04-70540-17

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Reviewed: 04/24/25

Revised: 05/15/25

Subject: Magnetic Resonance Imaging (MRI) Spine (Cervical, Thoracic, Lumbar)

THIS MEDICAL COVERAGE GUIDELINE IS NOT AN AUTHORIZATION, CERTIFICATION, EXPLANATION OF BENEFITS, OR A GUARANTEE OF PAYMENT, NOR DOES IT SUBSTITUTE FOR OR CONSTITUTE MEDICAL ADVICE. ALL MEDICAL DECISIONS ARE SOLELY THE RESPONSIBILITY OF THE PATIENT AND PHYSICIAN. BENEFITS ARE DETERMINED BY THE GROUP CONTRACT, MEMBER BENEFIT BOOKLET, AND/OR INDIVIDUAL SUBSCRIBER CERTIFICATE IN EFFECT AT THE TIME SERVICES WERE RENDERED. THIS MEDICAL COVERAGE GUIDELINE APPLIES TO ALL LINES OF BUSINESS UNLESS OTHERWISE NOTED IN THE PROGRAM EXCEPTIONS SECTION.

Position Statement	Billing/Coding	Reimbursement	Program Exceptions	Definitions	Related Guidelines
Other	References	Update			

DESCRIPTION:

Magnetic resonance imaging (MRI) is a radiation-free, noninvasive, technique used to produce high quality sectional images of the inside of the body in multiple planes. MRI uses natural magnetic properties of the hydrogen atoms in the body that emit radiofrequency signals when exposed to radio waves within a strong magnetic field. These signals are processed and converted by a computer into high-resolution, three-dimensional, tomographic images. Images and resolution produced by MRI is quite detailed. For some MRI, contrast materials (e.g., gadolinium, gadoteridol, non-ionic and low osmolar contrast media, ionic and high osmolar contrast media) are used to enable visualization of a body system or body structure.

The U.S. Food and Drug Administration's (FDA) cleared MRI systems for marketing through the 510(k) process.

Summary and Analysis of Evidence: Magnetic resonance imaging (MRI) is a multiplanar imaging method based on an interaction between radiofrequency electromagnetic fields and certain nuclei in the body (usually hydrogen nuclei) after the body has been placed in a strong magnetic field. MRI differentiates between normal and abnormal tissues, providing a sensitive examination to detect disease. This sensitivity is based on the high degree of inherent contrast due to variations in the magnetic relaxation properties of different tissues, both normal and diseased, and the dependence of the MRI signal on these tissue properties. Magnetic resonance imaging (MRI) of the spine is a powerful tool for the diagnosis, evaluation, and follow-up of spinal disease. Although spine MRI is one of the most sensitive diagnostic tests for detecting abnormalities of the spine and adjacent structures, findings may be misleading if not correlated with the clinical history, clinical examination findings, and physiologic tests. MRI facilitates assessment of spinal disease without using ionizing radiation. Disorders affecting the

spine that may warrant MRI including, but not limited to the following: congenital spine and spinal cord malformations, degenerative conditions, trauma, infectious conditions, neoplastic abnormalities, radiation therapy, inflammatory/autoimmune disorders, vascular disorders and postprocedural evaluation (ACR 2022, 2023).

POSITION STATEMENT:

MRI of the spine (cervical, thoracic and lumbar) **meets the definition of medical necessity** for the following:

INDICATIONS FOR CERVICAL SPINE MRI

Evaluation of known or suspected multiple sclerosis (MS)

- Evidence of MS on recent baseline brain MRI
- Suspected or known pediatric demyelinating diseases (MS/ADEM)
- Suspected or known MS with new or changing symptoms consistent with cervical spinal cord disease

Evaluation of neurologic deficits

- Extremity muscular weakness
- Pathologic (e.g., Babinski, Lhermitte's sign, Chaddock Sign, Hoffman's) or abnormal reflexes
- Absent/decreased sensory changes along a particular cervical dermatome
- Upper or lower extremity increase muscle tone/spasticity
- New onset bowel or bladder dysfunction
- Gait abnormalities
- Suspected cord compression with any neurological deficit.

Initial pre or post-operative/procedural evaluation

- Preoperative evaluation/planning
- CSF leak highly suspected and supported by member history and/or physical exam
- Follow-up study to evaluate a member's progress after treatment, procedure, intervention, or surgery in the last 6 months. Documentation required.
- Changing neurologic status post-operatively
- Surgical infection
- Residual or new neurological deficits or symptoms.

