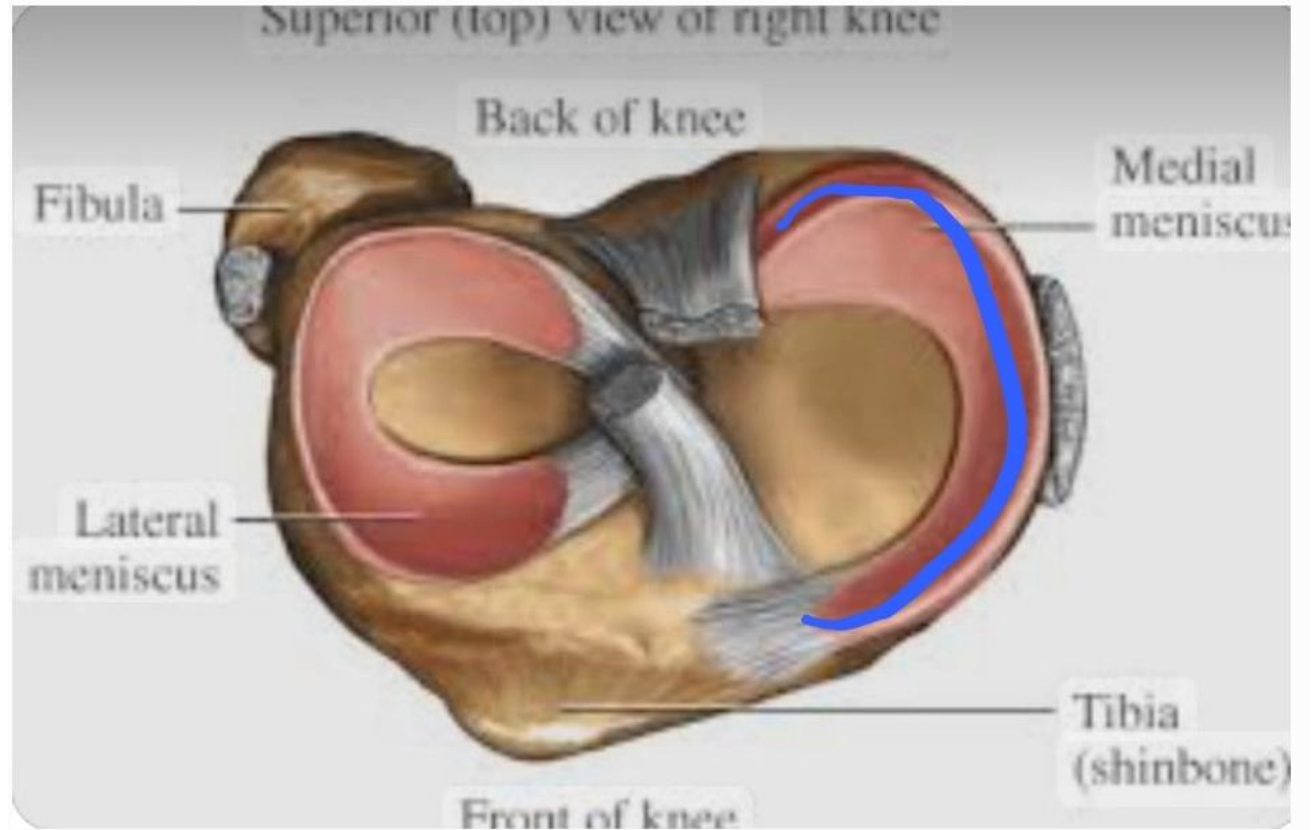
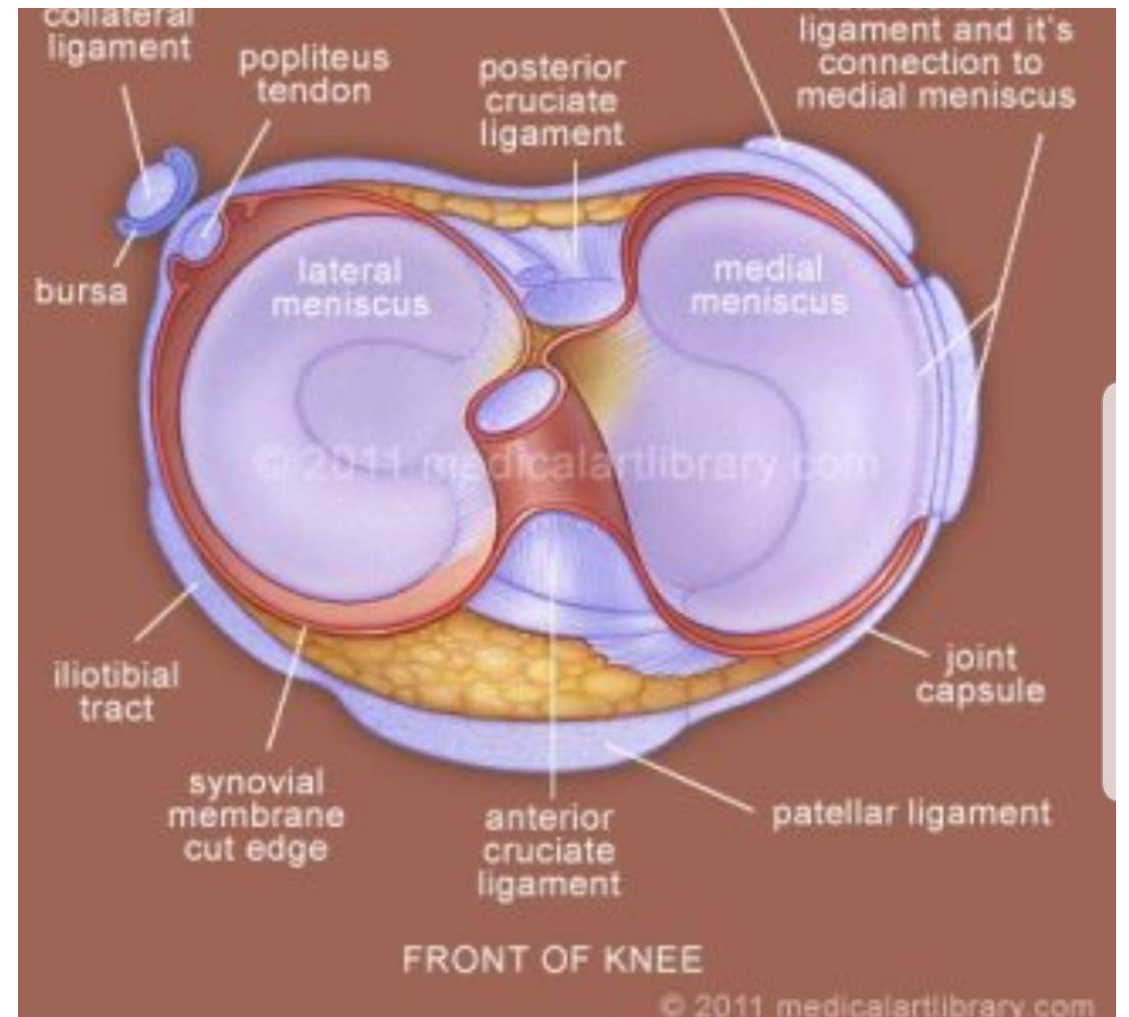


