Laminectomy

Policy Number: 7.01.145  Last Review: 8/2019
Origination: 8/2015  Next Review: 8/2020

Policy
Blue Cross and Blue Shield of Kansas City (Blue KC) will provide coverage for Laminectomy when it is determined to be medically necessary because the criteria shown below are met.

When Policy Topic is covered
Laminectomy (cervical, thoracic, lumbar) may be considered medically necessary for mass occupying lesions of the spinal cord and/or spinal canal.
- Primary or metastatic tumors
- Abscesses, or other localized infections

Cervical laminectomy may be considered medically necessary when ALL of the following conditions are met:
- Spinal cord or nerve root compression due to one of the following conditions:
  - Spinal stenosis (with or without spondylolisthesis)
  - Ossification of the posterior longitudinal ligament or the yellow ligament; or hypertrophy of the ligamentum flavum.
- Signs and/or symptoms that meet at least one of the following criteria:
  - Neurologic deficits that are rapidly progressive; OR
  - Symptoms of cervical myelopathy (see Considerations section) or cervical cord compression, (with or without radiculopathy); OR
  - Persistent debilitating pain that is refractory to at least 6 weeks of conservative nonsurgical therapy (See Considerations section).
- Imaging studies (preferably MRI) with findings of spinal cord compression, nerve root compression, and/or myelographic changes, at a level corresponding to the patient’s signs and symptoms.

Lumbar laminectomy may be considered medically necessary when ALL of the following conditions are met:
- Spinal cord or nerve root compression due to spinal stenosis (with or without spondylolisthesis):
- Signs and/or symptoms that meet at least one of the following criteria:
  - Neurologic deficits that are rapidly progressive; OR
Neurologic claudication that is persistent and refractory to at least 6 weeks of conservative nonsurgical therapy (see Considerations section); OR
Persistent debilitating pain that is refractory to at least 6 weeks of conservative nonsurgical management (see Considerations section)
- Imaging studies (preferably MRI) with findings of spinal cord or nerve root compression, at a level corresponding to the patient’s signs and symptoms

When Policy Topic is not covered
Laminectomy, cervical or lumbar, is considered not medically necessary for spinal stenosis when the above criteria are not met.

Laminectomy is considered investigational for all other indications.

Considerations
Cervical Myelopathy And/Or Cord Compression
Signs and symptoms of cervical myelopathy and/or cord compression include the following (Epstein, 2003):
- Difficulty with fine movements of the hand and upper extremity
- Incoordination of the hand and upper extremity
- Atrophy of the thenar and hypothenar eminence
- Diffuse hyperreflexia and bilateral Babinski responses
- Decreased sensation, vibratory sense, and proprioception at a level of C5 or below
- Inability to perform tandem walk
- Bowel and bladder incontinence

Conservative nonsurgical therapy for the duration specified should include the following:
- Use of prescription strength analgesics for several weeks at a dose sufficient to induce a therapeutic response
  - Analgesics should include anti-inflammatory medications with or without adjunctive medications such as nerve membrane stabilizers or muscle relaxants AND
- Participation in at least 6 weeks of physical therapy (including active exercise) or documentation of why the patient could not tolerate physical therapy, AND
- Evaluation and appropriate management of associated cognitive, behavioral, or addiction issues
- Documentation of patient compliance with the preceding criteria.

Persistent debilitating pain is defined as:
- Significant level of pain on a daily basis defined on a visual analog scale (VAS) as greater than 4; AND
- Pain on a daily basis that has a documented impact on activities of daily living in spite of optimal conservative nonsurgical therapy as outlined above and appropriate for the patient.
Laminectomy may occasionally be performed for the sole indication of radiculopathy due to herniated disc. In these cases, discectomy alone is not sufficient to relieve compression on vital structures, and laminectomy is required for adequate decompression. This is expected to be an uncommon situation for patients with radiculopathy due to herniated disc, and there are no standardized preoperative criteria to determine which patients may require laminectomy in addition to discectomy.

The following procedures can be considered as alternatives to laminectomy for decompression of the spinal cord. The specific indications for these alternative procedures are not standardized, and the evidence is not sufficient to determine the comparative effectiveness of these different procedures compared with laminectomy.

- Hemi-laminectomy
- Laminotomy
- Foraminotomy

Medical necessity is established by documentation of medical history, physical findings, and diagnostic imaging results that demonstrate spinal nerve compression and support the surgical intervention. Documentation in the medical record must clearly support the medical necessity of the surgery and include medical history, physical examination, and diagnostic testing.