Evaluation of suspected myelopathy

- Progressive symptoms
- Neurological deficits.

Evaluation of neck pain with any of the following

- With new or worsening objective neurologic deficits on exam
- Failure of conservative therapy for at least six (6) weeks within the last six (6) months.
- With progression or worsening of symptoms during the course of conservative therapy.
- With an abnormal electromyography (EMG) or nerve conduction study (if performed) indicating a cervical radiculopathy.
- Isolated neck pain in pediatric population– conservative care not required if red flags present
- Symptoms that prompt imaging should include the presence of the following: age 5 or younger, constant pain, pain lasting >4 weeks, abnormal neurologic examination, early morning stiffness and/or gelling; night pain that prevents or disrupts sleep; radicular pain; fever; weight loss; malaise; postural changes (e.g., kyphosis or scoliosis); and limp (or refusal to walk in a younger child <5yo) **AND** initial radiographs have been performed
- Neck pain associated with suspected inflammation, infection, or malignancy.

Evaluation of trauma or acute injury

- Presents with any neurological deficit
- With progression or worsening of symptoms during the course of conservative therapy
- History of underlying spinal abnormalities
- When the member is clinically unevaluable or there are preliminary imaging findings needing further evaluation
- When office notes specify the member meets NEXUS (National Emergency X-Radiography Utilization Study) or CCR (Canadian Cervical Rules) criteria for imaging:
    - CT for initial imaging
    - MRI when suspect spinal cord or nerve root injury or when member is obtunded and CT is negative
    - CT or MRI for treatment planning of unstable spine.

Evaluation of known or new compression fractures with worsening back pain

- With history of malignancy
    - To aid in differentiation of benign osteoporotic fractures from metastatic disease
        - A follow-up MRI in 6-8 weeks after initial MRI when initial imaging cannot decipher (indeterminate) benign osteoporotic fracture from metastatic disease.
- With an associated new focal neurologic deficit

- Prior to a planned surgery/intervention or if the results of the MRI will change management.

Evaluation of tumor, cancer or metastasis with any of the following:

Primary tumor

- Initial staging or re-staging of a known primary spinal tumor
- Known spinal tumor with new signs or symptoms.

Metastatic tumor

- With evidence of metastasis on bone scan needing further clarification **OR** inconclusive findings on a prior imaging exam
- Known malignancy with new signs or symptoms
- With an associated new focal neurologic deficit
- Initial imaging of new or increasing non-traumatic neck pain or radiculopathy or neck pain that occurs at night and wakes the member from sleep with known active cancer and a tumor that tends to metastasize to the spine.

Evaluation of inconclusive finding on prior imaging that requires further clarification

- One follow-up exam to ensure no suspicious change has occurred in prior imaging finding. No further surveillance unless specified as highly suspicious or change was found on last follow-up exam.

Evaluation of known or suspected infection/abscess

- Infection
    - Follow-up imaging of infection
    - With worsening symptoms/laboratory values.

Evaluation of spine abnormalities related to immune system suppression (e.g., HIV, chemotherapy, leukemia, lymphoma)

Evaluation of known or suspected inflammatory disease or atlantoaxial instability

- In rheumatoid arthritis with neurologic signs/symptoms, or evidence of subluxation on radiographs (lateral radiograph in flexion and neutral should be the initial study)
    - Members with negative radiographs but symptoms suggestive of cervical instability or in members with neurologic deficits MRI is indicated
- High-risk disorders affecting the atlantoaxial articulation, such as Down syndrome, Marfan syndrome with neurological signs/symptoms, abnormal neurological exam, or evidence of abnormal or inconclusive radiographs of the cervical spine

- Spondyloarthropathies, known or suspected
    - Ankylosing Spondylitis/Spondyloarthropathies with non-diagnostic or indeterminate x-ray and appropriate rheumatology workup.

