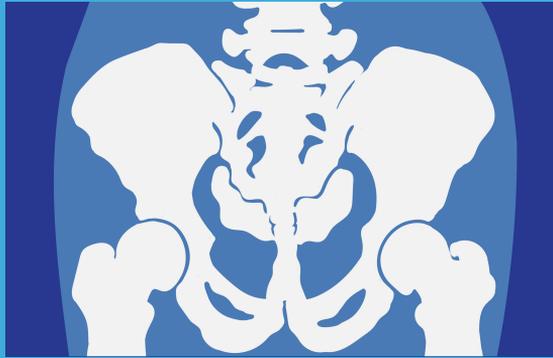


The Hip

AT A GLANCE



A QUICK REFERENCE GUIDE TO:

Hip Osteoarthritis

Avascular Necrosis

Femeroacetabular Impingement

Proximal Hamstring Tendinopathy

And More...

Rob Tyer

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PLEASE REMEMBER – THIS GUIDE IS NOT A REPLACEMENT FOR CLINICAL REASONING, IF YOU ARE UNSURE GET ADVICE

Not To Be Missed

Vascular Presentation

Much deliberation was had regarding the inclusion of vascular conditions. It was decided that for this piece, they would not be covered, as although the site of the condition is the pelvis, the symptoms mostly present distally.

Malignancy

The pelvis has the second highest prevalence for metastasis after the spine. I would recommend reading the metastatic cord compression guidelines, which putline common cancers and their bony affinity.

Differential Diagnosis

Consider grouping differentials into themes, e.g. “intra-articular” problems and “extra-articular” problems. Groin pain can raise your suspicion of an iintra-articu problem, but its absence does not exclude it.

Weigh the presentation with factors inc. age, medical history, speed of onset, deterioration/ improvement, aggravating/easing factors and diurnal pattern.

Plenary

Things rarely happen in isolation, persistent hip pain is synonymous with co-existing pathology, all of which is affected by the context.

OA

Osteoarthritis

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Presenting Features

- Groin Pain
- Lateral Hip Pain
- Buttock Pain
- +/- radiation to ankle, anteromedial > posterolateral
- Morning stiffness < 30 mins
- Decreased ROM and impact on functional tasks

Demographics

- Increased Prevalence with age
- Obesity in earlier life
- Comorbid/PMH
- FH of OA
- Developmental Hip disease

Assessments

Cluster of Sutlive

3+/5 of:

- +ve Scoop test
- Passive internal rotation ≤ 25 degs
- Pain on squatting
- Pain with active flexion
- Pain with active extension

NICE Criteria

- > 45 years old
- Activity related pain
- Morning stiffness < 30 mins

Radiographic OA \neq Symptomatic OA
Xray only if changes patients trajectory

Dysplasia AT A Hip GLANCE



Presenting Features

Groin Pain Most Common

Can mimic other intrarticular presentations

Comorbid/PMH

FH of Dysplasia

Links with:

Osteogenesis Imperfecta

Scoliosis

EDS/Marfans

Down's Syndrome

Demographics

Hip Pain Prevalence:

4.3% males and 3.6% Females

Aymptomatic Prevalence: Unclear

25-50% develop radiographic
OA by age 50

Considerations

Oligohydramnios/small size of mother

Premature/breech/female/high birth weight

Investigations

- Clinical history and exam to exclude time sensitive conditions such as AVN
- Multiplane Xray - lateral centre edge angle <20 deg
 - MRI only for differential diagnosis
 - CT for surgical planning
- Infant investigation is manual (Barlow and Ortolani maneuvers), ultrasound if available



Presenting Features

Deep groin pain (C-sign)

Aggravated by low sitting and/or activity

Combined Flex/ADd/IR

Sometimes catching/locking/clicking

Comorbid/PMH

Cam deformity believed
to develop in the athletic
population

Demographics

Males inc prevalence of Cam

Females inc prevalence of Pincer

Associated with repetitive loading during development ages

Investigations

- High prevalence of morphological changes on Xray in those without pain. 67% with Pincer deformity, 37% with Cam deformity.