# Congenital anomalies of miniscus

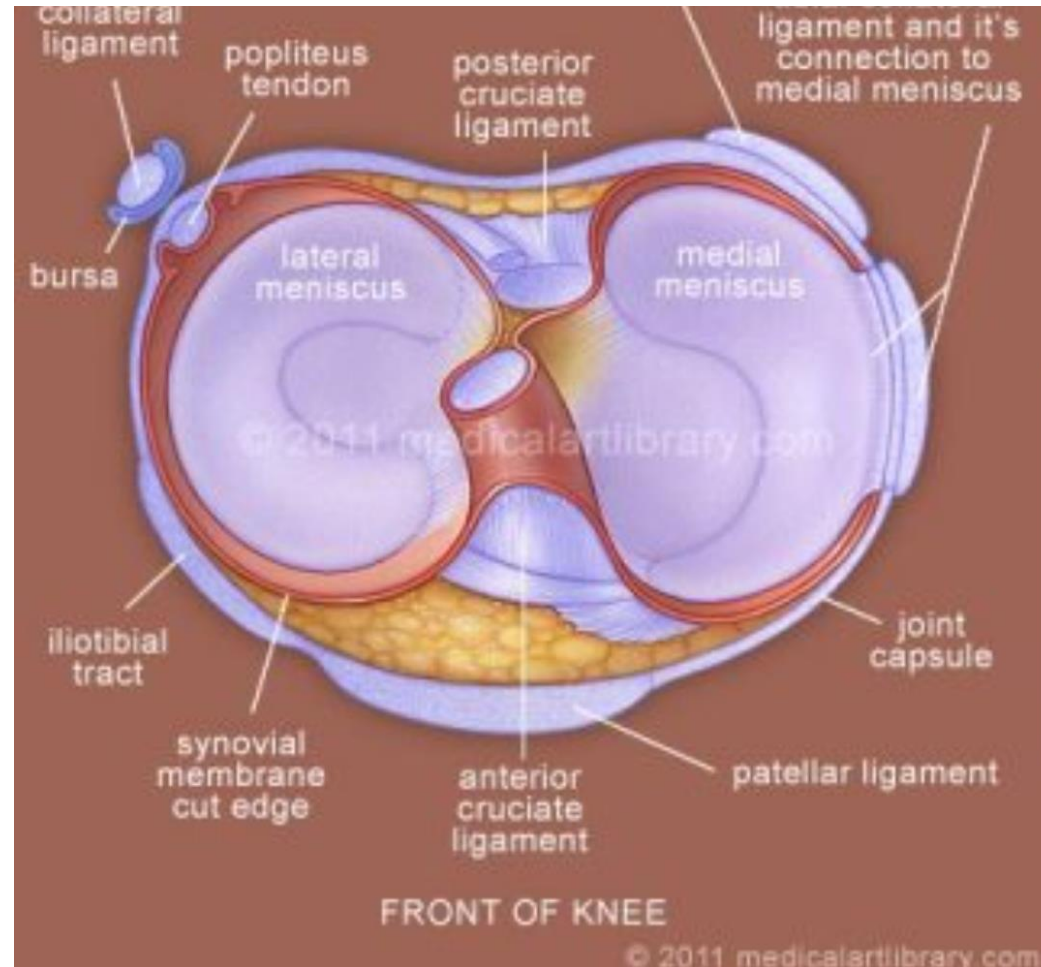
- Normal meniscus
  - Med 50%  
c shape



- Attach to lig

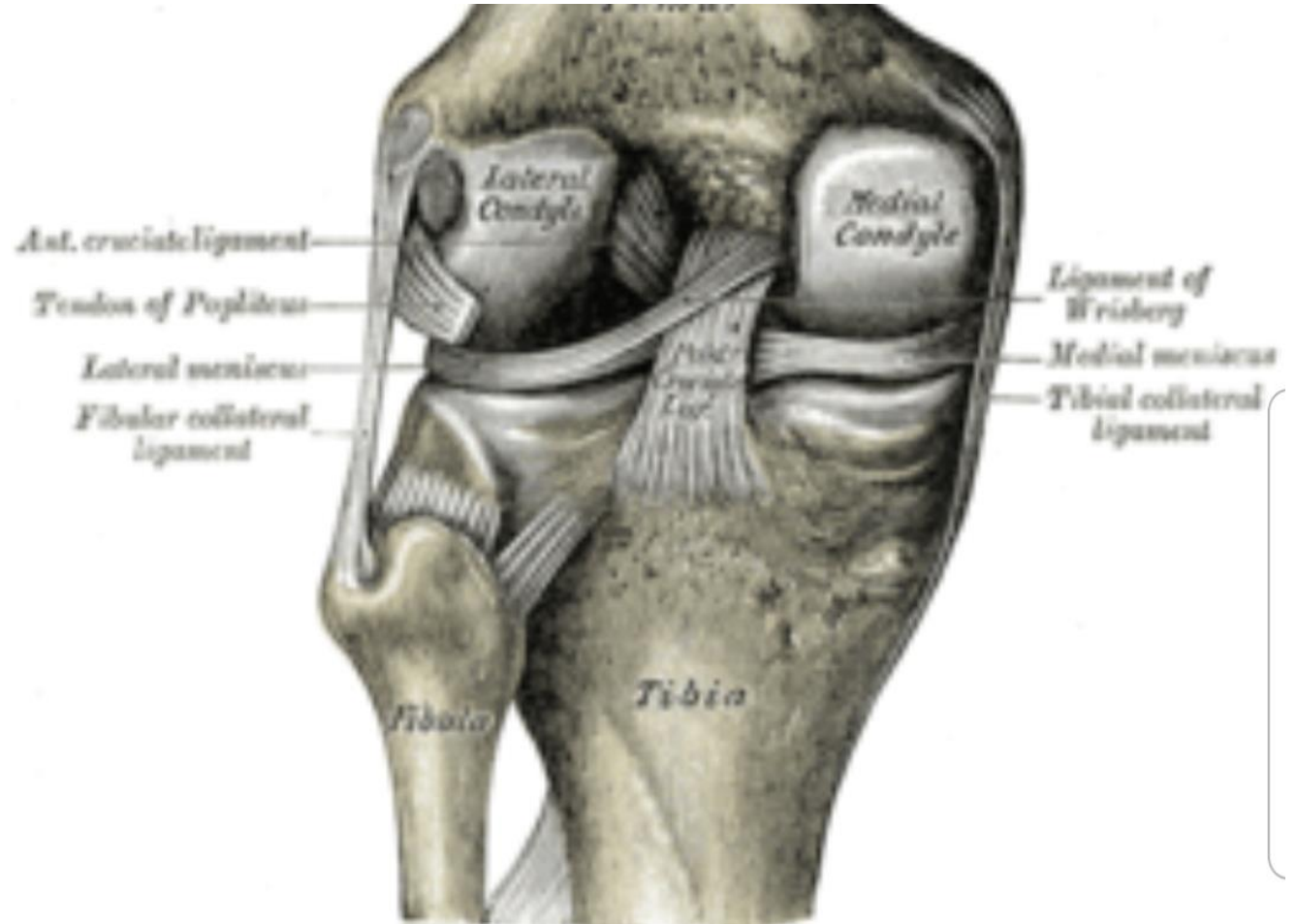


- Lat 70%  
Ring shape  
12 mm



- Attachment

Mobility



- Absence of meniscus
- Hypoplastic meniscus





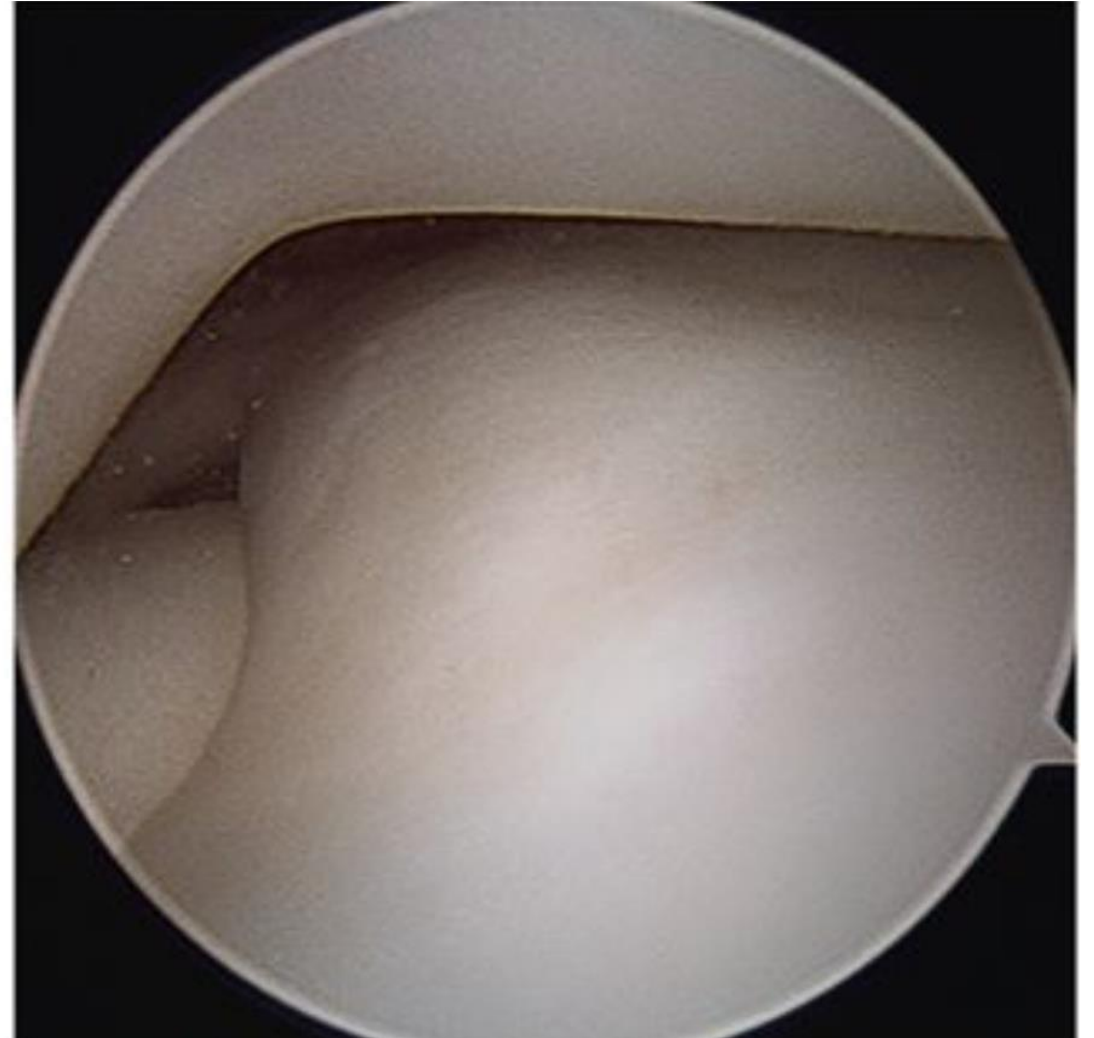
- Atypical attachment



# Discoid meniscus

Location

Shape





## Prevalance

%5-3

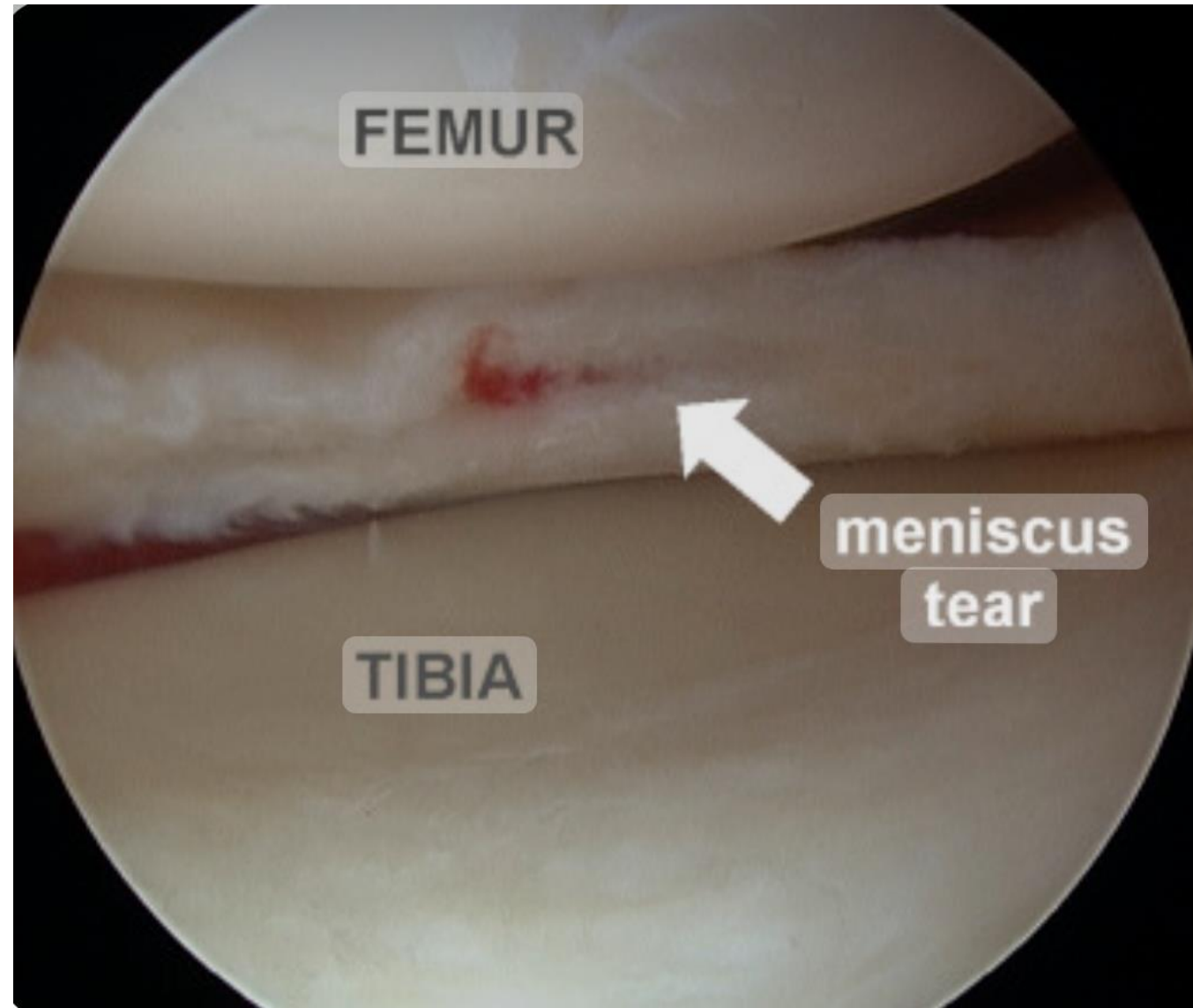
Asian 15%

Bilat 20%

Med 0.06 - 0.3 %



Tear pattern  
horizontal cleavage  
VS traumatic . peripheral  
longitudinal  
repetitive microtrauma  
delamination



- Examination

- pain in terminal motion. Extension
- flexed stance



- swelling
- locking
- joint line tenderness
- McMurray . Neg



- younger than 10
- Tear
- Popping snapping knee



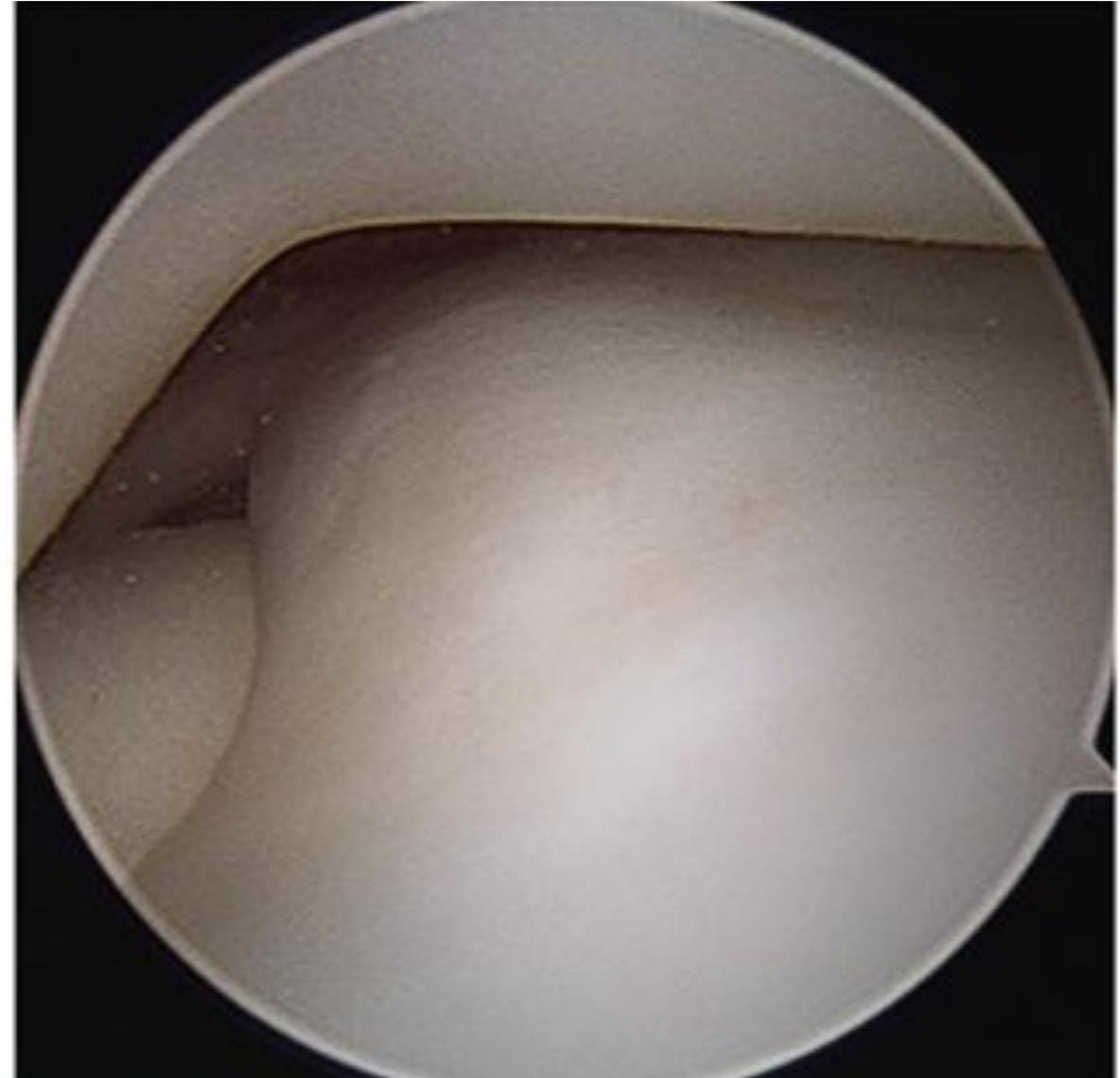
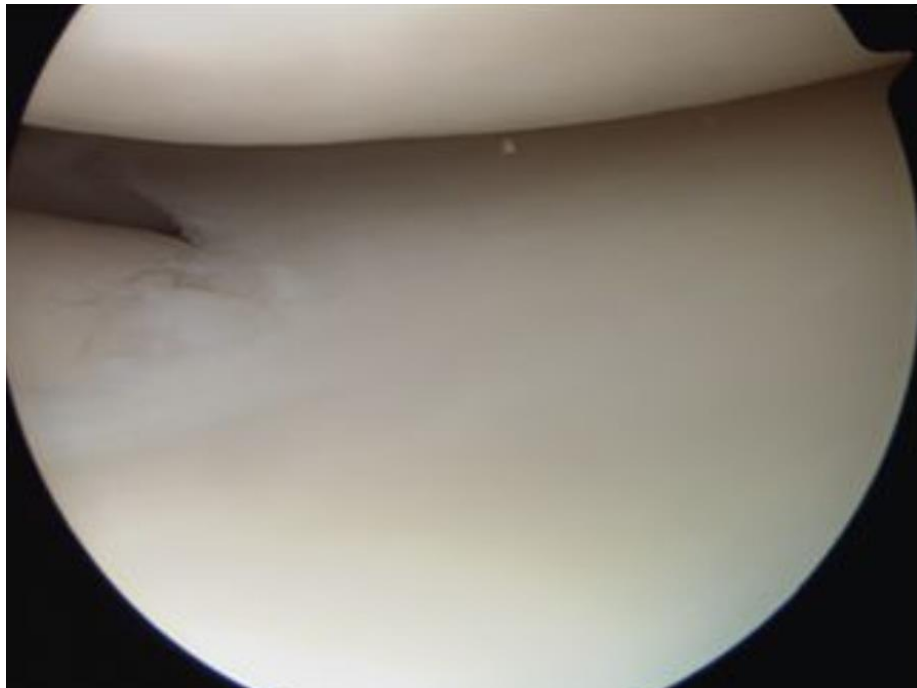