Other indications for a cervical spine MRI

- Tethered cord or spinal dysraphism (known or suspected), based on preliminary imaging, neurological exam, and/or high-risk cutaneous stigmata
- Known Arnold-Chiari syndrome
    - Known Chiari I malformation without syrinx or hydrocephalus, follow-up imaging after initial diagnosis with new or changing signs/symptoms or exam findings consistent with spinal cord pathology
    - Known Chiari II (Arnold-Chiari syndrome), III, or IV malformation
    - Achondroplasia (one Cervical Spine MRI to assess the craniocervical junction, as early as possible, even in asymptomatic cases)
- Syrinx or syringomyelia (known or suspected)
    - With neurologic findings and/or predisposing conditions (e.g., Chiari malformation, prior trauma, neoplasm, arachnoiditis, severe spondylosis)
    - To further characterize a suspicious abnormality seen on prior imaging
    - Known syrinx with new/worsening symptoms
- Toe walking in a child when associated with upper motor neuron signs, including hyperreflexia, spasticity; or orthopedic deformity with concern for spinal cord pathology.

INDICATIONS FOR THORACIC SPINE MRI

Evaluation of known or suspected multiple sclerosis (MS)

- Suspected or known MS with new or changing symptoms suggesting underlying thoracic spinal cord disease (i.e., transverse myelitis, progressive myelopathy)
- Suspected or known pediatric demyelinating diseases (MS/ADEM)

Evaluation of neurologic deficits

- With any of the following new neurological deficits documented on physical exam:
    - Extremity muscular weakness
    - Pathologic or abnormal reflexes
    - Absent/decreased sensory changes along a particular thoracic dermatome (nerve distribution)
    - Upper or lower extremity increase muscle tone/spasticity
    - New onset bowel or bladder dysfunction (e.g., retention or incontinence)

- Gait abnormalities
- Suspected cord compression with any neurological deficit.

Evaluation of suspected myelopathy

- Progressive symptoms
- Any neurological deficit.

Evaluation of back pain with any of the following:

- With new or worsening objective neurologic deficits on exam
- Failure of conservative therapy for at least six (6) weeks within the last six (6) months
- With progression or worsening of symptoms during the course of conservative therapy
- With an abnormal electromyography (EMG) or nerve conduction study (if performed) indicating a thoracic radiculopathy.
  - Isolated back pain in pediatric population – conservative care not required if red flags present Red flags that prompt imaging should include the presence of: age 5 or younger, constant pain, pain lasting >4 weeks, abnormal neurologic examination, early morning stiffness and/or gelling; night pain that prevents or disrupts sleep; radicular pain; fever; weight loss; malaise; postural changes (e.g., kyphosis or scoliosis); and limp (or refusal to walk in a younger child <5yo) **AND** initial radiographs have been performed.
- Back pain associated with suspected inflammation, infection, or malignancy.

Initial pre-or post-operative/procedural evaluation

- Preoperative evaluation/planning
- Prior to spinal cord stimulator to exclude canal stenosis if no prior MRI imaging of the thoracic spine has been done recently
- CSF leak highly suspected and supported by member history and/or physical exam findings
- A follow-up study may be needed to help evaluate a member's progress after treatment, procedure, intervention, or surgery in the last 6 months. Documentation required.
- Changing neurologic status post-operatively
- Surgical infection as evidenced by signs/symptoms, laboratory, or prior imaging findings
- Residual or new neurological deficits or symptoms.

Evaluation of trauma or acute injury

- Presents with any neurological deficit
- With progression or worsening of symptoms during the course of conservative therapy
- History of underlying spinal abnormalities

- When the member is clinically unevaluable or there are preliminary imaging findings needing further evaluation.

Evaluation of known or new compression fractures

- With history of malignancy
    - To aid in differentiation of benign osteoporotic fractures from metastatic disease
        - A follow-up MRI in 6-8 weeks after initial MRI when initial imaging cannot decipher (indeterminate) benign osteoporotic fracture from metastatic disease.
- With an associated new focal neurologic deficit
- Prior to a planned surgery/intervention or if the results of the MRI will change management.

Evaluation of tumor, cancer or metastasis with any of the following:

Primary tumor

- Initial staging or re-staging of a known primary spinal tumor
- Known primary tumor with new signs or symptoms With an associated new focal neurologic deficit as above.

Metastatic tumor

- With evidence of metastasis on bone scan needing further clarification **OR** inconclusive findings on a prior imaging exam
- Known malignancy with new signs or symptoms
- With an associated new focal neurologic deficit
- Initial imaging of new or increasing non-traumatic back pain or radiculopathy or back pain occurs at night and wakes the member from sleep with known active cancer and a tumor that tends to metastasize to the spine.

