

Molina Clinical Policy

Lumbar Spine MRI: Policy No. 621

Last Approval: 12/13/2023

Next Review Due By: December 2024



DISCLAIMER

This Molina Clinical Policy (MCP) is intended to facilitate the Utilization Management process. Policies are not a supplementation or recommendation for treatment; Providers are solely responsible for the diagnosis, treatment and clinical recommendations for the Member. It expresses Molina's determination as to whether certain services or supplies are medically necessary, experimental, investigational, or cosmetic for purposes of determining appropriateness of payment. The conclusion that a particular service or supply is medically necessary does not constitute a representation or warranty that this service or supply is covered (e.g., will be paid for by Molina) for a particular Member. The Member's benefit plan determines coverage – each benefit plan defines which services are covered, which are excluded, and which are subject to dollar caps or other limits. Members and their Providers will need to consult the Member's benefit plan to determine if there are any exclusion(s) or other benefit limitations applicable to this service or supply. If there is a discrepancy between this policy and a Member's plan of benefits, the benefits plan will govern. In addition, coverage may be mandated by applicable legal requirements of a State, the Federal government or CMS for Medicare and Medicaid Members. CMS's Coverage Database can be found on the CMS website. The coverage directive(s) and criteria from an existing National Coverage Determination (NCD) or Local Coverage Determination (LCD) will supersede the contents of this MCP and provide the directive for all Medicare members. References included were accurate at the time of policy approval and publication.

OVERVIEW

Magnetic resonance imaging (MRI) involves multiplanar imaging based on an interaction between radiofrequency electromagnetic fields and certain nuclei in the body (typically hydrogen nuclei) once a body has been placed in a strong magnetic field. MRI distinguishes between normal and abnormal tissues to give providers a sensitive examination to identify disease. The sensitivity correlates with the high degree of inherent contrast due to variations in the magnetic relaxation properties of different tissues (normal and diseased), and the necessity of the MRI signal on tissue properties (ACR 2022).

A lumbosacral spine MRI uses powerful magnets and radio waves to create pictures of the structures that make up the spine, the spinal cord, and the spaces between the vertebrae, through which the nerves travel. An MRI does not use radiation (x-rays). Sensitivity is high for lumbar spine MRI to evaluate the vertebral bodies, disc spaces, spinal canal (including the meninges), spinal cord, conus, cauda equina, and exiting nerve roots (Balasubramanya & Selvarajan 2023). For patients with low back pain requiring advanced imaging, lumbar spine MRI is typically the standard of care as it provides axial and sagittal views. This type of MRI also makes visible the discs, ligaments, nerve roots, epidural fat, and the shape and size of the spinal canal. In addition, lumbar spine MRI can more easily detect spinal infection and malignancies. In cases where cancer, infection, or immunosuppression is suspected, MRI is performed without and with intravenous contrast to analyze the underlying infection or mass. Enhancement with gadolinium also allows the distinction of scar from disc in patients with prior back surgery. If a patient is unable to undergo MRI, lumbar spine computed tomography (CT) with contrast is recommended (Wheeler et al. 2022).

For patients with spine trauma, lumbar spine MRI analyzes the integrity of spinal ligaments and surrounding soft tissues. CT is preferred to visualize the characteristics of vertebral fractures – MRI is considered unnecessary for the management and treatment of specific fractures. MRI is performed when CT or plain radiographs demonstrate a thoracolumbar burst fracture to characterize the integrity of the posterior ligamentous complex. MRI is also used to assess the spinal cord injuries of trauma patients with neurologic deficits or symptoms (Kaji 2023).

COVERAGE POLICY

Lumbar Spine magnetic resonance imaging (MRI) **may be considered medically necessary** when the following criteria are met:

1. Chronic Pain

- a. Evaluation of chronic pain with recent documented trial of conservative therapy for 6 weeks (ending within the last 6 months). Conservative care consists of inactive treatments such as anti-inflammatory medications, activity modification, bracing, icing, etc. in addition to active treatments such as at least **ONE** of the following:
 - Physical Therapy; **OR**
 - Chiropractic Therapy; **OR**
 - Provider supervised home exercise program

OR

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- b. Worsening pain or symptom progression during conservative treatments.

OR

2. Abnormal Neurologic Findings

- a. Weakness, abnormal reflexes, or dermatomal sensory change documented on physical exam; **OR**
- b. Bowel or bladder dysfunction (decreased anal sphincter tone, or urinary issues [not due to stress incontinence or other female related urinary issues]); **OR**
- c. Saddle anesthesia; **OR**
- d. Abnormal electromyography (EMG) and nerve conduction study (NCS) findings indicating a lumbar spine abnormality; **OR**
- e. Atrophy of related muscles; **OR**
- f. Neurogenic claudication (pseudo claudication) only if x-ray shows significant lumbar spinal stenosis AND intervention is considered; **OR**
- g. Scoliosis, when ordered by orthopedist or neurosurgeon and age of patient and severity of scoliosis on x-ray indicate bracing or surgery may be provided.