# Classification

Watanabe

Type 1 .Complete

Type 2 . incomplete < 80%

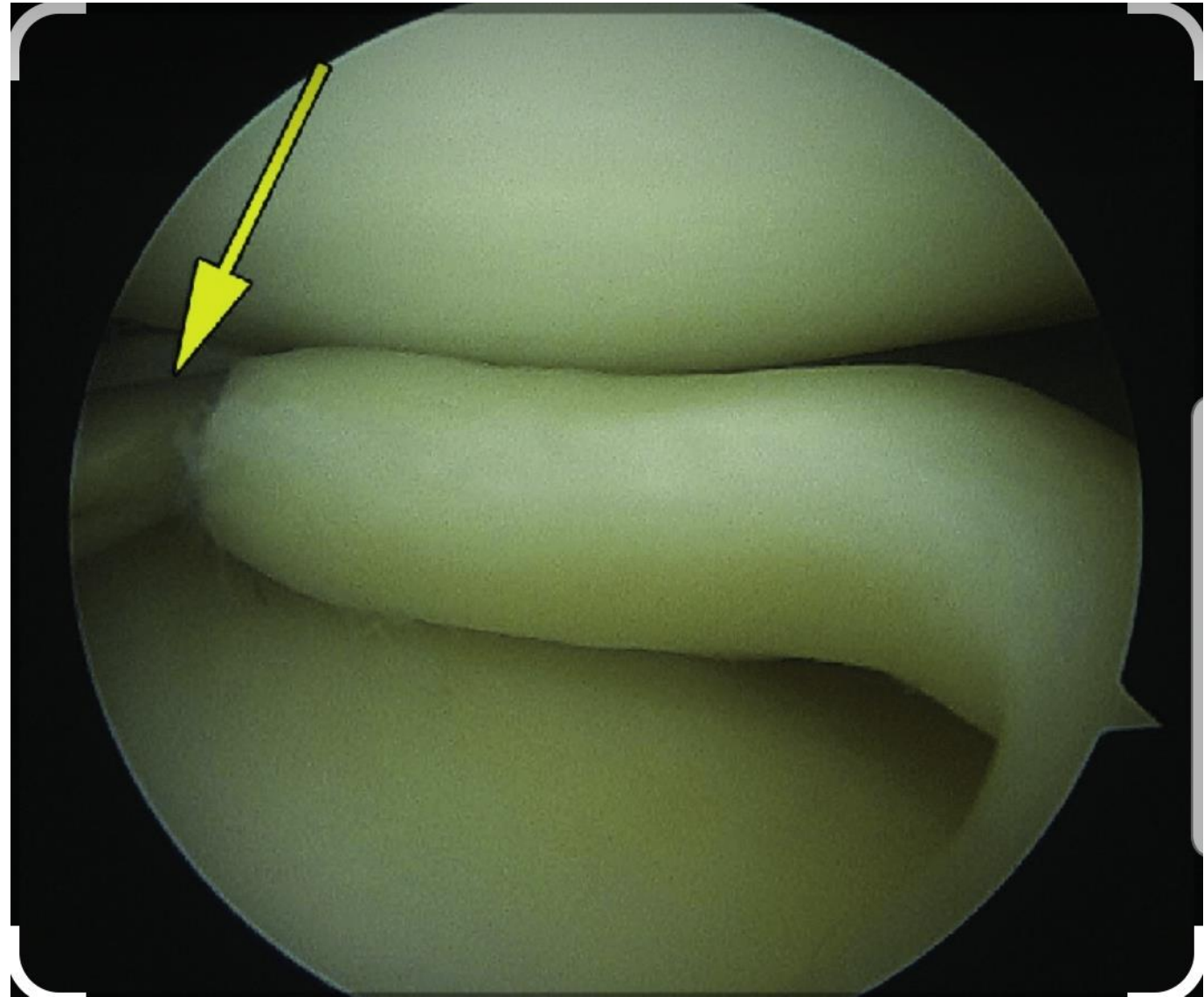




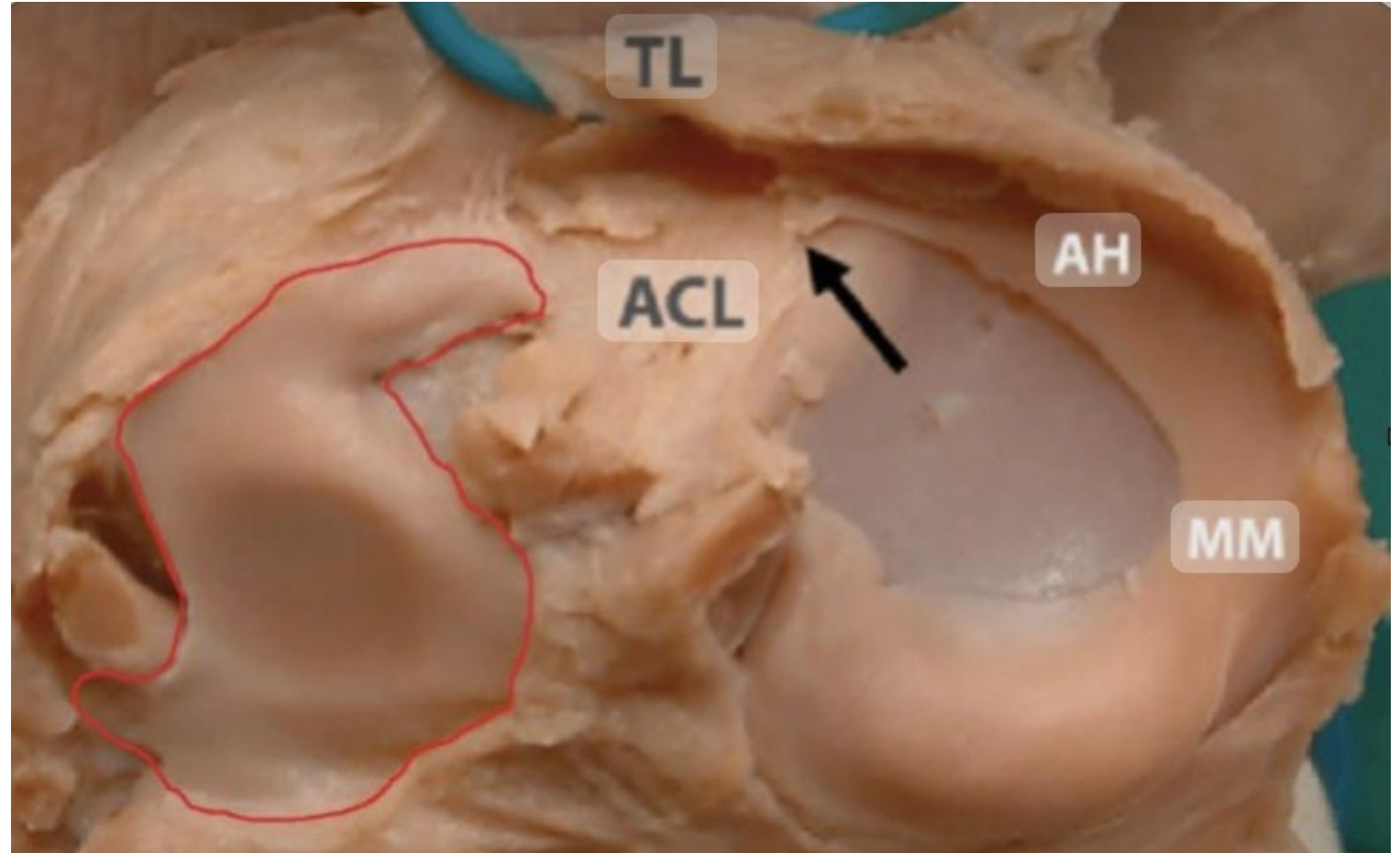
Wrisberg.  
Normal size  
posterior meniscotibial ligament  
Wrisberg ligament



Unstable . extension  
to intercondylar



stable - unstable  
discoid - normal  
torn - not torn  
symptomatic -  
asymptomatic



# Imaging

## Radiography

- widened lateral joint
- cupping of the lateral tibial plateau
- squaring or flattening of the lateral femoral condyle
- calcification of the lateral meniscus
- tibial eminence hypoplasia
- fibular head elevation



