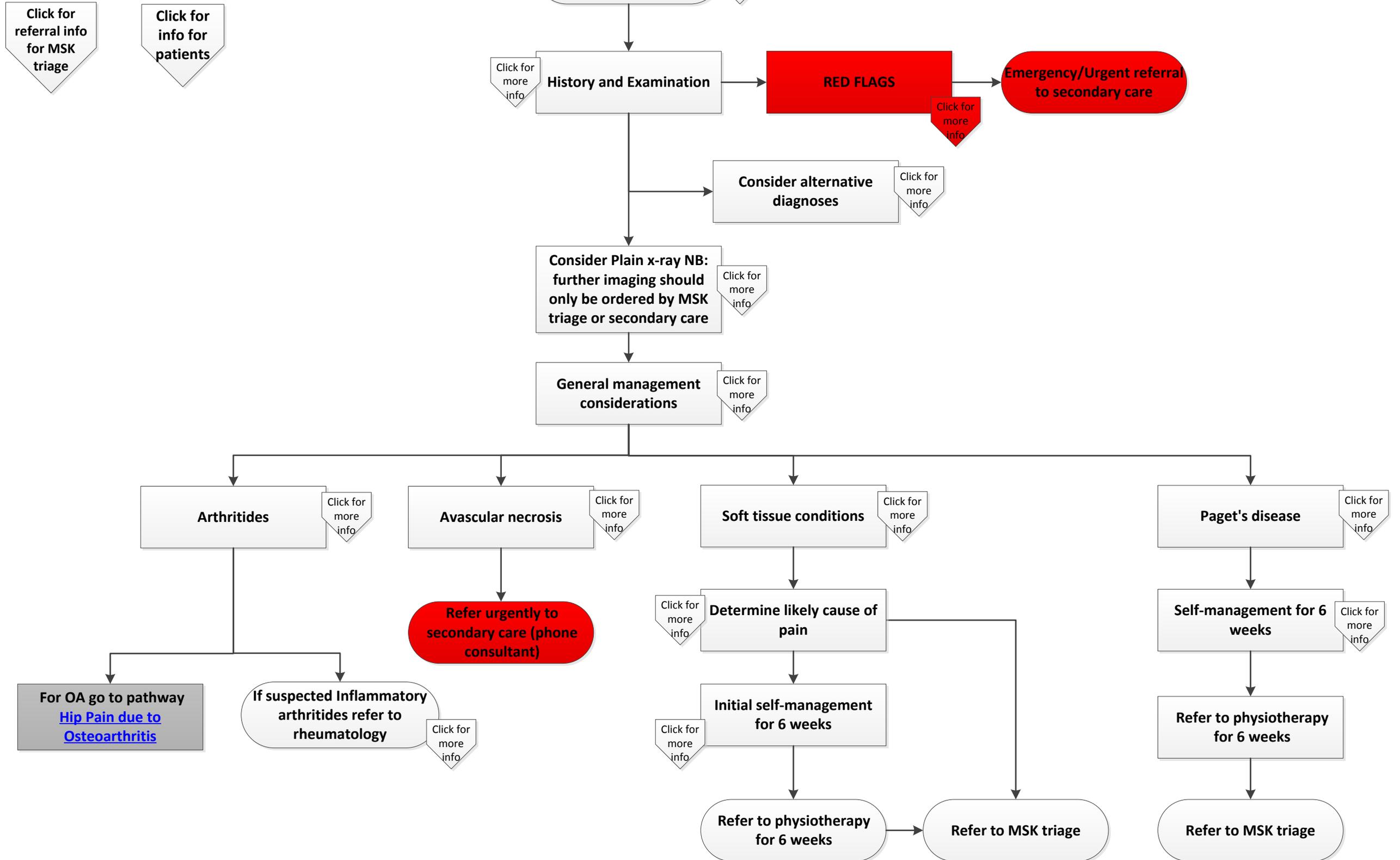


Hip Pain in Adults



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Clinical presentation

Hip pain is usually felt in the groin, buttock, or lateral or anterior thigh. It may also be referred to the knee.

