

Dr Ivan Popoff

www.orthosports.com.au

29-31 Dora Street, Hurstville
160 Belmore Road, Randwick



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Dr Ivan Popoff
Knee, Elbow & Shoulder Surgery

Posterolateral Corner Injuries



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Incidence

Isolated rare 2%

Tibial Plateau fractures 68%

ACL/PCL injuries 43-80%



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Importance of early indentafication

High grade injuries require surgery

3/52 ideally for primary repair

Compromise ACL/PCL reconstruction

Untreated poor function

High risk of arthrosis



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PLC function

Primary restraint to varus force,
recurvatum, and external rotation

Secondary restraint to A-P
translation particularly near full
extension

Secondary restraint for Internal
rotation (PT)



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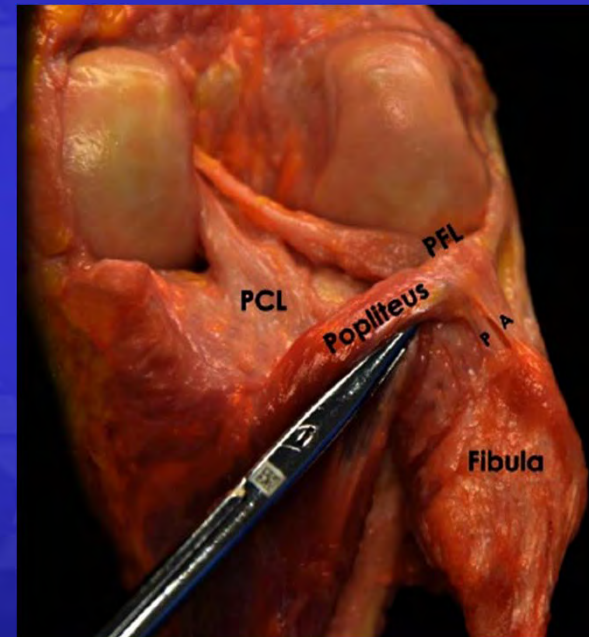
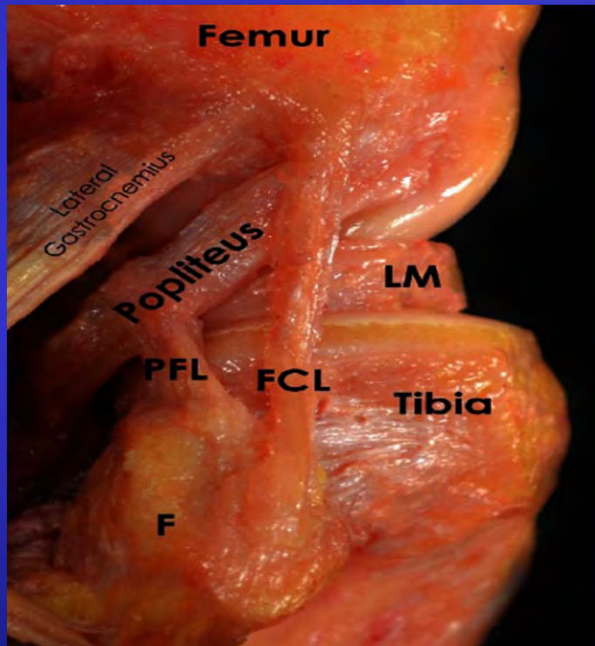
Anatomy

Primary stabilizers - FCL, Popliteus tendon, popliteofibular ligament

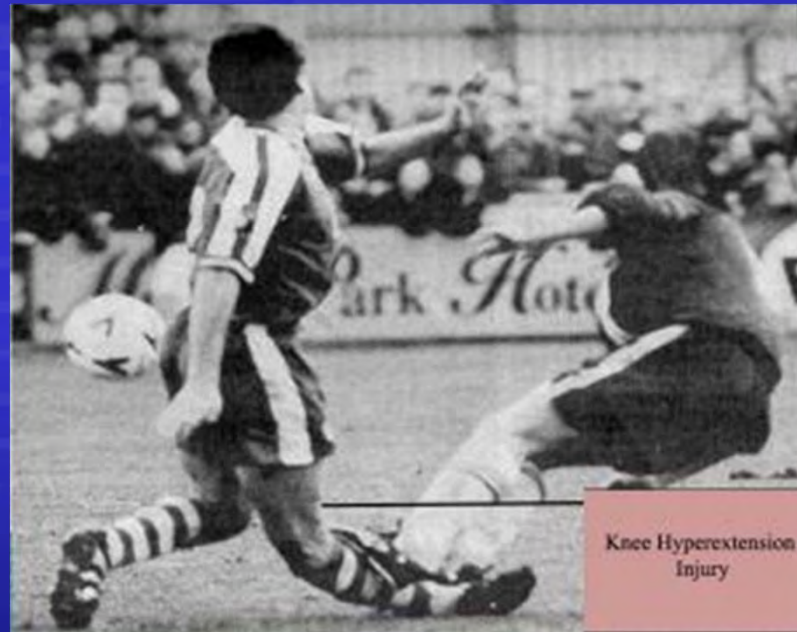
Secondary Stabilizers – MT & MF ligaments, coronary ligament, lat gastrocnemius, fabellofibular ligament and ITB



Anatomy



Mechanism of Injury



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Clinical Tests

Varus stress test at 0 (FCL & PCL) & 30 (FCL) degrees flexion



Clinical Tests

- The Dial Test – E.R. at 30 (PLC) and 90 degrees (PLC & PCL) of knee flexion >10degrees c.f. non injured side positive test



Clinical Tests

- The external rotation recurvatum test- pick up patients legs by the feet if PLC injury the effected leg falls into external rotation recurvatum.