associated

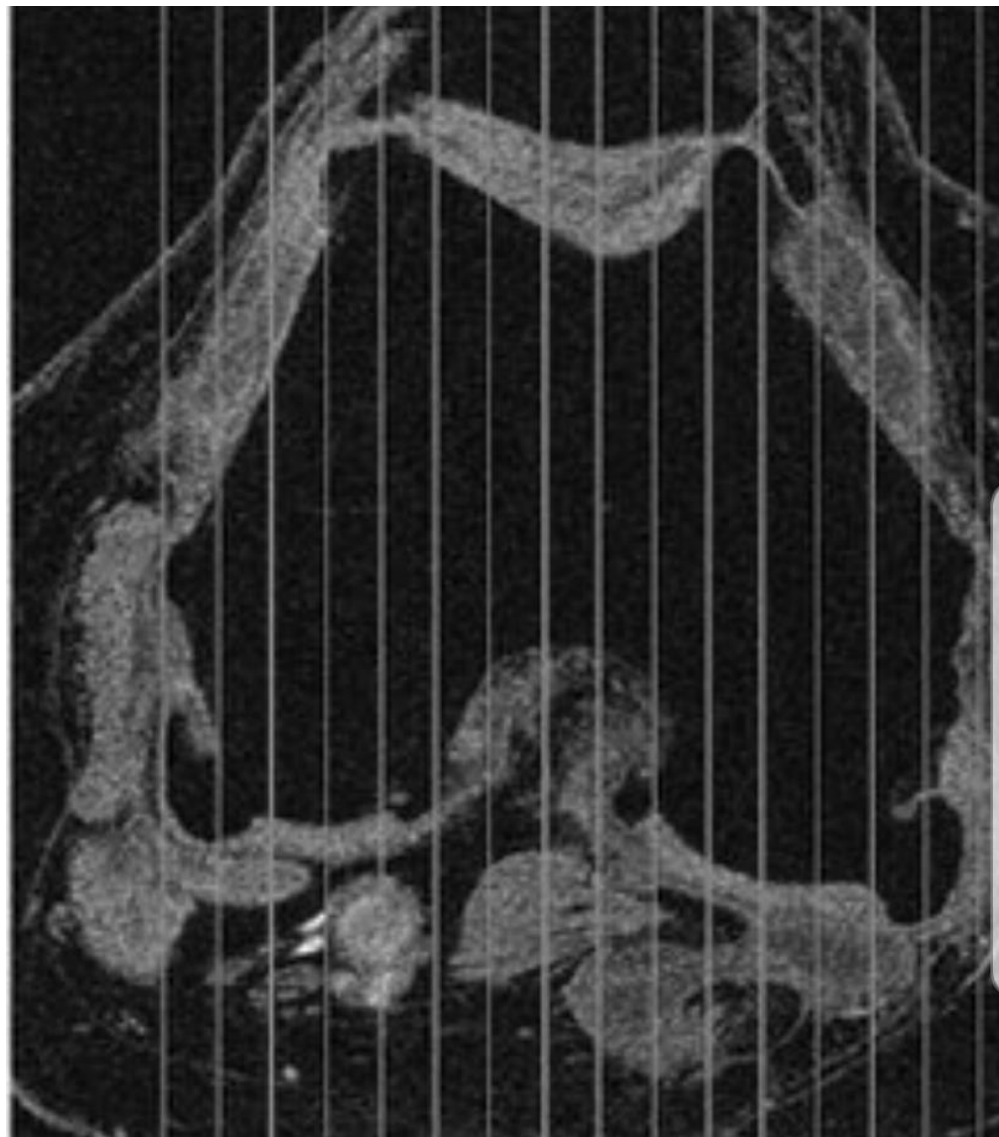
- fibular muscle defects
- abnormally contoured lateral malleolus enlarged inferior
- genicular artery
- osteochondral pathology



MR

normal :12 mm

Slice 5 mm: 2 slice sagital

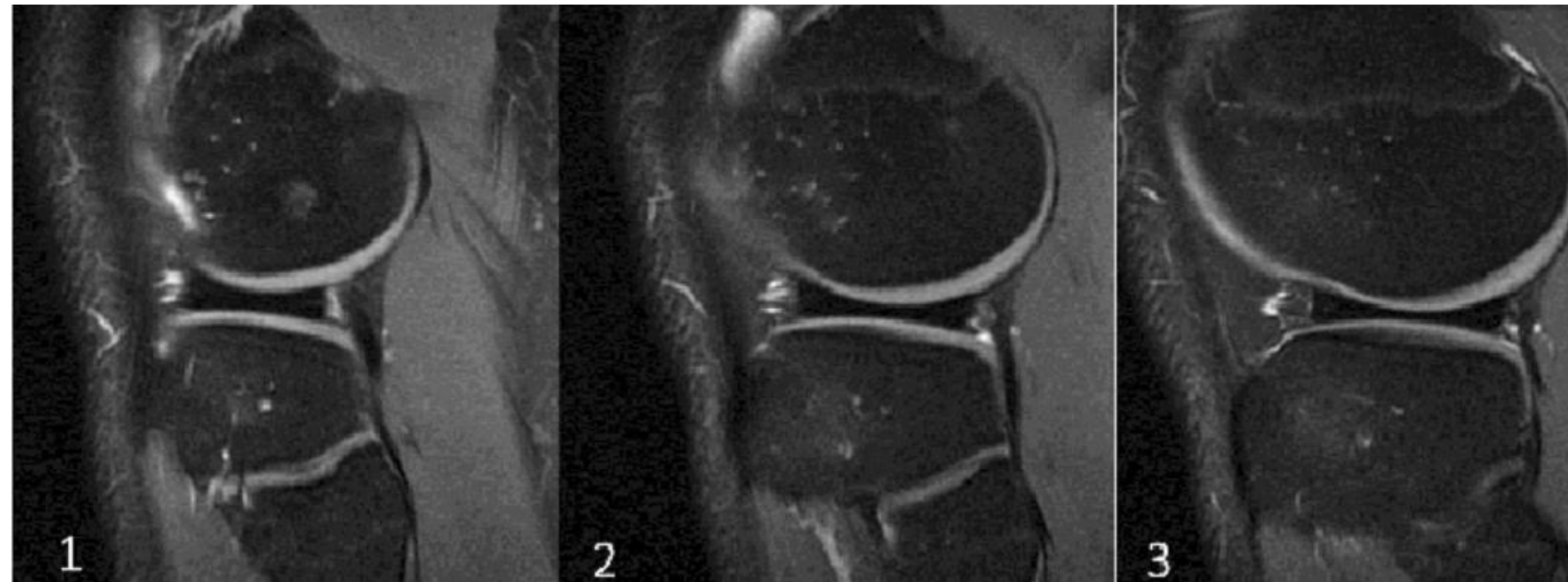




## Sagittal

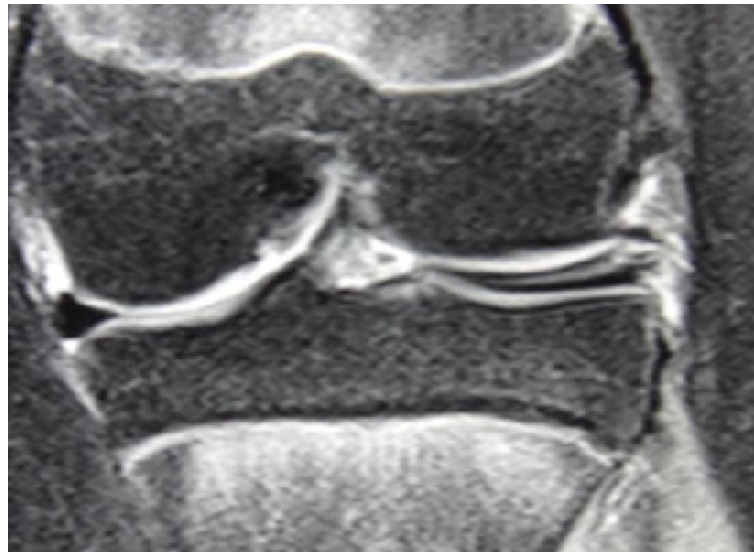
bow tie sign : 3 slice  
meniscal tears

sum of the width of both horns to the maximal diameter  $> 75\%$

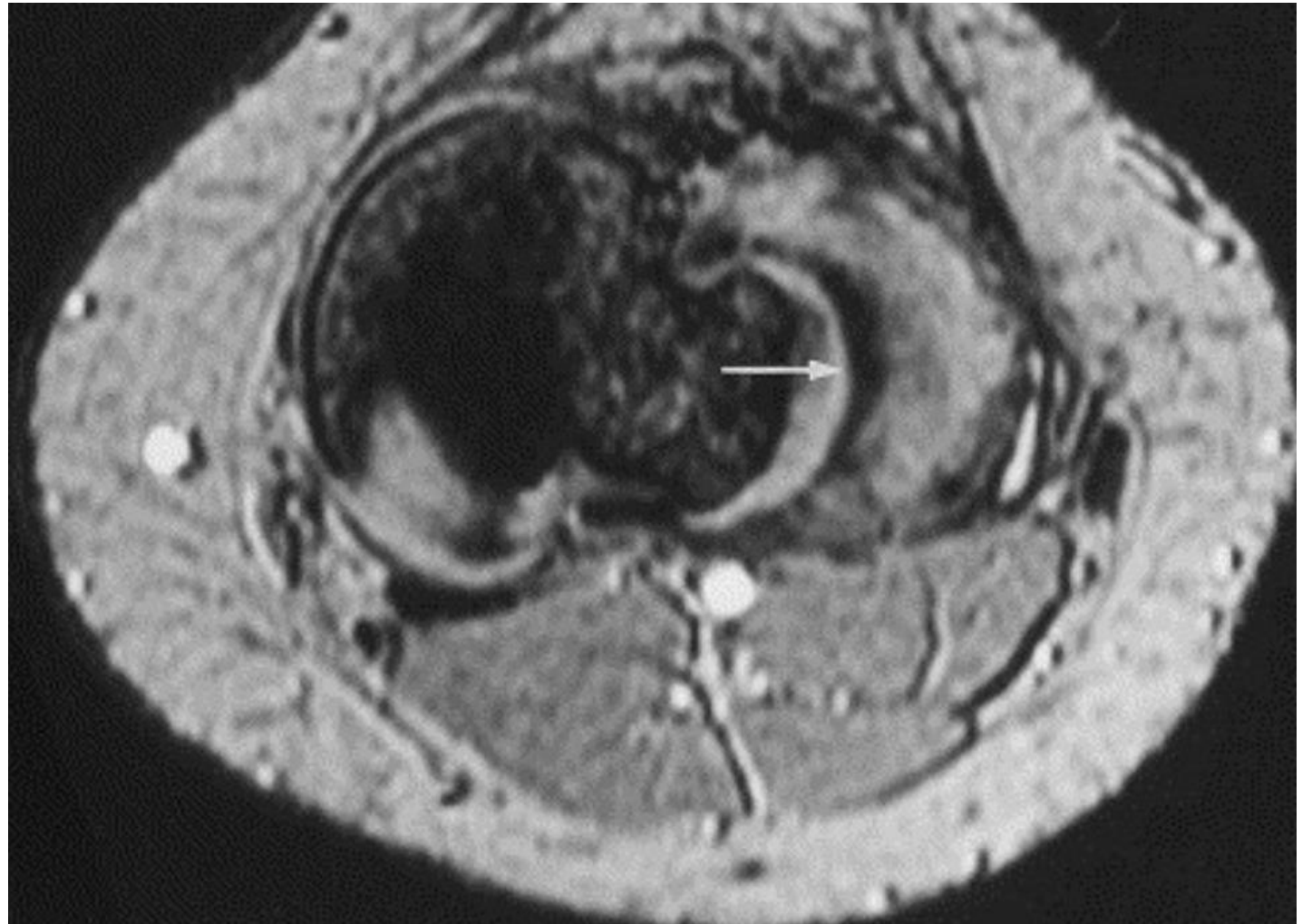


Coronal

entire lateral plateau  
diameter > 15 mm  
extruded  
thick  
flat meniscus  
meniscal tears



