



The Knee (Part 2)

June 7, 2024 Jacqueline Brady, MD Associate Professor, Oregon Health & Science University

Disclosures

- Speaker, consultant: Miach

- *All relevant financial disclosures have been mitigated.

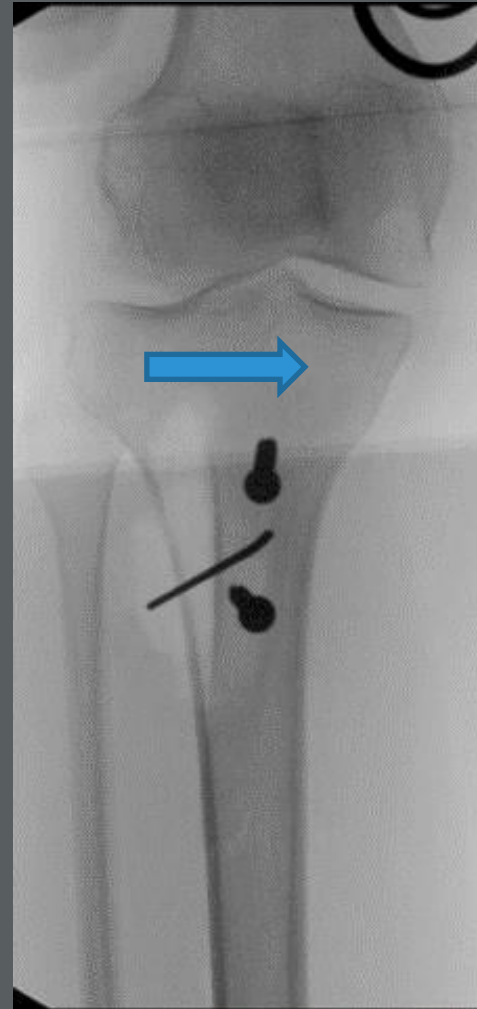
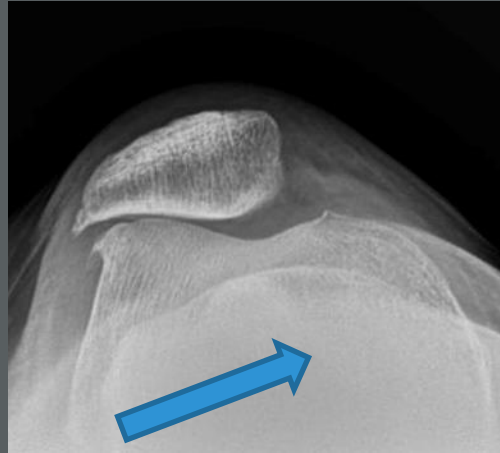
Patellofemoral Pain

- Pain with descending
 - Stairs
 - Hills
- PT, PT, PT!



Patellofemoral Pain

- Failed PT?
 - PT
 - PT
 - TTO



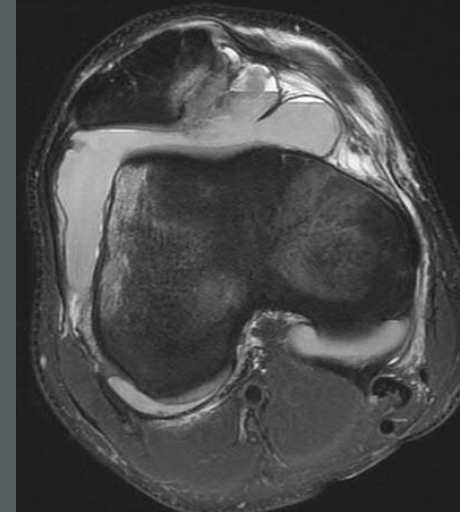
Patellofemoral Instability

- 70% rate of chondral injury
- Surgery if
 - Loose body
 - Recurrent
 - Young?



