

# Medical Policy

## MRI of the Spine

**Policy Number:** 1027

### Policy History

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| Approve Date:           | 10/01/2019            | Effective Date: | 10/01/2019 |
| Reviewed/Revised Dates: | 10/1/2020, 10/01/2021 |                 |            |

### Preauthorization

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| All Plans | Benefit plans vary in coverage and some plans may not provide coverage for certain service(s) listed in this policy. Decisions for authorization are subject to all terms and conditions of the applicable benefit plan, including specific exclusions and limitations as well as applicable state and/or federal laws. Please review the benefit plan descriptions for details. |
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### Policy

#### Indications of Coverage

- I. Health Tradition considers MRI of the cervical and thoracic and lumbar spine, medically necessary for the following indications when the corresponding criteria are met:
- II. Thoracic, or cervical pain that is localized or radicular in nature as indicated by ALL of the following:
  - A. Pain presents with objective findings of motor or reflex changes in the specific nerve root distribution
  - B. Member has tried and failed to improve after six weeks of conservative treatment for the current episode of pain including all of the following:
    - i. Analgesics, NSAIDs, or oral corticosteroids
    - ii. Physical therapy
    - iii. Modification of activity
  - C. Member is being considered for invasive treatment (e.g. epidural steroids or surgery)
  - D. Pain significantly interferes with member's daily function
- III. Lumbar pain that is localized or radicular in nature as indicated by ALL of the following:
  - A. Pain presents with objective findings of motor or reflex changes in the specific nerve root distribution
  - B. Member has tried and failed to improve after six weeks of conservative treatment for the current episode of pain including all of the following:
    - i. Analgesics, NSAIDs, or oral corticosteroids
    - ii. Physical therapy or participation in the Kiio program
    - iii. Modification of activity
  - C. Member is being considered for invasive treatment (e.g. epidural steroids or surgery)
  - D. Pain significantly interferes with member's daily function
- IV. Severe pain (level 8-10/10 on pain scale) that meets both of the following:
  - A. Unresponsive to oral medications including NSAIDs, a dosepak, muscle relaxants, and narcotics
  - B. Significantly limits ability to perform daily activities and interferes with sleep

- V. Suspected spinal stenosis as indicated by ALL of the following:
  - A. Neurogenic claudication with progressive or disabling symptoms indicated by one or more of the following:
    - i. Lumbar spine
      - 1. Progressive or disabling symptoms of lumbar spine stenosis, as indicated by one or more of the following
        - a. Back, buttock, or leg pain worsening with prolonged standing and lumbar extension
        - b. Leg weakness
        - c. Wide-based gait or abnormal Romberg test
    - ii. Cervical and Thoracic spine
      - 1. Progressive or disabling symptoms of cervical or thoracic spine stenosis, as indicated by one or more of the following.
        - a. Hyperactive reflexes
        - b. Muscle weakness
        - c. Sensory loss
        - d. Spasticity
  - B. Member is being considered for invasive treatment
- VI. Known or suspected spondylolysis by radiologic evidence (e.g. by plain x-ray, bone scan, CT scan), with or without spondylolisthesis, and one or more of the following:
  - A. Focal neurogenic findings
  - B. Significant pain
  - C. Urinary retention or incontinence
- VII. Suspected spinal cord compression, myelopathy, or cauda equine syndrome as indicated by one or more of the following:
  - A. Babinski sign positive (cervical spine)
  - B. Fecal and/or urinary incontinence
  - C. Gait abnormality
  - D. Hoffman sign positive (cervical spine)
  - E. Hyperreflexia or clonus
  - F. Significant or progressive sensory or motor deficits
  - G. Saddle anesthesia
  - H. Spasticity
- VIII. Known or suspected fracture/dislocation of spine or spinal cord injury due to trauma as indicated by one or more of the following:
  - A. Myelopathy
  - B. Neurologic findings corresponding to vertebral level of injury seen on x-ray or CT scan
  - C. Progressive neurological deficit
  - D. Radiculopathy
  - E. Neurological symptoms with traumatic mechanism of injury such as fall from a great height, motor vehicle accident, etc.
  - F. Significant head injury (cervical spine)
  - G. Clinical suspicion of acute spinal injury as indicated by one or more of the following
    - i. Negative or indeterminate spine x-ray
    - ii. Symptoms such as midline cervical tenderness or paresthesia of extremities
  - H. Suspected epidural hematoma (cervical spine)
  - I. Suspected traumatic disk herniation
  - J. X-ray shows abnormal spine motion or burst fracture

- IX. Known or suspected ankylosing spondylitis or other seronegative spondyloarthritis as indicated by ALL of the following:
  - A. Back pain improving with exercise
  - B. Back pain of insidious onset that has persisted for three months or longer
  - C. Early-morning stiffness lasting longer than 30 minutes
  - D. Patient evaluated by rheumatologist
  - E. Plain x-ray results are nondiagnostic
  
- X. Cancer or neoplasm evaluation/staging as indicated by one or more of the following:
  - A. Localized back or neck pain and one or more of the following
    - i. Positive bone scan
    - ii. Night pain
    - iii. Persistent back pain in members older than 50 years
    - iv. Personal history or concurrent diagnosis of malignancy
    - v. Rapidly progressing weakness
    - vi. Unexplained weight loss
  - B. Myelopathy signs or symptoms (e.g. motor weakness, bowel/bladder dysfunction)
  - C. Post-treatment monitoring of spinal metastasis
  