Axial  
ratio to total tibial  
width > 20%



Associated  
osteochochondritis dissecans

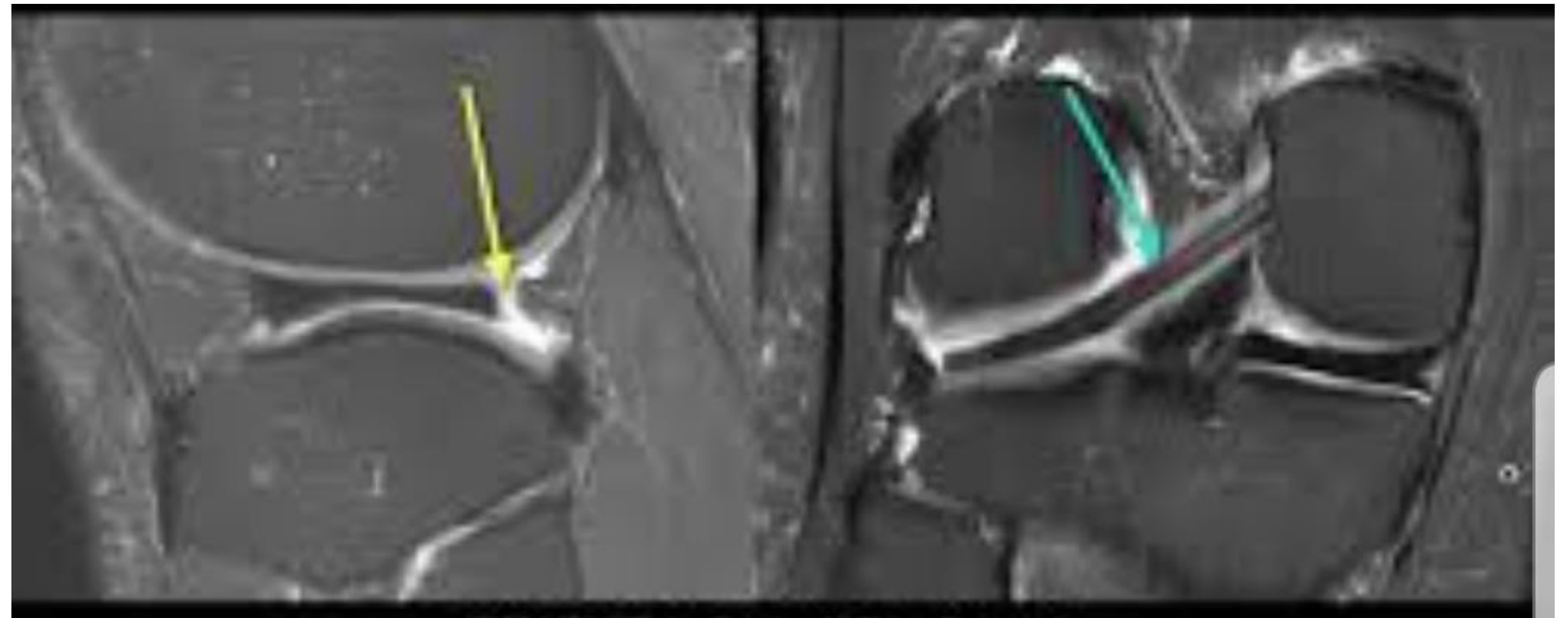


Wrisberg-variant

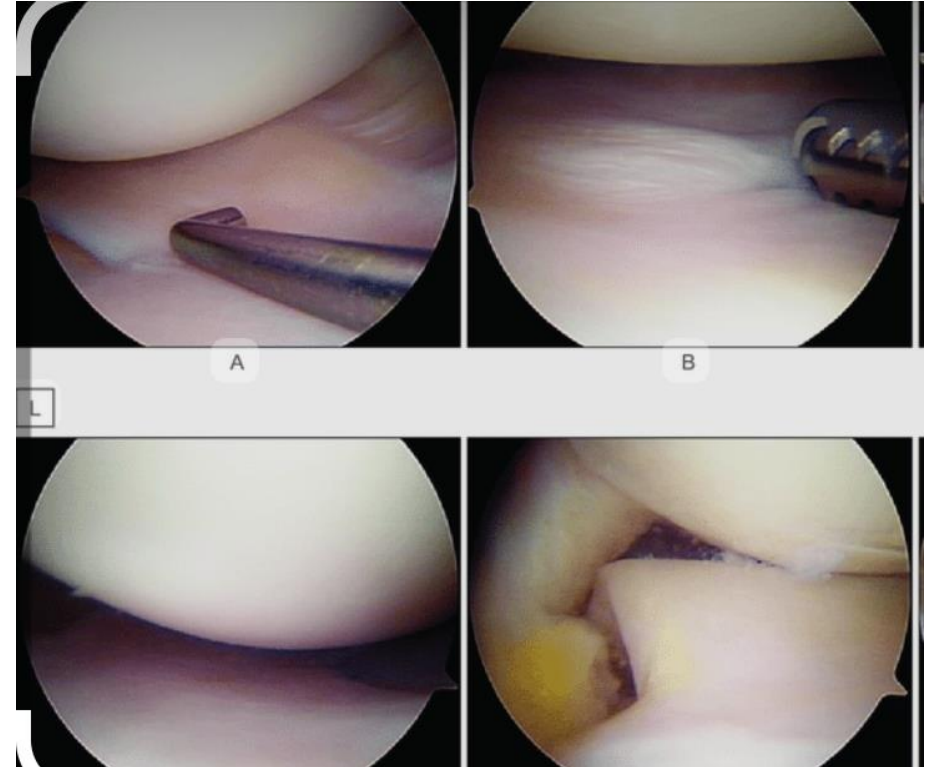
Difficult

anterior subluxation of the posterior horn

T2 signal : lateral meniscus - the capsule

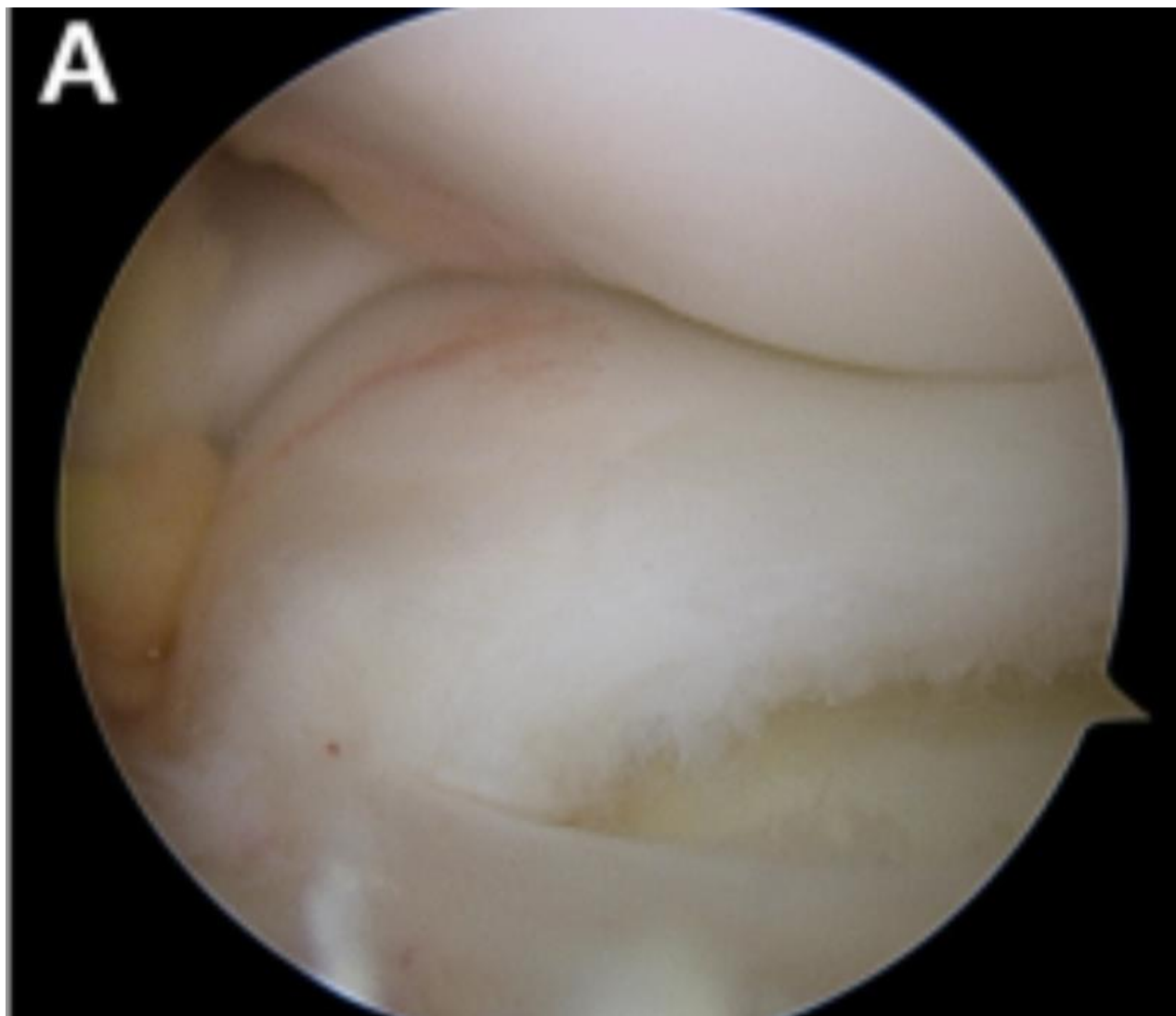


diagnostic arthroscopy  
indication  
attachments  
stability  
morphology  
tears