Patellofemoral Instability

- Associated injuries
 - Medial patellofemoral ligament: 99%
 - AJSM 2015
 - Chondral/osteochondral injuries: 71%!
 - AJSM 1998

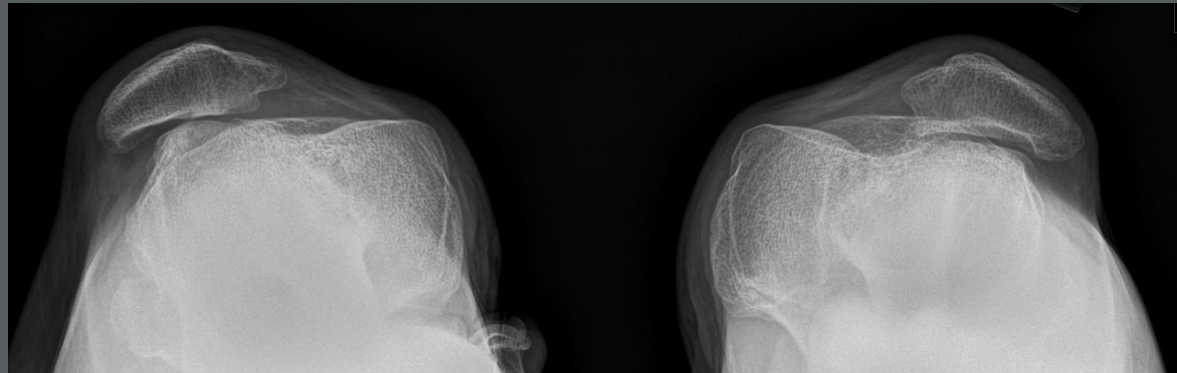
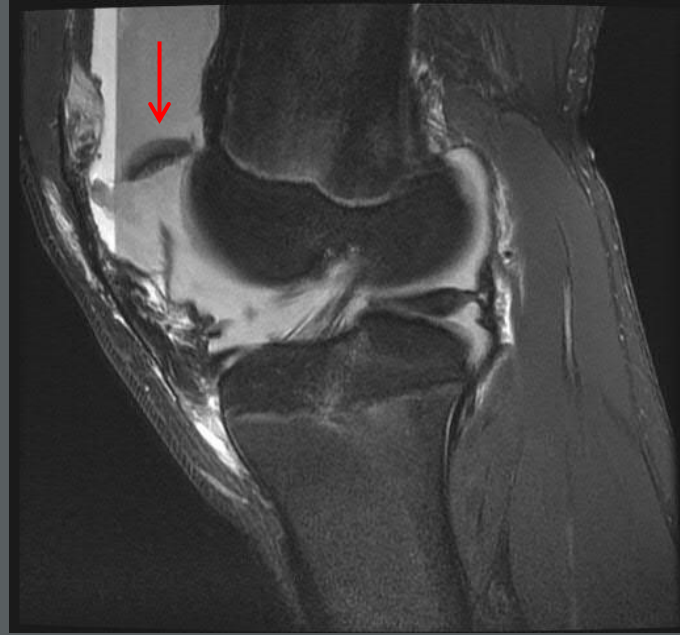


Magnussen et al *KSSTA* 2017

- Mean 3-year follow-up of first-time dislocators treated nonoperatively
- 26.4% returned to activities without limitations
 - 86.8% cited their patellar dislocation as a limiting factor

First-time Dislocators

- Surgery indicated: loose body in knee
- Concern: cumulative chondral injury



First-time Dislocators

- IPSPG consensus:
 - If treating a loose body, you should “stabilize the knee” (Liu 2018)
- SD Children’s Hospital clinical studies:
 - Loose body removal only: 60% recurrence (Pedowitz 2019)
 - Add MPFL reconstruction: 10% recurrence (Gurusamy 2021)

Pain ≠ Instability

- Quad avoidance → weakness
 - Pain (maltracking)
 - “Instability” (buckling)



Video credit: Sarah Manning, DPT

Surgical Decision-Making

- Physical exam is key
 - Patellar Translation
 - Apprehension
 - J-sign



Medial Patellofemoral Ligament (MPFL)

- The foundation of most interventions for patellar instability
- Repair alone = high rate of failure
 - (46%: Arendt KSSTA 2011)
- Reconstruction = excellent outcomes despite patella alta/high TT-TG
 - Erickson et al AJSM 2019



Who gets more than MPFL?