Hip disorders often also:

- produce a limp and stiffness
- prevent activities of daily living, e.g. putting on shoes, getting in and out of baths

History and Examination

Osteoarthritis is more likely if:

- patient > 45 years old; and
- has activity-related joint pain; and
- has either no morning joint-related stiffness; or morning stiffness that lasts no longer than 30 minutes

History:

- pain assessment:
 - site - pain may be felt in the groin, medial thigh, and greater trochanter
 - radiation - to thigh and/or knee:
 - hip pathology may cause pain felt only at the knee
 - character of pain
 - duration
 - exacerbating/relieving factors - rest and/or after activity
 - severity
 - impact - on occupation, daily activity, sleep, and sports
- ask about:
 - history of trauma
 - joint stiffness/morning stiffness
 - systemic symptoms - e.g. night sweats, weight loss
 - comorbid conditions
 - psychosocial impact - on mood, relationships
 - history of joint conditions or problems

Examine joint for:

- stiffness and restricted movement
- pain is typically felt maximally deep in the anterior groin
- restricted range of joint movement
- tenderness and irritability on movement
- muscle wasting and weakness
- gait abnormalities
- 'locking' or 'snapping'

Examine contralateral joint for any abnormalities.

The following tests may be helpful when differentiating hip pain from other sources of pain:

- tests for labral tears, e.g.:
 - Scour test
 - FABER (Patrick's) test
 - Fitzgerald's test
 - flexion-adduction internal rotation test
 - sacroiliac joint provocation test for sacroiliac joint pain
 - femoral nerve stretch test for L2-3 radiculopathy
 - straight leg raise or sciatic nerve testing in posterior hip pain
 - resisted hip flexion and external rotation for psoas irritation

Consider possible causes of pain

The most important step in management of the painful hip is to establish the underlying aetiology and to treat it as specifically as possible.

In addition to trauma/fracture, infection, and malignancy (see 'RED FLAG!' box), the following are potential causes of hip pain:

- osteoarthritis and other arthritides
- Paget's disease
- avascular necrosis – suspect if patient has been on long-term corticosteroids
- infection
- painful soft-tissue conditions around the hip, e.g. tendonitis, greater trochanteric pain syndrome (trochanteric bursitis)
- consider hip impingement, labral tears, and hip dysplasia in the young adult presenting with hip pain, usually felt in the groin
- benign bone tumours (rare)

For non-hip causes of pain see alternative diagnosis box.

It is important to recognise that one musculoskeletal problem can lead to another. For example, patients with spinal stenosis frequently develop trochanteric bursitis. This should be considered when assessing the patient.

RED FLAG

Refer the patient as an emergency to secondary care if:

- suspected hip fracture
- associated systemic features
- signs of infection
- known primary malignancy
- severe muscle spasm
- sudden inability to bear any weight
- history of a fall

If malignancy is suspected, refer the patient urgently to secondary care.

If patient has severe pain that is unresponsive to analgesia and persistent loss of function affecting employment, refer immediately to secondary care.

Trauma:

- If trauma is suspected, use clinical judgement for the urgency of referral.
- Examples of trauma include:
 - hip fracture
 - chondral damage
 - loose bodies
 - labral tear
 - muscle strain

Malignancy:

- metastases in the pelvis or proximal femur will produce hip pain
- primary bone tumours as a cause of hip pain are extremely rare
- suggested by:
 - nocturnal or continuous pain
 - tenderness on direct palpation
- history of:
 - unexplained weight loss
 - smoking
 - cancer
 - cancer in the family

Infection:

- primary septic arthritis is rare in adults
- risk factors include:
 - immunocompromised
 - prior hip joint disease
 - infection elsewhere
- surgical drainage is usually necessary, along with prolonged IV antibiotics

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Pain may also be referred pain:

- from:
 - lumbar spine
- knee – see '[Acute Knee Pain](#)' Pathway
- sacroiliac joints – see '[Back pain](#)' Pathway
- hernia – see '[Abdominal Hernias](#)' pathway
- as a result of a L2-3 radiculopathy

It is important to recognise that one musculoskeletal problem can lead to another. For example, patients with spinal stenosis frequently develop trochanteric bursitis. This should be considered when assessing the patient.