Limitations



## Surgical treatment

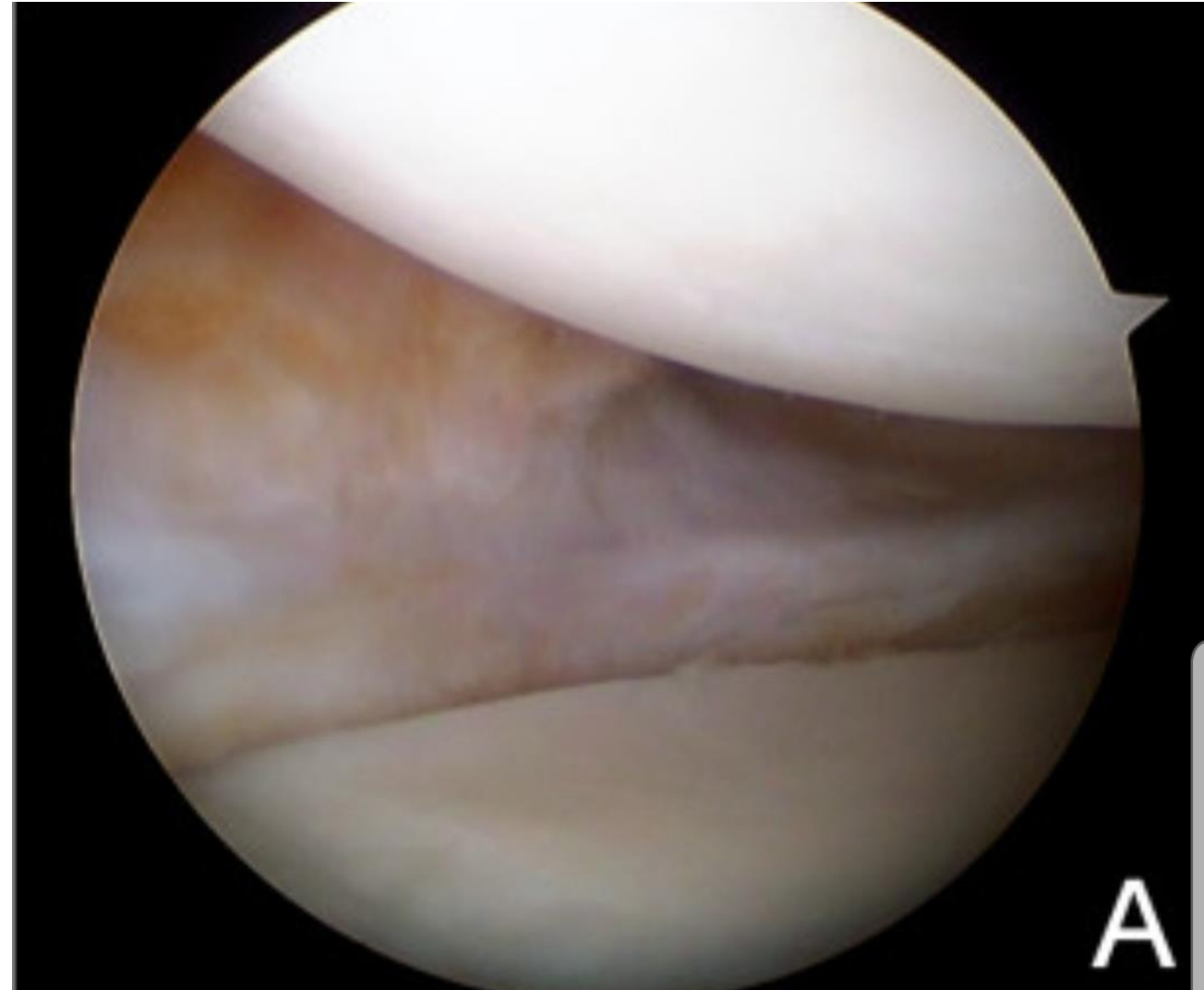
symptomatic  
tearing  
instability



Historical

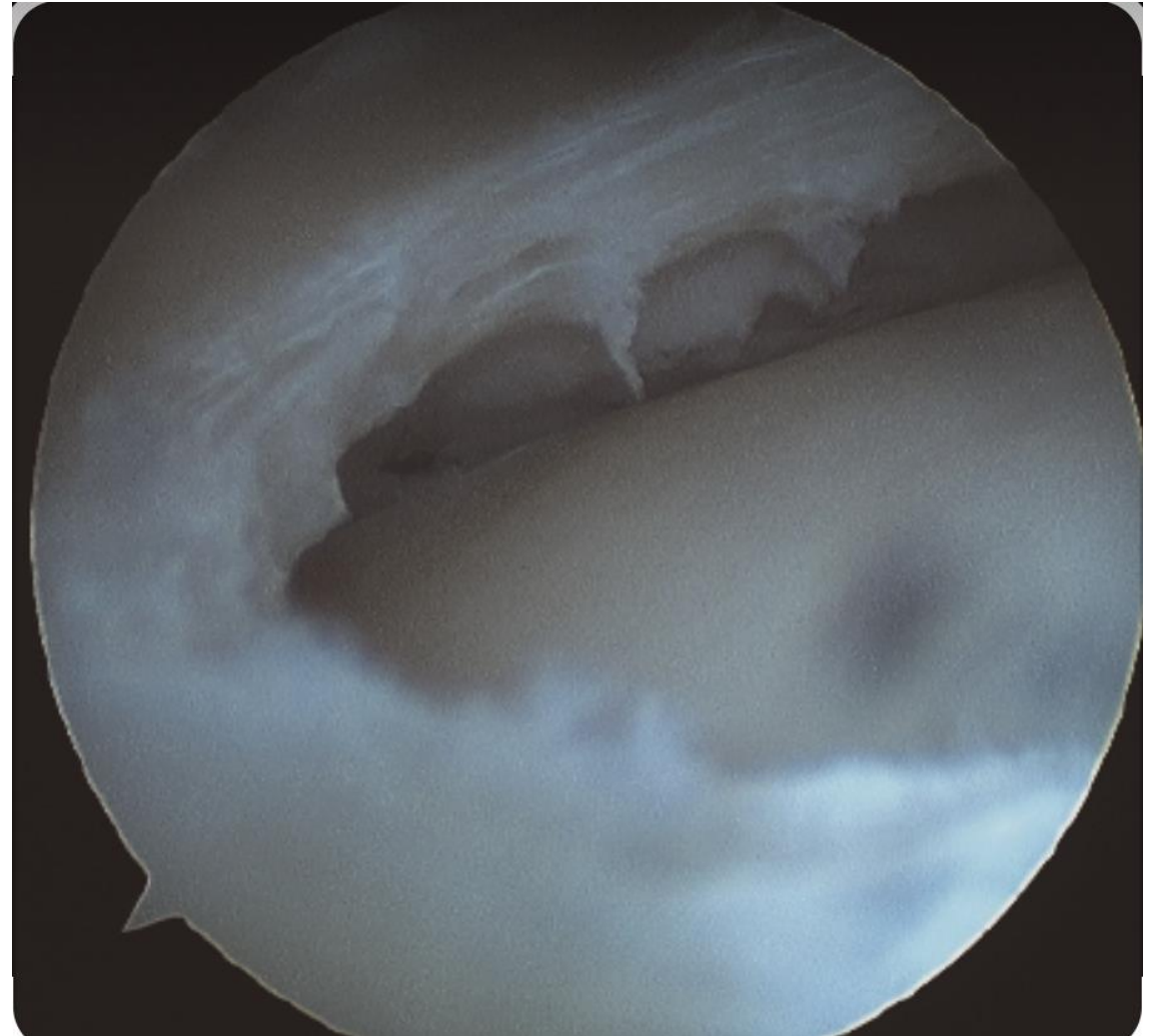
total or subtotal meniscectomy

70% of the loads  
stabilizing : rotation



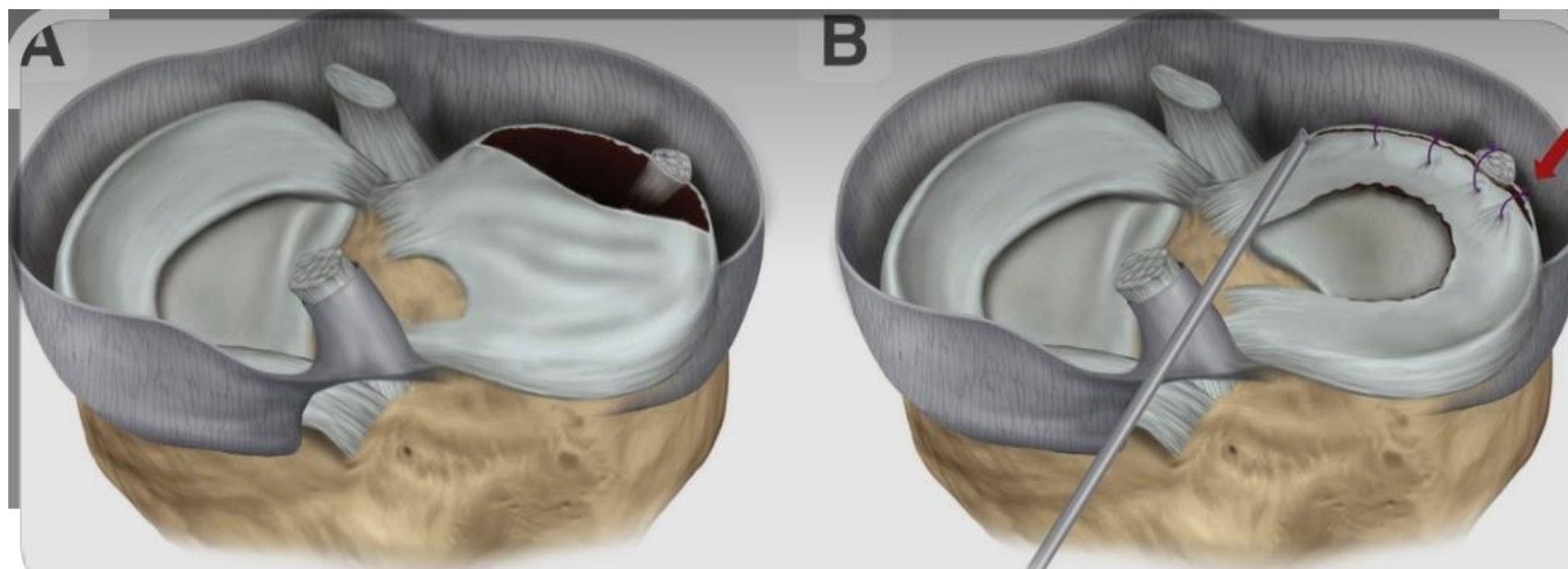
midsubstance stable

simple saucerization



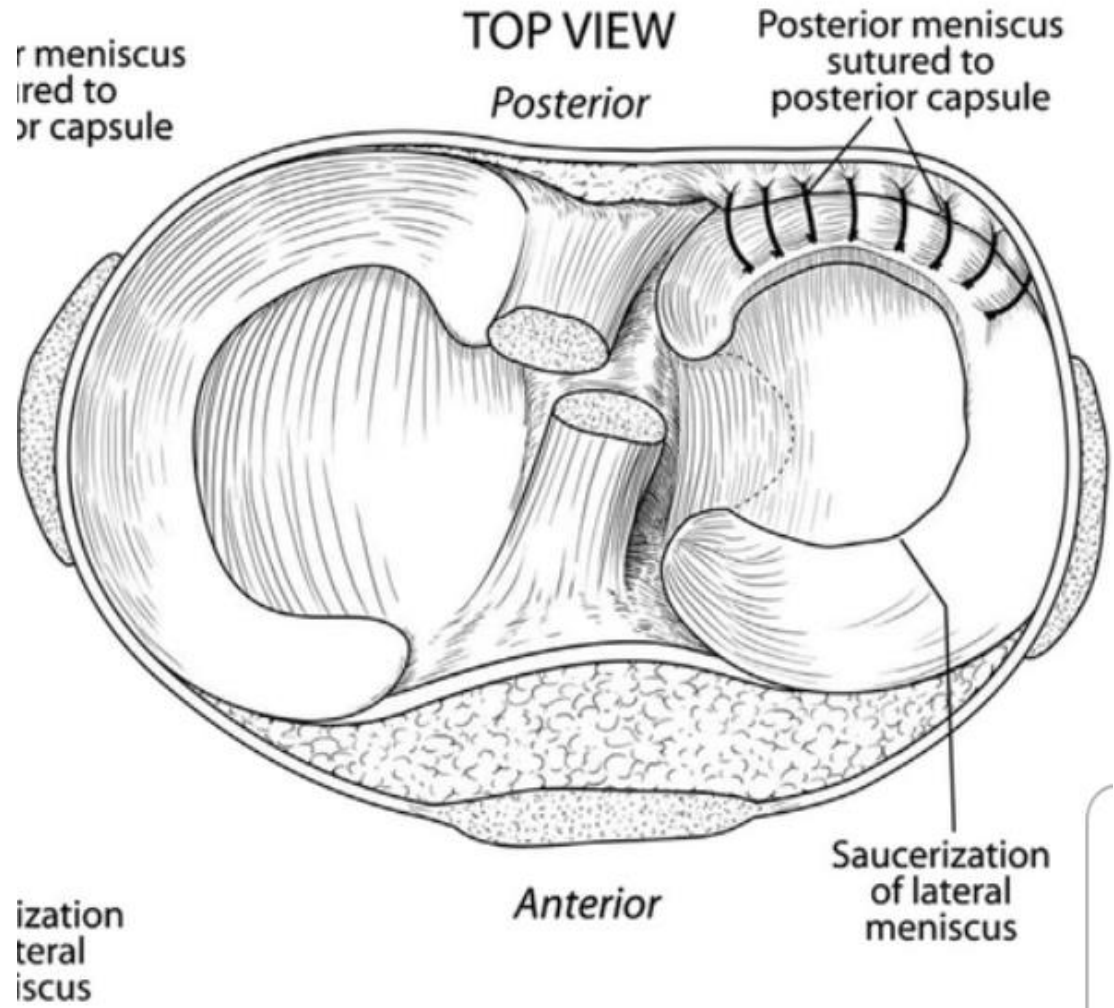
periphery stable or unstable

repair + saucerization



Unstable

repair + saucerization

