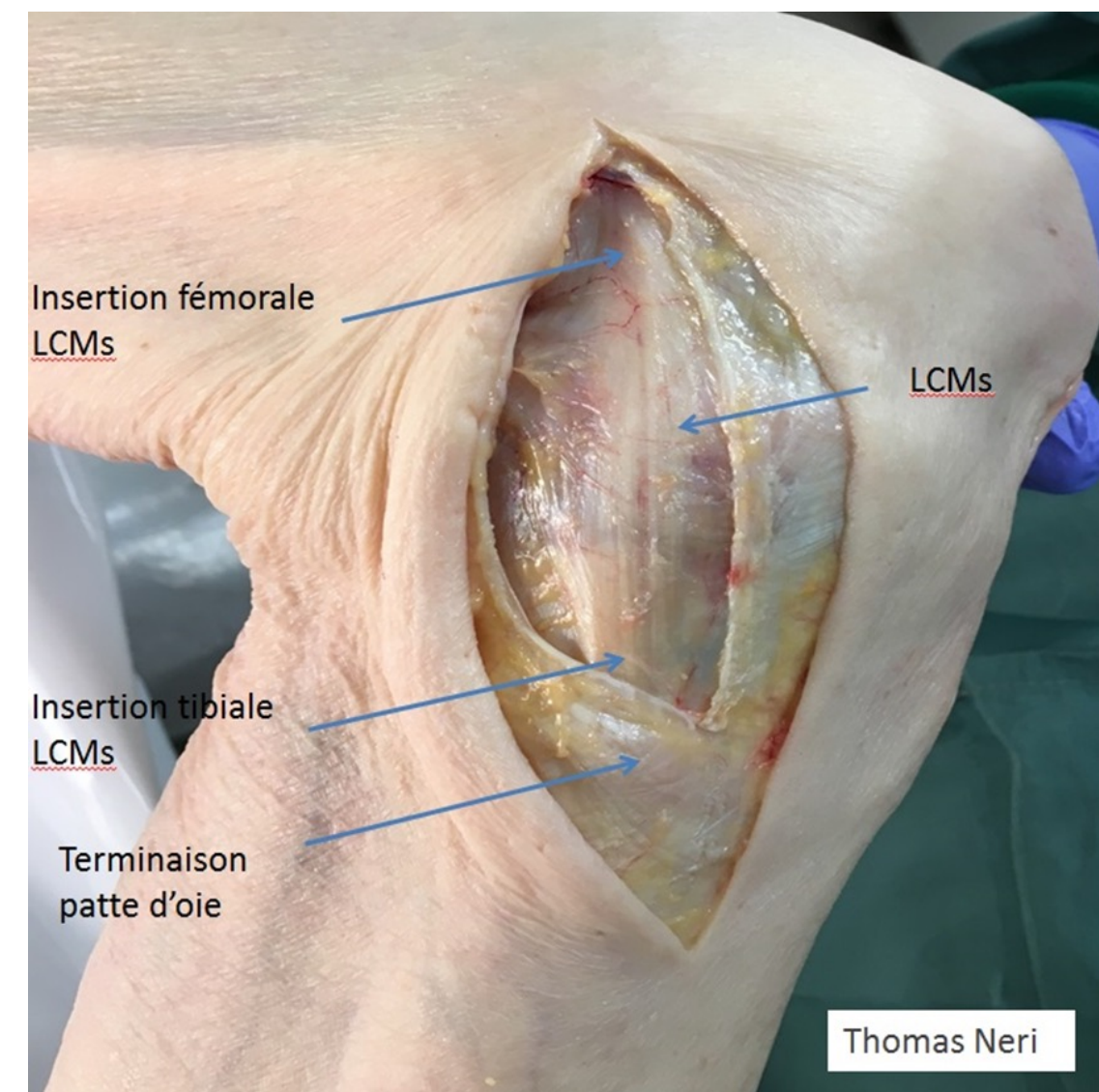
SUP LAYER

sMCL

POL

SM

ST, gracilis



SMCL

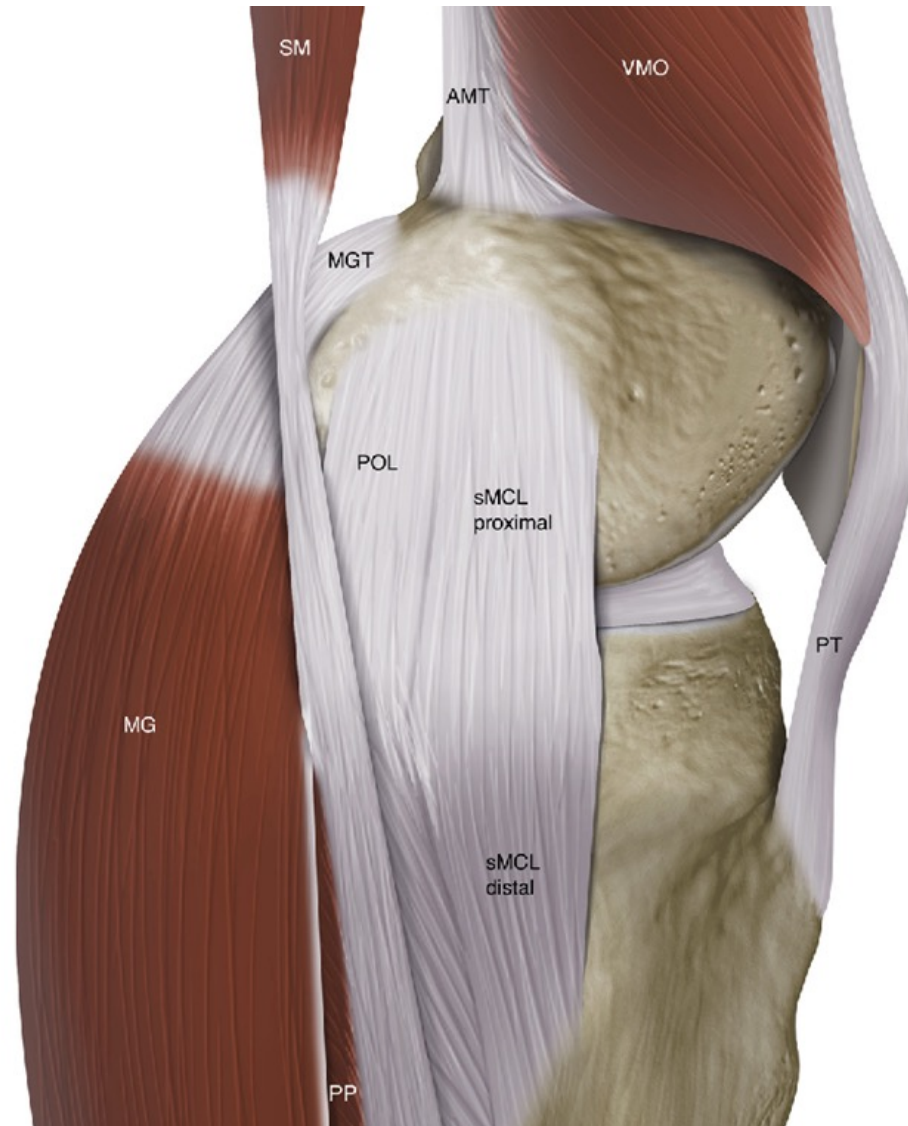
Insertions :

- FEM MED EPIC
- TIB PROX EPIP
- (6cm bellow JL)

direction :

- distal and anterior

VALGUS STAB



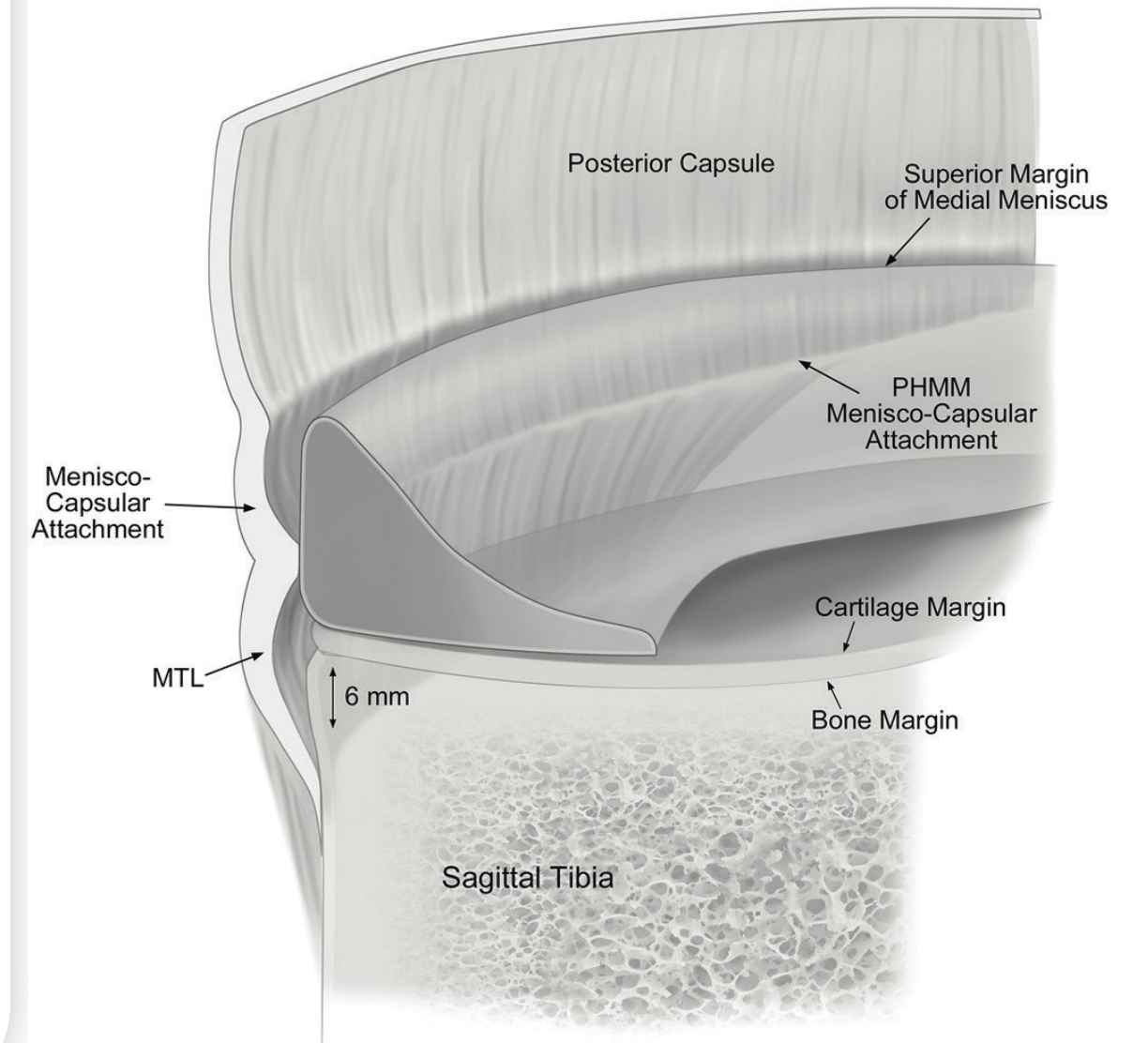
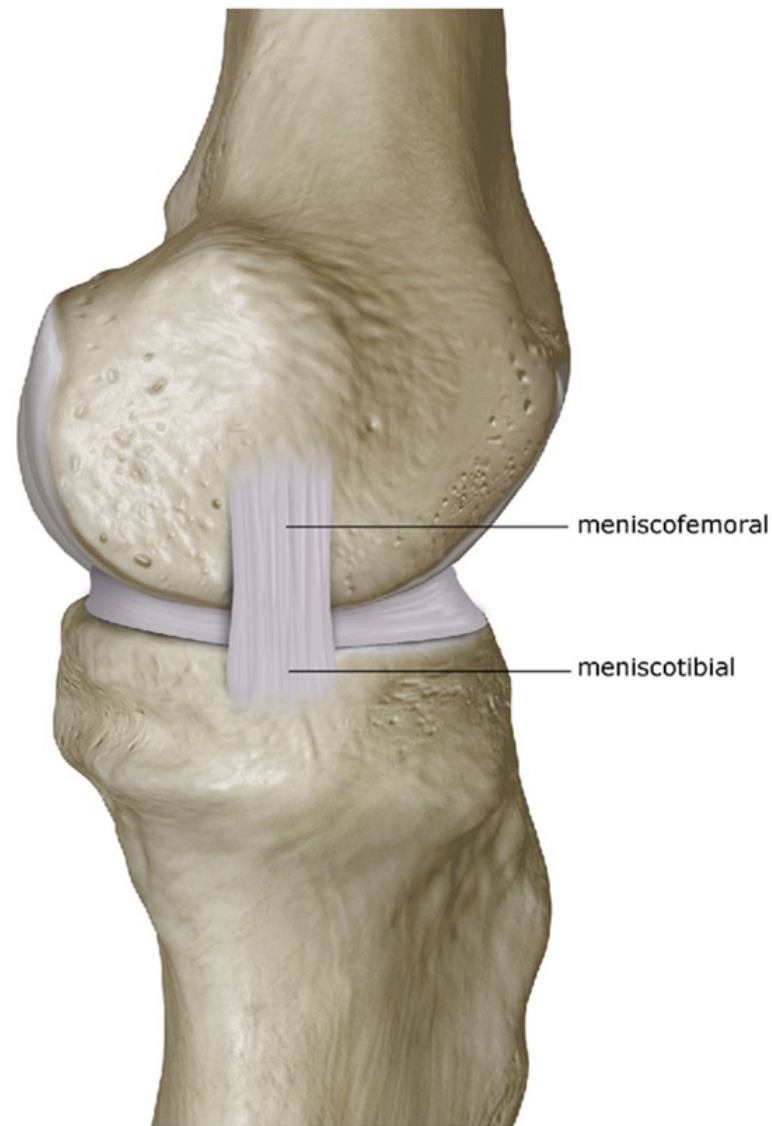
DEEP LAYER