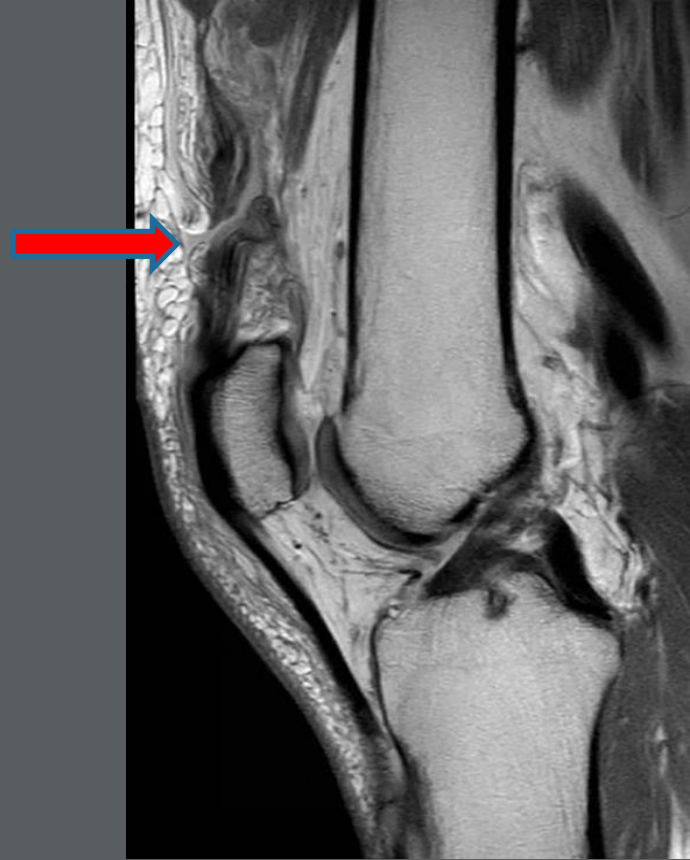
- High-level athletes: “less is more”
 - Often MPFL reconstruction alone
- Ehlers Danlos: “more is more”
 - Often bony realignment
- Correct asymmetry

Tendon Overuse Injuries

- Patellar tendinitis
- Hamstring tendinitis
 - Quad avoidance
 - Common pattern!

Tendon Injuries

- Patellar tendon rupture
- Quadriceps tendon rupture
- Steroids, Statins, Cipro



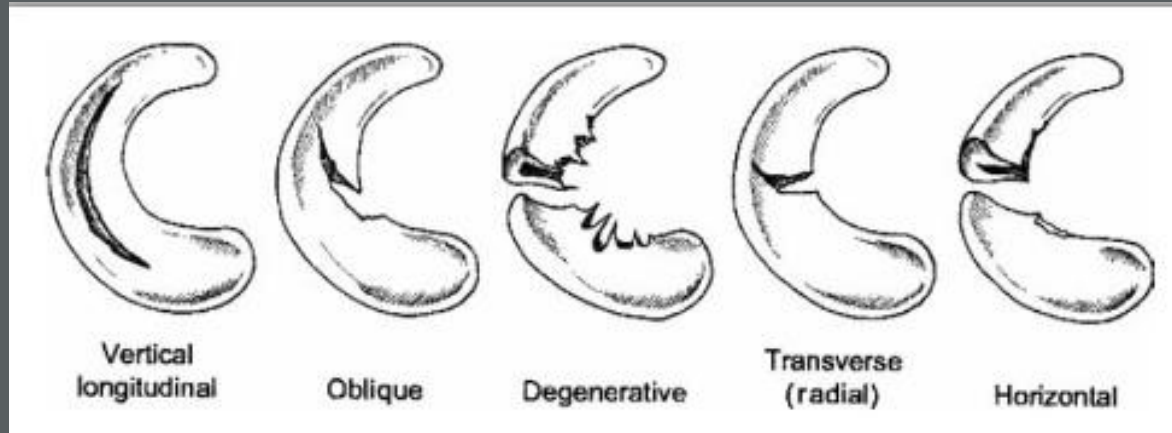
Meniscus Tears

- Vast majority = degenerative
- Conservative first!
 - PT
 - Injection therapy
 - Bracing?