OR

3. Known or Suspected Tumor or Mass

- a. Initial evaluation of a recently diagnosed cancer; **OR**
- b. Follow up of a known tumor or mass after completion of treatment or with new signs/symptoms; **OR**
- c. Surveillance of a known tumor or mass according to accepted clinical standards; **OR**
- d. Severe bone pain with history of cancer; **OR**
- e. Positive bone scan and/or x-rays suggestive for bone cancer (primary or metastatic).

OR

4. Trauma (includes blunt trauma to the spine with any abnormal neurological findings described above)

- a. Failure to respond to a 6-week trial of conservative care. Conservative care consists of inactive treatments such as anti-inflammatory medications, activity modification, bracing, icing, etc. in addition to active treatments such as at least **ONE** of the following:
 - Physical Therapy; **OR**
 - Chiropractic Therapy; **OR**
 - Provider supervised home exercise program

OR

- b. Worsening pain or symptom progression during *conservative treatments; **OR**
- c. For evaluation of spinal fractures.

OR

5. Spine Issues Related to Immune System Suppression

- a. Evaluation of spine abnormalities related to immune system suppression (e.g., HIV (Human Immunodeficiency Virus), chemotherapy, leukemia, or lymphoma).

OR

6. Spine Issues Related to Infection or Other Inflammatory Process

- a. Suspected infection, abscess, or inflammatory disease with abnormal signs, symptoms, lab tests or other imaging findings.

OR

7. Congenital Conditions

- a. Sacral dimples suspicious for dysraphism because of skin lesions such as hairy patches, sacral lipomas, hemangioma, dimple larger than 0.5 cm, or distance greater than 2.5 cm from anal verge; **OR**
- b. Known spinal dysraphism or spina bifida which needs follow-up; **OR**
- c. Possible tethered cord.

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OR

8. Other

- a. Suspected Ankylosing Spondylitis with sacral iliac pain, high ESR or C-reactive protein, + HLA-B27, or indeterminate x-ray result; **OR**
- b. Known or suspected spinal vascular lesion/malformation.

Pre / Post-Procedural

- Pre-operative evaluation when surgery is planned on the cervical spine.
- Post-operative for routine recommended follow up or for potential post-operative complications.
- A repeat study may be needed to help evaluate a Member's progress after treatment procedure intervention or surgery. The reason for the repeat study and that it will affect care must be clear.

Contraindications

MRI Imaging can be contraindicated in any of the following circumstances: there is a metallic body in the eye, for magnetically activated implanted devices such as pacemakers and defibrillators, insulin pumps, neurostimulators, and for some types of metal, and aneurysm clipping. The imaging facility should always be consulted with any compatibility questions as the types of metal used and development of MRI compatible devices is continually changing. In children and adolescents, spinal imaging is not necessarily subject to a failed course of conservative therapy. Early intervention may be appropriate.

Additional Critical Information

The above medical necessity recommendations are used to determine the best diagnostic study based on a Member's specific clinical circumstances. The recommendations were developed using evidence-based studies and current accepted clinical practices. Medical necessity will be determined using these recommendations and the Member's individual clinical or social circumstances.

- Tests that will not change treatment plans should not be recommended.
- Same or similar tests recently completed need a specific reason for repeat imaging.

DOCUMENTATION REQUIREMENTS. Molina Healthcare reserves the right to require that additional documentation be made available as part of its coverage determination; quality improvement; and fraud; waste and abuse prevention processes. Documentation required may include, but is not limited to, patient records, test results and credentials of the provider ordering or performing a drug or service. Molina Healthcare may deny reimbursement or take additional appropriate action if the documentation provided does not support the initial determination that the drugs or services were medically necessary, not investigational or experimental, and otherwise within the scope of benefits afforded to the member, and/or the documentation demonstrates a pattern of billing or other practice that is inappropriate or excessive.

SUMMARY OF MEDICAL EVIDENCE

For peer-reviewed studies used in the development and update of this policy, please see the *Reference* section.

National and Specialty Organizations

The **American College of Radiology (ACR)** in collaboration with the **American Society of Neuroradiology (ASNR)**, the **Society of Computed Body Tomography and Magnetic Resonance (SCBT-MR)** and the **Society for Skeletal Radiology (SSR)** (2023) published the *Practice Parameters for the Performance of Magnetic Resonance Imaging (MRI) of the Adult Spine*.