dMCL

capsule

**Ligament menisco-
tibial**

**Ligament capsulo-
meniscal**

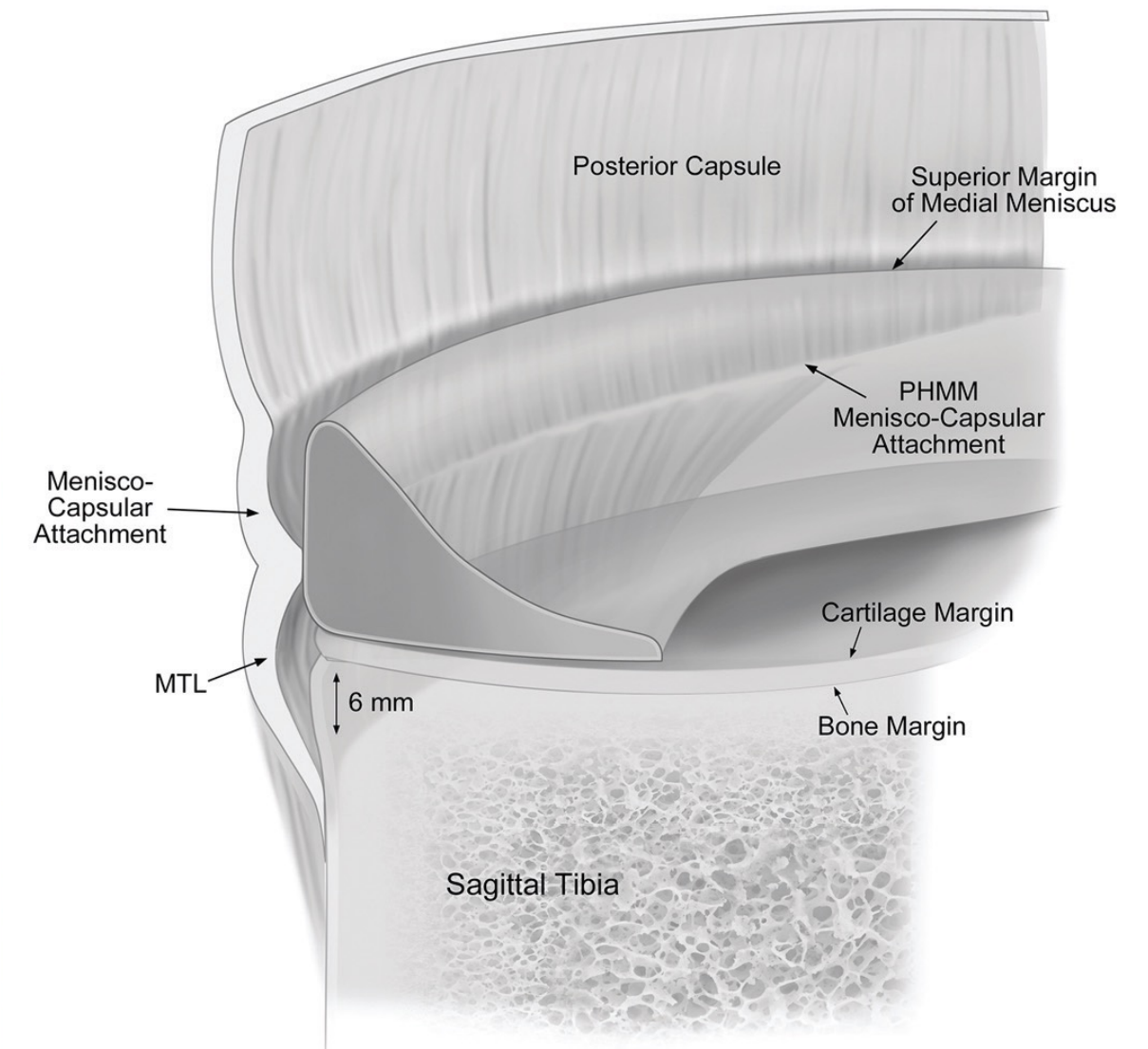
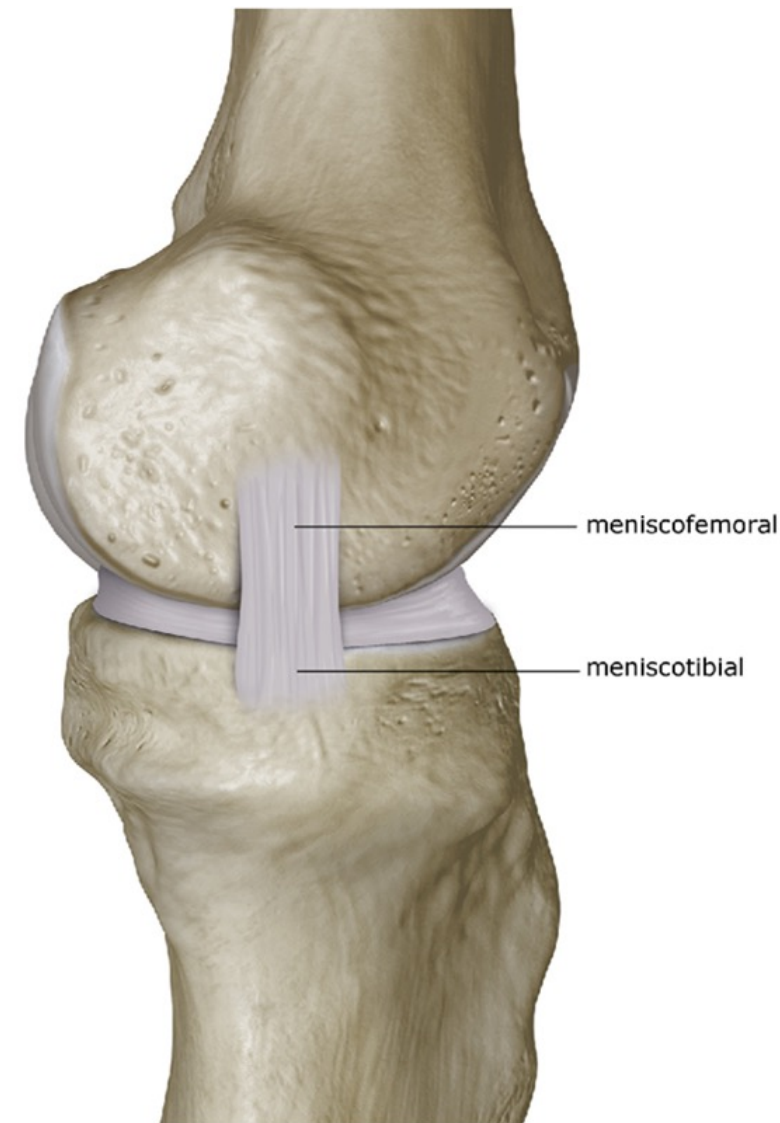


dMCL

ANT TRANSL + Valgus

2 BUNDLES

- MEnisco-fémoral L
- MEnisco-tibial L



PMC

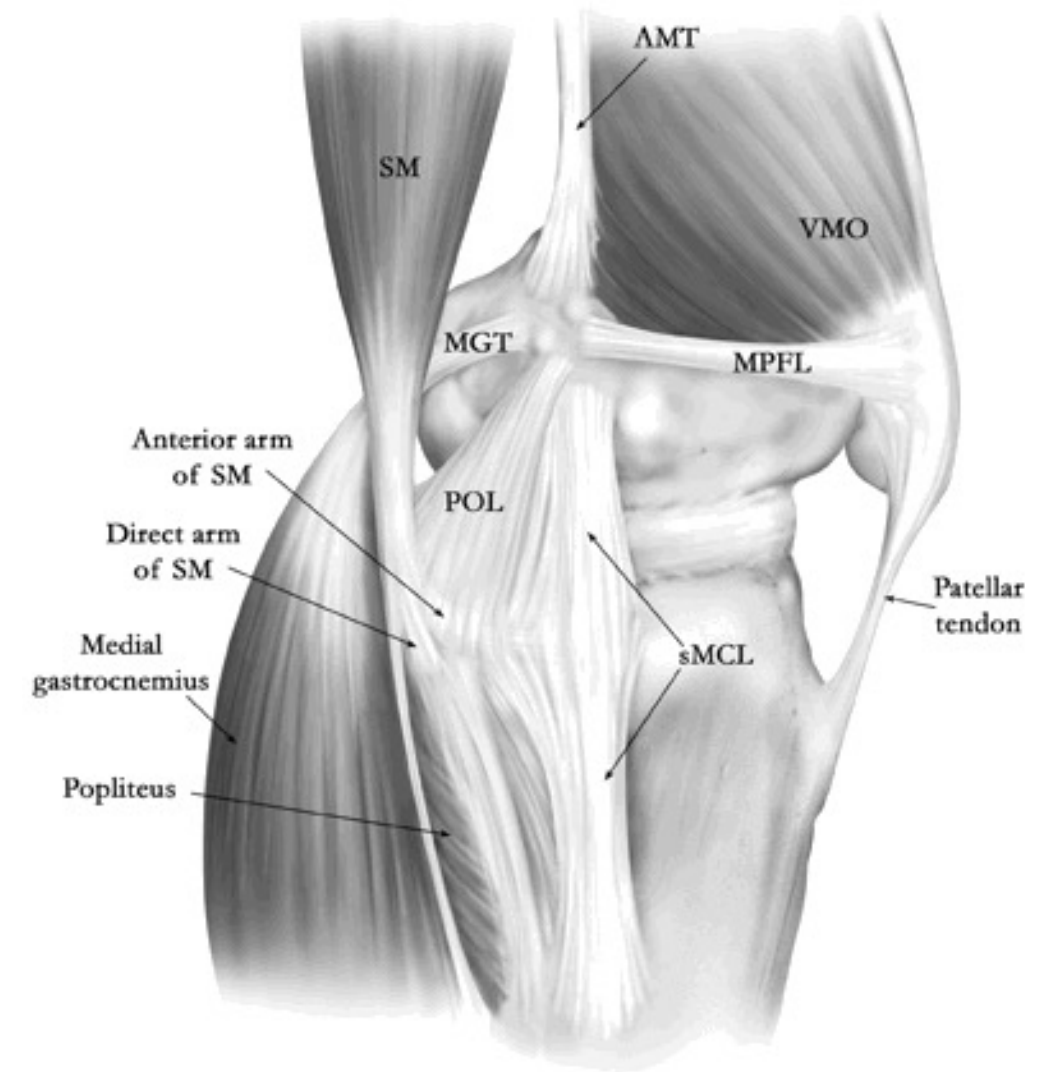
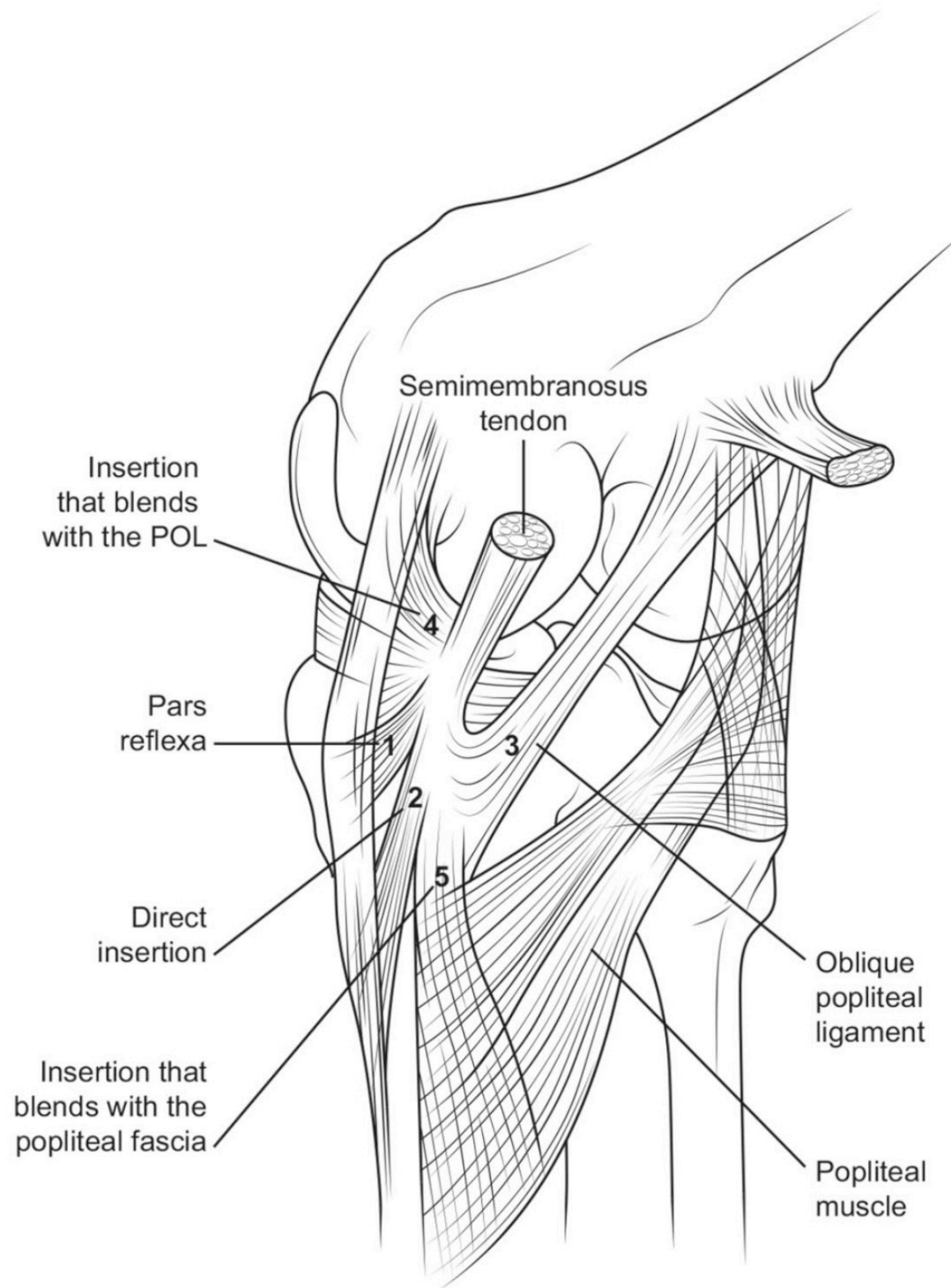
(POL) :