Evaluation of inconclusive finding on prior imaging that requires further clarification

Evaluation of known or suspected infection, abscess, or inflammatory disease

- Infection
    - Follow-up imaging of infection with worsening symptoms/laboratory values.
- Spondyloarthropathies
    - Ankylosing Spondylitis/Spondyloarthropathies with non-diagnostic or indeterminate x-ray and appropriate rheumatology workup.

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

Other indications for a thoracic spine MRI

- Tethered cord, or spinal dysraphism (known or suspected) based on preliminary imaging, neurological exam, and/or high-risk cutaneous stigmata
- Known Arnold-Chiari syndrome
    - Known Chiari I malformation without syrinx or hydrocephalus, follow-up imaging after initial diagnosis with new or changing signs/symptoms or exam findings consistent with spinal cord pathology
    - Known Chiari II (Arnold-Chiari syndrome), III, or IV malformation.
- Syrinx or syringomyelia (known or suspected)
    - With neurologic findings and/or predisposing conditions (e.g., Chiari malformation, prior trauma, neoplasm, arachnoiditis, severe spondylosis)
    - To further characterize a suspicious abnormality seen on prior imaging
    - Known syrinx with new/worsening symptoms.
- Toe walking in a child when associated with upper motor neuron signs, including hyperreflexia, spasticity; or orthopedic deformity with concern for spinal cord pathology (e.g., pes cavus, clawed toes, leg or foot length deformity (excluding tight heel cords)).

INDICATIONS FOR LUMBAR SPINE MRI

Evaluation of neurologic deficits

- With any of the following:
    - Extremity muscular weakness
    - Pathologic or abnormal reflexes
    - Absent/decreased sensory changes along a particular lumbar dermatome (nerve distribution): pin prick, touch, vibration, proprioception or temperature
    - Lower extremity increased muscle tone/spasticity
    - New onset bowel or bladder dysfunction (e.g., retention or incontinence)
    - Gait abnormalities
    - New onset foot drop
- Cauda Equina Syndrome as evidence by severe back pain/sciatica along with one of the defined symptoms.

Evaluation of back pain with any of the following

- With new or worsening objective neurologic deficits on exam.
- Failure of conservative treatment for at least six (6) weeks within the last six (6) months.
- With progression or worsening of symptoms during the course of conservative therapy.

- With an abnormal electromyography (EMG) or nerve conduction study (if performed) indicating a lumbar radiculopathy Isolated back pain in pediatric population – conservative care not required if red flags present.
    - Red flags that prompt imaging should include the presence of: age 5 or younger, constant pain, pain lasting >4 weeks, abnormal neurologic examination, early morning stiffness and/or gelling; night pain that prevents or disrupts sleep; radicular pain; fever; weight loss; malaise; postural changes (e.g., kyphosis or scoliosis); and limp (or refusal to walk in a younger child <5yo) **AND** initial radiographs have been performed
- Back pain associated with suspected inflammation, infection, or malignancy.

Evaluation of trauma or acute injury

- Presents with any neurological deficit With progression or worsening of symptoms during the course of conservative therapy
- History of underlying spinal abnormalities
- When the member is clinically unevaluable or there are preliminary imaging findings needing further evaluation.

Pars defect (spondylolysis) or spondylolisthesis

- Pars defect (spondylolysis) or spondylolisthesis in adults when flexion/extension x-rays show instability
- Clinically suspected Pars defect (spondylolysis) which is not seen on plain films in pediatric population (<18 yr) (flexion extension instability not required) and imaging would change treatment.

Evaluation of known or new compression fractures

- With history of malignancy
    - To aid in differentiation of benign osteoporotic fractures from metastatic disease.
- With an associated new focal neurologic deficit
- Prior to a planned surgery/intervention or if the results of the MRI will change management.

Evaluation of known tumor, cancer or metastasis with any of the following:

Primary tumor

- Initial staging or re-staging of a known primary spinal tumor
- Known primary tumor with new signs or symptoms
- With an associated new focal neurologic deficit.

Metastatic tumor

- With evidence of metastasis on bone scan needing further clarification **OR** inconclusive findings on a prior imaging exam
- Known malignancy with new signs or symptoms
- With an associated new focal neurologic deficit
- Initial imaging of new or increasing non-traumatic back pain or radiculopathy or back pain that occurs at night and wakes the member from sleep with known active cancer and a tumor that tends to metastasize to the spine.

