

**SELECT HEALTH NETWORK, INC.
PHYSICIAN PRACTICE GUIDELINES**

SUBJECT: MRI Shoulder

Date Issued: 08/04

**Date Revised: 10/08, 10/09, 02/12, 3/13, 3/14, 3/15, 3/16, 2/17, 3/18, 2/19, 2/20
2/21**

Sources: Milliman Inc.
<https://acsearch.acr.org/docs/69433/Narrative/>
<https://acsearch.acr.org/docs/69433/EvidenceTable/>
<https://acsearch.acr.org/docs/3101482/Narrative/>
<https://acsearch.acr.org/docs/3097211/Narrative/>
<http://www.diagnosticimaging.com/mri/ge-unveils-mr-protocol-patients-metal-implants>

General Guidelines: MRI is not indicated for shoulder pain alone.

Indications:

- I. MRI shoulder is indicated for Shoulder Pain and ANY ONE of the following:
 - A. Suspected rotator cuff tears as indicated by ANY ONE of the following:
 1. Shoulder pain consistent with rotator cuff tear (eg, rest pain, pain radiating down lateral portion of arm, nocturnal pain) that has not responded to at least 6 weeks of nonoperative treatment; examples include:
 2. Nsaids
 3. Physical Therapy
 4. Corticosteroid injections
 5. Weakness with strength testing of rotator cuff, particularly with external rotation or supraspinatus test
 6. Previous rotator cuff repair, suspect re-tear. (MR Arthrography is considered equivalent to Non contrast MRI)
 - B. Chronic shoulder pain of unclear etiology and ANY ONE of the following:
 1. Normal results of plain xrays of the shoulder
 2. No improvement with at least 6 weeks of nonoperative treatment; examples include:
 - a. Rest
 - b. Nsaids
 - c. Physical Therapy
 3. Indeterminate lesions on plain xray or CT scan
 4. Anterior or posterior instability of shoulder
 5. Recurrent anterior subluxation findings may include:
 - a. Pain with overhead activities
 - b. Sensation of glenohumeral slipping with certain arm positions or complete dislocation of glenohumeral joint
 - c. Dead arm syndrome (ie, numbness, tingling, or transient loss of sensation with certain positions)

6. Suspected labral tears, including superior labrum anterior and posterior (Slap) lesions (MR Arthrography is preferred over non contrast MRI)
7. Pain after violent trauma
8. Evaluation of biceps tendon for ANY ONE of the following:
 - a. Pain that is unresponsive to Nsaids and physical therapy
 - b. Instability or weakness indicating tendon tear
9. Suspected osteonecrosis or osteochondritis dissecans as indicated by ANY ONE of the following:
 - a. Shoulder pain, stiffness and swelling associated with localized tenderness to pressure
 - b. Persistent shoulder pain in patient with sickle cell anemia or chronic corticosteroid usage
 - c. Focal radiolucency on plain xray of shoulder
 - d. Bone scan demonstrates well localized increased uptake

- II. MRI of shoulder is indicated for bone neoplasm and ANY ONE of the following:
- A. Abnormal findings on plain xray or bone scan
 - B. Palpable bony abnormality with normal plain xray
 - C. Known diagnosis of cancer located elsewhere and ANY ONE of the following:
 1. Unexplained localized signs and symptoms
 2. Abnormal finding on plain xray or bone scan
 - D. Pain of unclear etiology
 - E. Ewing Sarcoma or osteosarcoma and ANY ONE of the following:
 1. Initial staging
 2. Post treatment monitoring
 3. Surveillance for tumor recurrence including ANY ONE of the following:
 - a. Every 3 months for 2 years
 - b. Every 4 months for year 3
 - c. Every 6 months for year 4 and 5
 - d. Annually after 5 years

- III. MRI of shoulder is indicated for soft tissue mass, tumor or other abnormalities for ANY ONE of the following:
- A. Soft tissue mass and ANY ONE of the following:
 1. Deep or large masses
 2. Masses that cross anatomic boundaries
 3. Concern for effect on adjacent anatomic structure
 4. Vascular lesions, particularly in child and ANY ONE of the following:
 - a. Growth
 - b. Change in color of overlying skin
 - c. Causing pain
 - d. Progressively enlarging
 5. Soft tissue sarcoma and ANY ONE of the following:
 - a. Initial staging
 - b. Within 3 months after treatment completed
 - c. Post treatment surveillance annually

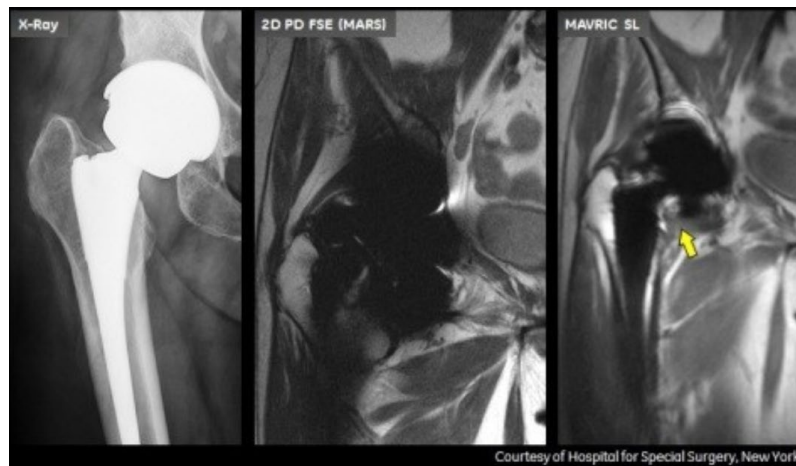
- d. Abnormal physical findings after treatment completed.
- 6. Soft tissue muscle abscess, when performed for planning of biopsy or surgical treatment
- 7. Suspected muscle tear

IV. MRI of shoulder in setting of infection

- A. Septic arthritis to evaluate for osteomyelitis and monitor success of treatment

V. MRI Shoulder in setting of shoulder prosthesis

- A. MAVRIC protocol (2013) to image soft tissues around a prosthesis—tendon and muscle pathology—tendon tears, tendonitis, bursitis, etc. GE scanner at SJRMC
- B. All non-osseous pathology/indications listed above
- C.



- VI. MRI shoulder is indicated for chronic shoulder pain and suspicions for inflammatory arthritis (e.g. rheumatoid arthritis, seronegative spondyloarthropathy, and gout).