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Consider alternative diagnoses

Consider other possible causes of pain:

- referred pain:
 - from the:
 - lumbar spine – see '[Back Pain](#)' pathway
 - knee – see '[Acute Knee Pain](#)' pathway
 - sacroiliac joints – see 'Back pain' (link above) and '[Cervical Radiculopathy](#)' pathways
 - as a result of a L2-3 radiculopathy – see 'Back Pain' and 'Cervical Radiculopathy' pathways
 - hernias – see '[Abdominal Hernias](#)' pathway
 - UTI
 - active lymph nodes
 - gynaecological causes
 - stress fractures

Consider imaging

Plain radiography:

- may be requested to confirm the diagnosis after history and examination
- is an appropriate first-line investigation for those with persistent pain and significant functional impairment:
 - OA is diagnosed most effectively by clinical criteria with the aid of radiographic findings
 - further imaging modalities are seldom needed for OA diagnosis
- may detect gross fractures, tumours, advanced arthrosis, and hip dysplasias:
 - certain radiographic features may help to distinguish metastases from other conditions and aid in identification of the primary tumour
 - overall plain radiographs have poor sensitivity for detection of bone metastases
- does not detect early changes of joint space narrowing, subtle stress or insufficiency fractures, intra-articular structures, or bone marrow changes
- does not reliably exclude osteomyelitis as nearly 50% loss of bone density is required before a radiograph becomes abnormal

Further imaging, if indicated, SHOULD NOT BE CARRIED OUT IN PRIMARY CARE BUT CARRIED OUT BY MSK triage:

- MRI:
 - if initial radiographs are negative or non-diagnostic, if soft tissue injury is suspected, or a high suspicion of osseous abnormality remains, further evaluation is best done with MRI
 - high sensitivity and specificity for detection of:
 - osseous and chondral lesions, e.g. fracture, avascular necrosis, or stress injury
 - ligament and muscle injuries, e.g. femoroacetabular impingement
 - osteomyelitis
- MR arthrography:
 - is highly specific but insensitive for detection of intra-articular loose bodies compared to arthroscopy
 - can help diagnose labral tears
- CT:
 - useful in diagnosing osteoid osteoma
 - alternative to MRI in detection of occult hip fracture where MRI is contraindicated
 - useful in diagnosing labral tears and other intra-articular hip pathology where MRI and MR arthrography are contraindicated or unavailable
- bone scan/nuclear medicine studies:
 - useful in detecting wide-spread bone metastases
 - are also useful in suspected infected hip prostheses
- ultrasound is useful in selected indications such as bursitis and tendinopathy

General management considerations

The RCS recommend the following management advice for all patients with painful hip disorders, the commonest cause of which is OA:

- mild symptoms:
 - offer verbal and written information about condition
 - offer information to achieve weight loss if people are overweight or obese as a core treatment
 - advise to carry out local muscle strengthening and general aerobic exercise as a core treatment
 - use of shared decision making tools
 - suggest oral simple analgesia and anti-inflammatory medication
 - assess need for aids and devices (refer to occupational therapy or physiotherapy) including instruction in using a walking aid
 - prescribe supervised and evidence based physical therapies after assessment by an appropriate Health and Care Professions Council (HCPC) registered practitioner
- moderate symptoms:
 - add non-steroidal NSAIDs or stronger analgesics

Arthritides

Osteoarthritis:

- one of the most common causes of hip pain in adults
- patients usually present in their 60s or 70s - may present earlier in patients with prior hip trauma or congenital abnormalities

Osteoarthritis should be diagnosed clinically without investigations if a person:

- is age \geq 45 years; and
- has activity-related joint pain; and
- has no morning joint-related stiffness, or morning stiffness that lasts no longer than 30 minutes

Inflammatory arthritides include:

- Rheumatoid arthritis
- Psoriatic arthritis
- Ankylosing spondylitis
- Reactive arthritis

The term inflammatory arthritis relates to a group of disease where immune system dysfunction causes inflammation within joint tissues such as the synovial membrane or joint entheses. General features are pain, stiffness and swelling, which can be relieved by activity. The stiffness often lasts longer than 30 minutes and the pain can be worse at night.

