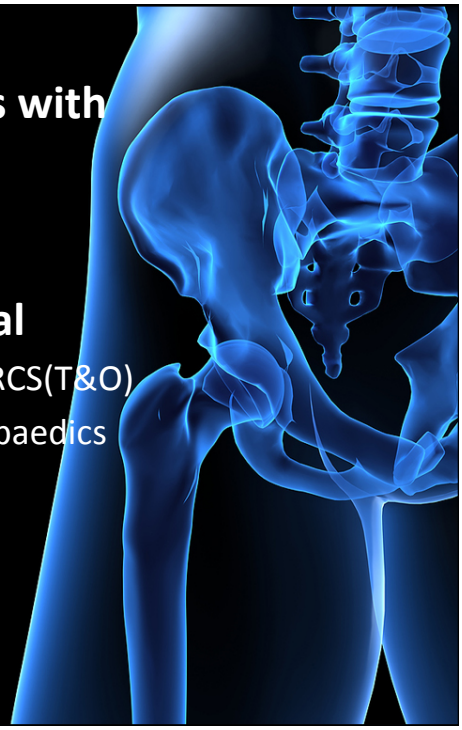
Managing your patients with hip and knee problems during COVID-19



Mr. Parag Kumar Jaiswal
BSc, MBBS, MRCS, MD(Res), FRCS(T&O)
Consultant in Trauma & Orthopaedics
Royal Free London NHS Trust

www.londonhipknee.co.uk
Twitter: @LondonHipKnee

Who Am I?

2007 –	Academic Clinical Fellow/Trainee Stanmore Rotation
2007- 14 –	Thesis on cartilage injury in knees – prizes & publications
2014 -15 –	Joint Reconstruction and Sports injuries in Calgary, Canada
2015 – 16 -	Hip Fellow, Frimley Park Hospital
2016 – 18 -	Locum Consultant Guy's Hospital
2018 -	Travelling Fellowship, Philippon-Steadman Clinic, Vail, Colorado
2019 -	Hip & Knee Surgeon with special interest in Young Adult Hip Disorders and Sports Injuries

he physiotherapist said my recovery was remarkable but I am confident it is because Mr aiswal did a superb job leaving me the easy part of getting on my feet. I plan to return to ennis now. Whilst I can only give my personal experience I happily recommend Mr aiswal and consider myself fortunate to have had his services.

itten by a patient at The Royal Free Hospital
h January 2020

Jaiswal operated on my leg following a fall, he was extremely kind and gentle. He plained step by step everything I needed to know, which not all surgeons will do. I nd him very professional and he had a very good bedside manner.

as very anxious about being able to walk in the future, he reassured me through plaining all details. I felt he really cared, and my future rehabilitation mattered to him rsonally.

ybody that needs an orthopaedic operation would be very lucky to have him. I can not ommend him highly enough.

Mr Parag Jaiswal
79 reviews
Write a review

After nearly two years of struggling to find a diagnosis for my pain at a different hospital, I was finally referred to Mr Jaiswal at Guys,who very quickly organised a range of scans, found a diagnosis and arranged hip arthroscopy and labral repair. 3 months later and I already have a significant improvement in the movement in my hip and the pain has drastically reduced.

What will we talk about?

Hip

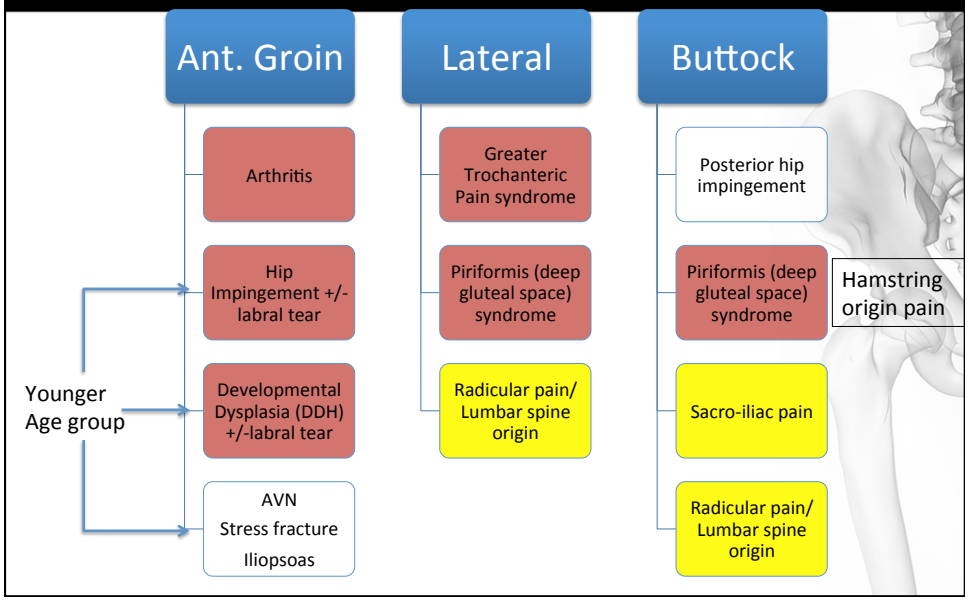
- Young adults
  - Hip impingement
  - Torn labrum and sports injuries
  - Greater trochanteric pain syndrome (troch bursitis)
- Older patients
  - OA/RA
  - GTPS