- Fémur: Distal from ADD Tub
- Tibia: SM Direct Insrption

ART CAP

POST MENISCUS
HORN

SM



DYNAMIC

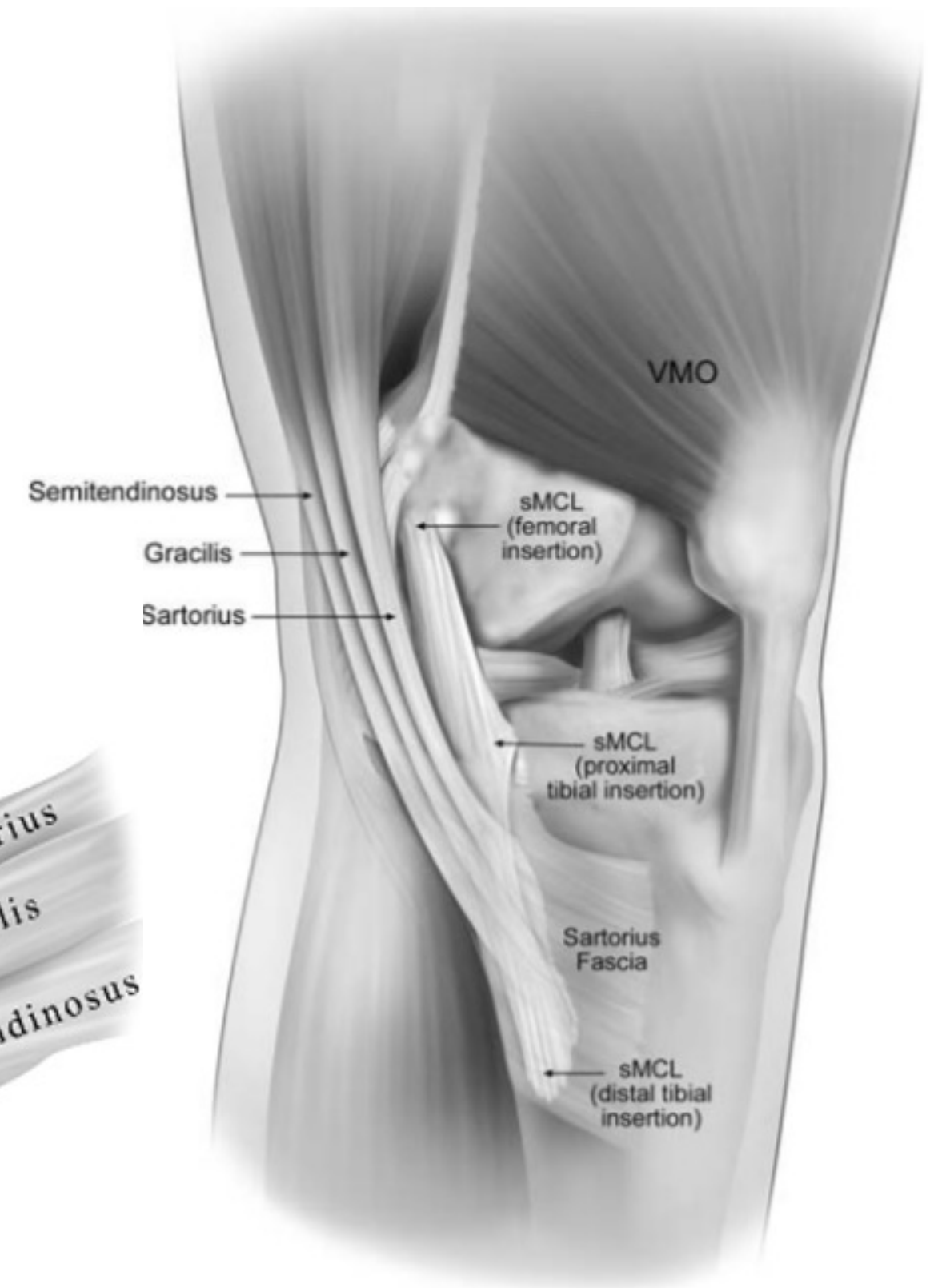
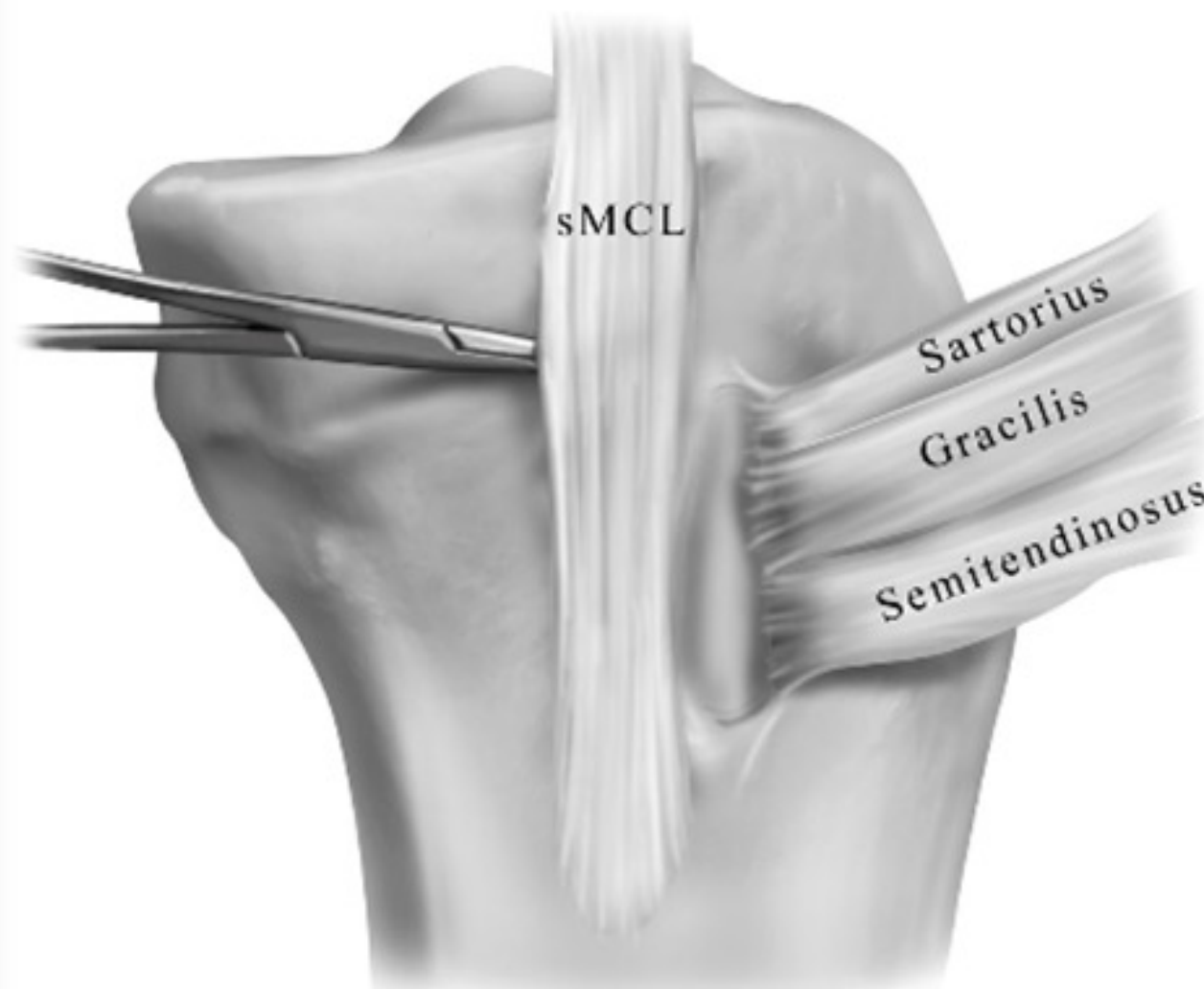
Semi M

Sartorius

Semi T

Gracilis

- SECONDARY STABILISATION



CONTROL



VARUS

30°: sMCL +++ & dMC

0°: POL



ROTATION

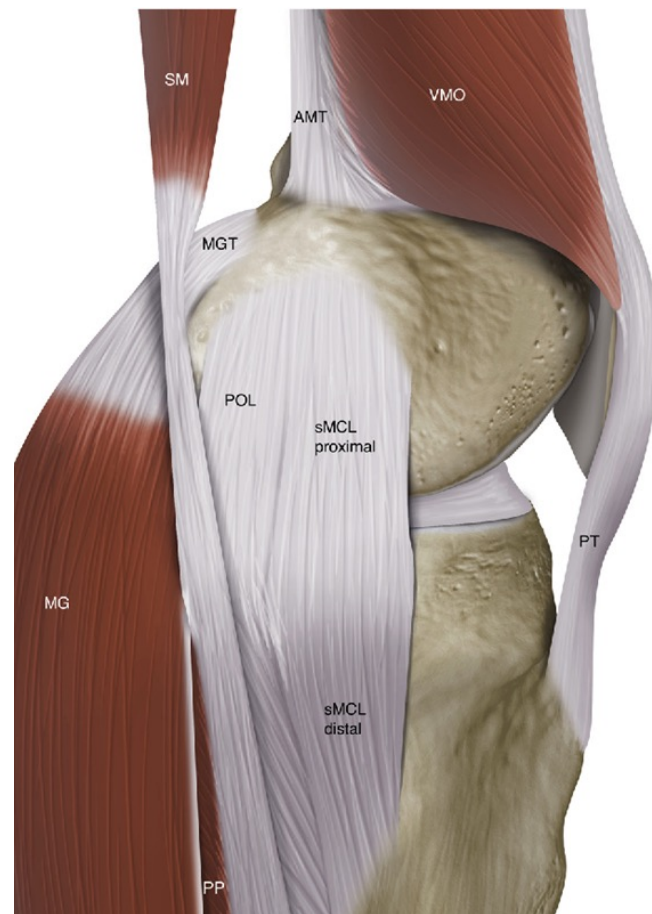
dMCL



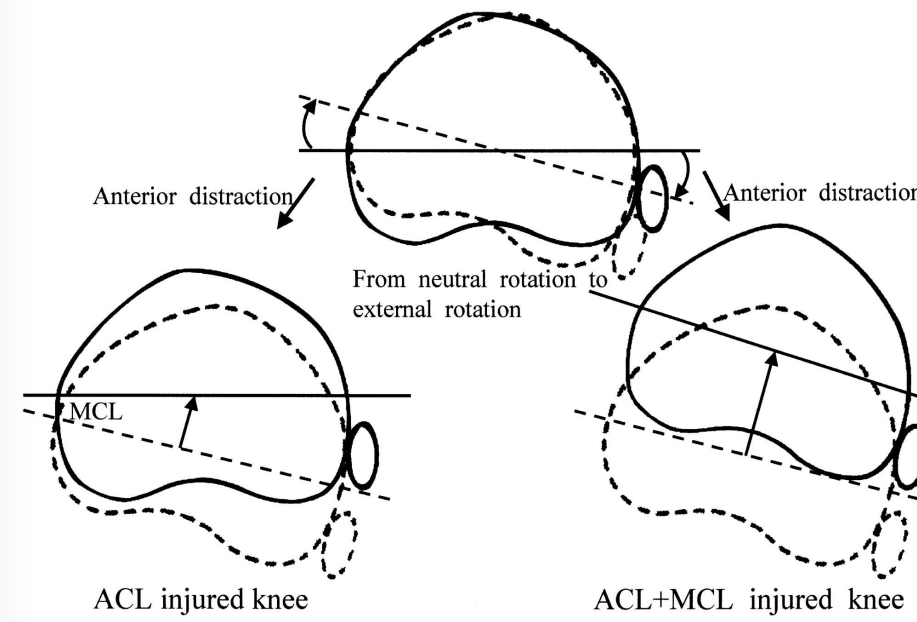
TRANSLATION

**ALL MEDIAL STRUCTURES
(dMCL +++)**

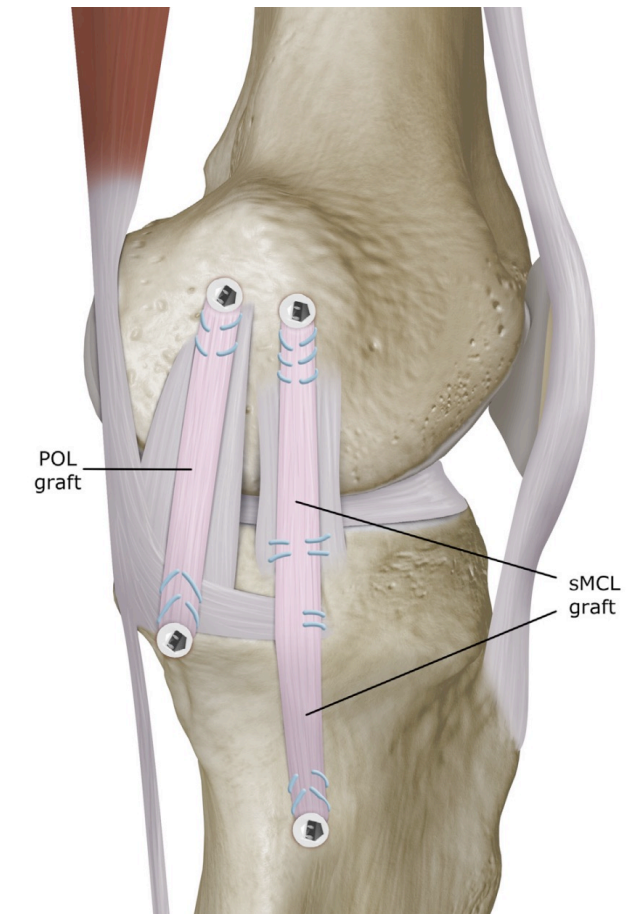
ANATOMIE



BIOMECA




IMPLICATION CHIR



BILATERAL

 flexion 30°: MCL

 extension: POL (ouverture < 8mm) and > 8mm if POL+ MCL >12mmACL +

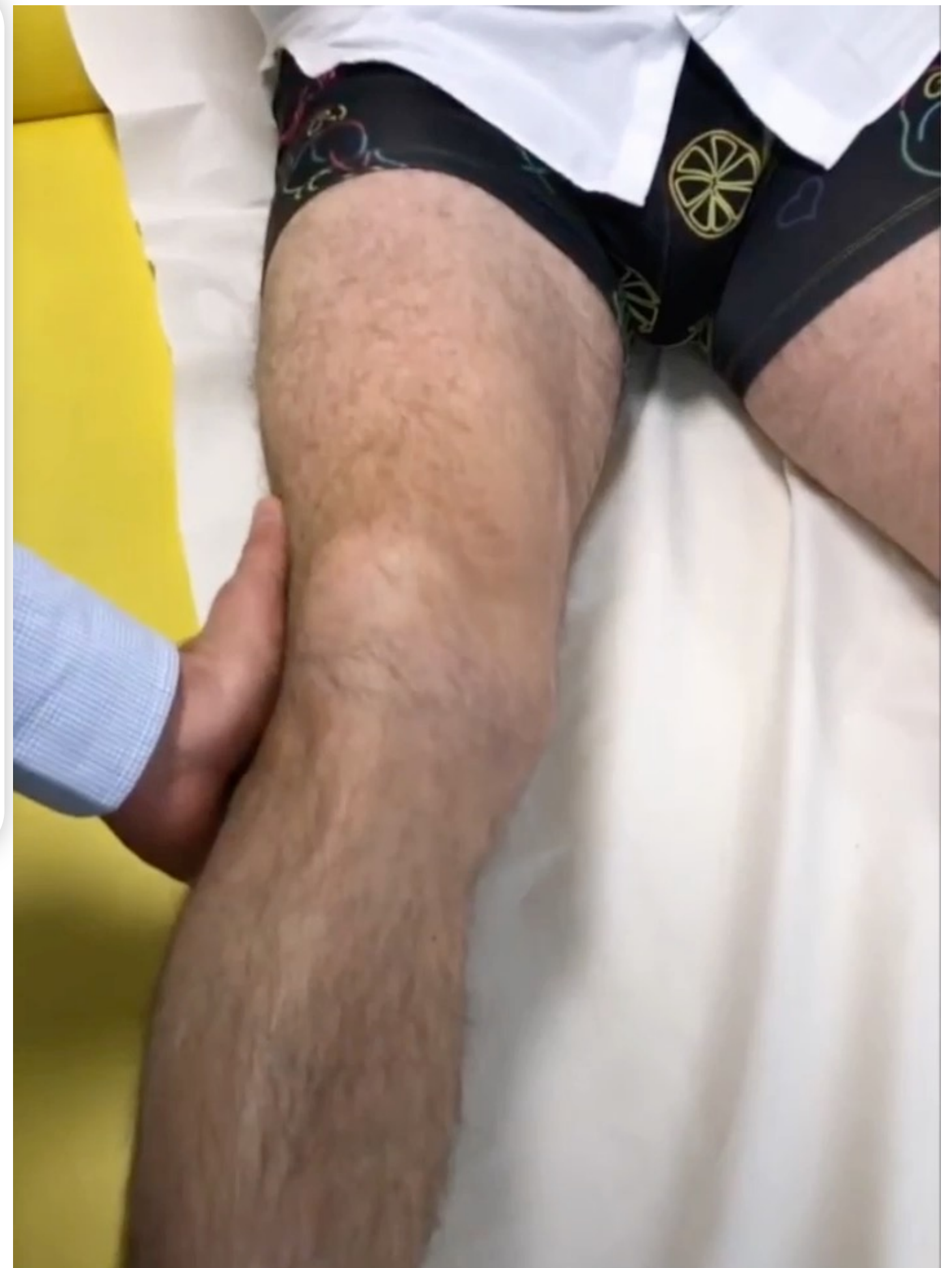
AMA CLASSIF :