Evaluation of inconclusive/indeterminate finding on prior imaging that requires further clarification

Evaluation of known or suspected infection, abscess, or inflammatory disease

- Infection
    - Follow-up imaging of infection with worsening symptoms/laboratory values
        - Spondyloarthropathies
    - Ankylosing Spondylitis/Spondyloarthropathies with non-diagnostic or indeterminate x-ray and rheumatology workup.

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

Initial pre or post-operative/procedural evaluation

- Preoperative evaluation/planning
- CSF leak highly suspected and supported by member history and/or physical exam findings
- A follow-up study may be needed to help evaluate a member's progress after treatment, procedure, intervention, or surgery in the last 6 months. Documentation required
- Changing neurologic status post-operatively
- Surgical infection as evidenced by signs/symptoms, laboratory, or prior imaging findings
- Residual or new neurological deficits or symptoms.

Other indications for a lumbar spine MRI

- Tethered cord, or spinal dysraphism (known or suspected) based on preliminary imaging, neurological exam, and/or high-risk cutaneous stigmata
- Known anorectal malformations
- Suspicious sacral dimple
    - in members <3 months should have ultrasound

- Toe walking in a child when associated with upper motor neuron signs, including hyperreflexia, spasticity; or orthopedic deformity with concern for spinal cord pathology
- Known Chiari II (Arnold-Chiari syndrome), III, or IV malformation
- For follow-up/repeat evaluation of Arnold-Chiari I with new signs or symptoms suggesting recurrent spinal cord tethering.

BILLING/CODING INFORMATION:

CPT Coding:

72141	Magnetic resonance (e.g., proton) imaging, spinal canal and contents, cervical; without contrast material
72142	Magnetic resonance (e.g., proton) imaging, spinal canal and contents, cervical; with contrast material(s)
72146	Magnetic resonance (e.g., proton) imaging, spinal canal and contents, thoracic; without contrast material
72147	Magnetic resonance (e.g., proton) imaging, spinal canal and contents, thoracic; with contrast material(s)
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)
72156	Magnetic resonance (e.g., proton) imaging, spinal canal and contents, without contrast material, followed by contrast material(s) and further sequences; cervical
72157	Magnetic resonance (e.g., proton) imaging, spinal canal and contents, without contrast material, followed by contrast material(s) and further sequences; thoracic
72158	Magnetic resonance (e.g., proton) imaging, spinal canal and contents, without contrast material, followed by contrast material(s) and further sequences; lumbar

HCPCS Coding:

S8042	Magnetic resonance imaging (MRI), low-field

REIMBURSEMENT INFORMATION:

Reimbursement for MRI imaging (72141-72158) of the same anatomical area is limited to one (1) MRI imaging within a 6-month period. MRI imaging (72141-72158) in excess of one (1) within a 6-month period is subject to medical review for medical necessity. Documentation should include radiology reason for study, radiology comparison study-date and time, radiology comparison study observation, radiology impression, and radiology study recommendation.

Additional MRI imaging of the same anatomical area may be appropriate for the following, including, but not limited to: diagnosis, staging or follow-up of cancer, follow-up assessment during or after therapy for known metastases, follow-up of member who have had an operative, interventional or therapeutic procedure (e.g., surgery, embolization), reevaluation due to change in clinical status (e.g., deterioration), new or worsening clinical findings, (e.g., neurologic signs, symptoms), medical intervention which

warrants reassessment, reevaluation for treatment planning, follow-up during and after completion of therapy or treatment to assess effectiveness, and evaluation after intervention or surgery.

Reimbursement for MRI imaging (72141-72158) for an oncologic condition undergoing active treatment or active treatment completed within the previous 12 months on the same anatomical area is limited to four (4) MRI imaging (72141-72158) within a 12-month period. MRI imaging (72141-72158) for an oncologic condition in excess of four (4) within a 12-month period are subject to medical review of documentation to support medical necessity. Documentation should include radiology reason for study, radiology comparison study-date and time, radiology comparison study observation, radiology impression, and radiology study recommendation.

Re-imaging or additional imaging due to poor contrast enhanced exam or technically limited exam is the responsibility of the imaging provider.

Stand-Up MRI/Sitting MRI

Stand-up MRI and sitting MRI may be reported like a standard MRI. No additional payment will be made for stand-up MRI or sitting MRI.