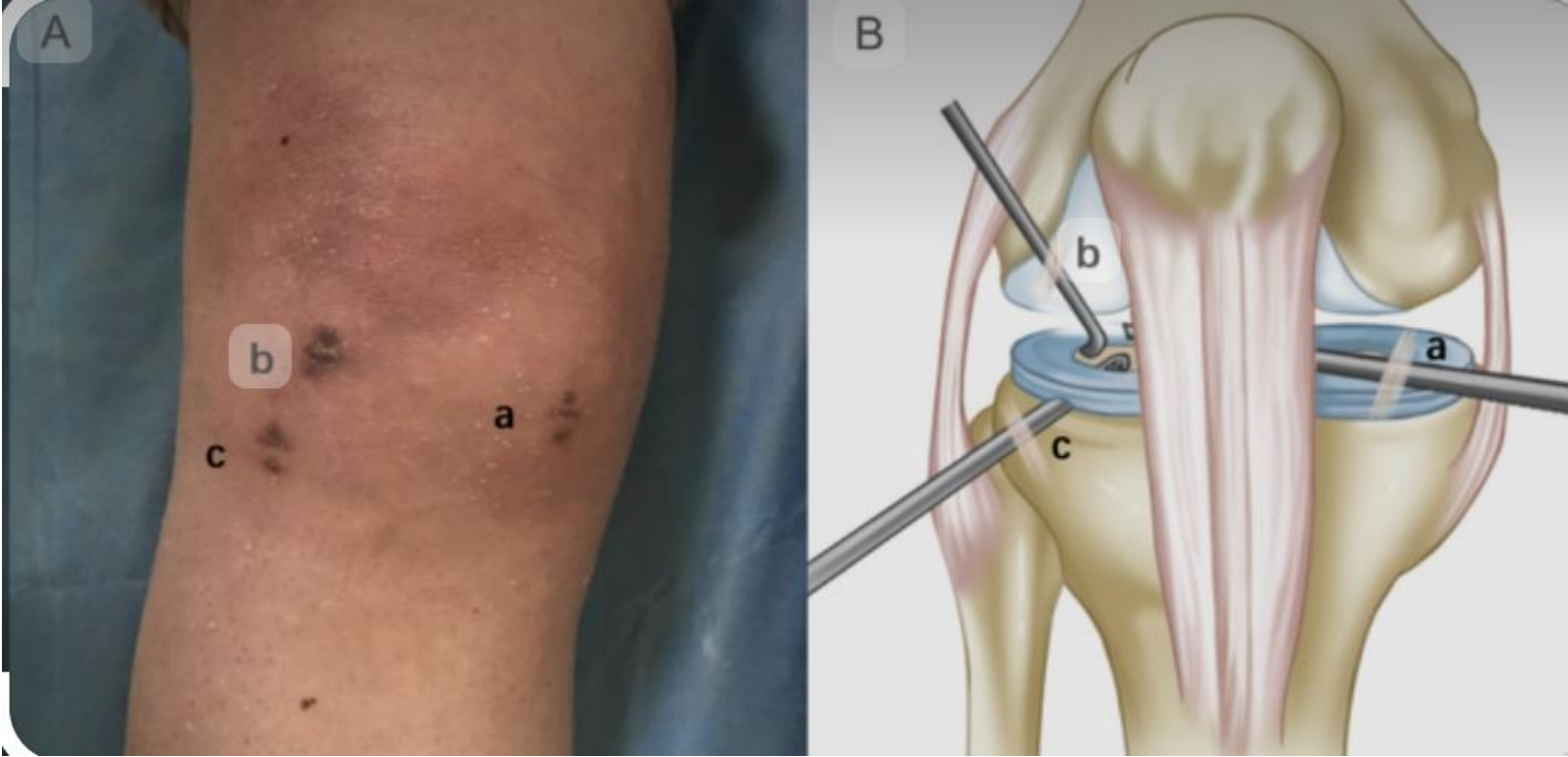


# Saucerization

Portal

Anterolateral :  
inferior

Anteromedial : tibial  
spine



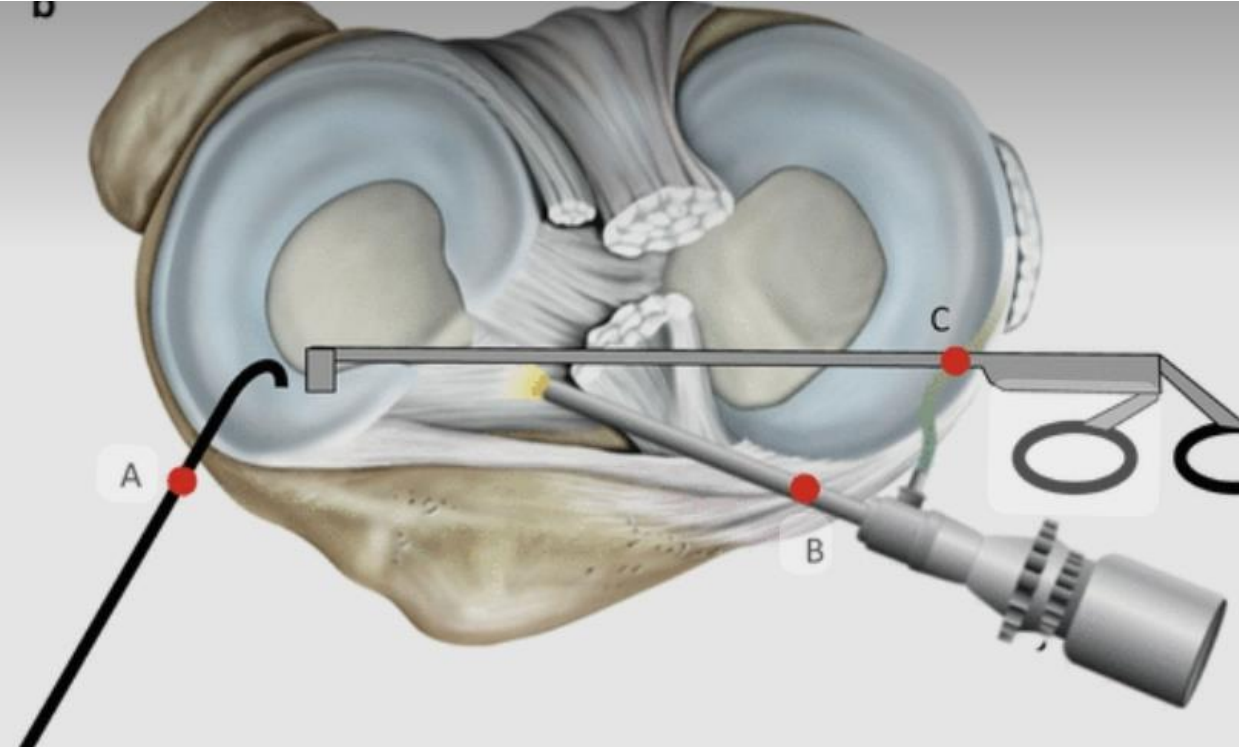


- posterior horn  
: ipsilateral port
- body : contralateral  
portal



anterior horn  
contralateral portal . Right and  
left biters  
backbiter

large biter

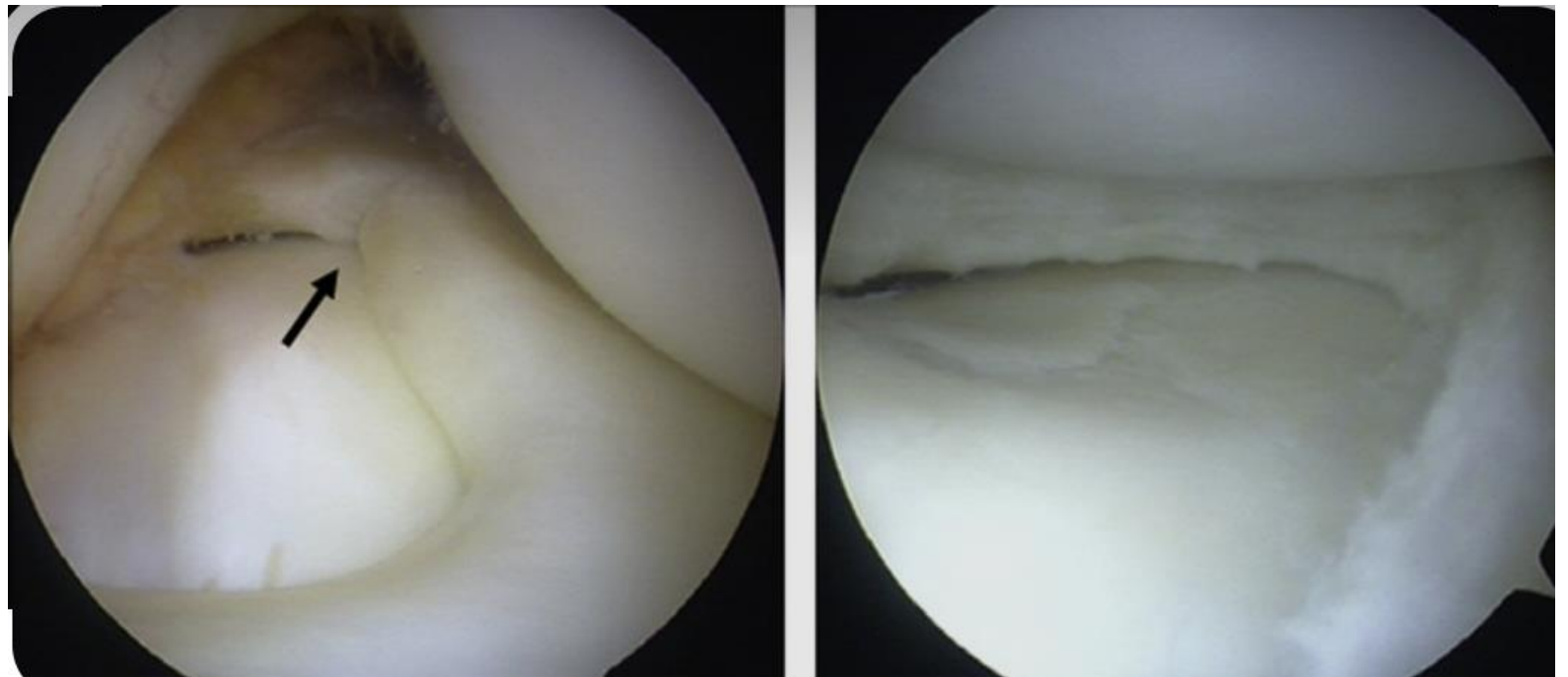


Thermal ablation  
outflow



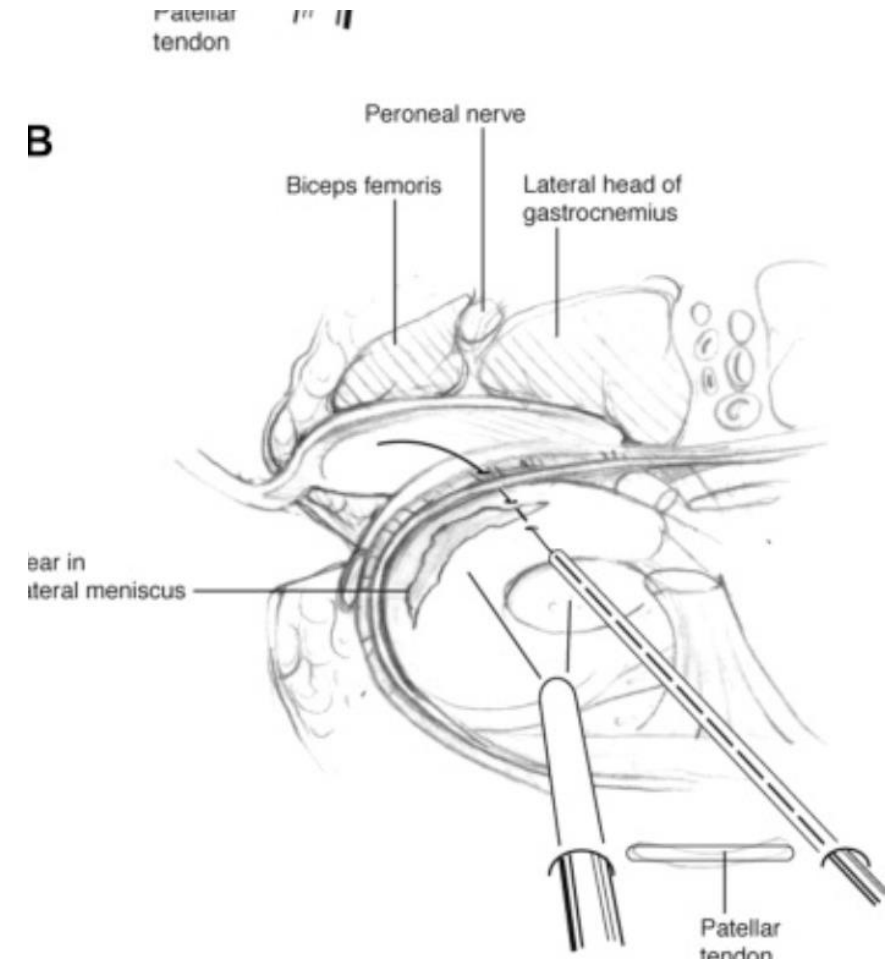
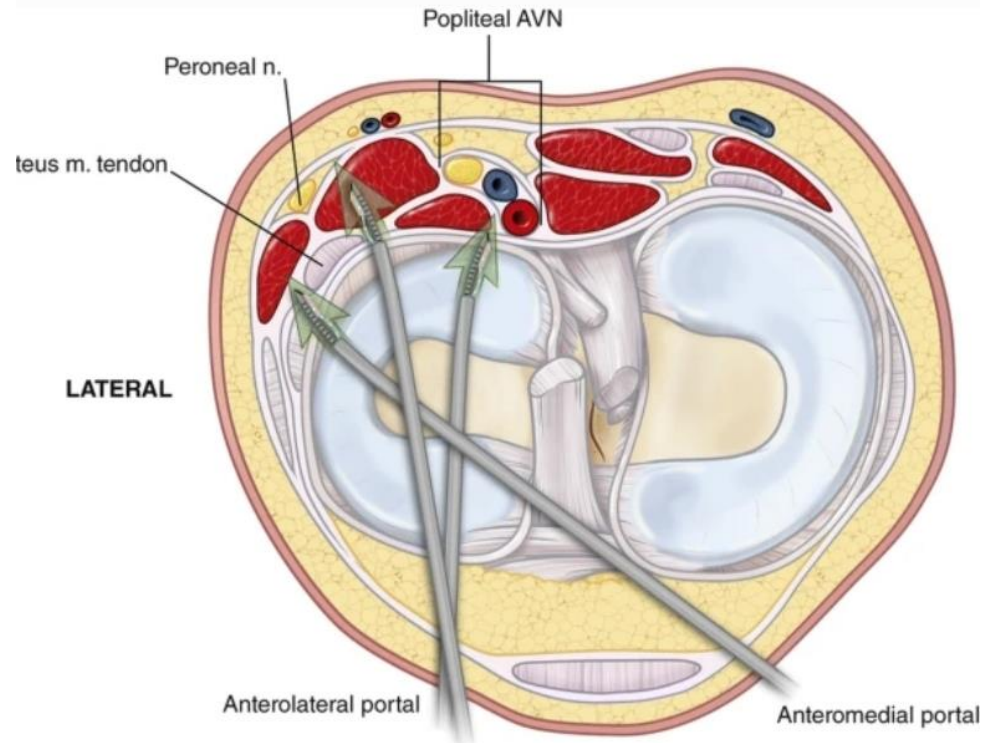
Amount