 **Grade I:** PAIN NO LAXITY

 **Grade II:** PAIN LAXITY IN FLEX

 **Grade III:** PAIN LAXITY IN BOTH

TESTING Valgus



Lachman (30°)

ANT DRAWER AT 90°

PIVOT SHIFT

TESTING ACL



- AMRI = ANTERO-MEDIAL ROTATORY INSTABILITY
 - VARUS + EXCES ER
 - WORK IN PROGRESS
- ANTERIOR DRAWER IN EXTERNAL ROTATION 15°
- MAYBE USEFULL TO DISTINGUISH
- dMCL from sMCL

ROTATION LAXITY +++ IN MULTI



Courtesy N. Bouguennec

MIGHT EXIST WITHOUT VALGUS INSTABILITY

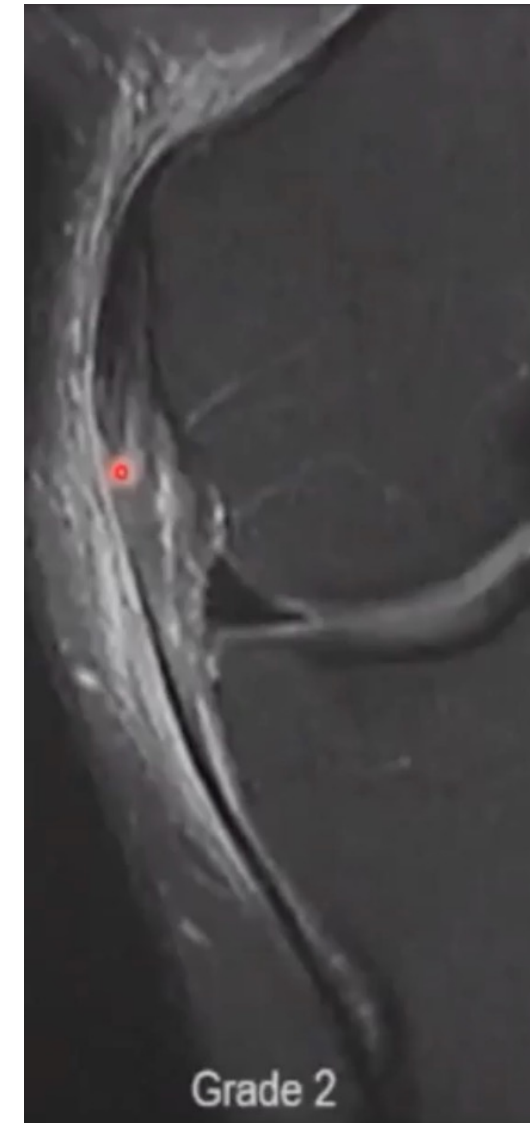
MCL MRI



Grade I:
Hypersignal
local infiltration

Grade II:
Hypersignal
thickening
partial rupture

Grade III:
interruption
avulsion
loosening
bony fracture

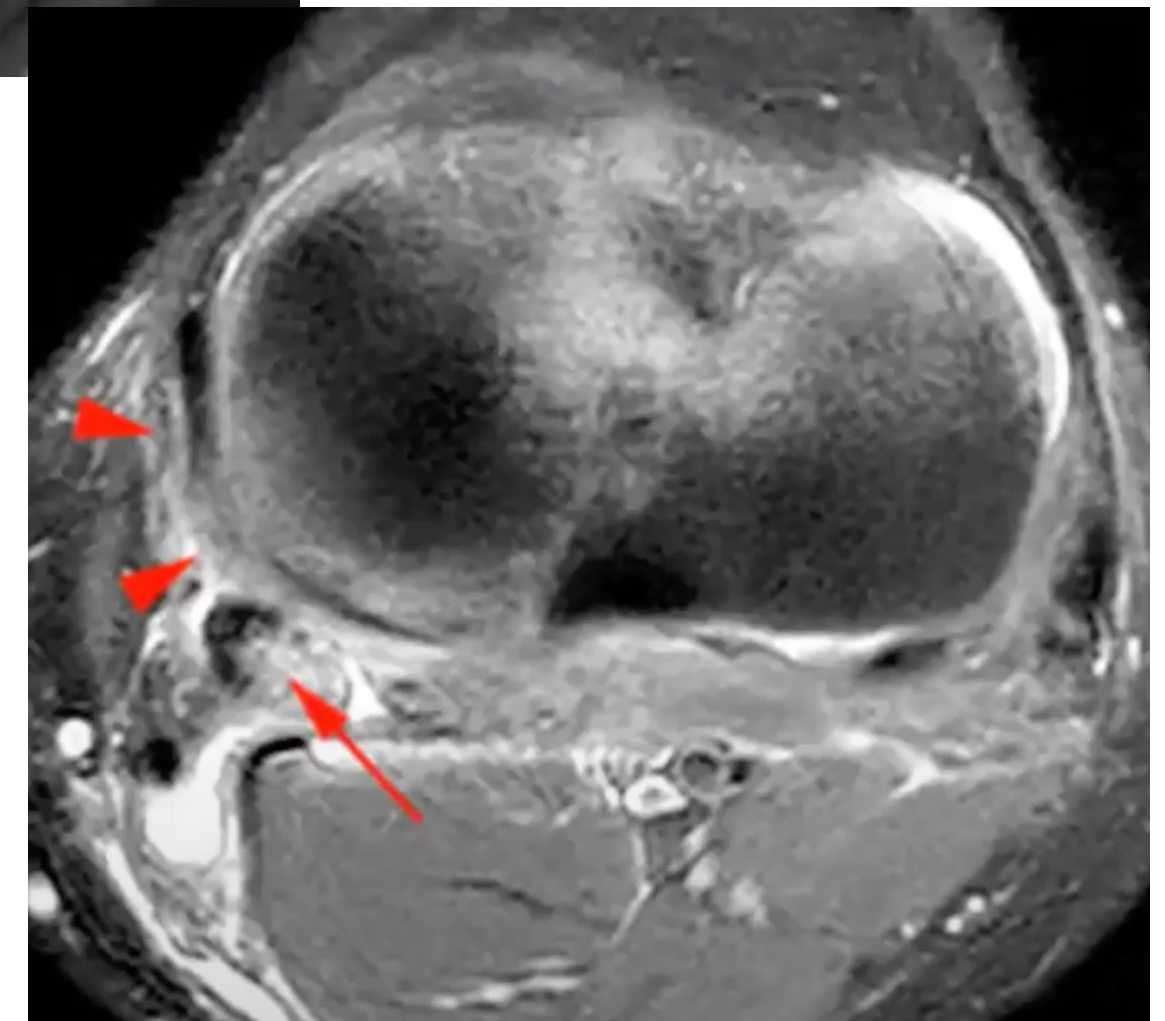
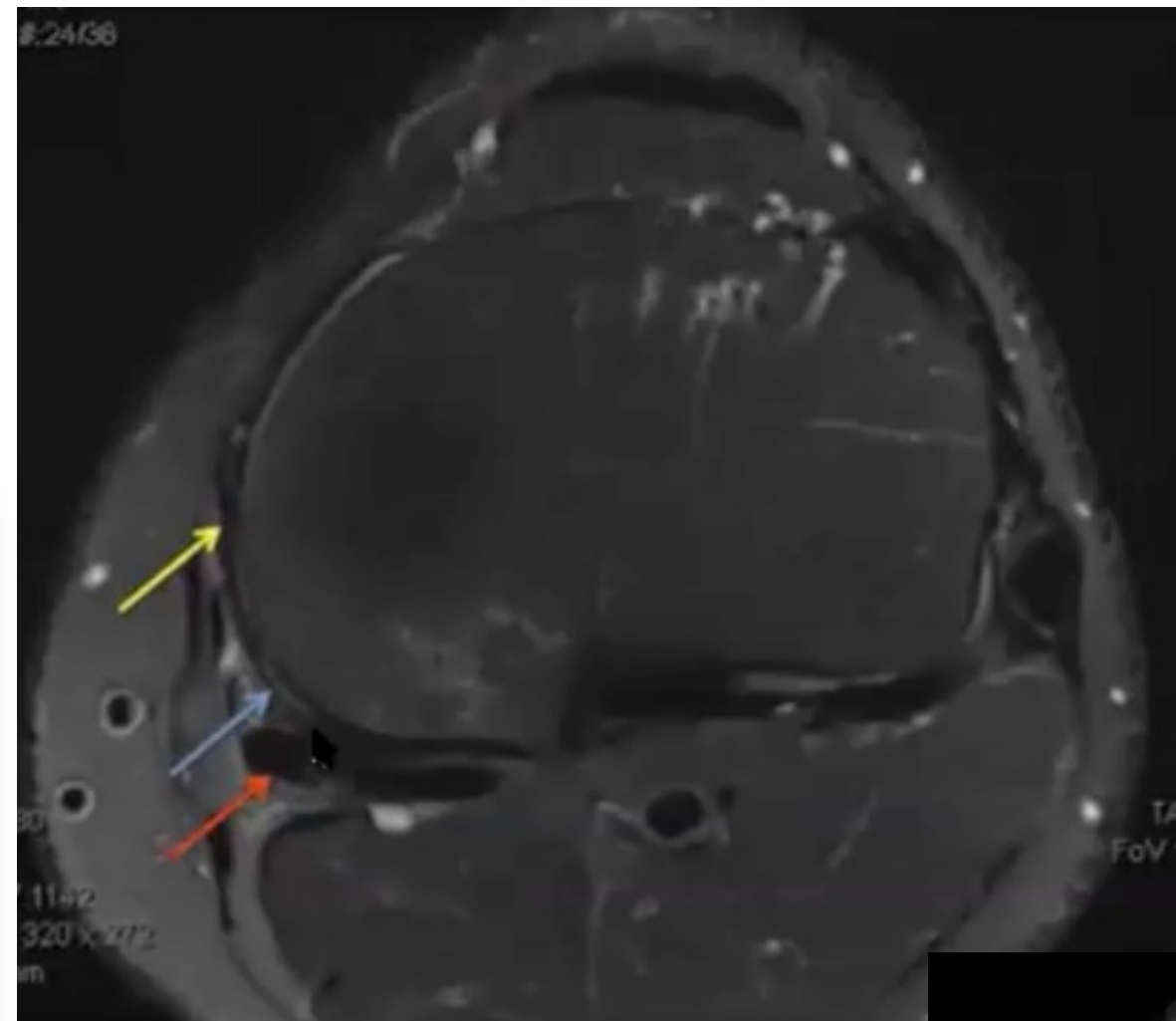