Knee

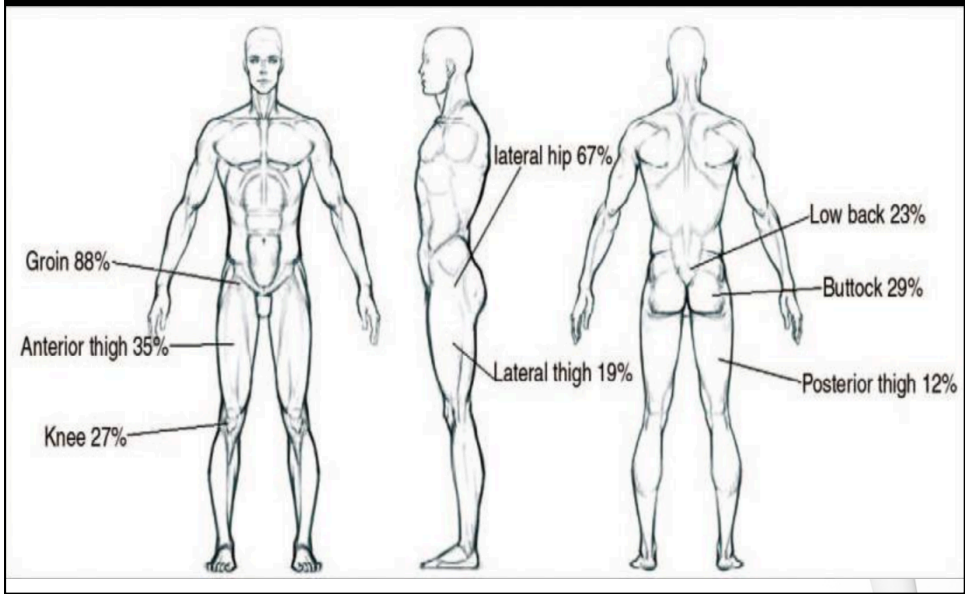
- Knee pain
  - OA/RA
- Knee injuries

Patients who have had THR or TKR

Differential Diagnosis of Hip Pain



Location of hip pain



Soft tissue problems around the hip

- Greater Trochanteric Pain Syndrome (GTPS)
- Deep gluteal space syndrome
- Internal Snapping of Hip

Greater Trochanteric Pain Syndrome (GTPS)

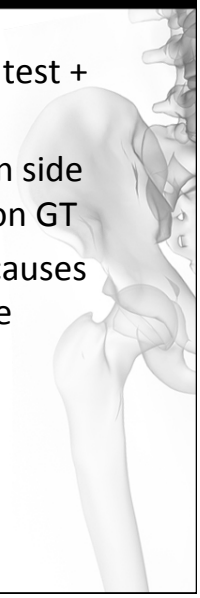
1. Trochanteric bursitis
2. Gluteus medius and minimus tendinopathy +/- tears
3. External coxa saltans (snapping hip)

Presents with:

- Pain over trochanter
- Difficulty lying on side (night pain)
- Reduced walking distance

History and Examination

- Insidious onset usually.
- 'Overdoing it'
- Usually overweight
- May have stiff spines which alters gait
- Previous THR
- Trendelenburg test + gait
- Lying patient on side and palpation on GT
- Flexion & IR – causes pain on the side



Aetiology – 3 main causes of GTPS

- Accurate diagnosis of cause of GTPS is key to successful treatment
- 2 or more causes frequently co-exist

1. Trochanteric bursitis

- Inflammation of one or more peritrochanteric bursae
- Repetitive friction between GT & ITB
  - Overuse/Overload
  - Trauma
  - Altered gait patterns
- Imaging studies show patients have tears, tendinosis, & thickened ITBs

2. Gluteus Medius & Minimus Tears

- Increasingly diagnosed
- Injury with subsequent tendon degeneration and eventual tearing (like rotator cuff)
- Partial or full thickness
- Prevalence of abductor tendon tears identified during THR = 20-25%

3. External Coxa Saltans (External Snapping)

- ITB rubbing over GT
- ITB moves posterior to anterior
- Audible and painful or asymptomatic (esp in athletes)
- Repetitive snapping can lead to thickened ITB & bursitis

Provocative tests for hip pain

- Log rolling
- SLR against resistance
- Lying patient on side and palpation on GT
- Flexion & IR – causes pain on the side
- Internal/External snapping (FABER to EADIR)

MRI for GTPS

- Focused MRI hip is the gold standard
- Excludes other causes
- Picks up dual aetiological causes of GTPS

Non-operative measures

- Activity modification – weight loss
- Physiotherapy as described but minimum abductor tendon loading exercises
- (Corticosteroid injections (+/- US guided))
- PRP injections
- Shockwave therapy

Home Training for GTPS

- Piriformis stretch
- Iliotibial band stretch
- Straight leg raise

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- Wall squat with ball
- Gluteal strengthening

Surgical Interventions

- Bursectomy
- ITB release
- Trochanteric reduction
- Gluteal tendon repair

Open vs Endoscopic

Deep Gluteal Syndrome (DGS)

- Preferred term since Sciatic Nerve (SN) entrapment can occur at a number of locations
- Buttock pain non-discogenic and extrapelvic entrapment of SN
- **Typified by inability to sit > 30mins**

