

Differential diagnoses – conditions that may mimic spinal disorders

> Hip osteoarthritis > Vascular insufficiency > Diabetic neuropathy > Sacroiliac joint dysfunction > Abdominal aortic aneurism > Visceral disease

Clinical condition	Symptoms	Investigations	Management	Referral
Hip osteoarthritis	<p>Subjective assessment</p> <ul style="list-style-type: none"> > Most commonly: patient >40 yrs with main c/o gradual onset anterior hip or groin pain > Agg by WB activity, relieved by rest. Eventually becomes more constant and may experience night pain > C/o hip stiffness, particularly in am (<30mins) or after inactivity <p>Objective examination</p> <ul style="list-style-type: none"> > Decreased WB tolerance and altered gait > Reduced hip mobility with associated pain 	<ul style="list-style-type: none"> > Plain XR > +/- CBE (including ESR) to exclude systemic arthritis or infection 	<p>Consider:</p> <ul style="list-style-type: none"> > paracetamol protocol > NSAIDs (short course) > weight loss > hydrotherapy, general exercise > physiotherapy guidance with ROM and strengthening exercises > gait aid > chondroitin sulphate > glucosamine > high dose omega 3. 	<p>Refer to Hip Arthroplasty Clinic if symptoms are severe enough to consider surgical intervention.</p> <p>Referral to rheumatology if positive inflammatory markers.</p>
Vascular insufficiency	<p>Subjective assessment</p> <ul style="list-style-type: none"> > Can present with buttock, hip, thigh, calf or foot pain; separately or in combination > Most commonly: calf claudication. c/o cramping pain consistently reproduced with exercise and relieved with rest > Severe cases can cause ischaemic rest pain which typically occurs at night in digits or forefoot. This pain may be relieved by hanging the leg or by walking 	<ul style="list-style-type: none"> > Measurement of the resting ankle-brachial systolic pressure index (ABI) \leq 0.90 > Ultrasonography, CT, MRI > Arteriography 	<p>Medical treatment</p> <ul style="list-style-type: none"> > Reducing risk factors, exercise training, medication > Surgical revascularisation procedures 	<p>Referral to Vascular Surgery Outpatient Department.</p>

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	<p>Objective examination</p> <ul style="list-style-type: none"> > Diminished or absent pulses below the level of stenosis > Evidence of poor wound healing, unilateral cool extremity, prolonged venous filling time, shiny or atrophied skin, nail changes > Lower extremity bruits and positive Buerger test 			
<p>Diabetic polyneuropathy</p> <p>Other less common forms of diabetic neuropathy include:</p> <ul style="list-style-type: none"> > autonomic neuropathy > radiculopathies > mononeuropathies. 	<p>Subjective assessment</p> <ul style="list-style-type: none"> > Characterised by progressive, symmetrical loss of distal sensation, typically in a 'stocking-glove' distribution > May present with pain, paraesthesia or dysaesthesia of the feet > May progress to involve motor weakness <p>Objective examination</p> <ul style="list-style-type: none"> > Loss of vibratory sensation and altered proprioception through involved area > Impaired pain, light touch and temperature > Decreased or absent AJ reflexes occur early in the disease. More widespread reflex loss and motor weakness are late findings > Severe cases may involve the formation of foot ulcers, claw-toe deformity, and arthropathic changes 	<p>At least annually:</p> <ul style="list-style-type: none"> > check for history of neuropathic symptoms > careful clinical examination of the feet including observation, sensory evaluation (eg pin-prick, temperature, vibration, pressure sensation) and reflex testing > early detection is important. Therapeutic interventions to consider include: patient education, regular foot surveillance, improved glycaemic control 	<p>Early detection is important. Therapeutic interventions to consider include:</p> <ul style="list-style-type: none"> > patient education > regular foot surveillance > improved glycaemic control > adequate control of pain (if present). 	<p>Referral to Outpatient Diabetes Service if required.</p> <p>Consider podiatry referral (if indicated).</p>

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Sacroiliac joint dysfunction	<p>Subjective assessment</p> <ul style="list-style-type: none"> > C/o pain in lower back or posterior hip region. May also be present in groin and thighs. Usually unilateral but may be bilateral > Aggravated by standing, walking, stairs <p>Objective examination</p> <ul style="list-style-type: none"> > Palpable tenderness over the joint line > Commonly used tests to identify dysfunction include the Gillet test, standing/seated flexion tests and various provocation tests. (The reliability of individual tests shown to be low) 	<ul style="list-style-type: none"> > Consider: XR, CT, MRI, bone scan/SPECT scan > Consider CBE (including ESR) to exclude systemic inflammatory condition 	<p>Conservative management strategies may include:</p> <ul style="list-style-type: none"> > NSAIDs > physiotherapy > SIJ belt > strengthening and stabilising exercises. <p>Local cortisone injection could be considered.</p>	<p>Referral to Orthopaedic Outpatient Department if conservative management approach is unsuccessful.</p>
Abdominal aortic aneurism	<p>Subjective assessment</p> <ul style="list-style-type: none"> > Recent onset of abdominal or back pain may suggest aneurism expansion > A clear mechanical cause of back pain is not reported > Pain is constant and unrelated to spinal movement <p>Objective examination</p> <ul style="list-style-type: none"> > Pulsatile, expansile mass at or above the umbilicus > Auscultation of the abdomen may reveal bruit or machinery murmur > Hypotensive 	<ul style="list-style-type: none"> > An asymptomatic AAA may be discovered incidentally on abdominal US, CT or MRI for other purposes > Further investigation with US is the preferred modality for screening and monitoring 	<ul style="list-style-type: none"> > Appropriate patient selection and timing for aneurism repair is based on identifying individuals at greatest risk of rupture > Attention to risk factor reduction is important, including smoking cessation > Once rupture occurs emergency repair is indicated but mortality is extremely high 	<p>Referral to Vascular Outpatient Department if AAA detected.</p> <p>AAA rupture is a medical emergency.</p>

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<p>Visceral disease</p> <ul style="list-style-type: none"> > Disease of pelvic organs (prostatitis, endometriosis, PID) > Renal disease > Gastrointestinal disease (pancreatitis, cholecystitis, penetrating ulcer, inflammatory bowel disease) > Visceral carcinoma 	<p>Subjective assessment</p> <ul style="list-style-type: none"> > Patient typically describes insidious onset of vaguely distributed LBP. The pain occurs without relationship to mechanical loading of the spine and is not relieved by rest > Associated symptoms related to the visceral organs involved are likely to be reported <p>Objective examination</p> <ul style="list-style-type: none"> > Lumbar examination reveals satisfactory ROM throughout with minimal discomfort, and no neurological deficits > Further medical examination may suggest the presence of visceral disease 	<ul style="list-style-type: none"> > Investigation of visceral disease as indicated by clinical presentation > If LBP does not improve in association with improvement in medical condition; consider further investigations after 12 weeks > Investigations (eg imaging, CBE) to exclude visceral carcinoma if indicated 	<ul style="list-style-type: none"> > Improvement/resolution of LBP is expected in association with treatment/ improvement in visceral disease 	<p>Referral for specialist opinion as appropriate.</p>