PMC

AXIAL

- POL
- Capsule
- MM
- SM

N= HYPOSIGNAL

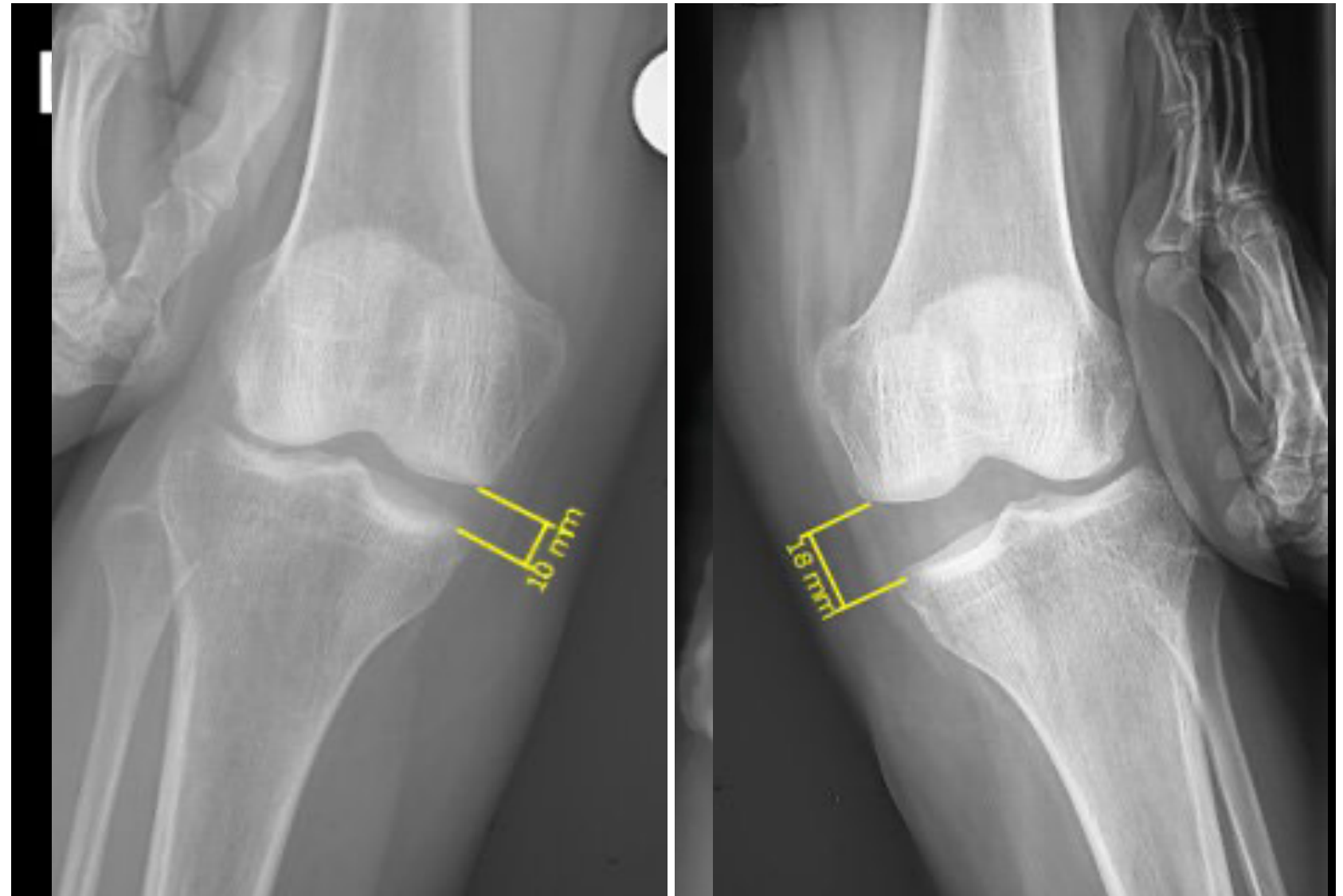


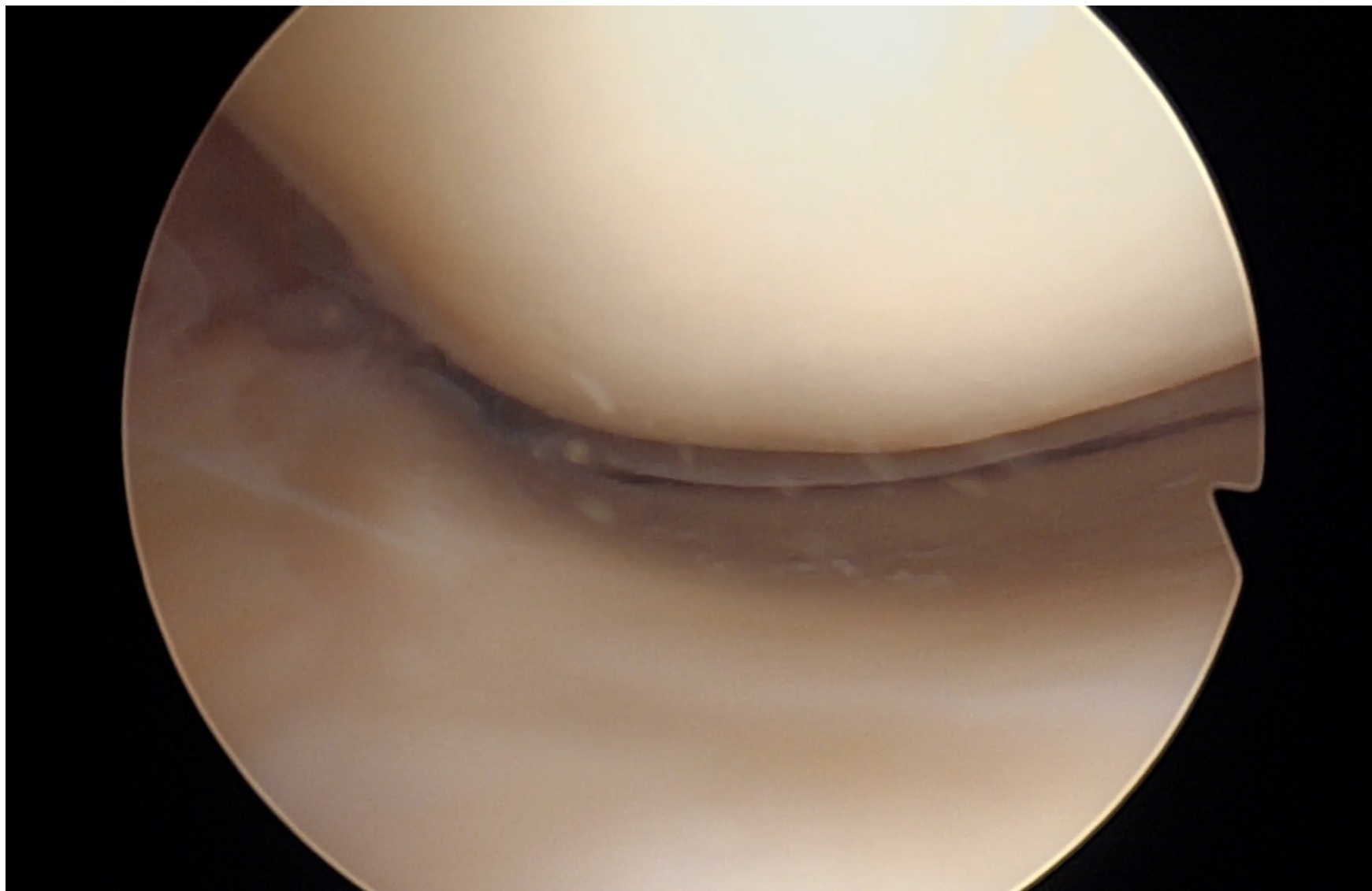
X-RAY

CHRONIC

Pellegrini – Stieda

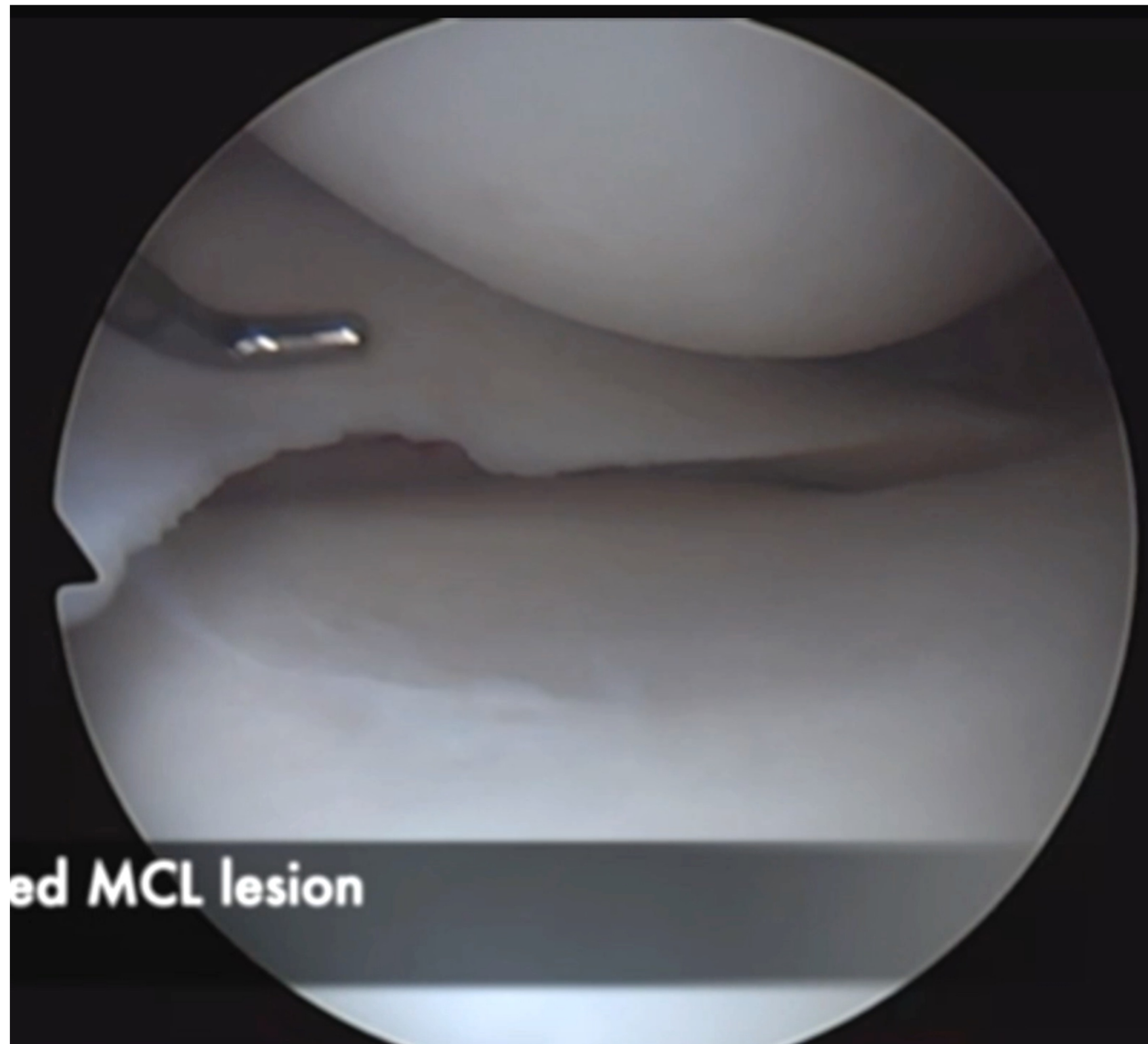
Radiographie en stress varus /
valgus





Arthroscopic Medial Compartment Drive-Through Sign for Knee Medial Collateral Ligament Complex Injuries

Julien Billières, M.D., Graeme P. Hopper, M.D., F.R.C.S. (Tr.&Orth.),
Alessandro Carrozzo, M.D., Alexandre Ferreira, M.D., Sylvain Guy, M.D.,
Thais Dutra Vieira, M.D., and Bertrand Sonnery-Cottet, M.D.



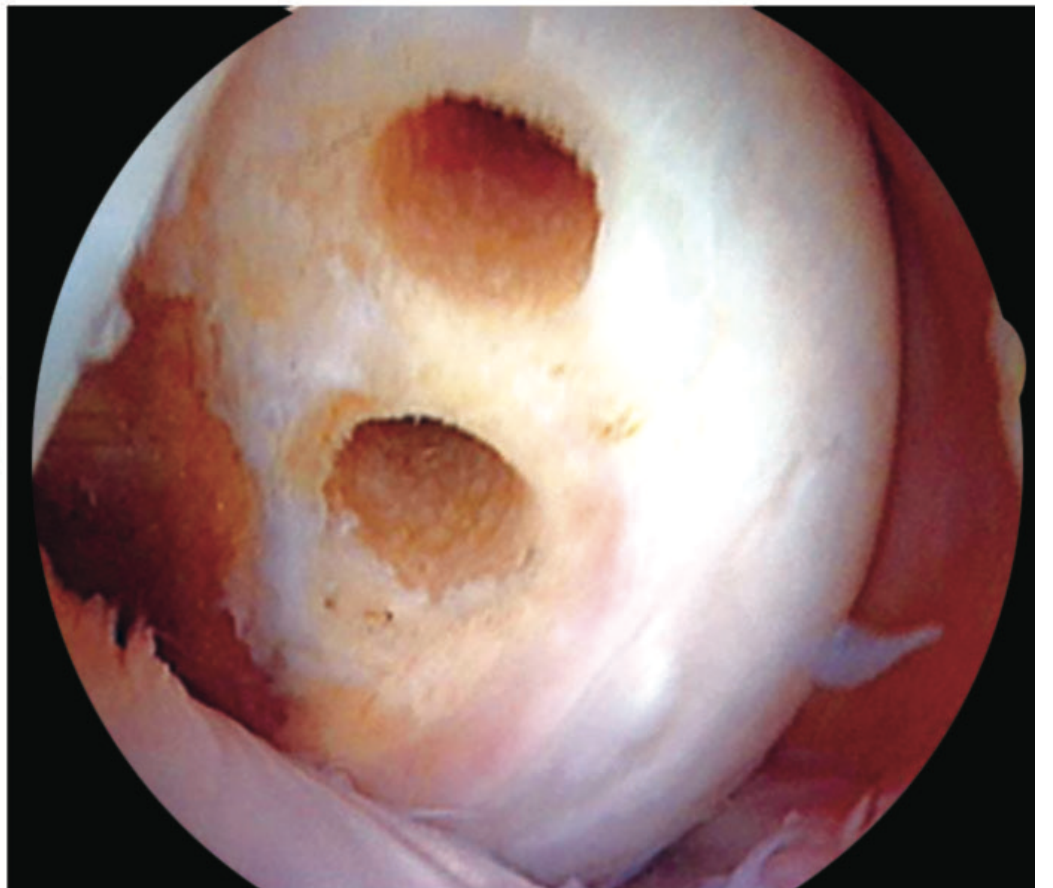
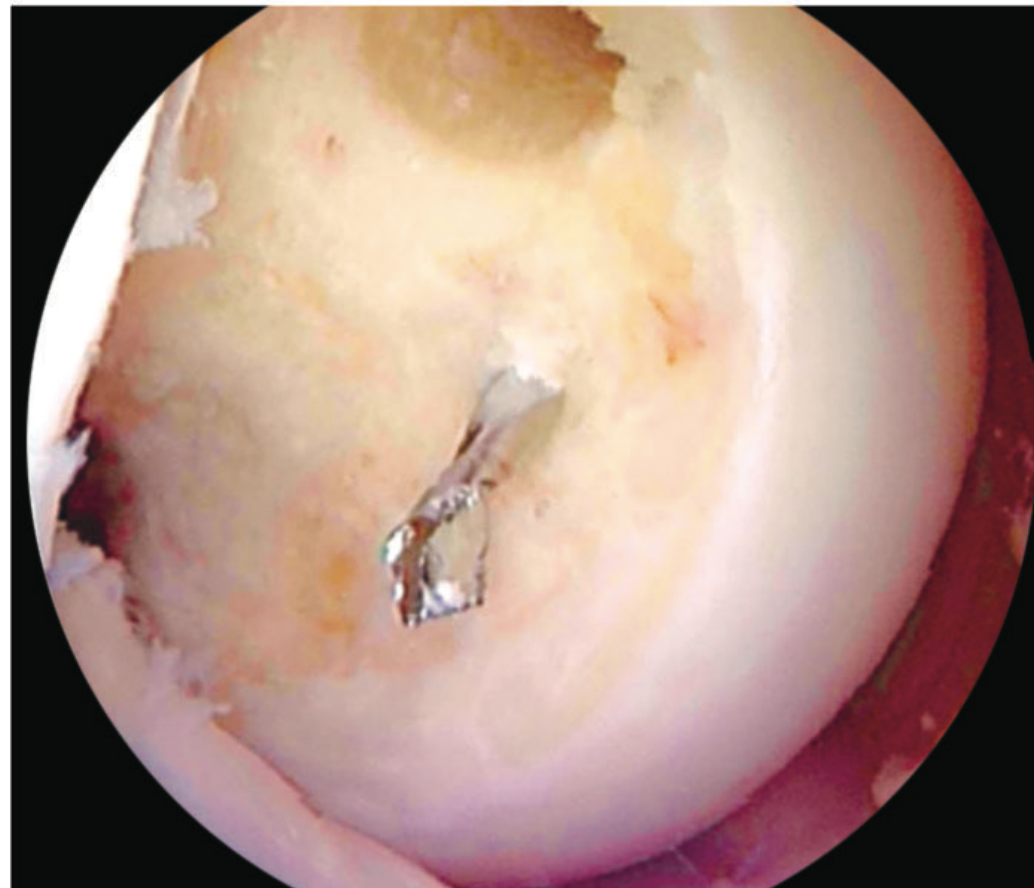
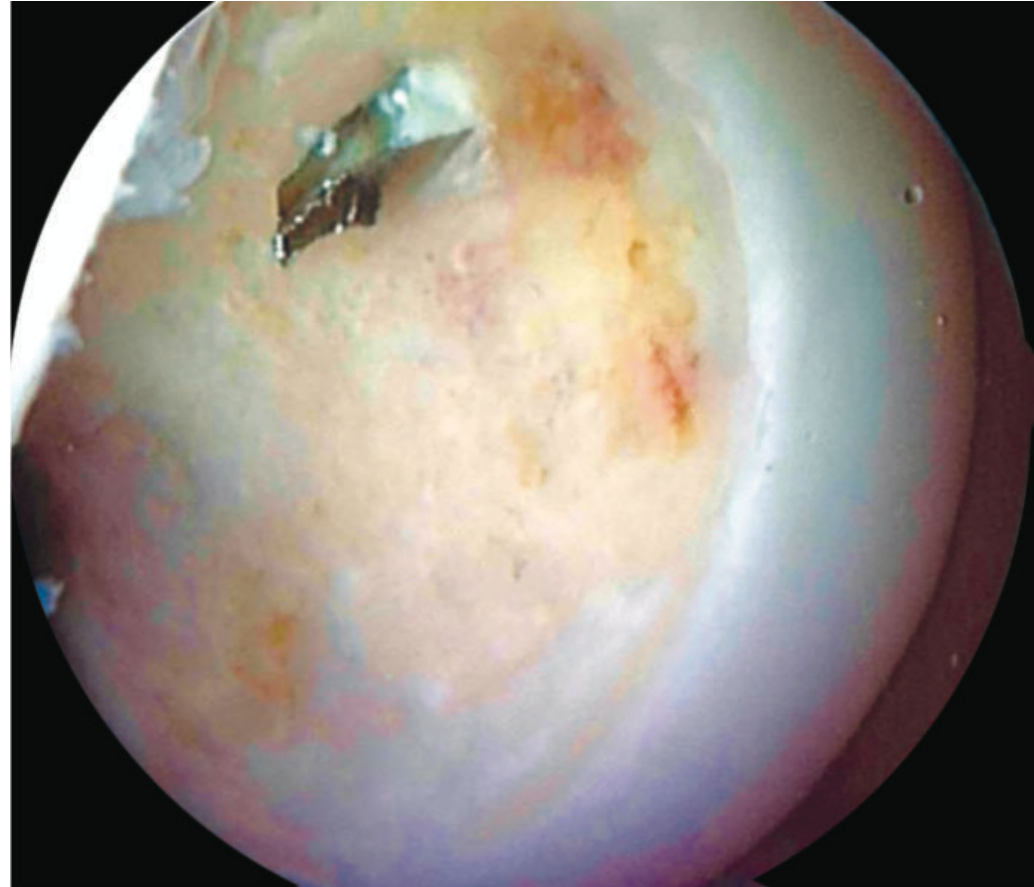
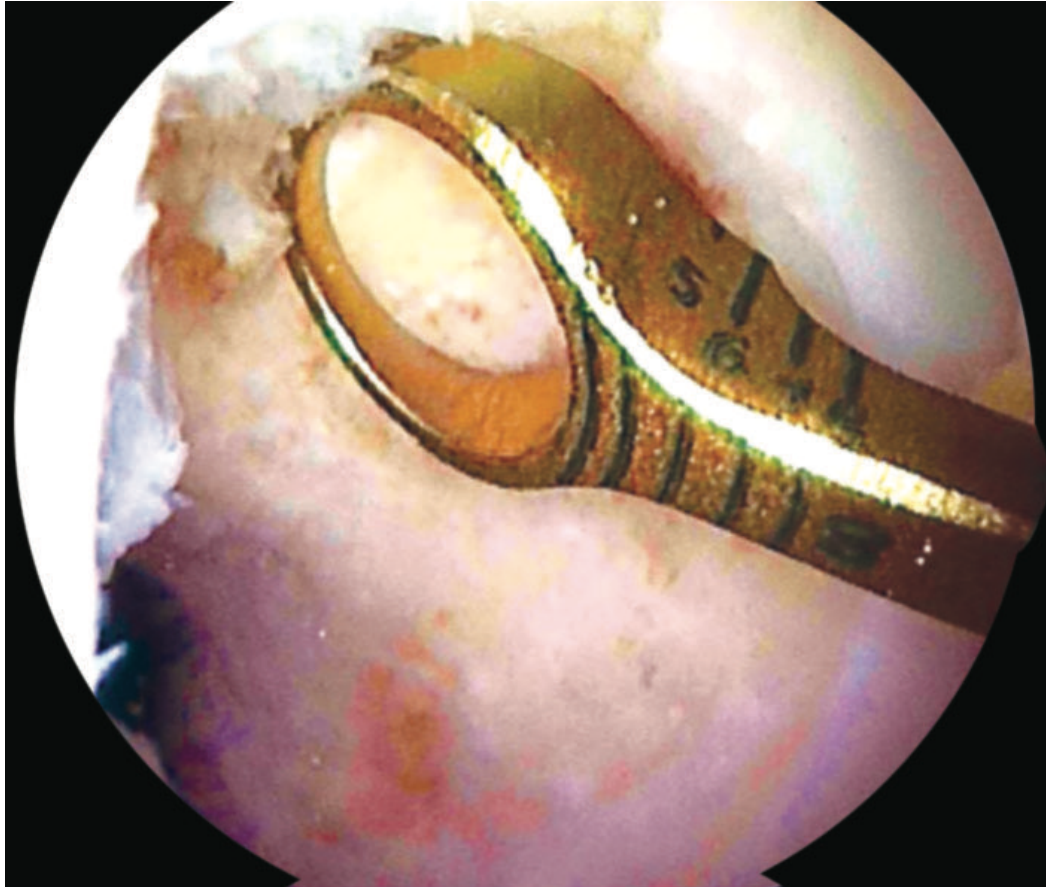
STEP 0