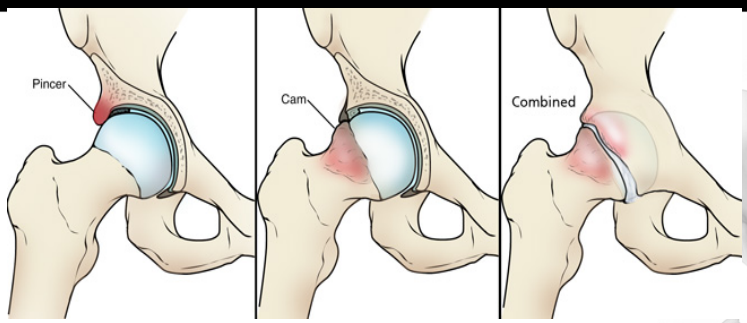
History

- Often previous h/o trauma
- Symptoms of **sit pain** (SN entrapment beneath piriformis)
- **Walking pain** lateral to ischium (ischiofem impingement)
- Radicular pain lower back/hip or paraesthesias affected leg

Examination

- Active piriformis test
  - Lat position with resisted ABER
- Seated piriformis stretch test
  - Seated position Passive FADIR
- Combination = sens 91% & spec 80%

Femoro-acetabular impingment (FAI)

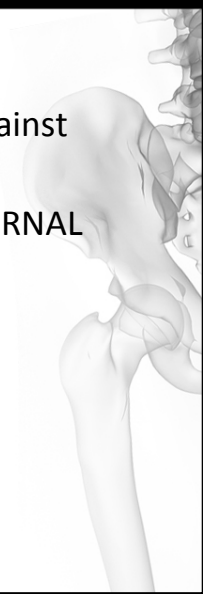


Dutch GP Observational study (31451 patients):

- Active patients aged 15-60 and suffering from groin pain
- 17% diagnosed with FAI
- In sporting individuals, incidence varies from 0.5-18%
- 'Creating awareness of FAI in helps identifying patients that might benefit from FAI treatment'

History & examination

- Groin pain
  - Sharp (knife like) if torn labrum
  - Activity related
- Worse deep flexion
  - Low car
  - Squats/lunges
- Rest pain a bad sign
- Antalgic gait
- Pain on SLR against resistance
- REDUCED INTERNAL ROTATION
- F. AD. IR. Test
- F. AB. ER. Test



Investigations

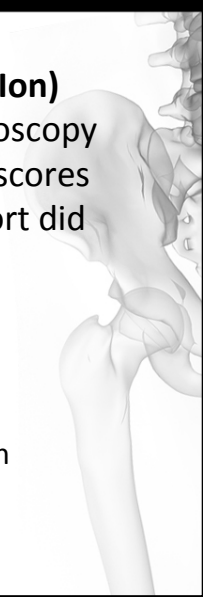
- Radiographs
- MRI
- CT with 3D protocols
  - Slices through knee
  - Slices through malleoli

Treatment

- Activity modification
- NSAIDs
- Physiotherapy
  - Mobilise hip and stretch tight structures
  - Improve soft tissue flexibility and length
  - Core and gluteal strengthening
  - Progress hip muscle, proprioception, joint position sense and functional control of hip

2 RCTS (FAIT and FASHIon)

- Physio and Hip Arthroscopy improved functional scores
- Hip arthroscopy cohort did better



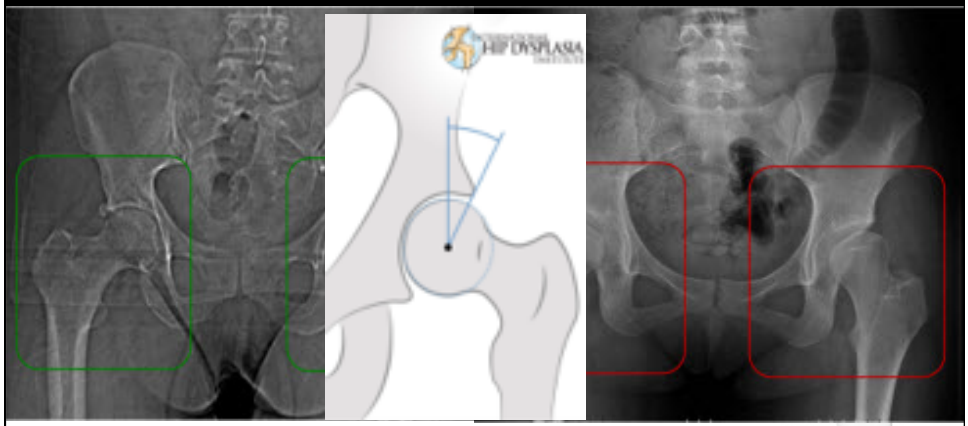
Hip Arthroscopy

- Labral repair or debridement
- Acetabuloplasty and labral reattachment
- Femoral osteoschondroplasty

Developmental Dysplasia Hip (DDH)

- Spectrum
- In adolescence can present with mechanical groin pain
  - Activity related
  - Limp
  - LLD
  - Clicking and popping
- Frequently associated with labral tears

