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Joint Pain 3: Lower Limb

	Hx Clues	Physical Exam	Top DDX
Hip Pain	Lateral sided hip pain, esp. when lying on side. ♀ > ♂	Pain on palpation of greater trochanter	Trochanteric Bursitis
	Activity related groin & hip pain. Worse with flexion/sitting	Flexion/adduction/IR = pain Decreased ROM	Femoroacetabular impingement
	Children 4-8y; ♂ > ♀; Insidious onset	± mild limp; ROM - restricted aBduction & IR 1 st affected	Legg-Calve-Perthes
	Children <6y	Limp ± refusal to weight bear	Transient Synovitis
	♂ > ♀; 10-17y, ↑BMI	Limp; limited ROM; ± weight bear; ± knee pain	Slipped Capital Femoral Epiphysis

	Hx Clues	Physical Exam	Top DDX
Knee Pain	Acute: plant & twist mechanism of injury Degen.: Older patient	Joint line tenderness; ± effusion; ± locking & clicking (+) McMurray's test; (+) Thessaly test	Acute/ Degenerative Meniscal Tear
	Teens/young adults; runner; pain with ↑sitting	Tender patella; (+) patellar friction test;	Patellofemoral syndrome
	Valgus, external rotation, pop, swelling right away; ♀ > ♂	(+) Lachman > (+) Anterior drawer; swollen; may also be findings suggestive of MCL or meniscal involvement	ACL tear
	Pain after → during activity (e.g. jumping)	Superior patellar pole tender (quad) Inferior patella pole tender (patellar)	Patellar/quad tendonitis
	Adolescence; worse after activity;	Prominence & tenderness of tibial tuberosity; often bilateral	Osgood-Schlatter's
	Acute/cumulative trauma; ++kneeling	Swelling over extensor aspect No pain on passive ROM (± full flexion)	Prepatellar bursitis
	Medial pain; ♀ > ♂; long distance runners	Severe point tenderness at anserine tendon insertion site	Pes anserine bursitis
	Hx instability; gradual onset	Possible ↑Q-Angle or leg length discrepancy; observed maltracking	Patellar maltracking
Lateral knee pain; runner/cyclist	Tenderness to palpation over iliotibial band	IT Band Syndrome	

	Hx Clues	Physical Exam	Top DDX
Foot Pain	Inferior heel pain; activity with lots of standing; more severe in morning; often recent Δ in activity/footwear	Tender along plantar fascia insertion (bottom medial side of heel)	Plantar fasciitis
	Heel pain in physically active individuals; more severe in morning	Pain, tenderness and swelling at tendon site	Achilles tendonitis

General Management Principles

- ① Rest ② Ice ③ Activity modification ④ PT/Strength building/Stretching
- ⑤ Analgesics/NSAIDs (if indicated) ⑥ Steroid injection (if refractory & indicated)
- ⑦ Aspirate & assess fluid **when suspicious for septic joint/bursa** ⑧ X-ray may be warranted - **especially in child with limp** ⑨ Surgery - depends on situation

Key References: 1) Solomon DH, Simel DL, Bates DW, Katz JN, Schaffer JL. The rational clinical examination. Does this patient have a torn meniscus or ligament of the knee? Value of the physical examination. *JAMA* 2001; 286(13):1610-20
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