**ALL WITHOUT DRILL
MENISCUS
CARTILAGE**

....

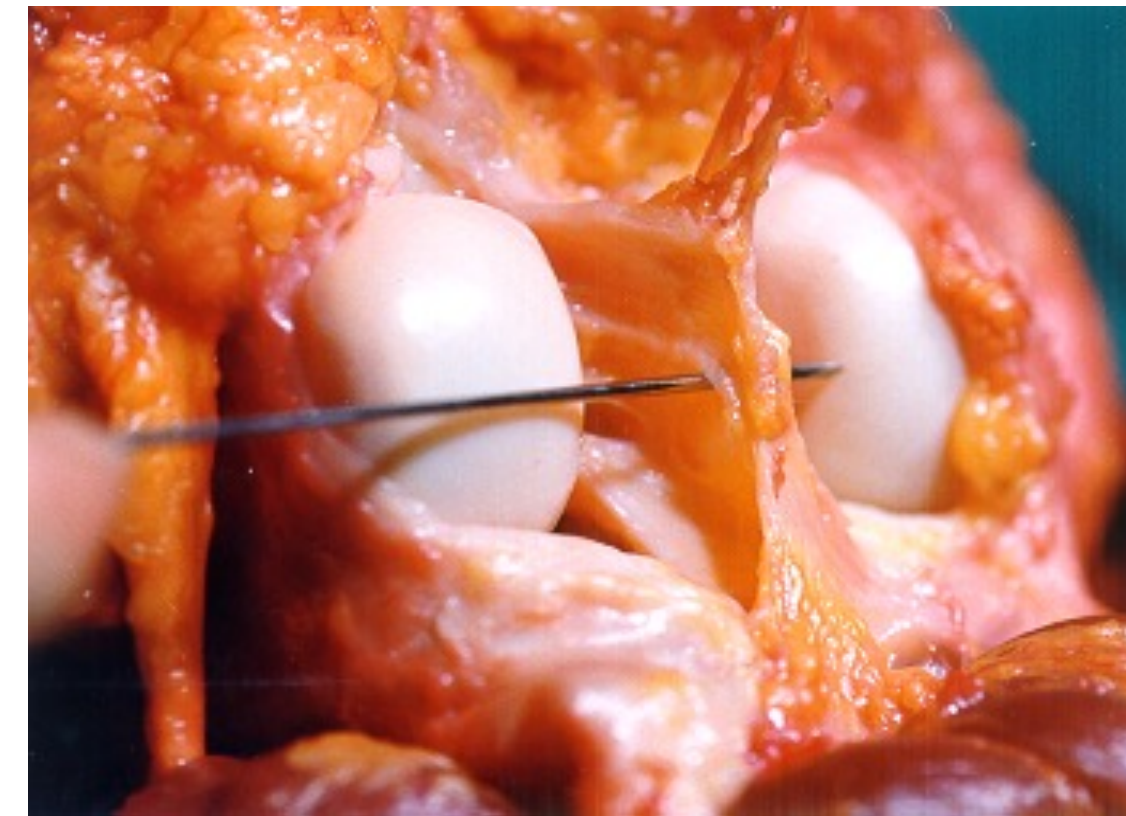
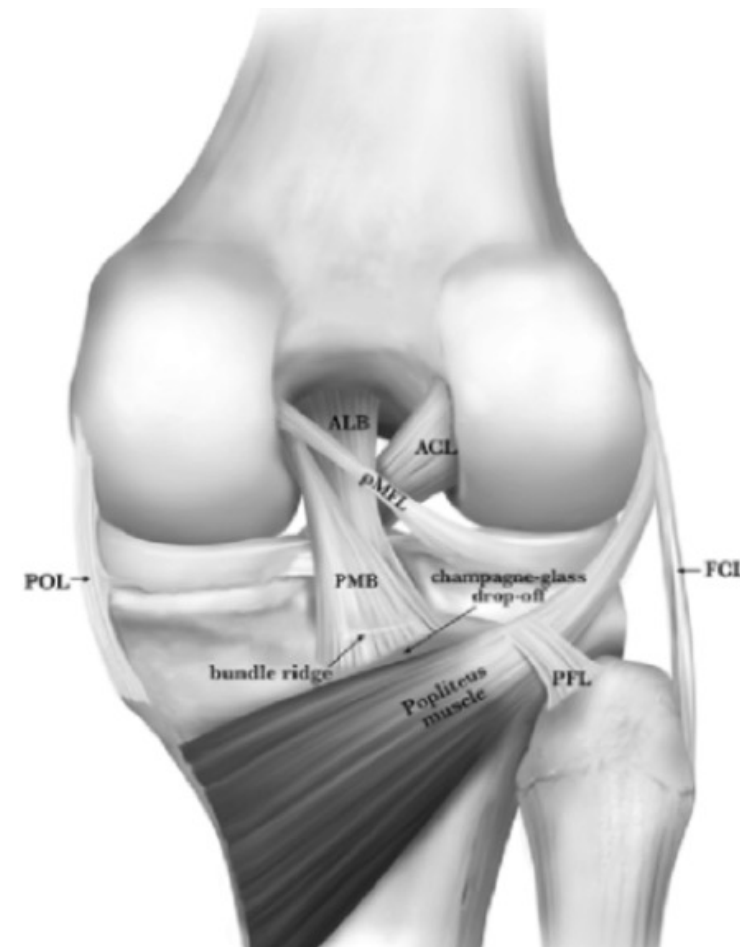
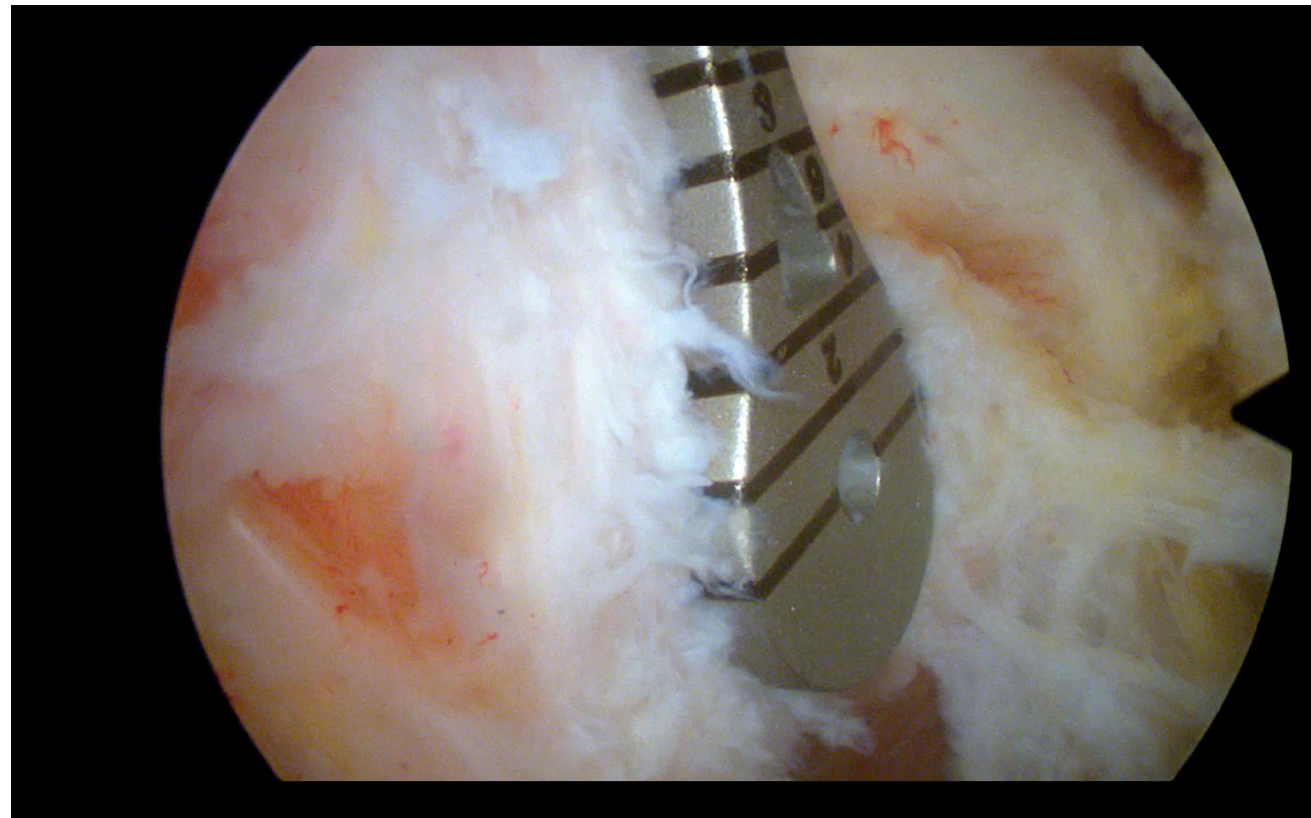
STEP 1

FEMUR



STEP 2

TRANSEPTAL APPROACH



29

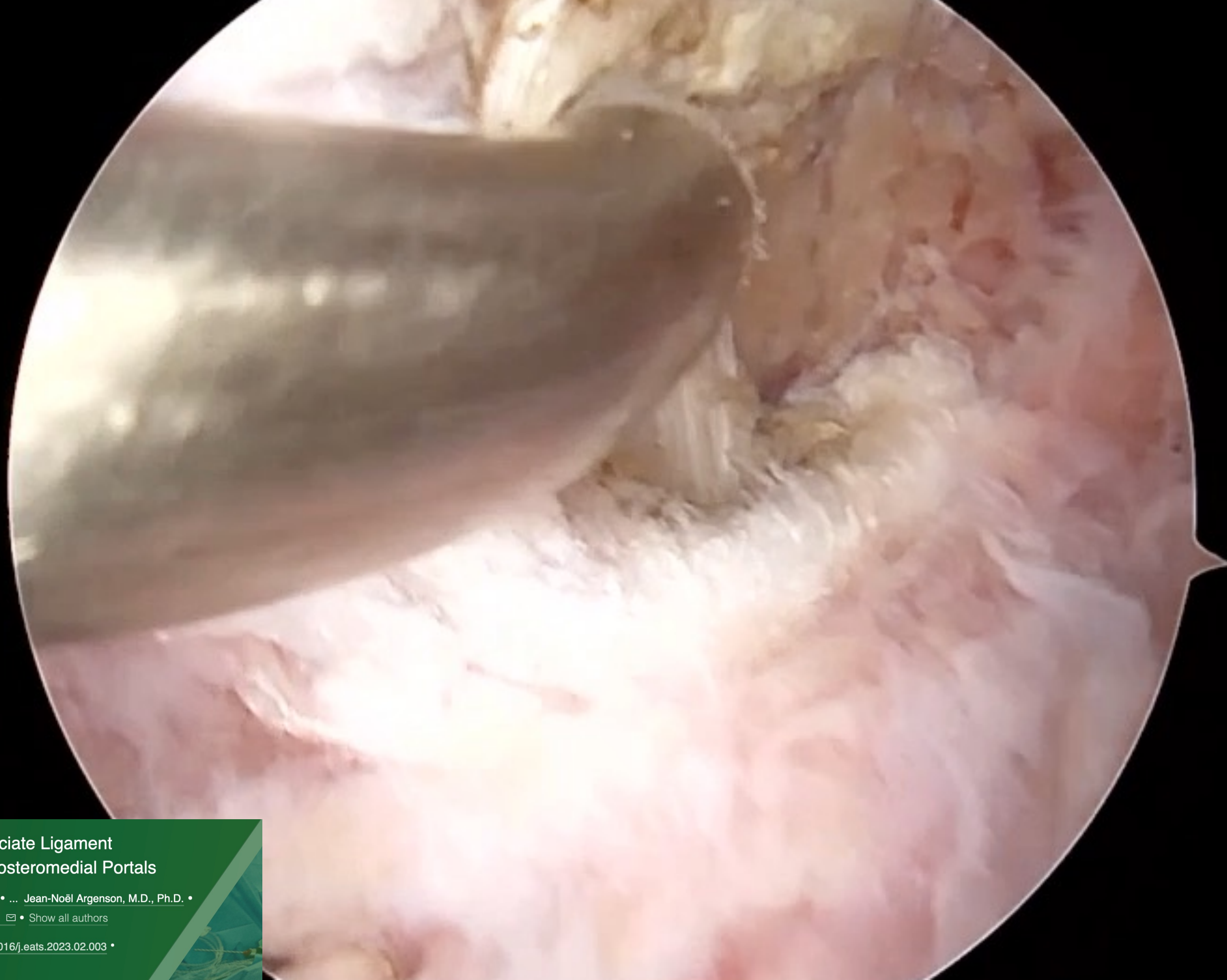
Pression


30

Niveau de base



90

Débit (mL/min)