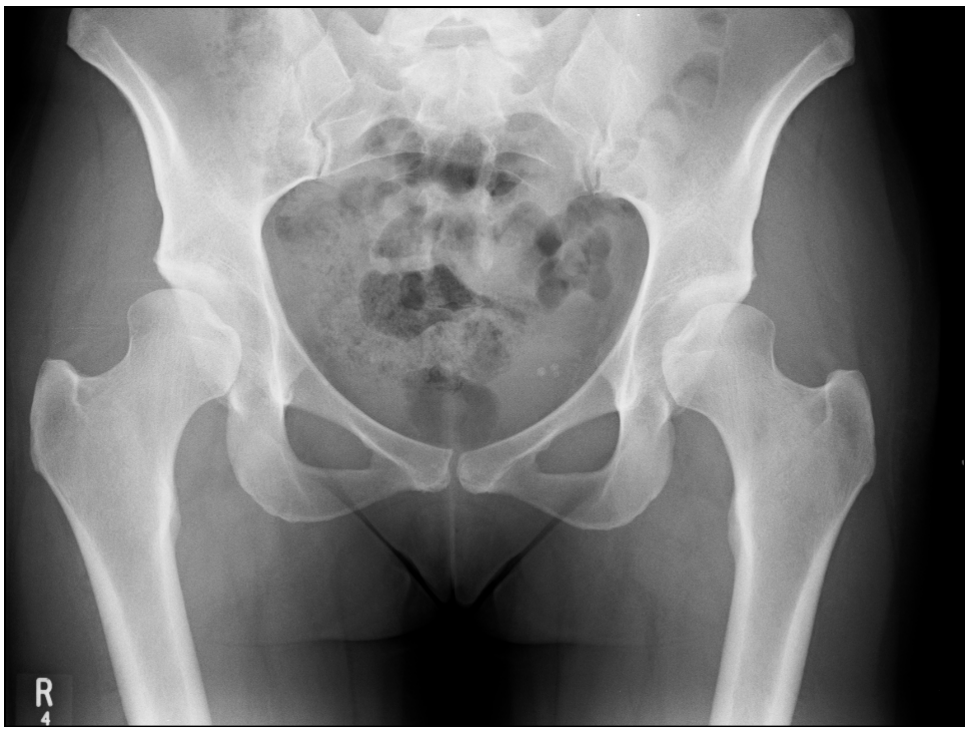
Investigations

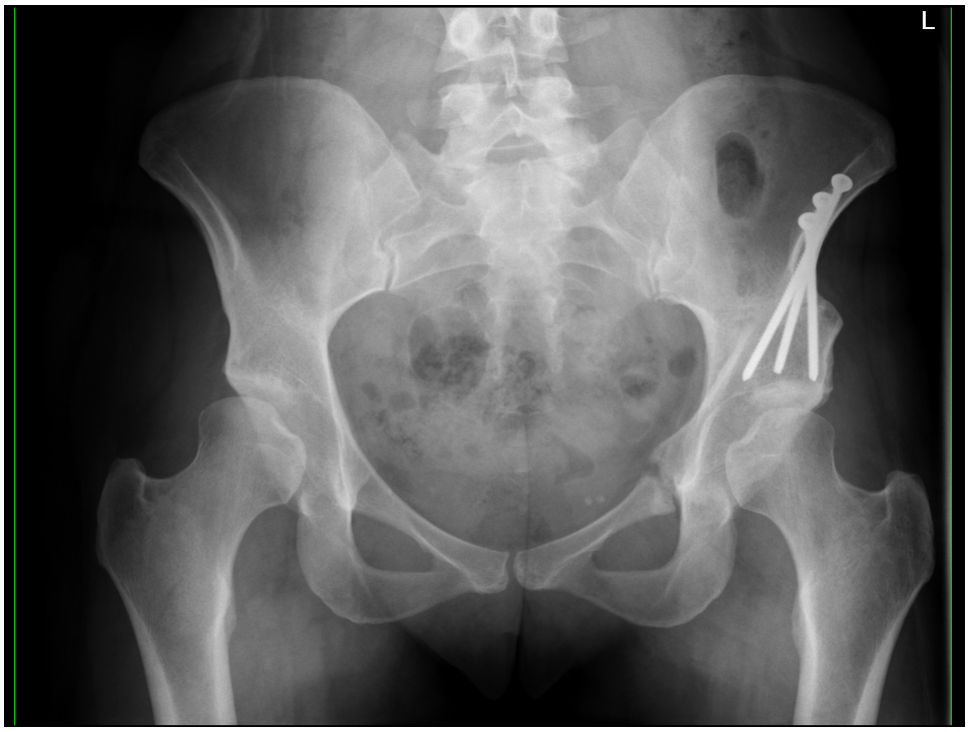


- MRI
- CT

Treatment

- Conservatively initially
- Refer
  - Hip arthroscopy if CEA > 20^0
  - Peri-acetabular osteotomy if CEA < 18^0





Osteoarthritis of hip and knee

- Conservative
- Thresholds for surgery:
  - Reduced walking distance
  - Night pain
  - Increased/dependency on analgesics
  - Impaired ability to work
- What if your patients are waiting for surgery?