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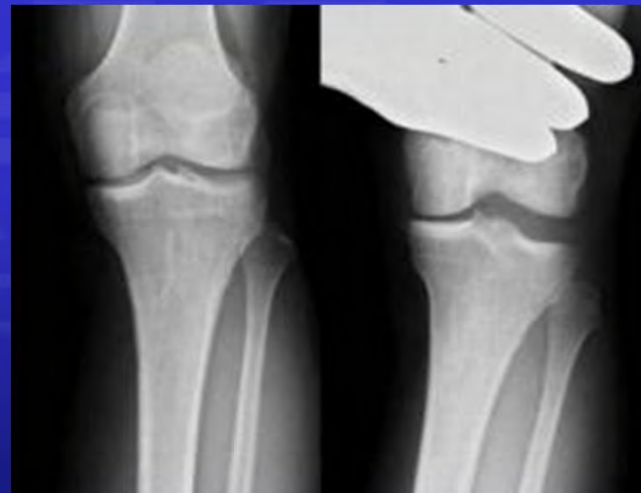
Investigations

X Ray

Arcuate #



stress views



long leg



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Investigations

MRI



Grading

Grade 1 - Varus 0 -5 mm

- ER 0 - 5 degrees

Grade 2 – varus 6-10 mm

- ER 6 - 10 degrees

Grade 3 – varus >10 mm no end point

- ER > 10 degrees



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Treatment

Grade 1 & 2 do well with non op Mx

Grade 3 require surgery

Acute < 3/52 repair

Chronic > 6/52 reconstruction

- if varus need HTO



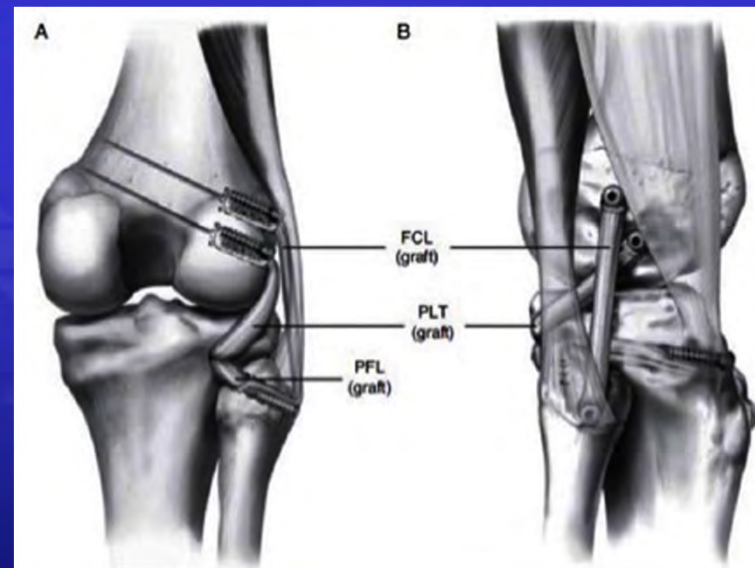
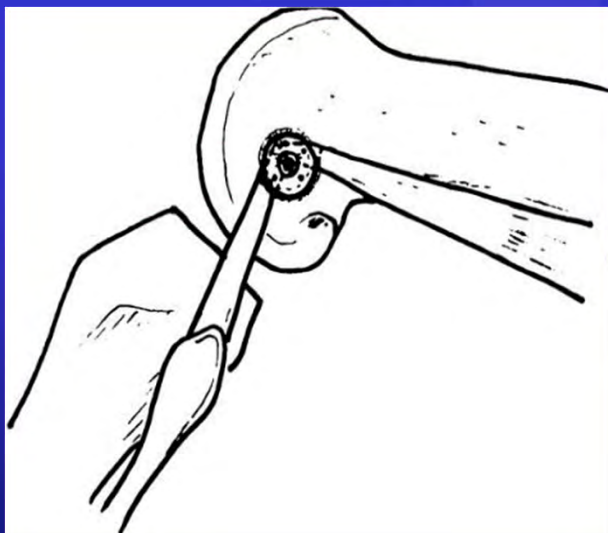
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Reconstructions

Non- anatomic
Anatomic



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Out comes

- Non operative Grade 3
 - poor function
 - 50% bicompartmental OA at 8 years

All grade 1 do well most grade 2 (some develop significant laxity)

(Kannus 1989, Krukhaug 1998)



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Out comes

Acute repairs (< 3/52) better then reconstructions (4-6/52 grey area)

➤ 6/52 reconstruction better then repair

Anatomical reconstructions better than non anatomical

Varus knees require HTO prior to reconstruction

Acute repair failure > reconstruction ? rehab



Common Peroneal Nerve Injury

1/3 of grade 3 PLC injuries

Spontaneous recovery in 14 – 54% (age <30
good prognostic indicator)

Treatment neurolysis, repair , nerve graft

Tendon transfer



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