



Pediatric limp is an abnormal gait due to pain, weakness, or structural abnormality

DIFFERENTIAL DIAGNOSIS

- **MSK:** strains, sprains, fracture, acute slipped capital femoral epiphysis (SCFE), hip dysplasia
- **Infectious:** septic arthritis (SA), osteomyelitis, cellulitis
- **Post-infectious:** reactive arthritis, transient synovitis, viral myositis
- **Rheumatologic:** JIA flare
- **Malignancy:** leukemia

PRESENTATION

HISTORY	PHYSICAL EXAM
■ Onset: Days to < 6 weeks ■ Pain: location, severity, night pain, worse with activity, morning stiffness ■ Systemic Symptoms: recent illness, fever, chills, night sweats, weight loss ■ Ability to bear weight ■ Radiation: knee pain may refer from the hip ■ Family History: sickle cell disease (vaso-occlusive crisis or AVN of the femoral head), JIA, osteochondritis dissecans.	Gait exam ■ Antalgic/asymmetric gait, toe walking, pelvic asymmetry Limb exam ■ Swelling, Erythema, Atrophy, Deformity, and Scars (SEADS), leg length discrepancy + external rotation ■ Examine hip, knee, ankle ■ Active and passive ROM ■ Palpate for warmth, tenderness Special Tests ■ Flexion, Abduction, External Rotation (FABER) ■ Log Roll

DIAGNOSIS

Investigation is guided by the differential diagnosis.	INVESTIGATION	IF CONSIDERING A DIAGNOSIS OF...
Investigations may be required if:	X-ray (AP + Frog-Leg views)	Trauma, acute SCFE
	MRI	Osteomyelitis, ligament tears
	Ultrasound	Role in aspiration and effusion detection
	Blood work (CBC+D, CRP/ESR, CK, ANA, uric acid)	Septic arthritis, osteomyelitis, rheumatologic disorders
	Cultures (blood, synovial fluid)	Septic arthritis, osteomyelitis
■ Acute injury ■ Fever or signs of infection ■ Inability to weight bear ■ Significant ROM limitation	Synovial fluid aspiration	Septic Arthritis, JIA, reactive arthritis



IMPORTANT:

Septic arthritis is limb and life threatening = CAN'T MISS
Non-accidental injury requires mandatory reporting

RED FLAG SYMPTOMS

Fever + Limp
Refusal to weight bear
Neurovascular compromise

Management depends on etiology!

MANAGEMENT

ACTIVITY	MEDICAL	SURGICAL	CONSULTATIONS
■ Rest, Ice, Compression, Elevation protocol ■ Progressive strengthening exercises	■ Antibiotics if acute infection ■ NSAIDs +/- DMARDs for rheumatic conditions ■ NSAIDs for analgesia; many of these conditions are painful!	■ Joint aspiration +/- irrigation & debridement for septic arthritis ■ Fracture fixation ■ SCFE fixation	■ Physiatry: comprehensive assessment and rehab ■ Rheumatology: autoimmune causes ■ Orthopedic surgery: structural causes ■ Physio: strengthening

October 2026

Colton Sandberg (Medical Student, University of Alberta), Dr. Eric Bhatti (Pediatric Physical Medicine & Rehabilitation, University of Alberta) for www.pedscases.com