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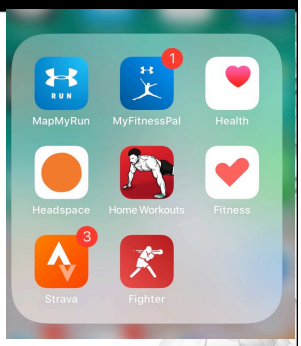
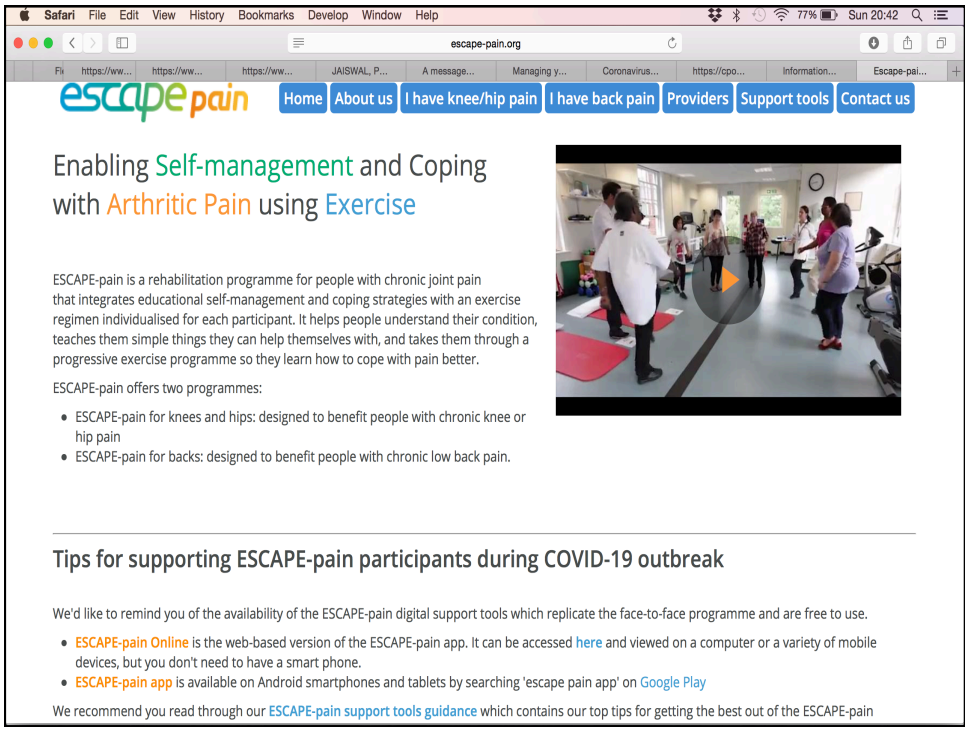
What does conservative mean?



- Lifestyle changes
  - Yoga (e.g. by Adriene)
  - Myfitnesspal
  - Home workouts (muscle strengthening)
  - Mindfulness (Headspace, Calm)
- Self help and mental well-being
  - https://www.mind.org.uk/information-support/coronavirus/coronavirus-and-your-wellbeing
  - Moodgym

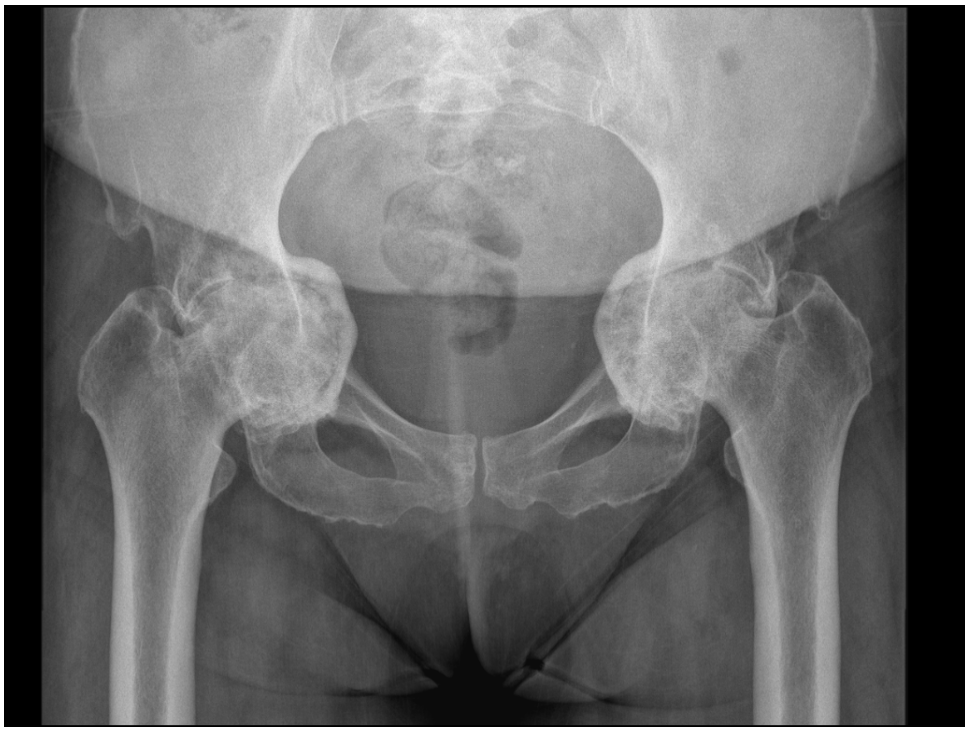
Physiotherapy

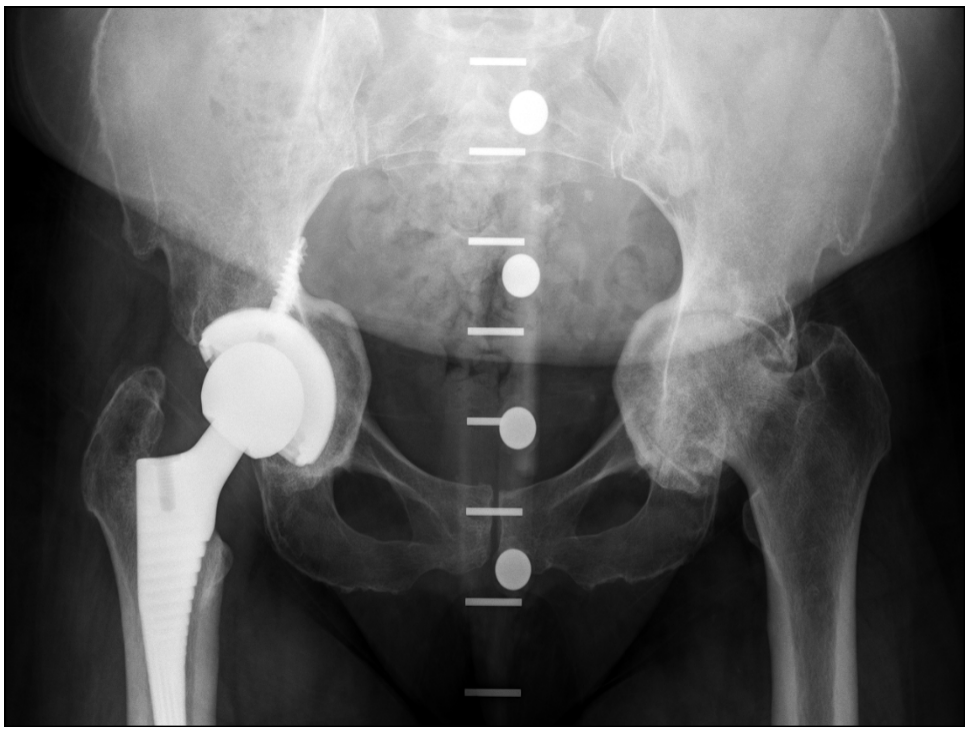
- ESCAPE program
  - https://escape-pain.org
- Chartered Surveyors of Physiotherapist:
  - https://www.csp.org.uk/conditions/managing-pain-home