Condyle curve  
6- to 8-mm rim  
impingement :  
range motion

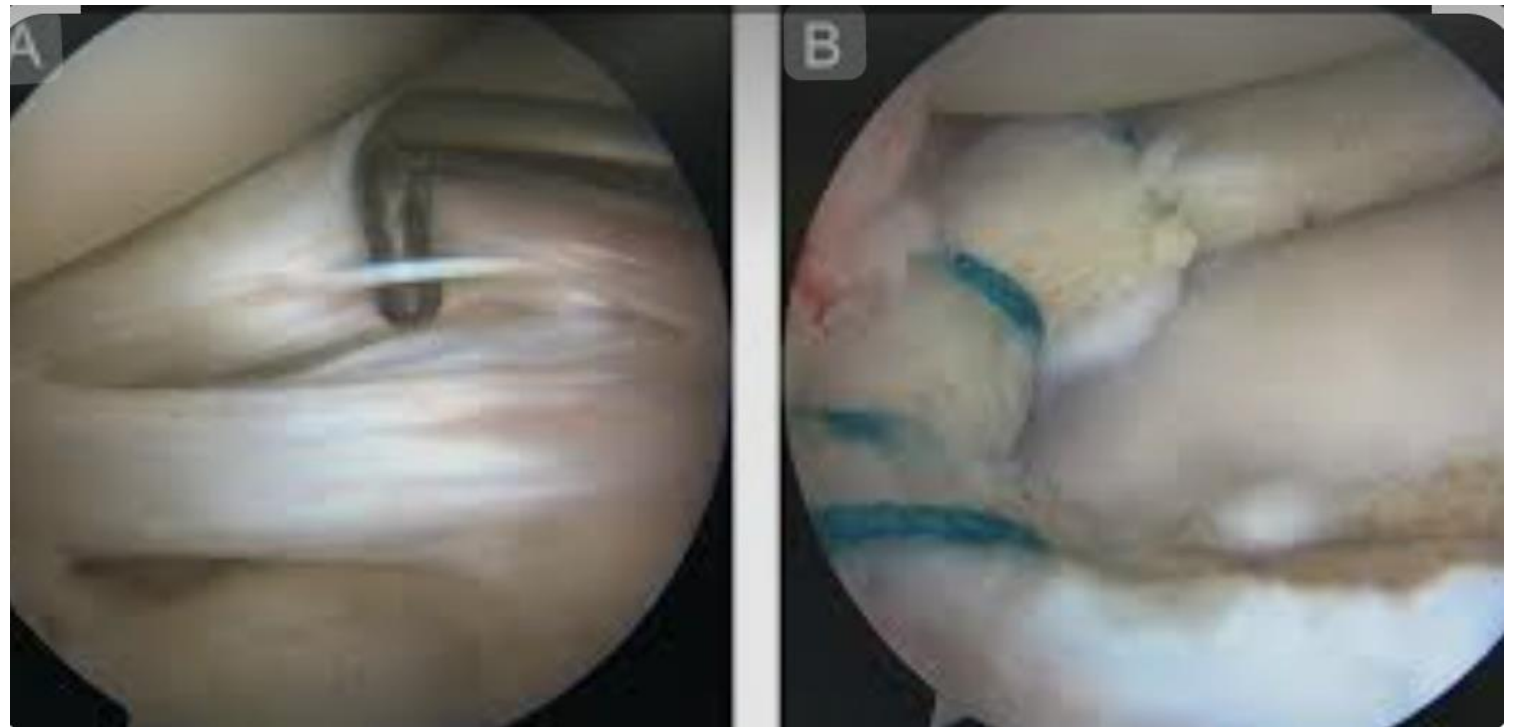


stable rim

posterior horn . Inside-out

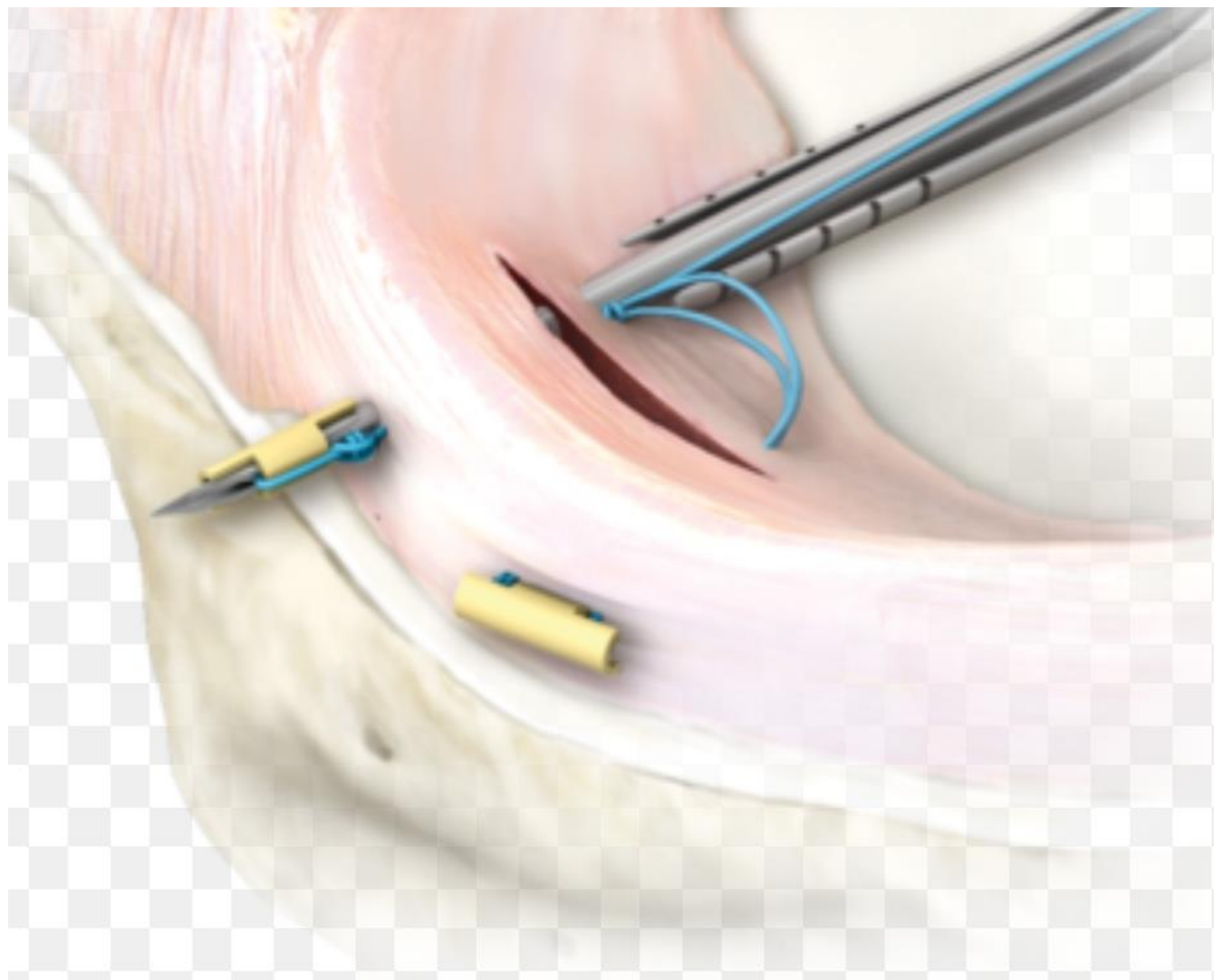


Anterior horn  
Miss . 53%  
Outside in

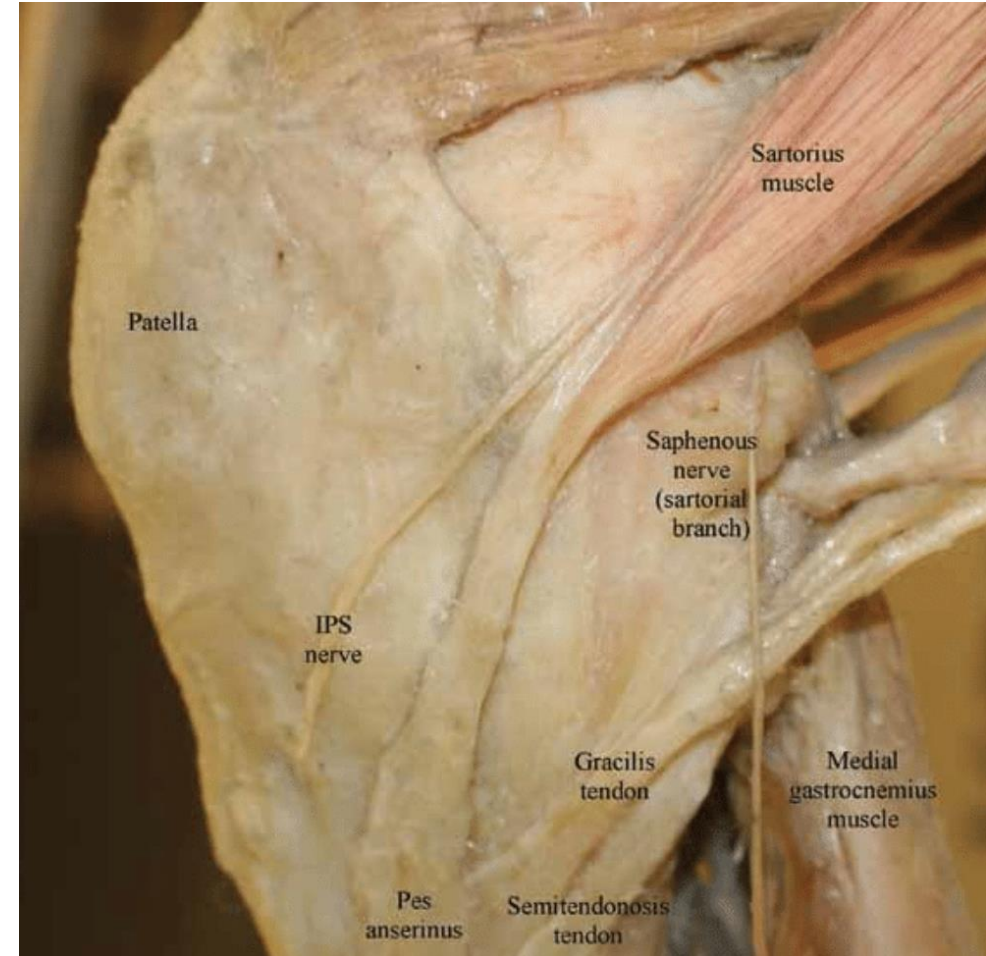




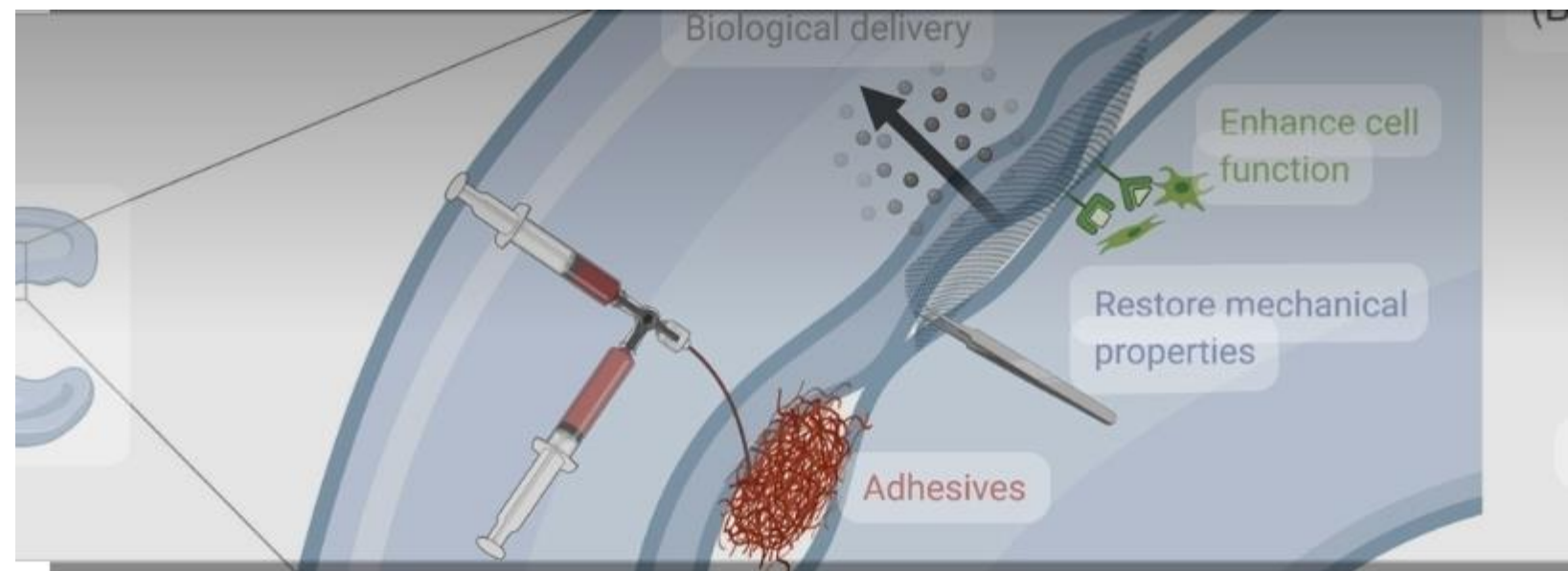
All-inside



Lat . popliteus tendo  
Med . saphenous nerve



# Augmentation



Post OP  
saucerization  
gentle range of motion weight  
bearing . as tolerat



Repair

Weight bearing 4 to 6 weeks

ROM limitation :

Posterior . flexion to 90  
young children . casting . 3  
weeks



# Take home message

- Tearing or snapping knee before 10 years old
- Surgical treatment if symptomatic
- Saucerization and repair vs meniscectomy