Source: <http://www.rcgp.org.uk/clinical-and-research/resources/toolkits/inflammatory-arthritis-toolkit.aspx>

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Refer to rheumatology

When to refer for specialist opinion

Refer for specialist opinion any adult with suspected persistent synovitis of undetermined cause. Refer urgently (even with a normal acute-phase response, negative anti-CCP antibodies or rheumatoid factor) if any of the following apply:

- *the small joints of the hands or feet are affected*
- *more than one joint is affected*
- *there has been a delay of 3 months or longer between onset of symptoms and seeking medical advice.*

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Avascular necrosis

Avascular necrosis is the ischaemic death of bone due to insufficient blood supply.

Presents with progressive pain, limp and late secondary osteoarthritis.

Most causes are idiopathic. Associated conditions include:

- Prolonged steroid therapy
- Sickle cell disease
- Excess alcohol
- Working in pressurised environment (e.g. deep sea diver)

If diagnosed early, avascular necrosis can be treated with core decompression. However it is often detected late and requires total joint arthroplasty.

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Perform MRI and consider surgery

- Radiographs may be normal in avascular necrosis.
- If avascular necrosis is suspected, the investigation of choice is an MRI.
- An MRI gives a diagnosis in the early stages, but if radiological evidence is established, surgical treatment to arrest the disease is less successful.
- Hip replacement may ultimately be required

Soft tissue conditions

Greater trochanteric pain syndrome (often termed trochanteric bursitis):

- pain at and around greater trochanter (not in the groin):
- aggravated by direct pressure, e.g. when sleeping on affected side
- usually self-limiting
- frequently accompanies other musculoskeletal problems, such as spinal stenosis, that alter gait and attendant muscle forces across the greater trochanter

Iliopsoas bursitis:

- Iliopsoas bursa is deep to the psoas muscle and anterior to the hip joint
- pain occurs in the groin and anterior thigh - can be exacerbated by resisted hip flexion and passive hip extension
- occasionally has an infectious aetiology

Ischial bursitis:

- Ischial bursa separates the gluteus maximus from the ischial tuberosity
- can arise from prolonged sitting or trauma to the ischial bursa- sometimes called 'weaver's bottom'
- symptoms include well localised pain over the ischial tuberosity

Meralgia paraesthetica:

- caused by local compression of the lateral cutaneous femoral nerve (L2-3 distribution) at the inguinal ligament
- symptoms include numbness and burning pain in the anterior thigh
- risk factors include:
 - obesity
 - pregnancy
 - tight-fitting belts/waistbands
 - hip extension, e.g. due to high heels
 - diabetes mellitus (DM)

Snapping iliopsoas tendon:

- psoas tendon impinges on the capsule of the hip anteriorly to produce discomfort
- causes a painful 'clunk' in the groin when the hip goes from extension to flexion (hip is otherwise normal)

Torn acetabular labrum:

- The labrum stabilised the hip joint and acts as a seal maintaining hydrostatic pressure, which may enhance joint lubrication.
- Labral tears disrupt the labral seal, destabilising the hip joint and can lead to degenerative changes.
- produces pain in the groin on rotatory movements of the hip
- hip may feel unstable or give way
- can be associated with deformity of the femoral head or acetabulum

Hip impingement:

- caused by jamming of an abnormally shaped femoral head into the acetabulum, or by contact between the acetabular rim and femoral head-neck junction
- symptoms may include; restriction of hip joint movement, pain, and 'clicking' of the hip
- typically exacerbated by hip flexion

Gluteal tendinopathy/tendon tear:

- Injury may occur suddenly or as a result of cumulative microtrauma from repetitive overloading
- may have Trendelenburg Gait
- limp or weakness on resisted hip abduction

Snapping tensor fascia lata:

- Iliotibial band, tensor fascia lata and gluteus maximus move across greater trochanter causing 'snapping'
- 'clunk' felt over the greater trochanter on internal and external rotation of the hip on a loaded leg

Determine likely cause of pain

Specific imaging and treatment options

Refer these patients to MSK triage

For suspected:

- snapping iliopsoas tendon
- torn acetabular labrum
- iliopsoas bursitis:
 - when the presentation is is acute, especially painful and accompanied by systemic features, the work-up should be aggressive and include imaging-guided aspiration