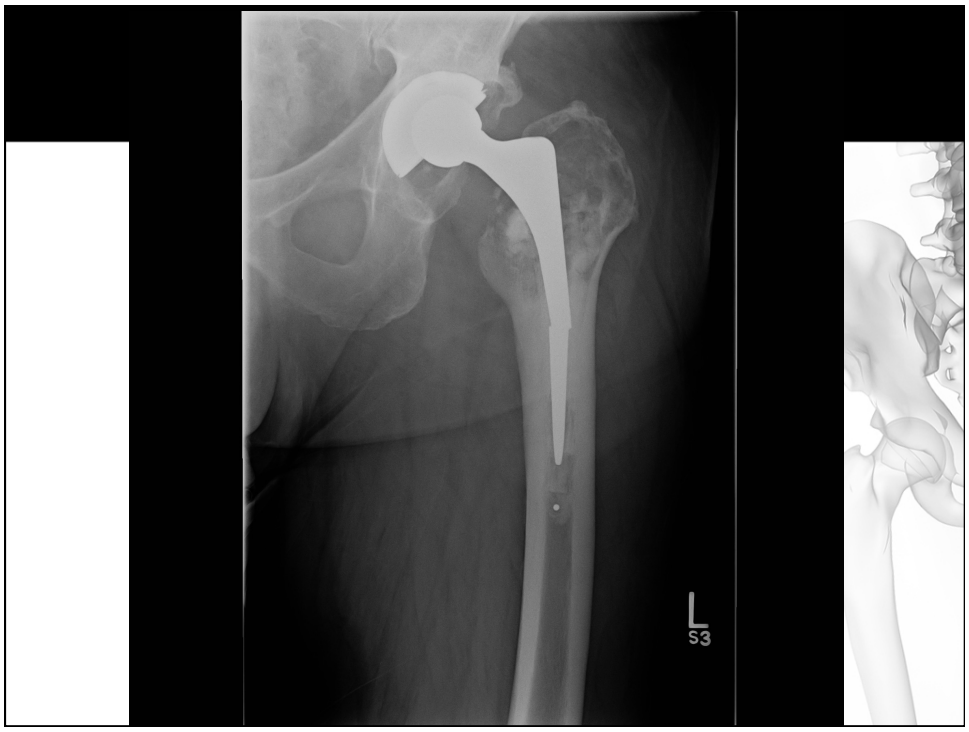


BUT please do not delay referral, even during COVID-19

Delaying in assessing and treating could make operation more complicated.



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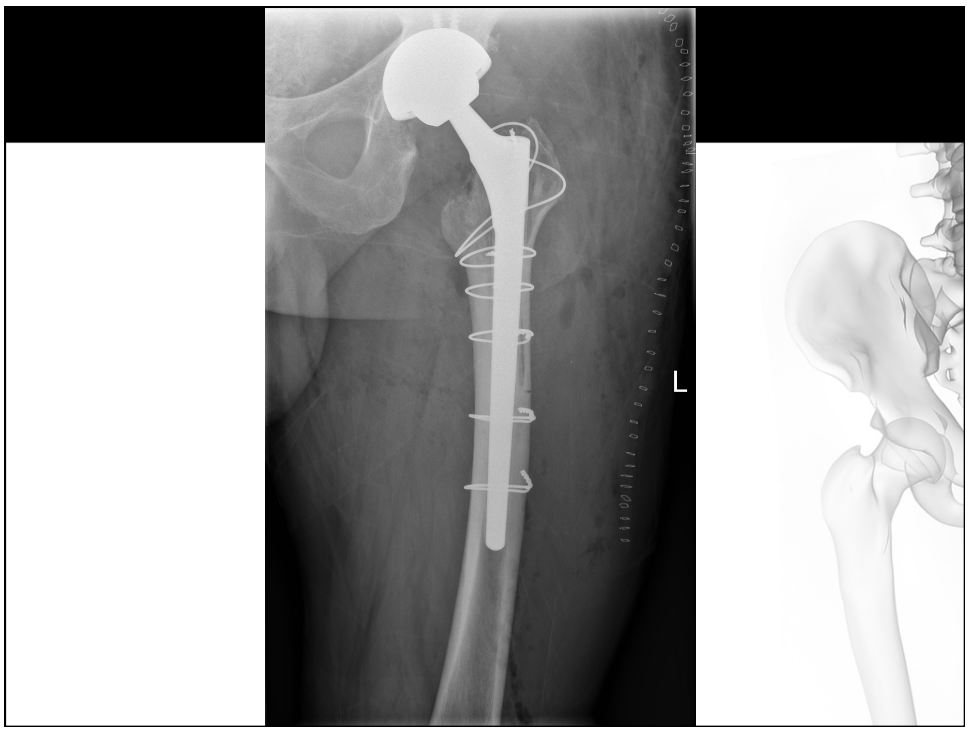
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Knee Injuries