Meniscus Tears

- Repair
 - Peripheral, pediatric



Meniscus Tear

- “Bucket handle”
- Can lock knee
 - Urgent!

Intact



Bucket handle
tear



Meniscus Tear

- Root avulsion

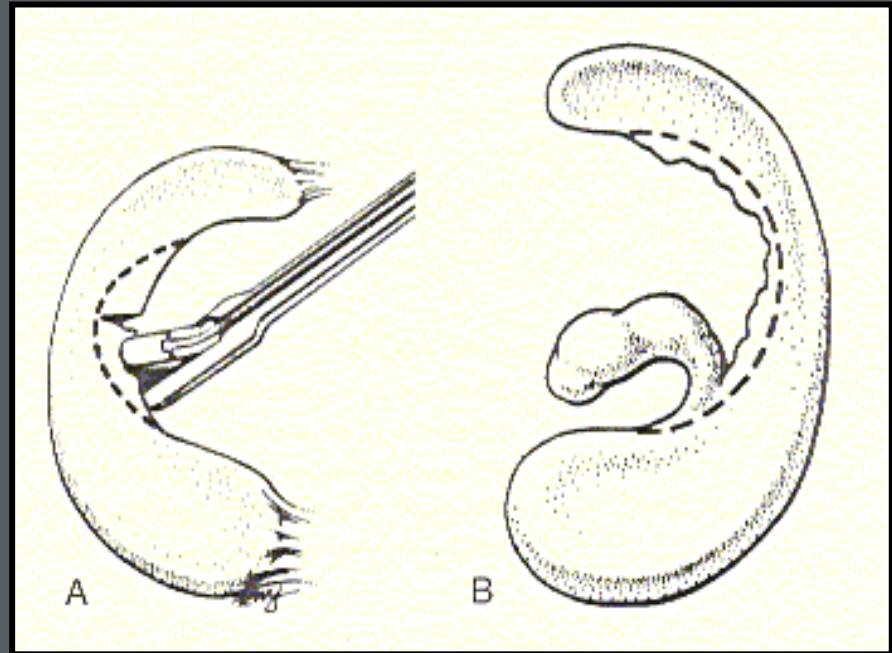


Meniscus Tear



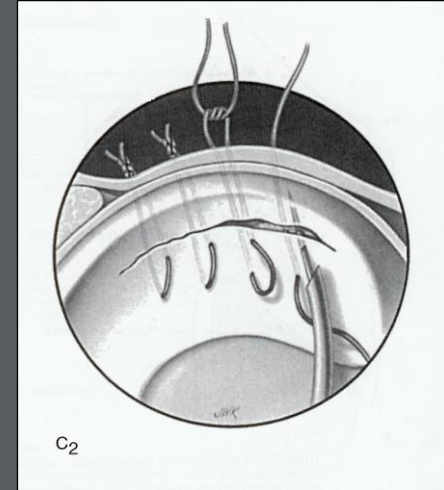
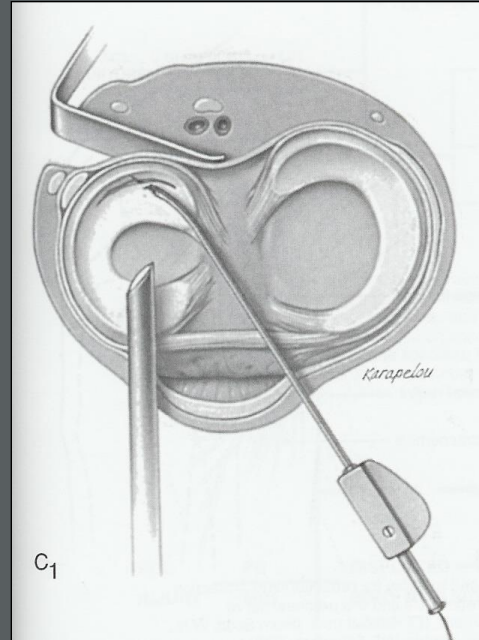
Partial Meniscectomy