The **American College of Radiology (ACR)** in collaboration with the **American Society of Neuroradiology (ASNR)**, and the **Society for Pediatric Radiology (SPR)** (2019) published the *Practice Parameters for the Performance of Magnetic Resonance Imaging (MRI) of the Pediatric Spine*.

The **American College of Radiology (ACR)** in collaboration with the **American Society of Spine Radiology (ASSR)**, the **Society for Pediatric Radiology (SPR)**, and the **Society of Skeletal Radiology (SSR)** (2022) published the *Practice Parameters for the Performance of Spine Radiography*.

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The **American College of Radiology (ACR)** (2022) also published the *ACR Practice Parameter for Performing and Interpreting Magnetic Resonance Imaging (MRI)*. Guidance is provided on indications and contraindications for MRI, provider qualifications to perform MRI, specifications of the examination, proper documentation, equipment specifications, and safety guidelines. A section regarding quality control and improvement is also included with information on safety, infection control, and patient education.

The ACR (EPMI 2021; ¹⁻³ EPNI 2021; EPMI 2020; EPNI 2019; EPPI 2019) published the following appropriateness criteria for lumbar spine MRI:

- Inflammatory Back Pain
- Low Back Pain
- Myelopathy
- Primary Bone Tumors
- Suspected Spine Infection
- Suspected Spine Trauma
- Suspected Spine Trauma – Child

The **American College of Physicians (ACP)** and the **American Pain Society (APS)** published a joint clinical practice guideline on the *Diagnosis and Treatment of Low Back Pain* (Clinical Efficacy 2007).

The **American College of Surgeons (ACS)** (2022) discuss MRI in the *Best Practices Guidelines: Spine Injury*. While multidetector computed tomography of the spine is the standard of care for initial imaging in the acute setting, MRI can provide additional data, specifically in patients with discordant CT and clinical findings. In addition, MRI allows for direct visualization of the spinal cord, nerve roots, and discs as well as providing better soft-tissue contrast. MRI is the only modality for evaluating the internal structure of the spinal cord.

The **American College of Obstetricians and Gynecologists (ACOG)** published *Committee Opinion No. 723: Guidelines for Diagnostic Imaging During Pregnancy and Lactation*. The guidance provides an overview of the safety, necessity, and clinical usefulness of imaging studies for acute and chronic conditions during pregnancy. Ultrasound and MRI are the preferred choice of imaging for pregnant patients however these modalities should only be utilized when medically necessary. The risk of radiation exposure to the fetus is low as radiography, CT and nuclear medicine use lower doses of radiation. Further, patients do not need to stop breastfeeding if imaging studies are necessary (ACOG 2017).

The **North American Spine Society (NASS)** (2021) published *Diagnosis and Treatment of Low Back Pain* guidelines to address clinical questions regarding the diagnosis and treatment of adults with nonspecific low back pain.

CODING & BILLING INFORMATION

CPT (Current Procedural Terminology) Codes

CPT	Description
72148	Magnetic resonance (e.g., proton) imaging, spinal canal and contents, lumbar; without contrast material
72149	Magnetic resonance (e.g., proton) imaging, spinal canal and contents, lumbar; with contrast material(s)
72158	Magnetic resonance (e.g., proton) imaging, spinal canal and contents, without contrast material, followed by contrast material(s) and further sequences; lumbar

CODING DISCLAIMER. Codes listed in this policy are for reference purposes only and may not be all-inclusive. Deleted codes and codes which are not effective at the time the service is rendered may not be eligible for reimbursement. Listing of a service or device code in this policy does not guarantee coverage. Coverage is determined by the benefit document. Molina adheres to Current Procedural Terminology (CPT®), a registered trademark of the American Medical Association (AMA). All CPT codes and descriptions are copyrighted by the AMA; this information is included for informational purposes only. Providers and facilities are expected to utilize industry standard coding practices for all submissions. When improper billing and coding is not followed, Molina has the right to reject/deny the claim and recover claim payment(s). Due to changing industry practices, Molina reserves the right to revise this policy as needed.

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APPROVAL HISTORY

12/13/2023	Policy reviewed, no changes to criteria. Updated references.
12/14/2022	Policy reviewed, no changes to criteria. Updated Overview and Reference sections; added Summary of Medical Evidence section.
12/8/2021	Policy reviewed, no changes to criteria. Updated references.
12/9/2020	Policy reviewed, no changes to criteria. Updated references.
12/10/2019	Policy reviewed, no changes to criteria. Updated references.
12/13/2018	Policy reviewed, no changes to criteria. Updated references.
9/19/2017	New policy.

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