- Warwick consensus (2016) suggest a diagnosis does require a combination of signs, symptoms and radiographic confirmation

AVN AT A GLANCE

Avascular Necrosis



Presenting Features

Similar to OA but with rapid deterioration
High chance of bilaterality within 2 years of unilateral diagnosis

Demographics

Male age 25-44

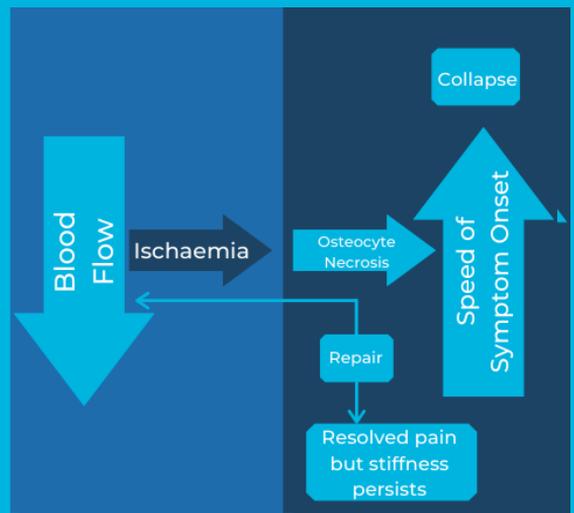
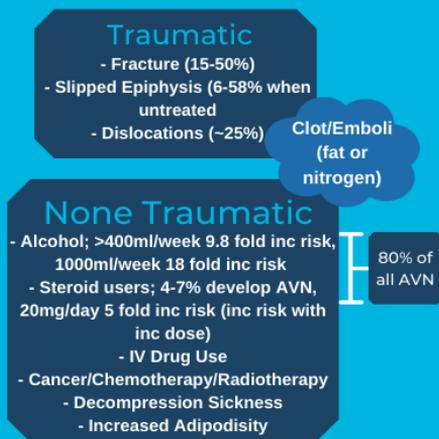
Female age 55-75

Sickle Cell Disease

See flow chart for detail

Investigations

- Xray first line but not always sensitive
- MRI much more sensitive if xray is clear
- Confirmed cases usually require Orthopaedics input



Stress AT A GLANCE

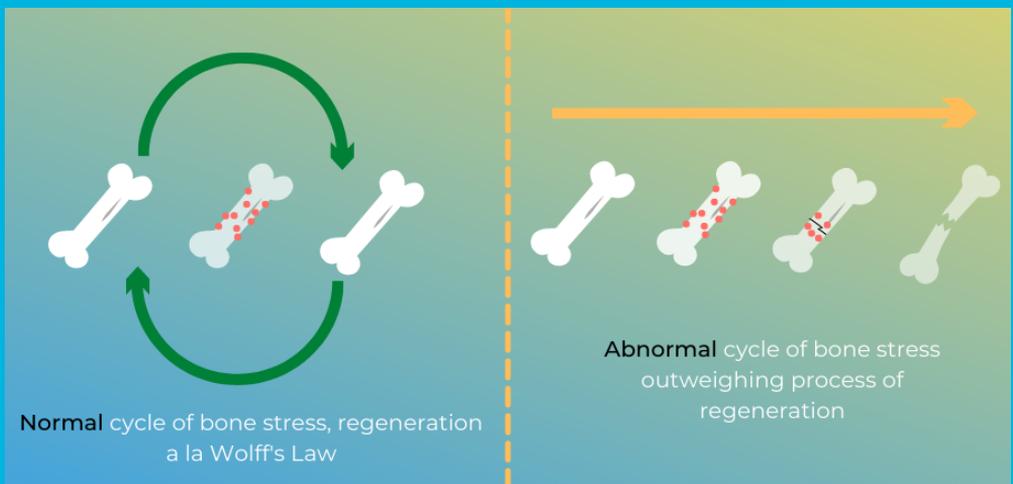
Fractures



Presenting Features

- Gradually worsening groin pain
- Possible pain in pubic rami and/or sacrum
- Progresses to constant, severe pain
- Worse on loading activities

Bone Stress / Fracture Continuum



Demographics

- Females > Males
- Most common in the athletic population
- Lifestyle/sports resulting in calorie restriction,
- BMI < 19K/M2, high frequency/short recovery/poor sleep

Rob Tyer



Comorbid/PMH

Consider metabolic, lifestyle, and environmental factors

RED-S (Relative Energy Deficiency in Sport)

History of steroid use

Metabolic Bone conditions

Menstrual changes

Gut conditions impacting on absorption

Investigations

- Thorough history prior to investigations
- Stress fractures *may* be visible on xray
(>85% of pelvic stress fractures are missed on xray)
- MRI is recommended to assess presence/degree of oedema or the presence of a fracture
- Higher suspicion with higher pain severity, with a sudden but low velocity mechanism, may need care escalation / immobilisation.
- May need follow up regarding metabolic bone health usually under the care of Rheumatology