OSC - AGG 

Quad Tendon Autograft for Posterior Cruciate Ligament Reconstruction Using Transseptal and Posteromedial Portals

Victor Germon, M.D. • Sylvain Guy, M.D., M.Sc. • Alice Abs, M.D. • ... Jean-Noël Argenson, M.D., Ph.D. • Matthieu Ollivier, M.D., Ph.D. • Corentin Pangaud, M.D., M.Sc.   • [Show all authors](#)

[Open Access](#) • Published: April 24, 2023 • DOI: <https://doi.org/10.1016/j.eats.2023.02.003>

 Check for updates

STEP 3

ACL TIBIAL TUNNEL

DONT COLLIDE



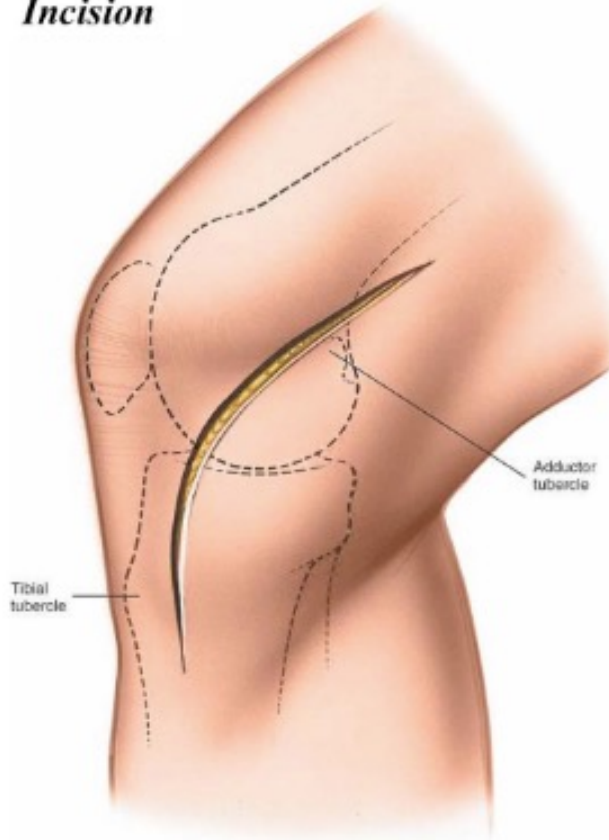
STEP 4

MCL PMC

REPAIR

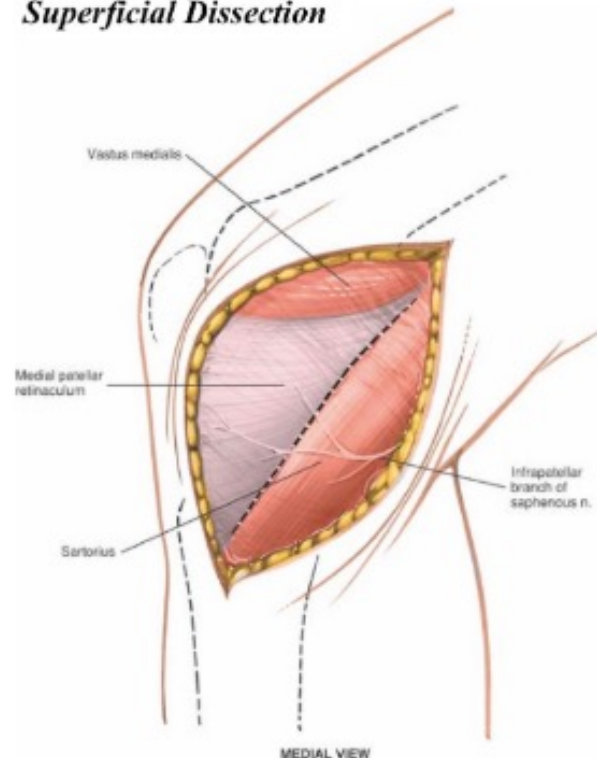
ACL PCL FIRST THEN EXTENSIVE APPROACH

Incision

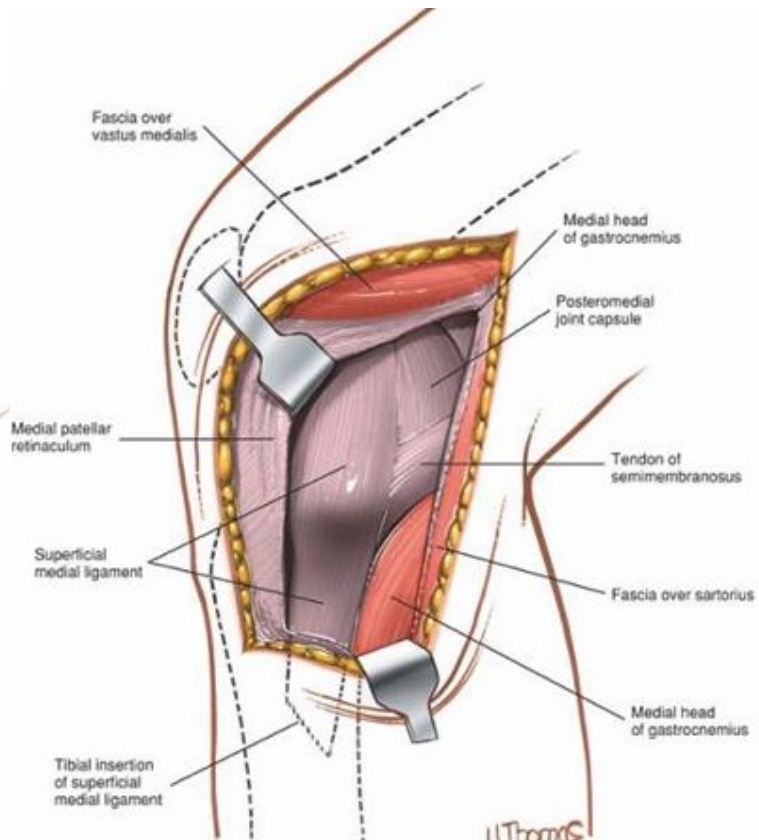


MEDIAL VIEW

Superficial Dissection

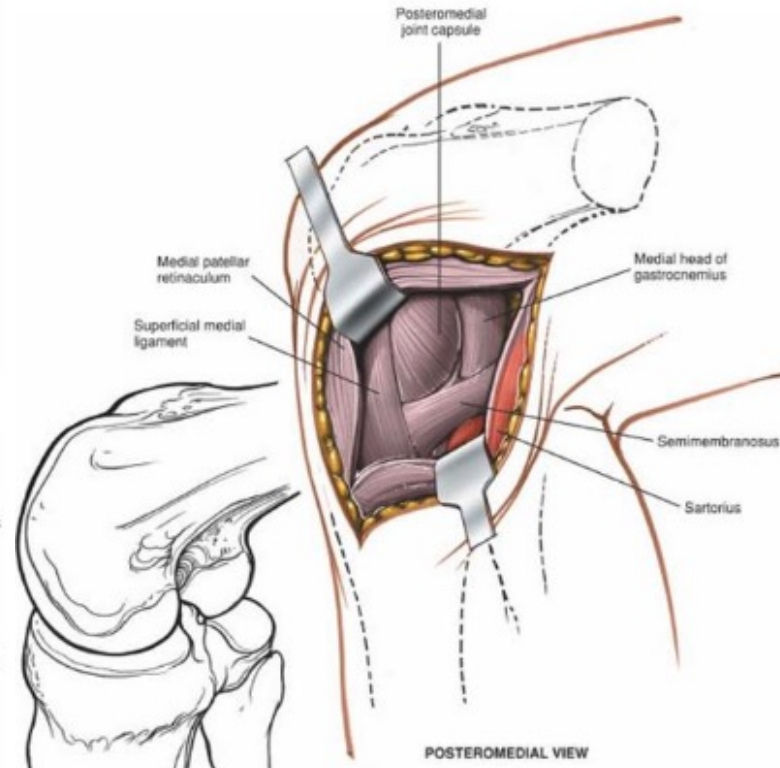


MEDIAL VIEW

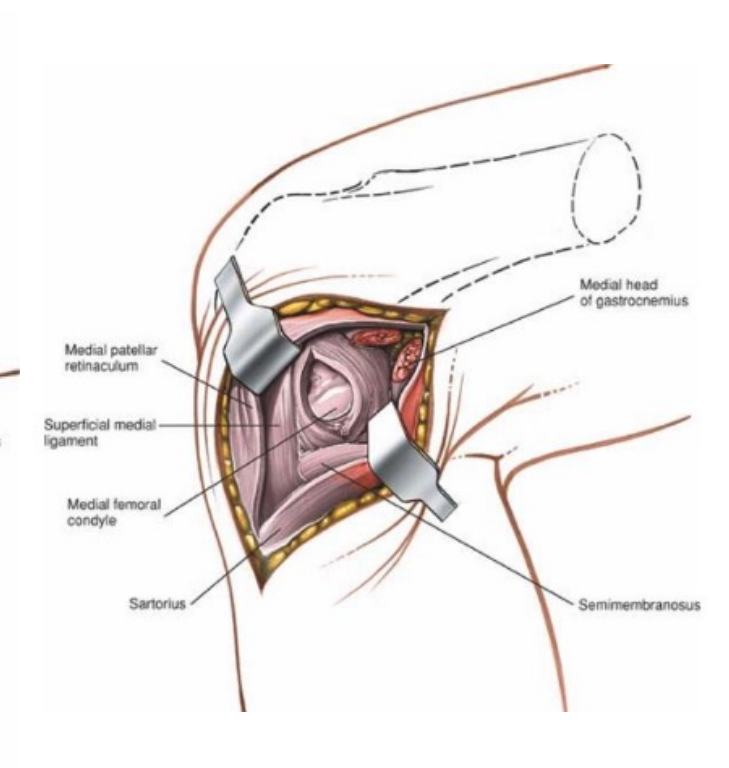


H. Thomas

Deep Dissection: Posterior



POSTEROMEDIAL VIEW



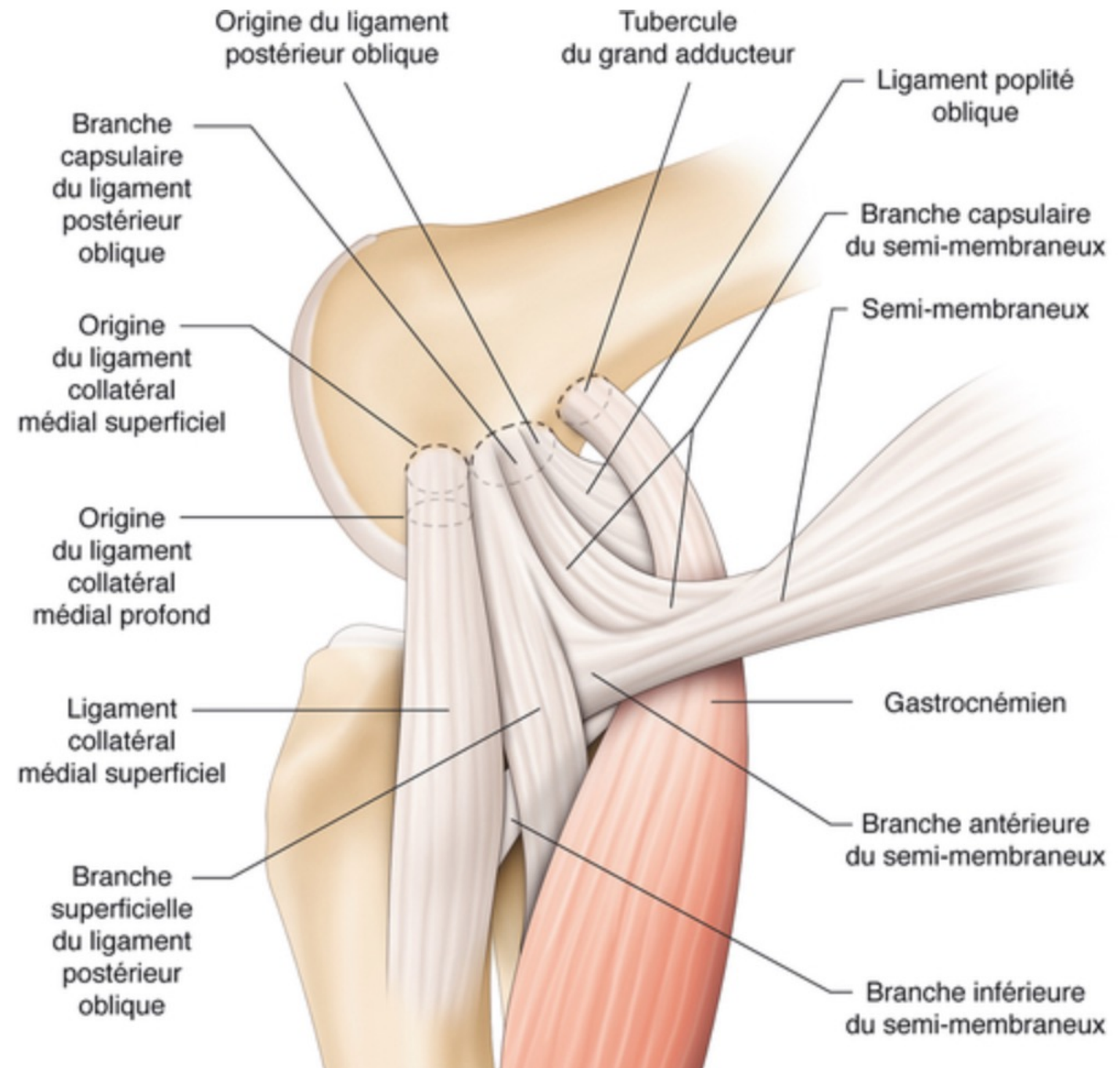
SEMIMBRANOSUS

RECONSTRUCTION

sMCL

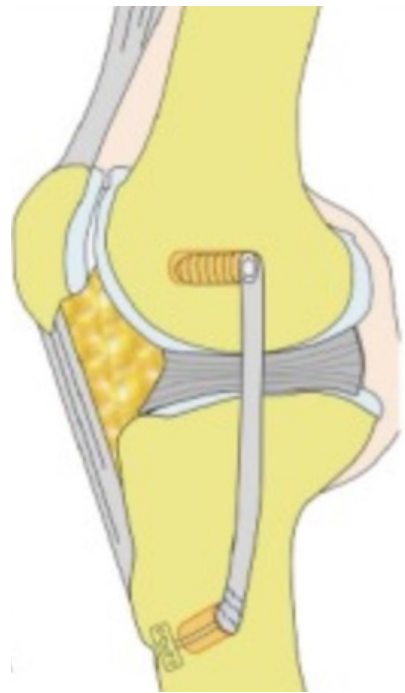
dMCL

POL

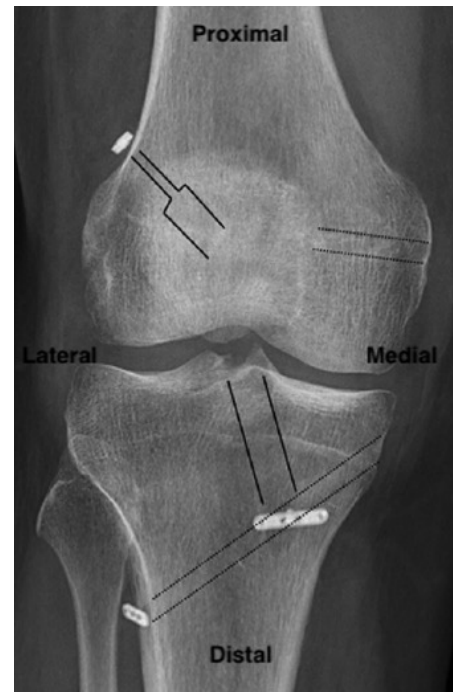


Reconstruction ?

