

Radiology Checklist for Pelvis and Hip Pain

Imaging Findings	Cause
Bone Abnormalities	
Discontinuous cortex and displaced bone fragment on XR, CT, and MR; abnormal marrow signal on MR	Fracture
Fracture line or abnormal alignment on XR, CT, and MR; abnormal marrow SI on MR	Stress fracture
Sclerosis and collapse on XR or CT; “double line” sign along with abnormal contour on MR	Avascular necrosis
Acetabular calcification on XR and CT; abnormal contour of femoral head on XR, CT, and MR; premature OA	Femoroacetabular impingement
Destroyed bone cortex, absent trabeculae, associated soft tissue mass on XR, CT, and MR; increased (with blastic) versus decreased (with lytic) bone density on XR, CT; abnormal bone marrow SI with MR	Primary and metastatic bone tumors
Osteopenia on XR and CT; abnormal marrow SI on MR	Bone marrow edema syndrome
	Paget disease
	Fibrous dysplasia
Articular Tissue Abnormalities	
Displaced femoral head on XR, CT, and MR	Hip dislocation
Osteophytes, joint space narrowing, subchondral sclerosis or cysts, joint effusion on XR, CT, and MR; focal articular cartilage defects on MR, CT-arthrography, and MR-arthrography	Osteoarthritis
Loss of joint space, erosions, and joint effusion on XR, CT, and MR; abnormal marrow SI MR	Rheumatoid arthritis
Chondrocalcinosis and/or soft tissue calcifications on XR, CT, MR; secondary osteoarthritis on XR, CT, and MR	Crystal arthropathy
Uniform narrowing of the hip joint on XR, CT, and MR; fusion of the SI joint	Ankylosing spondylitis
None on XR; defect on MR (best seen on MR arthrogram or 3.0T MR)	Labral tear
Loss of joint space, periostitis (with osteomyelitis) on XR, CT, and MR; abnormal marrow SI on MR	Infection
Erosions with chronic disease on XR, CT, and MR; soft tissue lesions in the joint space on MR	Villonodular synovitis
Juxta-articular Tissue Abnormalities	
None on XR; displaced labrum; fluid within the labrum on CT-arthrography, MR, and MR-arthrography	Labral tear
None on XR; increased fluid in the bursa on MR	Bursitis
None on XR; herniated fat or bowel on CT or MR	Hernia
None on XR or CT; swelling, abnormal SI, or peritendinous fluid on MR	Tendinopathy including tendon tear
Mass with non-enhancing fluid center.	Abscess
Soft tissue mass showing evolving SI.	Heterotopic ossification
Ovarian mass showing mixed SI including fat.	Ovarian dermoid

DICTIONARY TEMPLATE WITH PROMPTS FOR PELVIS/HIP RADIOGRAPHS PERFORMED FOR PELVIS/HIP PAIN

HIP RADIOGRAPHS

INDICATION: Hip pain.

COMPARISON: [Check priors to see if following a known lesion.]

TECHNIQUE: [].

Bones: Discontinuity or displaced fragment (fracture). Periostitis (infection or stress fracture). Erosion (infection, inflammatory arthropathy, villonodular synovitis). Osteophytes or subchondral cysts (osteoarthritis). Focal increased density or femoral head contour abnormality (avascular necrosis of the femoral head). Destruction (tumor). Peri-articular lucency (inflammatory arthropathy, bone marrow edema syndrome). Abnormal contour of the femoral head/neck junction (femoroacetabular impingement).

Joints: [Joint space narrowing (arthritis). Osteophytes (osteoarthritis). Chondrocalcinosis (crystal arthropathy). Sacro-iliac joint fusion (ankylosing spondylitis).

Juxta-articular tissues: [Calcification of the synovium or symphysis pubis (crystal arthropathy).

IMPRESSION: []

DICTIONARY TEMPLATE WITH PROMPTS FOR PELVIS/HIP MRI PERFORMED FOR PELVIS/HIP PAIN

MRI HIP

INDICATION: Hip pain.

COMPARISON STUDIES: [Check priors to see if following a known lesion.]

TECHNIQUE: []

FINDINGS:

Bones: [Discontinuous cortex (fracture, tumor, inflammation, or infection). Erosion (inflammatory arthropathy, infection). Increased signal on T2 weighted images (subchondral marrow degenerative changes, contusion, fracture, tumor, infection, avascular necrosis). “Double line” sign (avascular necrosis). Diffuse abnormal signal intensity (bone marrow edema syndrome).]

Articulations: Cartilage loss (arthritis). Joint effusion (arthritis, trauma, infection). Filling defects within the hip joint fluid (loose bodies, villonodular synovitis). Labral tear.

Juxta-articular tissues: [Focal fluid signal intensity collection (ganglion).]

Tendons: [Intrinsic tendon signal or swelling (partial thickness tendon tear) or discontinuity (full thickness tendon tear).]

Bursae: [Excessive fluid in the hip joint bursae (bursitis).]

Intra-abdominal tissues: [Extension of intra-abdominal contents outside the abdomen (hernia). No pelvic soft tissue mass showing fluid signal intensity in the center (abscess). Ovarian lesion (dermoid etc.).]

IMPRESSION: []