Advise initial self-management for these patients; if no improvement after 6 weeks refer for physiotherapy

For suspected:

- for greater trochanteric pain syndrome (trochanteric bursitis), consider:
 - rest
 - recommending weight loss, where appropriate, to reduce symptoms
 - ice packs
 - NSAIDs, if necessary
- ischial bursitis:
 - use of a cushion may help
 - consider local corticosteroid injection
- meralgia paraesthetica:
 - symptoms generally improve with conservative measures, such as:
 - weight loss
 - changes in clothing and shoes
 - activity modification, sport-specific alterations, e.g. cyclists
- hip impingement:
 - conservative measures include activity modification and NSAIDs treatment
 - surgery (arthroscopic or open) may be considered if there is failure of non-operative management
- gluteal tendinopathy/tendon tear:
 - imaging by ultrasound or MRI may be necessary
 - refer for physiotherapy
 - consider local anaesthetic and corticosteroid injection
 - surgical repair is rarely necessary
- iliopsoas bursitis:
 - when the presentation is not acute:
 - rest
 - recommending weight loss, where appropriate, to reduce symptoms
 - ice packs
 - NSAIDs, if necessary

Paget's disease

A chronic disorder in which bone turnover is accelerated in localised areas. Normal matrix is replaced with softened and enlarged bones.

There are usually no symptoms for a prolonged period. If symptoms occur, they develop insidiously with pain, stiffness, fatigue and bone deformity.

If suspected, plain x rays and serum alkaline phosphatase and Ca should be obtained.

A number of different radiological features have been described:

- In early disease - primarily lytic changes
 - V-shaped "cutting cone" in long bones
 - osteoporosis circumscripta in skull
- In the combined phase - mixed lytic and sclerotic
 - cortical thickening
 - loss of corticomedullary distinction
 - accentuated trabecular markings
- Late phase - primarily sclerotic
 - thickening of long bones
 - increase in bone size

Alkaline phosphatase is elevated, plasma calcium is usually normal, but may be raised if the patient has been immobile for a long time

Treatment is supportive care (analgesics, NSAIDs, orthotics) for symptoms and complications and bisphosphonates.

Some require surgery (e.g. hip or knee replacement, decompression of the spinal cord).

Source: <http://www.gpnotebook.co.uk/simplepage.cfm?ID=-1966079990>

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Self-management for 6 weeks

Link to Hip Pain from Arthritis UK: <http://www.arthritisresearchuk.org/arthritis-information/conditions/hip-pain.aspx>

Managing Pain, link to leaflet: <https://www.arthritiscare.org.uk/living-with-arthritis/managing-pain-and-fatigue>



Information for Patients

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Referral information for HCT MSK Triage Service

The administration team are based at the New QE2 hospital.

Appointments and General Enquires: **01707 247411 or 01707 247412 or 07884 547579**

E- referral enquiries via the MSK e-referral administration on: **01707 247416 or 07884 547579**

Referral to the service is via the NHS e-referral system (previously Choose and Book). Electronic screening of referrals takes place on a daily basis by clinicians. The referrals are either referred directly to secondary care where they manage the Choose and Book process, or seen for clinical assessment by the team to decide the appropriate pathway of care.

Clinics for assessment are held at The New QE2, Hertford County Hospital, Cheshunt Community Hospital and Lister Hospital.

The MSK Triage Service and the MSK Physiotherapy Service are both part of the whole integrated HCT MSK Service, and as such can refer directly to each other as appropriate.

The MSK Physiotherapy Service is a team of therapists specialised in the treatment and management of MSK Conditions and based over 6 sites in East and North Herts. (Referral for this team is via generic email – mskphysio.enherts@nhs.net).

The MSK Triage Service is a team of ESP (Physiotherapists by background) but with training and advanced skills for specialist assessment, referring for diagnostics and providing injection therapy. This team meets regularly for 3 MDT meetings with the appropriate Consultant Surgeons for the upper limb, lower limb and spine. Complex cases are discussed at these meetings to provide integrated care as necessary.



Initial self-management for 6 weeks

Link to [Arthritis Research UK Hip Pain](#) leaflet