Focused History Questions

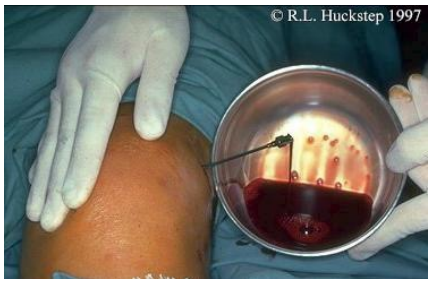
- **Mechanism of Injury**
  - -helps predict injured structure
- **Contact or noncontact injury?**
  - If contact, what part of the knee was contacted?
    - –Anterior blow? "Dashboard"
    - –Valgus force?
    - –Varus force?
- **Was foot of affected knee planted on the ground?**

Focused History Questions

Injury-Associated Events

- *Pop* heard or felt
  - ACL
- *Swelling* after injury (immediate vs delayed)
  - Immediate = ACL, delayed = meniscal
- *Locking*
  - Bucket handle tear meniscus
- *Buckling / Instability* ("giving way")
  - Changing direction = ACL
  - Sharp pain = meniscal

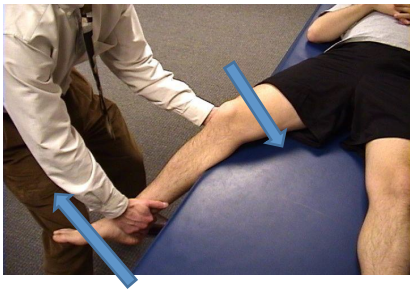
ΔΔ of Haematoma



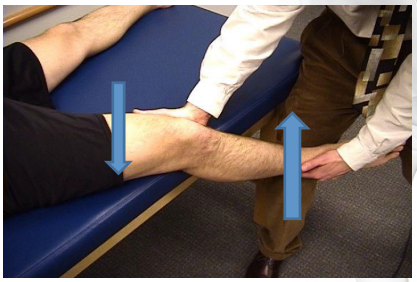
- **ACL tear**
- **Fracture**
- **Multi-Ligament Injury**
- ***Meniscal Tear****

Collateral Ligament Assessment

Valgus Stress Test for MCL

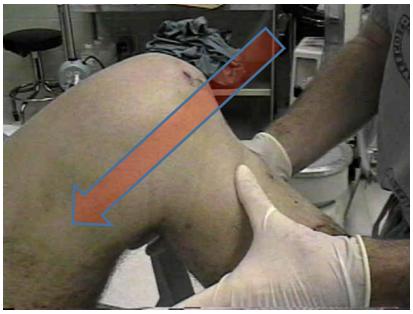


Varus Stress Test for LCL

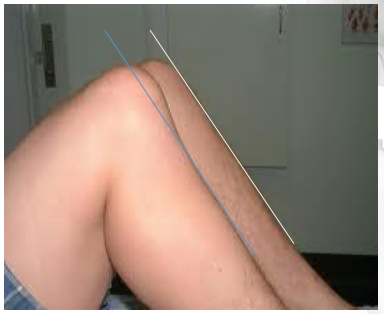


PCL Testing

Posterior Drawer

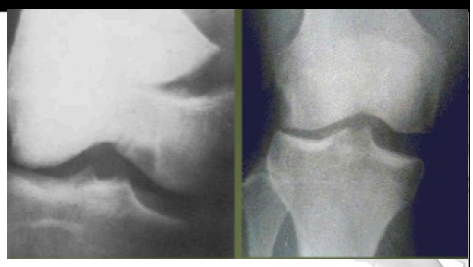


Posterior Sag



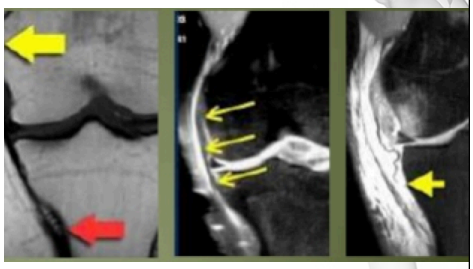
MCL: diagnosis with imaging

XR: only useful for young patients to differentiate from growth plate injury



MRI Coronal Scan

Is the gold standard



MCL Treatment

Non-operative

- Reassure patient, surgery rarely required isolated, Grade I/II
  - Crutches, PRICE
  - Bracing
- Grade III may require surgery
  - But bracing and rehab can be effective if isolated
  - 3-4 month recovery

Surgery

- Open incision
- Mid-substance ruptures sutured
- Tears from bone (avulsion) repaired with suture anchors

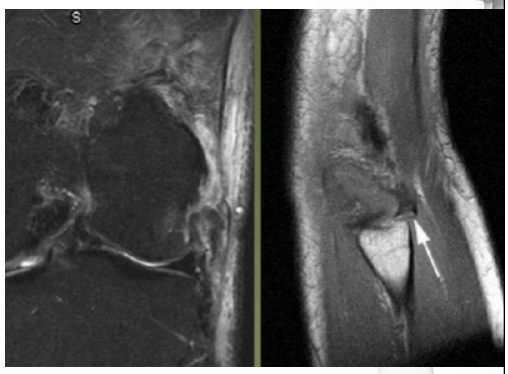
Need to be seen by orthopaedic specialist. BUT during COVID-19: patients can get knee ROM brace whilst waiting to be seen