LOINC Codes:

The following information may be required documentation to support medical necessity: physician history and physical, physician progress notes, plan of treatment and reason for magnetic resonance imaging spine (cervical, thoracic, lumbar).

Documentation Table	LOINC Codes	LOINC Time Frame Modifier Code	LOINC Time Frame Modifier Codes Narrative
Physician history and physical	28626-0	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Attending physician progress note	18741-9	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Plan of treatment	18776-5	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Radiology reason for study	18785-6	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Radiology comparison study-date and time	18779-9	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Radiology comparison study observation	18834-2	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim

Radiology-study observation	18782-3	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Radiology-impression	19005-8	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Radiology study-recommendation (narrative)	18783-1	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim

PROGRAM EXCEPTIONS:

Federal Employee Plan (FEP): Follow FEP guidelines.

Medicare Advantage products: The following National Coverage Determination (NCD) was reviewed on the last guideline reviewed date: Magnetic Resonance Imaging (220.2) located at cms.gov.

DEFINITIONS:

Abscess: a localized collection of pus buried in tissues, organs, or confined spaces.

Arnold Chiari malformation: herniation of the cerebellar tonsils and vermis through the foramen magnum into the spinal canal. It is always associated with lumbosacral myelomeningocele, and hydrocephalus and mental defects are common (also called Arnold-Chaiari deformity or syndrome).

Arthritis: inflammation of a joint. **Acute arthritis:** arthritis marked by pain, heat, redness, and swelling, due to inflammation, infection, or trauma. **Chronic inflammatory arthritis:** inflammation of joints in chronic disorders such as rheumatoid arthritis. **Rheumatoid arthritis:** a chronic systemic disease primarily of the joints, usually polyarticular, marked by inflammatory changes in the synovial membranes and articular structures and by muscle atrophy and rarefaction o the bones. In late stages deformity and ankylosis develop.

Cauda equine syndrome: dull aching pain of the perineum, bladder, and sacrum, generally radiating in a sciatic fashion, with associated paresthesias and areflexic parlysis, due to compression of the spinal nerve roots.

Discitis: inflammation of a disk, particularly of an interarticular disk.

Dysraphism: incomplete closure of a raphe (a seam; anatomic terminology for the line of union of the halves of any of various symmetrical parts); defective fusion, particularly of the neural tube.

Osteomyelitis: inflammation of bone caused by infection, usually by a pyogenic organism, although any infectious agent may be involved. It may remain localized or may spread through the bone to involve the marrow, cortex, cancellous tissue, and periosteum.

Spondylitis: inflammation of the vertebrae, also called rachitis.

Syringomyelia: a slowly progressive syndrome of cavitation in the central segments of the spinal cord, generally in the cervical region, but sometimes extending up into the medulla oblonga (syringobulbia) or

down into the thoracic region; it may be of developmental origin, arise secondary to tumor, trauma, infarction, or hemorrhage, or be of unknown cause. It results in neurologic deficits, usually segmental muscular weakness and atrophy with a dissociated sensory loss (loss of pain and temperature sensation, with preservation of the sense of touch), and thoracic scoliosis is often present.

Syrinx: an abnormal cavity in the spinal cord in syringomyelia.

RELATED GUIDELINES:

Magnetic Resonance Spectroscopy (MRS), 04-70540-07
Magnetic Resonance Imaging (MRI) of the Breast, 04-70540-09
Magnetic Resonance Imaging (MRI) Brain and Head, 04-70540-11
Magnetic Resonance Imaging (MRI) Orbit, Face, Temporomandibular Joint (TMJ) and Neck, 04-70540-12
Magnetic Resonance Imaging (MRI) Chest & Cardiac, 04-70540-13
Magnetic Resonance Imaging (MRI) Abdomen and Pelvis, 04-70540-14
Magnetic Resonance Imaging (MRI) Upper Extremity, 04-70540-15
Magnetic Resonance Imaging (MRI) Lower Extremity, 04-70540-16

OTHER:

Other names used to report MRI:

Nuclear Magnetic Resonance (NMR)
Open MRI

Other names used to report Positional MRI:

Position MRI (pMRI)
Sitting MRI
Stand-Up MRI
Standing MRI
Weight-bearing MRI

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COMMITTEE APPROVAL:

This Medical Coverage Guideline (MCG) was approved by the Florida Blue Medical Policy and Coverage Committee on 04/24/25.