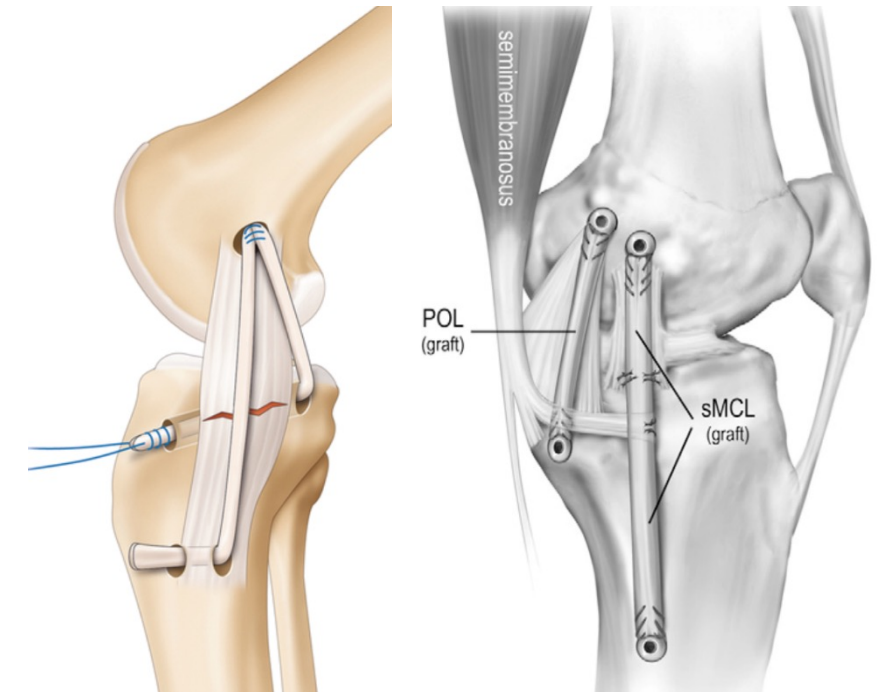
sMCL



dMCL

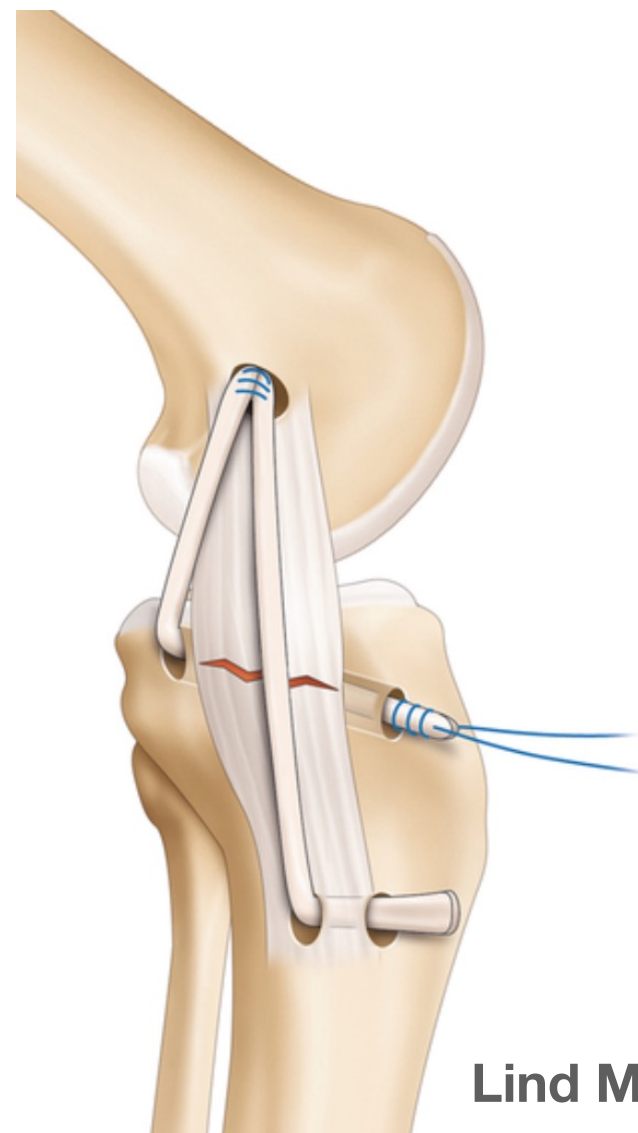


sMCL + POL

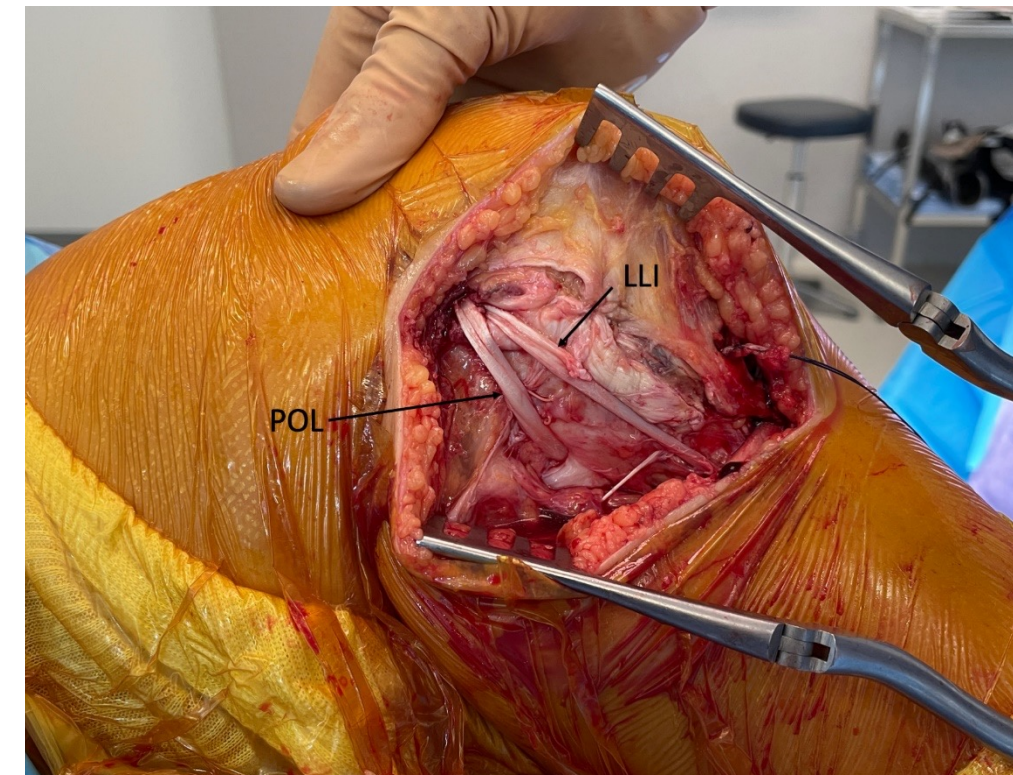


RECONSTRUCTION LCM + POL

- PEDIC ST
- move insertion at 6cm
- femoral fix (double) at 30°
- anteropost tunnel
- tibial fix in extension



Lind Modifié



Anatomical Reconstruction of the Medial Collateral Ligament and Posteromedial Corner of the Knee in Patients With Chronic Medial Collateral Ligament Instability

Martin Lind,[†] MD, PhD, Bent Wulff Jakobsen,[‡] MD, Bent Lund,[†] MD, Mogens Strange Hansen,[†] MD, Ossama Abdallah,[†] and Svend Erik Christiansen,[†] MD

The American Journal of Sports Medicine

RECONSTRUCTION dMCL

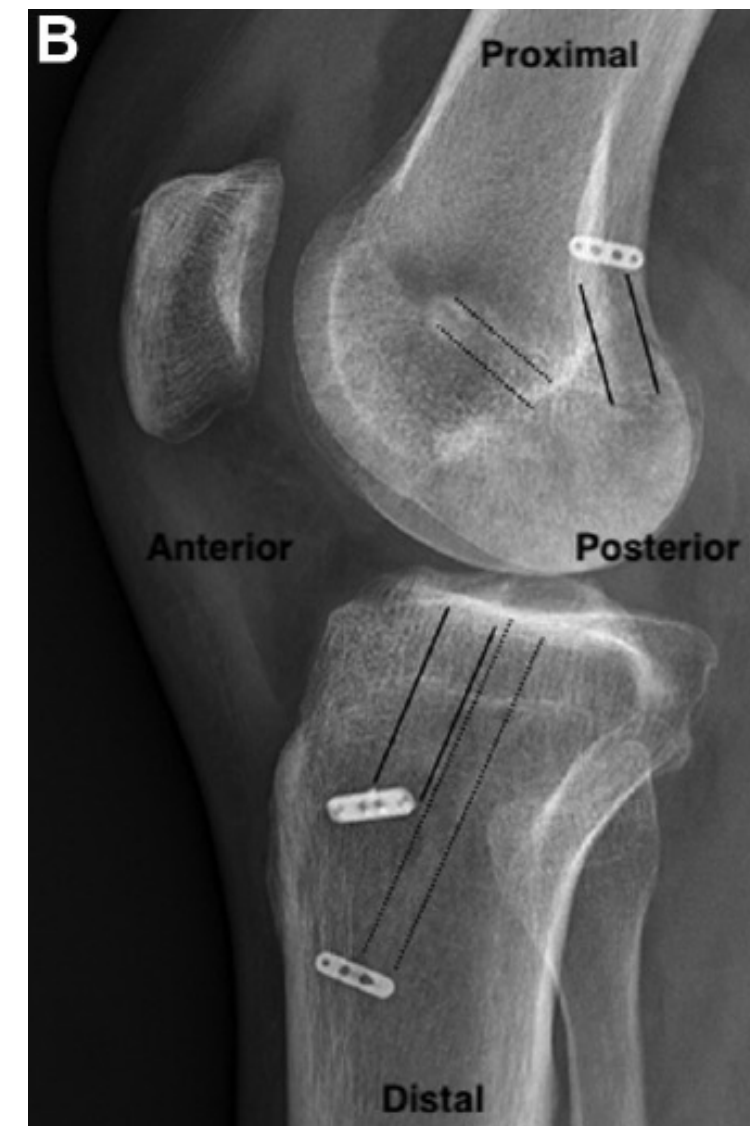
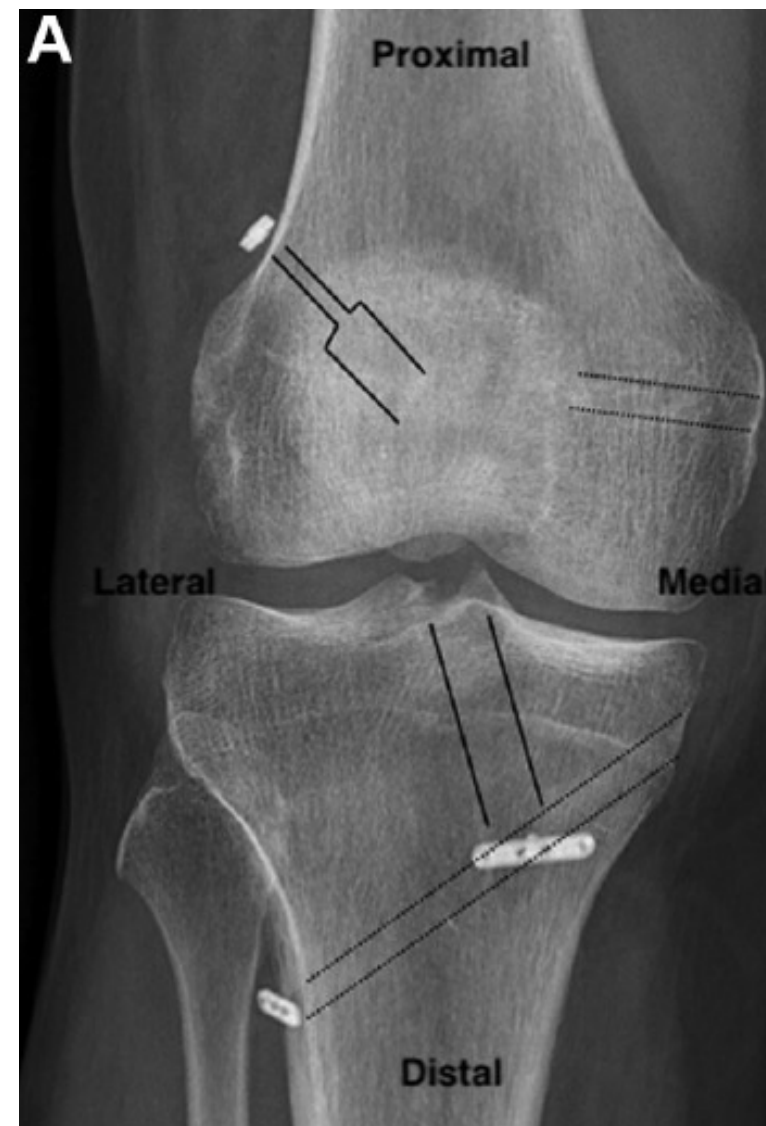
The Mirror Anterolateral Ligament: A Simple Technique to Reconstruct the Deep Medial Collateral Ligament Using the Gracilis Associated With a Four-Strand Semitendinosus for Anterior Cruciate Ligament Reconstruction

Jérémy Daxhelet, M.D., Nicolas Bouguennec, M.D., and Nicolas Gravelleau, M.D.

Arthroscopy Techniques

Companion to Arthroscopy:
The Journal of Arthroscopic and Related Surgery

2022





**ICI C'EST
MARSEILLE
BÉBÉ**



matthieu.ollivier@ap-hm.fr