LCL: Imaging & Treatment

- Coronal oblique scan
- Sagittal scan to rule out fibular avulsion fracture
- Tear looks less taut or discontinuous – no thickening

Treatment

- Similar to MCL
- Grade III usually requires surgery



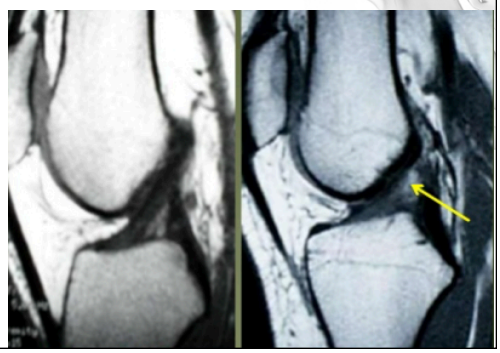
ACL: Diagnosis & Imaging

XRs:

- Segond fracture of lateral tibial condyle
- Tibial spine avulsion in young patients

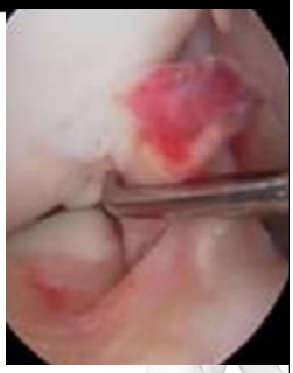
MRI

95% accuracy



ACL: Treatment

- Partial, isolated tears: PRICES, rehab, bracing, slightly flexed
- Most tears: athletes will require reconstruction

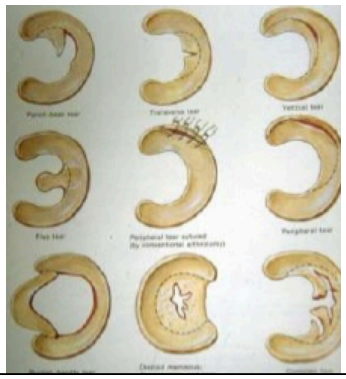


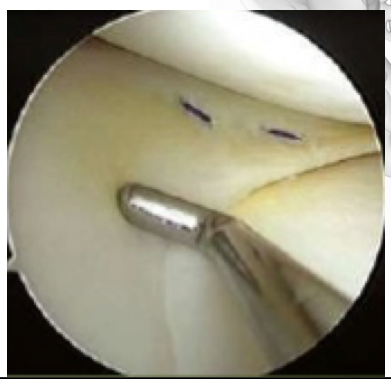
Meniscal Injuries

- Exam
  - joint line tenderness
  - effusion
  - provocative tests
    - **Apley compression**
      - supine
    - **Thessaly test**
      - standing at 20 degrees of knee flexion on the affected limb, the patient twists with knee external and internal rotation with positive test being discomfort or clicking.
    - **McMurray's test**
      - flex knee and place a hand on medial side of knee, externally rotate the leg and bring the knee into extension
      - palpable pop / click / pain is a positive test and can correlate with a medial meniscus tear.

Medial Meniscus Treatment

- PRICES for isolated and minimal tear
- Partial menisectomy is the most common operation performed:
  - I prefer to repair whenever possible





Knee Soft Tissue Injury - Summary

- History + Examination will guide what you do next

- Initially: PRICES +/- NSAIDs
- If no resolution after 2 weeks: MRI and review
- Early referral to Orthopaedic Consultant
  - Bracing helps with quicker healing

MANAGING PATIENTS WITH JOINT REPLACEMENTS

Recent Joint Replacement

- Pain in the first 6 months (better day by day)
  - Knee > Hip
  - Adequate analgesia
  - Please do not inject Knee in clinic
  - Reassure patients will get seen or contacted
- Wound care
  - Do not get it wet in the first 2 weeks
  - **Discharge**: please do not start Abx and refer to operating surgeon
  - **Redness**: Do not start Abx refer to operating surgeon
- Any signs of systemic infection: A&E

Patients with Joint Replacements

Generalised leg swelling

- Can persist for 6 months - reassure
- Differentiate from DVT by localised tenderness +/- redness with no pain on dorsiflexion of ankle
- Need to mobilise as much as possible and elevate high when resting

Worsening Pain

- Could be a worrying sign and may need urgent review
- Patient can fill in Oxford Hip/Knee Score and this can guide you

Rehab & Exercise

- Key to success following THR & TKR
- Knee ROM exercises important as it is notorious for getting stiff
- Knee extensions with ankle weights or frozen bag of peas
- Hip Abductor strengthening also very important

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Summary: When to refer a patient with (new) THR/TKR

- Hot painful joint – please do not start Abx
  - Refer to operating surgeon
  - Video Consultation
- Stiffness
  - Knee can not fully straighten or flex beyond 90^0
  - Hip can not flex to 90^0 or abduct beyond 15^0
- Localised swelling, pain and tenderness lower leg or thigh – suspicion of DVT

Unhappy patient with THR or TKR

- Routine bloods (including inflammatory markers)
- XRs
- Referral for second opinion

Queries:
admin@londonhipknee.co.uk
0207-4594482

The Royal Free Hospital
- Elective: Friday am
- Fracture: Tues am
- Private Unit: Tues pm & ad hoc

9 and 25 Harley Street
- Friday pm
- Ad hoc

Hospital of St. John & St. Elizabeth
- Thursday

Highgate Private Hospital
- Wednesday am