

MRI Lumbar Spine Guidelines**DEPARTMENT: Utilization Management Physician Practice Guidelines****EFFECTIVE DATE: 02/97****DATE LAST REVIEWED: 06/21****SOURCES:** Milliman, Inc.
American College of Radiology Appropriateness Criteria
<https://acsearch.acr.org/docs/69483/Narrative/>
<https://acsearch.acr.org/docs/69483/EvidenceTable/>**RECOMMENDED GUIDELINES:**

Medical evidence does not support MRI Lumbar Spine for:

- 1) Back pain, even if radicular, without neurologic findings at initial visit.

Indications:

- 2) Urgently when ANY ONE (1) of the following is suspected:
 - a) Evidence of conus medullaris syndrome or cauda equina syndrome due to the presence of ANY ONE (1) of the following:
 - i) Urinary incontinence or retention
 - ii) Incontinence of stool
 - iii) Significant sensory or motor deficits or persistent neurological deficits.
 - iv) Saddle anesthesia
 - b) Neurological deficit on examination
 - c) Significant or progressive focal neuromotor deficits
 - d) Neoplasm in lumbar spine due to presence of ANY ONE (1) of the following:
 - i) New onset back pain associated with history of neoplasm
 - ii) Persistent or progressive back pain that fails conservative therapy
 - e) Epidural abscess, when ALL (3) of the following are present:
 - i) Pain
 - ii) Fever
 - iii) Rapidly progressive weakness
 - f) Disk space infection
 - g) Osteomyelitis of the vertebrae when ANY ONE (1) of the following is present:
 - i) Positive bone scan
 - ii) Persistent back pain and ANY ONE (1) of the following:
 - (1) Elevated sedimentation rate
 - (2) Pain exacerbated by motion and relieved by rest
 - (3) Localized tenderness over spine segment
 - h) Back pain and ALL of the following:
 - i) Severe, disabling pain
 - ii) Unresponsive to any comfort measures and conservative therapy
 - i) Suspected postoperative infection, ie, spondylodiskitis

- 3) Less urgently for ANY ONE (1) of the following:
 - a) Severe, disabling back pain unresponsive to comfort measures
 - b) When low back pain fails to improve after 6 weeks of conservative treatment.
 - c) Spondylolisthesis documented with plain films causing ANY ONE (1) of the following:
 - i) Radicular symptoms
 - ii) Spinal claudication
 - d) Recurrent lumbar pain after previous lumbar surgery, to differentiate between scar and disk if ALL (2) of the following are present: (generally requires enhancement)
 - i) Significant new symptoms
 - ii) Surgical management is being considered
 - e) Spinal claudication, as indicated by presence of ALL (2) of the following:
 - i) Pain is worse with prolonged standing and activities requiring Lumbar extension
 - ii) Pain is relieved by either sitting or forward flexion
 - f) Radicular symptoms below knee and equivocal findings on non-enhanced studies
 - g) Suspected inflammatory process in the nerve root not secondary to compression
- 4) Suspected spinal injury and ONE (1) or more of the following:
 - a) Fracture and concern for ligamentous injury
 - b) Neurologic symptoms associated with thoracolumbar trauma and suspicion of ONE (1) or more:
 - i) Epidural hematoma
 - ii) Traumatic disc herniation
 - iii) Cord contusion

Red Flags: Taken from ACR guidelines

Table 1. Red Flags: Indications of a more complicated status include back pain/radiculopathy in the following settings (adapted from [7]).

Red Flag	Potential Underlying Condition as Cause of LBP
<ul style="list-style-type: none"> • History of cancer • Unexplained weight loss • Immunosuppression • Urinary infection • Intravenous drug use • Prolonged use of corticosteroids • Back pain not improved with conservative management 	<ul style="list-style-type: none"> • Cancer or infection
<ul style="list-style-type: none"> • History of significant trauma • Minor fall or heavy lift in a potentially osteoporotic or elderly individual • Prolonged use of steroids 	<ul style="list-style-type: none"> • Spinal fracture
<ul style="list-style-type: none"> • Acute onset of urinary retention or overflow incontinence • Loss of anal sphincter tone or fecal incontinence • Saddle anesthesia • Global or progressive motor weakness in the lower limbs 	<ul style="list-style-type: none"> • Cauda equina syndrome or severe neurologic compromise