*National Imaging Associates, Inc.	
Clinical guidelines **LOW FIELD MRI**	**Original Date: July 2009**
CPT Codes: S8042	**Last Revised Date: March 2023**
Guideline Number: NIA_CG_064	**Implementation Date: January 2024**

GENERAL INFORMATION

- *It is an expectation that all patients receive care/services from a licensed clinician. All appropriate supporting documentation, including recent pertinent office visit notes, laboratory data, and results of any special testing must be provided. If applicable: All prior relevant imaging results and the reason that alternative imaging cannot be performed must be included in the documentation submitted.*
- *Where a specific clinical indication is not directly addressed in this guideline, medical necessity determination will be made based on widely accepted standard of care criteria. These criteria are supported by evidence-based or peer-reviewed sources such as medical literature, societal guidelines and state/national recommendations.*

IMPORTANT NOTE

Low Field MRI services are not considered to be medically necessary, are not approvable for payment, and cannot be approved.

BACKGROUND

MRI scanners with a field strength of greater than 1.0 Tesla (T) are considered high field. The typical high field MRI units in clinical practice range between 1.0 – 3.0 Tesla. In October 2017 the FDA cleared the first 7 T MRI units.[1] The definition of mid and low field MRI is more variable with mid field units having a lower field strength range of 0.3 to 0.5 and an upper limit under 1.0 T. Low field units have field strengths below 0.3 to 0.2 T. The major disadvantage of low field strength MRI relative to higher field scanners is lower signal to noise ratios, less homogeneity in the magnetic field, lower detection of calcification, hemorrhage, or gadolinium enhancement. Lee et al showed that low field (<0.5 T) units were effective in evaluating medial meniscal, anterior cruciate ligament, and rotator cuff tears but not effective for evaluating lateral meniscal tears, osteochondral defects, or shoulder superior labrum-anterior posterior (SLAP) ligament complex pathology.[2, 3]

REFERENCES

1. FDA News Release: FDA clears first 7T magnetic resonance imaging device. U.S. Food & Drug Administration. Updated October 12, 2017. Accessed December 14, 2022. https://www.fda.gov/news-events/press-announcements/fda-clears-first-7t-magnetic-resonance-imaging-device
2. Lee CS, Davis SM, McGroder C, Stetson WB, Powell SE. Analysis of Low-Field Magnetic Resonance Imaging Scanners for Evaluation of Knee Pathology Based on Arthroscopy. *Orthop J Sports Med*. 2013;1(7):2325967113513423-2325967113513423. doi:10.1177/2325967113513423
3. Lee CS, Davis SM, McGroder C, et al. Analysis of Low-Field MRI Scanners for Evaluation of Shoulder Pathology Based on Arthroscopy. *Orthop J Sports Med*. 2014;2(7):2325967114540407-2325967114540407. doi:10.1177/2325967114540407

POLICY HISTORY

Date	Summary
March 2023	• General Information moved to beginning of guideline with added statement on clinical indications not addressed in this guideline • Removed Additional Resources
April 2022	No changes

Reviewed / Approved by NIA Clinical Guideline Committee

Disclaimer: *National Imaging Associates, Inc. (NIA) authorization policies do not constitute medical advice and are not intended to govern or otherwise influence the practice of medicine. These policies are not meant to supplant your normal procedures, evaluation, diagnosis, treatment and/or care plans for your patients. Your professional judgement must be exercised and followed in all respects with regard to the treatment and care of your patients. These policies apply to all Evolent Health LLC subsidiaries including, but not limited to, National Imaging Associates ("NIA"). The policies constitute only the reimbursement and coverage guidelines of NIA. Coverage for services varies for individual members in accordance with the terms and conditions of applicable Certificates of Coverage, Summary Plan Descriptions, or contracts with governing regulatory agencies. NIA reserves the right to review and update the guidelines at its sole discretion. Notice of such changes, if necessary, shall be provided in accordance with the terms and conditions of provider agreements and any applicable laws or regulations.*