**Medical History**
- Assessment of comorbid physical and psychological health conditions (eg, morbid obesity, current smoking, diabetes, renal disease, osteoporosis, and severe physical deconditioning)
- History of back surgery, including minimally invasive back procedures
- Prior trial, failure, or contraindication to conservative medical/non-operative interventions that may include but are not limited to the following:
  - Activity modification for at least 6 weeks
  - Oral analgesics and/or anti-inflammatory medications
  - Physical therapy
  - Chiropractic manipulation
  - Epidural steroid injections

**Physical Examination**
- Clinical findings including the patient’s stated symptoms and duration

**Diagnostic Testing**
- Radiologist’s report of a magnetic resonance image (MRI) or computerized tomography (CT) scan with myelogram of the spine within the past 6 months showing a spine abnormality
- Report of the selective nerve root injection results, if applicable to the patient’s diagnostic workup.
### Description of Procedure or Service

<table>
<thead>
<tr>
<th>Populations</th>
<th>Interventions</th>
<th>Comparators</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individuals: • With lumbar spinal stenosis and spinal cord or nerve root compression</td>
<td>Interventions of interest are: • Lumbar laminectomy</td>
<td>Comparators of interest are: • Conservative, nonsurgical care</td>
<td>Relevant outcomes include: • Symptoms • Functional outcomes • Health status measures • Quality of life • Treatment-related mortality • Treatment-related morbidity</td>
</tr>
<tr>
<td>Individuals: • With cervical spinal stenosis and spinal cord or nerve root compression</td>
<td>Interventions of interest are: • Cervical laminectomy</td>
<td>Comparators of interest are: • Conservative, nonsurgical care</td>
<td>Relevant outcomes include: • Symptoms • Functional outcomes • Health status measures • Quality of life • Treatment-related mortality • Treatment-related morbidity</td>
</tr>
<tr>
<td>Individuals: • With space-occupying lesion(s) of the spinal canal and spinal cord or nerve root compression</td>
<td>Interventions of interest are: • Cervical, thoracic, or lumbar laminectomy with resection and/or drainage</td>
<td>Comparators of interest are: • Resection and/or drainage alone</td>
<td>Relevant outcomes include: • Symptoms • Functional outcomes • Health status measures • Quality of life • Treatment-related mortality • Treatment-related morbidity</td>
</tr>
</tbody>
</table>

Laminectomy is a surgical procedure in which a portion of the vertebra (the lamina) is removed to decompress the spinal cord. Removal of the lamina creates greater space for the spinal cord and the nerve roots, thus relieving compression on these structures. Laminectomy is typically performed to alleviate compression due to spinal stenosis or a space-occupying lesion.

For individuals who have lumbar spinal stenosis and spinal cord or nerve root compression who receive lumbar laminectomy, the evidence includes randomized controlled trials (RCTs) and nonrandomized comparative studies. Relevant outcomes are symptoms, functional outcomes, health status measures, quality of life, and treatment-related mortality and morbidity. In patients with spinal stenosis, there is sufficient evidence that laminectomy is more effective than nonoperative “usual care” in individuals with spinal stenosis who do not improve after eight weeks of conservative treatment. The superiority of laminectomy is sustained through up to eight years of follow-up. This conclusion applies best to individuals who do not want to undergo intensive, organized conservative treatment, or who do not have access to such a program. For individuals who want
to delay surgery and participate in an organized program of physical therapy and exercise, early surgery with the combination of conservative initial treatment and delayed surgery in selected patients have similar outcomes at two years. From a policy perspective, this means that immediate laminectomy and intensive conservative care are both viable options. The evidence is sufficient to determine that the technology results in a meaningful improvement in the net health outcome.

For individuals who have cervical spinal stenosis and spinal cord or nerve root compression who receive cervical laminectomy, the evidence includes RCTs and nonrandomized comparative studies. Relevant outcomes are symptoms, functional outcomes, health status measures, quality of life, and treatment-related mortality and morbidity. There is a lack of high-quality, comparative evidence for this indication, although what evidence there is offers outcomes similar to those for lumbar spinal stenosis. Given the parallels between cervical laminectomy and lumbar laminectomy, a chain of evidence can be developed that the benefit reported for lumbar laminectomy supports a benefit for cervical laminectomy. The evidence is sufficient to determine that the technology results in a meaningful improvement in the net health outcome.