- 6 week recovery
- Loss of cushion



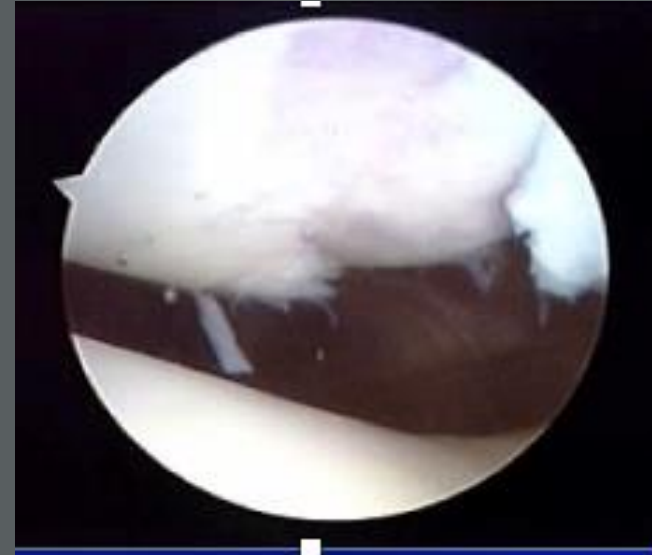
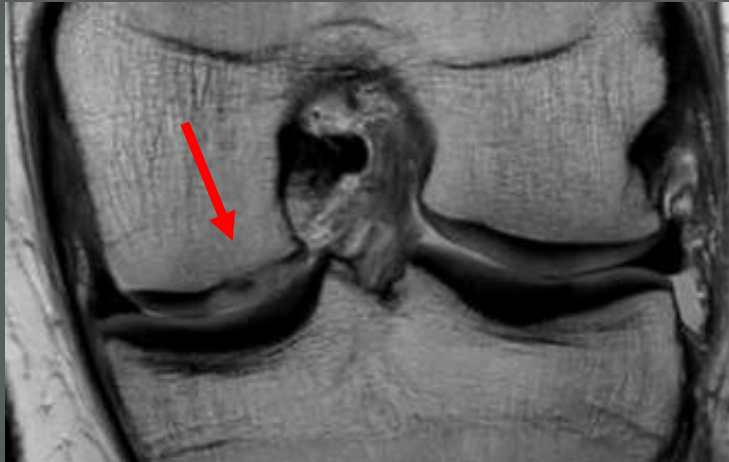
Meniscus Repair

- 6 month recovery
- Preserve cushion



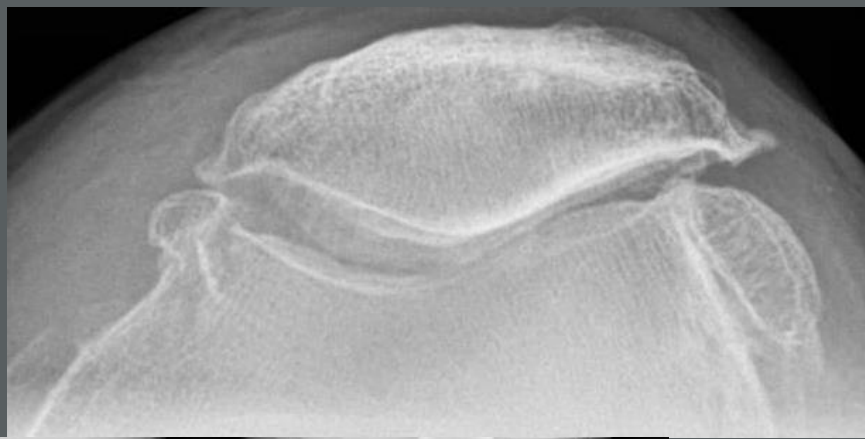
Articular Cartilage Injuries

- Technology improving
 - Cell based vs osteochondral



Arthritis

- Osteoarthritis
- Posttraumatic



Total Knee Arthroplasty

- Need end stage radiographic knee OA
- Exhaust conservative measures first!
 - PT
 - Weight loss
 - Unloader bracing
 - Injection therapy



Thank You