GUIDELINE UPDATE INFORMATION:

07/01/07	New Medical Coverage Guideline.
01/21/08	Updated the Program Exceptions.
07/15/08	Scheduled reviewed. No change in position statement. Updated references and related Internet links.
05/21/09	Removed Federal Employee Plan (FEP) from BCBSF Radiology Management program exception statement. Added FEP program exception statement: FEP is excluded from the National Imaging Associates (NIA) review; follow FEP guidelines.
07/01/09	Updated BCBSF Radiology Management program exception; added BlueSelect.
01/01/10	Revised BCBSF Radiology Management program exception section.
07/15/10	Annual review: format changes, added indications for bone marrow MRI, added program exception for Medicare Advantage products, and updated references.
10/01/11	Revision; formatting changes.
10/15/12	Scheduled review; Deleted Fonar Stand-Up MRI system. Deleted current position statements for MRI of the spine (cervical, thoracic, lumbar). Update position statements for spine (cervical, thoracic, lumbar). Added criteria for imaging which exceed limit. Added statement for re-imaging or additional imaging. Added Medicare Advantage program exception (nationally non-covered indications); MRI of cortical bone and calcifications and procedures involving spatial resolution of bone and calcifications are not considered reasonable and necessary indications. Deleted Medicare Advantage products ICD-9 codes. Updated references.
01/01/14	Review/revision. Added abnormal (reflexes) or new onset of abnormal sensory changes along a particular dermatome (nerve distribution) as documented on physical examination: for evaluation of neurologic deficits. Added muscle weakness and abnormal reflexes for pain (chronic neck, chronic back): for evaluation of chronic or degenerative changes (e.g., osteoarthritis, degenerative disc disease). Added as evidenced by signs/symptoms, laboratory or prior imaging findings. Updated program exception: for evaluation of immune system suppression. Updated program exception and references.
01/01/15	Scheduled review; maintain position statement. Deleted “and when ordered by a neurosurgeon, orthopedist or surgeon” (cervical spine section; for preoperative evaluation). Added limitation statement for an oncologic condition; limited to four (4) computed tomography within a 12-month period. Updated references.
12/15/15	Revised indications: MRI of the spine (cervical, thoracic and lumbar). Added indications for: post-operative/procedural evaluation and combination studies. Updated references.
07/15/18	Revision; revised position statement. Updated references.
02/15/20	Review/revision. Revised position statement. Cervical spine MRI: Revised and added criteria multiple sclerosis, new onset of neck pain, trauma or acute trauma, known tumor, cancer or evidence of metastasis, other indications for cervical spine MRI, combination of studies with cervical spine MRI, brain MRI/cervical MRI and home exercise program (HEP). Revised criteria for: neurologic deficits, suspected myelopathy, chronic neck pain and post-operative/procedural evaluation. Added indication and criteria for: evaluation of known or new compression fractures with worsening back

	pain. Deleted cancer surveillance for combination studies. Thoracic spine MRI: Revised and added criteria for: known tumor, cancer or evidence of metastasis, other indications for thoracic spine MRI, known tumor, cancer or evidence of metastasis, other indications for thoracic spine MRI, combination of studies with thoracic spine MRI and home exercise program (HEP). Revised criteria for: neurologic deficits, chronic back pain, new onset of back pain, trauma or acute injury and post-operative/procedural evaluation. Added indication and criteria for: multiple sclerosis, Pars defect (spondylolysis) or spondylolisthesis and known or new compression fractures. Deleted cancer surveillance for combination studies. Lumbar spine MRI: Revised and added criteria for: chronic back pain. Revised criteria for: neurologic deficits, new onset of back pain, trauma or acute injury, known tumor, cancer or evidence of metastasis, post-operative/procedural evaluation, combination of studies with lumbar spine MRI and home exercise program (HEP). Added indication and criteria for: Pars defect (spondylolysis) or spondylolisthesis and other indications for lumbar spine MRI. Deleted cancer surveillance for combination studies. Updated references.
05/15/22	Review: Position statements and references updated.
07/01/22	Revision to Program Exceptions section.
09/30/23	Review: position and references updated.
05/15/24	Review; no change in position statement. Updated references.
09/15/24	Revised preoperative and post operative evaluation/planning.
05/15/25	Review; no change in position statement.