

Checklist for Plain Films of the Knee

Imaging Findings	Cause
Bone Abnormalities	
Discontinuous cortex, displaced bone fragment, and joint effusion on XR, CT, and MR; abnormal marrow SI on MR	Fracture
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
Increased bone density on XR, CT; abnormal contour on XR, CT, and MR; abnormal marrow SI with “double line” on MR	Avascular necrosis
	SPONK
	Bipartite patella
Articular Abnormalities	
Discontinuous cortex and displaced bone fragment on XR, CT, and MR (when accompanied by an avulsion fracture); joint effusion on XR, CT, and MR; cartilage defect and/or abnormal subchondral marrow and/or medial retinacula SI in the medial patella and lateral femoral condyle on MR	Dislocation of the patella
Discontinuous cortex and displaced bone fragment on XR, CT, and MR (when accompanied by an avulsion fracture); posteriorly displaced femur relative to the tibia (ACL) and/or joint effusion on XR, CT, and MR; discontinuity on CT-arthrogram; abnormal SI or discontinuity of the ligament and/or abnormal subchondral bone marrow SI on MR	Cruciate ligament tear
Discontinuous cortex and displaced bone fragment on XR, CT, and MR (when accompanied by an avulsion fracture); abnormal SI or discontinuity of the ligament on MR	Collateral ligament tear
Displaced bones on XR, CT, and MR	Dislocation of the knee joint
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
Swelling from joint effusion, loss of joint space, periostitis (with osteomyelitis) on XR, CT, and MR; abnormal marrow SI on MR	Septic arthritis
Cartilage loss; abnormal cartilage or subchondral bone marrow signal on MR	Patellofemoral syndrome
Contour abnormality or focal lucency on XR and CT; abnormal SI on MR	Osteochondritis dessicans
Extra-articular Soft Tissue Abnormalities	
None on XR; swelling, increased SI, or discontinuity of the tendon and/or peritendinous fluid on MR	Tendinopathy or partial or full

	thickness tendon tear
None on XR; increased fluid in the bursa on MR	Bursitis
Joint effusion on XR, CT, and MR; displaced meniscus or abnormal SI reaching the articular surface on two consecutive MR cuts	Meniscal tear
Swelling; fluid collection on MR; abnormal SI over the gastrocnemius following cyst rupture on MR; associated internal derangement (e.g. meniscal tear, extensive articular cartilage abnormality) on MR	Baker's cyst (popliteal cyst)
None on XR; increased SI on MR	Iliotibial band syndrome
None on XR; filling defect and lack of compressibility on US	Deep venous thrombus
Soft tissue swelling on XR; mass with nonenhancing fluid centrally on MR	Infection of the soft tissue
Erosions with chronic disease on XR; soft tissue lesions in the joint space on MR	Villonodular synovitis

Dictation Template with Prompts for Knee Radiographs Performed for Knee Pain

KNEE RADIOGRAPHS

INDICATION: Knee pain.

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

TECHNIQUE: [].

Bones: [Discontinuous cortex or displaced fragment (fracture). Periostitis (infection). Erosion (infection, inflammatory arthropathy, villonodular synovitis). Osteophytes or subchondral cysts (osteoarthritis). Focal increased density or femoral condyle contour abnormality (avascular necrosis). Destruction (tumor). Peri-articular lucency (inflammatory arthropathy).]

Joints: [Narrow joint space (arthritis). Osteophytes (osteoarthritis). Chondrocalcinosis (crystal arthropathy).]

Extra-articular soft tissues: [Calcification of the articular cartilage, menisci, synovium, or surrounding soft tissue (crystal arthropathy).]

IMPRESSION: []

DICTIONARY TEMPLATE WITH PROMPTS FOR KNEE MRI PERFORMED FOR KNEE PAIN

MRI KNEE

INDICATION: Knee pain.

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

TECHNIQUE: []

FINDINGS:

Bones: [Discontinuity (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).]

Joints:

Joint fluid: [Effusion. Filling defect (loose body in the joint).]

Articular cartilage: [Loss (arthritis). Focal defect (osteochondral defect).]

Menisci: [Signal extending to the articular margin on two consecutive cuts (tear). Flipped fragment (tear).]

Cruciate ligaments: [Discontinuity (tear).]

Collateral ligaments: [Discontinuity (tear).]

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

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

Bursae: [Expansion of the gastrocnemius-semimembranosus bursa (popliteal/Baker’s cyst).]

Expansion of other bursae (bursitis).]

Patellar retinacula: [Discontinuity (tear).]

IMPRESSION: []