Meralgia AT A Paraesthesiae GLANCE



Presenting Features

- Burning, numb, coldness, buzzing sensation
- Feels “Like a mobile phone vibrating in my pocket”
- No motor signs
- Clear borders of sensory loss within a patch of the distal anterolateral thigh

Comorbid/PMH

- Theoretical link with metabolic conditions
- Iatrogenic: THR, lumbar spine surgery. Iliac bone harvesting, C-Section, Appendectomy (rare)

Contributing Factors

- Tight belt/clothing
- Seat Belt
- Body armour

Demographics

BMI >30

Investigations

- History usually the key
- Pelvic compression test, NTPT, Tinel’s – no validation
- Nerve conduction studies can indicate neurophysiological changes to the nerve
- MRI and Xray for Differential Diagnosis



n.b. Some Controversy regarding existence

Presenting Features

Pain when sitting and walking

Considered to be 6-8% of all back and leg pain

Sciatic distribution pain / paraesthesia deemed not to be of lumbar origin

Comorbid/PMH

No strong documented links

Demographics

Paucity of literature

Linked with significant sitting duration

Absence of low back pain

No clear radiographic evidence of nerve root compression

Investigations

- Clinical exam/history first line
- Absence of spinal/gynae/pelvic/hip joint pain
- Some literature supporting "Piriformis test" and "Active Piriformis Test"
- Consider diagnostic injection
- MRI and exploratory endoscopy/decompression have limited clinical utility
- Xray only for differential diagnosis

Labral AT A Tear GLANCE



Presenting Features

Deep groin pain with clunking/clicking

Acute onset:

Loaded cutting movements with clunk or click

Insidious onset:

Same presentation without incident at onset

Cormobid/PMH

FAI

Dysplasia

Demographics

Prevalence Male=Female

Cutting/pivoting sports

Loaded Flexion/Adduction/Internal Rotation

Seen alongside Cam/Pincer, dysplasia, SCE,

Perthes, local hip trauma

Older adults: associated with radiographic OA

Investigations

- MRI arthrogram / exploratory arthroscopy historically reported as: 48.6% degenerative, 27.1% idiopathic, 18.9% trauma, 5.4% congenital

- Caution required with investigation:

68% of asymptomatic people present with labral pathology when investigated

- Diagnostic injection is often used

Gluteal

Tendinopathy

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Presenting Features

Usually gradual > sudden onset pain over lateral aspect of hip

Bursal changes in 20%

Consistent with other "degenerative" tendinopathies
AKA: GTPS, lateral hip pain, trochanteric bursitis

Demographics

More common >40

Women 4x more likely than Men

1/3 of people with LBP reported to have GT

Speculative link with reduced Oestrogen

Lower activity levels, psychological distress
post/peri menopause

Comorbid/PMH

Obesity

Low back pain association as high as 35%

Investigations

- Not usually necessary

clinical diagnosis > radiographic

- Ultrasound - degenerative changes bursal thickening, calcific deposits

- Xray and MRI may aid with differential diagnosis
e.g. OA hip or tendon tear/rupture



Presenting Features

Usually gradual onset pain, deep to the gluteal crease
on or distal to the Ischial Tuberosity

Sometimes radiating to the posterior knee

Exacerbated with prolonged sitting, forward leaning,
loading in high hip flexion

Comorbid/PMH

Little data exists

Load exceeding capacity
(spike in training speed/hill
work)

Demographics

Possibly Men>Women

Usually <40

High load activities (inc compression)
under high degrees of hip flexion

Investigations

- History of onset and clinical exam are first line
 - Recalcitrant cases requiring imaging:
 - MRI suggested to have higher sensitivity
 - Ultrasound can aid diagnosis
 - Xray has little to no utility specifically for PHT but can aid in some differential diagnoses.

Resources

CPD Courses

Rob runs Continuing Professional Development courses on differential diagnosis and management of hip conditions for MSK Therapists with Nick Livadas. He also runs full day courses on exercise prescription and shorter courses on clinical reasoning in primary care and navigating uncertainty when suspecting serious pathology

Twitter

Follow Rob on twitter [@combatsportphys](#) links to resources, updates and current developments.

More Guides

There are further booklets in this series titled:

- Rheumatology - Jack March
- The Spine - Andrew Cuff
- The Hand - Debs Stanton

Find them on the website [Rheumatology.Physio](#)

Thank you for choosing this At
A Glance reference guide for
Hip conditions



RHEUMATOLOGY.PHYSIO
ONLINE.

*With many thanks to the following:
Nick Livadas (Clinical Content Review)
Angus Stanton
(Imagery)*

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