- XI. Stereotactic spine radiotherapy treatment planning
  
- XII. Known or suspected infection (e.g. vertebral osteomyelitis, epidural abscess) as indicated by ALL of the following:
  - A. Localized midline back pain
  - B. Risk factors for spinal infection such as
    - i. Bone scan or plain x-ray suggest infection
    - ii. Elevated sedimentation rate
    - iii. Fever
    - iv. Recent invasive procedure
    - v. Immunosuppression
    - vi. Recent spinal surgery
    - vii. Tuberculosis, concurrent or suspected
  
- XIII. Suspected inflammatory or demyelinating process as indicated by one or more of the following.
  - A. Multiple sclerosis (MS) as indicated by one or more the following:
    - i. Ascending numbness or tingling
    - ii. Brown-Sequard syndrome
    - iii. Conditions similar to MS (Sjorgren syndrome, lupus, etc.) cannot be ruled out
    - iv. Brain MRI is negative for MS
    - v. Signs or symptoms of myelopathy or myelitis
  - B. Suspected transverse myelitis as indicated by one or more of the following:
    - i. Bilateral signs/symptoms of spinal cord of appropriate level of spinal cord
    - ii. Clearly defined sensory level
    - iii. Sudden onset of sensory, motor, and autonomic dysfunction attributable to appropriate level of spinal cord
  
- XIV. Suspected syringomyelia as indicated by:
  - A. Lumbar and thoracic spine weakness, muscle wasting, or sensory loss in appropriate spine dermatomes
  - B. Cervical spine upper limb sensory loss in cape-like distribution or weakness, muscle wasting, or sensory loss beginning in intrinsic muscles of hand
  
- XV. Scoliosis as indicated by one or more of the following:
  - A. Congenital scoliosis

- B. Early onset before five years of age
  - C. Neurofibromatosis
  - D. Pre-surgical planning for adolescent members to assess possible neural axis malformation as indicated by one or more of the following:
    - i. Abnormal neurological finding during clinical exam
    - ii. Age at first visit 10 years or younger
    - iii. Kyphosis at curve apex
    - iv. Left-sided thoracic curvature
    - v. Male
    - vi. Moderate to severe pain
    - vii. Short segment curve (<6 vertebral segments)
    - viii. Thoracic kyphosis is  $\geq 30$  degrees
- XVI. Known or suspected congenital spinal conditions including:
- A. Anterior sacral meningocele
  - B. Caudal regressing syndrome
  - C. Chiari malformation (cervical spine)
  - D. Diastematomyelia
  - E. Dorsal dermal sinus
  - F. Hydromyelia
  - G. Intradural lipoma
  - H. Klippel-Feil syndrome (cervical spine)
  - I. Myelocele
  - J. Myelomeningocele
  - K. Spinal dysraphism
  - L. Split notochord syndrome
  - M. Tight filum terminale
- XVII. Known or suspected tuberculosis of spine as indicated by one or more of the following:
- A. Diagnostic evaluation of suspected spinal tuberculosis
  - B. Preparation of surgical management
- XVII. Suspected tethered cord (lumbar spine) as indicated by one or more of the following:
- A. Anorectal malformation
  - B. Cutaneous manifestation of occult spina bifida
  - C. Gait abnormality or difficulty
  - D. Lack of bladder control
  - E. Abnormal urodynamic tests
- XVIII. Torticollis (cervical spine) as indicated by ALL of the following:
- A. Member younger than 18 years
  - B. Initial CT scan normal or inconclusive
  - C. Nontraumatic etiology
- XIX. Rheumatoid arthritis in cervical spine with suspected instability or cord compression as indicated by one or more of the following:
- A. Atlantoaxial subluxation or impaction of plain x-ray
  - B. Myelopathy or progressive neurological deficit
  - C. Subluxation of C1 and C2
- XX. Repeat evaluation of specific area or structure with the same imaging modality as indicated by one or more of the following:
- A. New or worsening symptoms

- B. Interval reassessment may impact treatment plan
- C. Need for reimaging prior to or after invasive procedure

Health Tradition considers MRI of the spine not medically necessary for all other indications because of lack of clinical value. Clinical guidelines from several health agencies (Agency for Healthcare Policy and Research, American College of Physicians, and North American Spine Society) recommend against imaging studies for acute low back pain.

## Background

When used appropriately, MRI (magnetic resonance imaging) is an effective diagnostic tool. Because bulging disks and other spinal abnormalities have been found in over half of all adults who are otherwise asymptomatic, it is important for clinicians to order MRIs judiciously and interpret results in the context of clinical findings and patient symptoms in order to avoid unnecessary treatment of conditions that may not be causing symptoms. This is especially relevant with the presence of low back pain without radiculopathy, severe progressive neurological deficits, trauma, or clinical suspicion of a severe underlying condition (cancer, infection, etc.). MRI is not necessary in these cases unless the back pain is severe (hospitalization is required) or when symptoms are progressive despite conservative treatment.

The American College of Physicians (2012) and North American Spine Society recommend against obtaining imaging studies in patients with non-specific back pain within the first six weeks of the onset of symptoms, unless red flags are present. Red flags include severe or progressive neurological deficits or when serious underlying conditions are suspected. Imaging of the low back before six weeks does not improve patient outcomes. Conservative treatment for spine-related pain is recommended for the first six weeks. Standard conservative care includes, but is not limited, to physical therapy, NSAIDs, narcotic or nonnarcotic analgesics, oral corticosteroid course, spinal manipulation, activity modification, rest, heat or ice, and cervical collars or braces. If conservative treatment fails to improve symptoms, MRI may be indicated to help guide future, possibly more invasive treatment.

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The above policy is based on the following references:

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