

**MRI (Magnetic Resonance Imaging) - Hip Protocol**

Name \_\_\_\_\_ Today's Date \_\_\_\_\_

Diagnosis ICD-9 719.85 Hip R / L

Imaging studies ordered: Hip MRI with femoroacetabular impingement radiographic parameters

Image acquisition:

- 1.5-T minimum or 3.0-T preferred magnet strength
- Surface phased array coil or multiple channel, cardiac coil preferred
- Small field of view preferable (14 to 16 cm)
- At least 256 to 320 x 224 to 256 matrix (512 x 512 matrix, if possible)
- Section thickness 3 to 4 mm
- Do not perform arthrogram contrast imaging or intravenous contrast imaging

Series performed:

- T1-weighted fat-suppressed images in standard coronal, sagittal, and axial oblique (along femoral neck) planes
- Either T2-weighted fat-suppressed coronal or STIR (short-tau inversion recovery) coronal
- Either T2-weighted fat-suppressed coronal or STIR (short-tau inversion recovery) sagittal
- Non-fat-suppressed T1-weighted axial
- Radial imaging: (Please see pages E105 - E110 from attached document for further information - RadioGraphics; 2013; 33:E97-E112; May-June issue)
  - Adds less than 7 minutes to total scanning time
  - No post-processing is needed
  - Axial oblique and coronal localizer images obtained first, and the plane of section is adjusted so that it goes through the edge of the acetabular rim on both localizer images.
  - The resultant en face image, which is obtained in the plane of the acetabular opening, serves as the localizer image on which the radial sections are prescribed.
  - 12 radial images acquired, at half-hour intervals on a clockface
  - Direct acquisition with SPAIR (spectral presaturation attenuated inversion recovery) sequence with proton-density weighting and the following imaging parameters:
    - Matrix, 448x448
    - In-plane spatial resolution, 3.5 x 3.5 mm<sup>2</sup>
    - Section thickness, 4 mm
    - Repetition time, 3110 msec
    - Echo time, 25 msec
    - Flip angle, 150°
    - Technologist sends the en face image and the radial sections

Position: Supine; Please keep feet and toes turned inward toward each other and taped together, so toes pointing straight up.

Comments: Please no intra-articular contrast (arthrogram). Please call Dr Joshua Harris at 713-441-8393 with questions.

Signature \_\_\_\_\_ Date \_\_\_\_\_