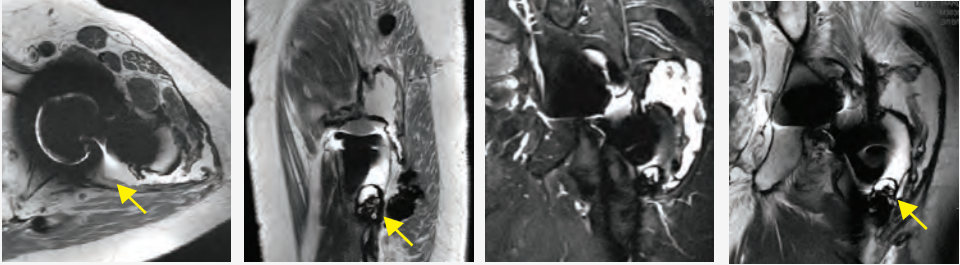


Joint Prosthesis MRI with MARS Technique

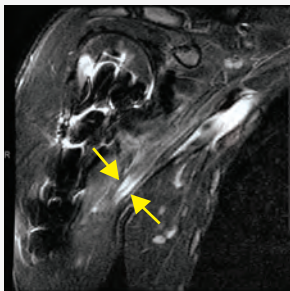


Hip Prosthesis Case – Hip implant metallic hypersensitivity reaction. Findings compatible with chronic, indolent metal hypersensitivity disease marked by dehiscence of the left hip pseudocapsule and extensive deposition of low signal metal debris within the joint capsule and a communicating trochanteric bursa.

Associated prominent region of osteolysis is seen at the posterior aspect of the proximal femoral metaphysis (Gruen zone 12/13). More subtle osteolysis noted at the anterior and lateral margins of the acetabular dome.

MR Neurography

MR Neurography is high resolution MRI of peripheral nerves. The studies can evaluate for the location and degree of nerve injury, nerve compression or scarring, neuritis, and nerve sheath tumors. Typical exams include the MR Neurography of the brachial plexus, lumbosacral plexus, sciatic nerve, peroneal nerves, ulnar nerve, etc. Denervation changes in the muscles supplied by the nerves can also be assessed.



Case 1 Brachial plexus

20 year old male with brachial plexopathy after being struck by a car. MRI shows stretch injury without nerve transection at the confluence of the medial and lateral cords of the brachial plexus forming the median nerve. Metal hardware in the proximal humerus does not interfere with the study.



Case 2 Ulnar nerve

34 year old male with ulnar neuropathy following elbow dislocation and surgery. MRI shows stretch injury without nerve transection at the level of the elbow. There is diffuse nerve edema distal to the site of injury, presumably due to Wallerian degeneration.



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Musculoskeletal Service Highlights

Sub-Specialized MSK Radiologists

3.0T Ultra High Field MRI

Neurography

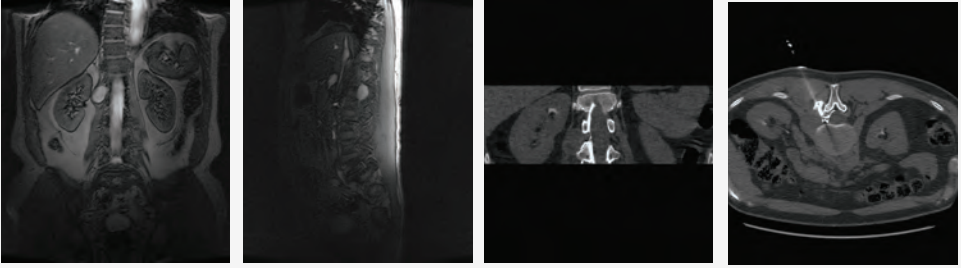
Cartilage Mapping

Pain Management

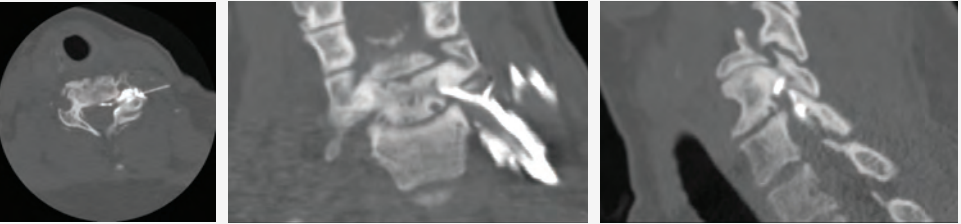
CT

Ultrasound Guided Procedures

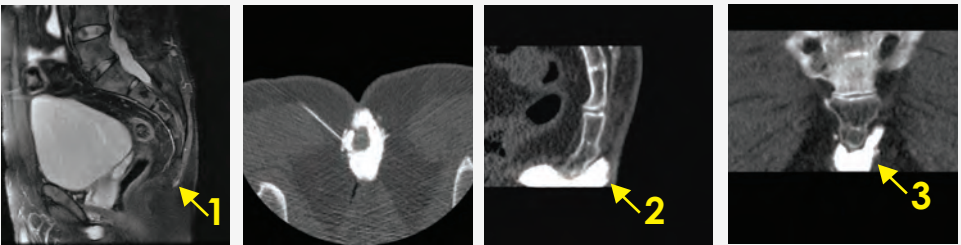
CT and Ultrasound Guided MSK Interventions



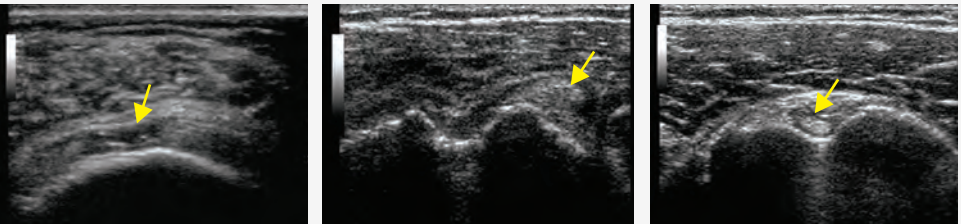
CT-Guided Nerve Block – 40 year male patient presents with persistent pain and discomfort along the right groin area. He has an outside MRI which shows a schwannoma in the proximal right L1 nerve root outside the foramen. This is a presurgical nerve block to determine if there is significant neurological deficit to the right lower extremity.



CT-Guided Selective Nerve Root Injection – 52 year old woman presents with severe left C7 radiculopathy. Left C7 selective nerve root injection of steroids and anesthetics.



CT-Guided Pain Management – 50 year old gentleman presents with severe coccydynia. **1)** Subtle fluid/inflammation of the coccyx, **2) & 3)** Medication injected in area of inflammation



MSK Ultrasound Imaging – Rotator Cuff Tear & Dislocated Biceps Tendon