For individuals who have space-occupying lesion(s) of the spinal canal or nerve root compression who receive cervical, thoracic, or lumbar laminectomy, the evidence includes case series. Relevant outcomes are symptoms, functional outcomes, health status measures, quality of life, and treatment-related mortality and morbidity. Most case series are small and retrospective. They have reported that most patients with myelopathy experience improvements in symptoms or abatement of symptom progression after laminectomy. However, this uncontrolled evidence does not provide a basis to determine the efficacy of the procedure compared with alternatives. The evidence is insufficient to determine the effects of the technology on health outcomes.

The current standard of care, clinical input obtained in 2015, clinical practice guidelines, and the absence of alternative treatments all support the use of laminectomy for space-occupying lesions of the spinal canal. As a result, laminectomy may be considered medically necessary for patients with space-occupying lesions of the spinal cord.

**Background**

**Laminectomy**

Laminectomy is an inpatient procedure performed under general anesthesia. An incision is made in the back over the affected region, and the back muscles are dissected to expose the spinal cord. The lamina is then removed from the vertebral body, along with any inflamed or thickened ligaments that may be contributing to compression. Following resection, the muscles are reapproximated and the soft tissues sutured back into place. The extent of laminectomy varies, but most commonly extends two levels above and below the site of maximal cord compression."
There are numerous variations on the basic laminectomy procedure. It can be performed by minimally invasive techniques, which minimizes the extent of resection. Laminoplasty is a more limited procedure in which the lamina is cut but not removed, thus allowing expansion of the spinal cord. Foraminotomy and/or foramenectomy, which involve partial or complete removal of the facet joints, may be combined with laminectomy when the spinal nerve roots are compressed at the foramen. Spinal fusion is combined with laminectomy when the instability of the spine is present preoperatively, or if the procedure is sufficiently extensive to expect postoperative spinal instability.

**Associated Disorders**
The most common diagnosis treated with laminectomy is spinal stenosis. In spinal stenosis, the spinal canal (vertebral foramen) is narrowed, thus compressing the spinal cord. Narrowing of the spinal canal may be congenital or degenerative in origin. Other conditions that cause pressure on the spine and spinal nerve roots include those where a mass lesion is present (e.g., tumor, abscess, other localized infection).

**Surgical Variations**
Hemilaminotomy and laminotomy, sometimes called laminoforaminotomy, are less invasive than a laminectomy. These procedures focus on the interlaminar space, where most of the pathologic changes are concentrated, minimizing resection of the stabilizing posterior spine. A laminotomy typically removes the inferior aspect of the cranial lamina, the superior aspect of the subjacent lamina, the ligamentum flavum, and the medial aspect of the facet joint. Unlike laminectomy, laminotomy does not disrupt the facet joints, supra- and interspinous ligaments, a major portion of the lamina, or the muscular attachments. Muscular dissection and retraction are required to achieve adequate surgical visualization.

Microendoscopic decompressive laminotomy is similar to laminotomy but uses endoscopic visualization. The position of the tubular working channel is confirmed by fluoroscopic guidance, and serial dilators (METRx™ lumbar endoscopic system, Medtronic) are used to dilate the musculature and expand the fascia. For microendoscopic decompressive laminotomy, an endoscopic curette, rongeur, and drill are used for the laminotomy, facetectomy, and foraminotomy. The working channel may be repositioned from a single incision for multilevel and bilateral dissections.

**Adverse Events**
Complications of laminectomy can include spinal cord and nerve root injuries, which occur at rates from 0% to 10%. Worsening myelopathy and/or radiculopathy can occur in a small percentage of patients independent of surgical injuries. Worsening of symptoms is usually temporary, but in some cases has been permanent. Infection and bleeding can occur; hematomas following surgery often require reoperation if they are close to critical structures. Leakage of spinal fluid may occur and occasionally be persistent requiring treatment. Instability of the spine can result from extensive laminectomy involving multiple levels. This is usually an indication for spinal fusion as an adjunct to
laminectomy, but if fusion is not performed, the instability may lead to progressive symptoms and additional surgery. Specific complication rates depend on the indication and location treated, surgical approach, and extent of surgery.

**Regulatory Status**
Laminectomy is a surgical procedure and, as such, is not subject to regulation by the U.S. Food and Drug Administration. Some of the instrumentation used during laminectomy may be subject to Food and Drug Administration approval.

**Rationale**
This evidence review was created in January 2015 and has been updated regularly with searches of the MEDLINE database. The most recent literature update was performed through April 19, 2019.

Evidence reviews assess the clinical evidence to determine whether the use of a technology improves the net health outcome. Broadly defined, health outcomes are length of life, quality of life, and ability to function—including benefits and harms. Every clinical condition has specific outcomes that are important to patients and to managing the course of that condition. Validated outcome measures are necessary to ascertain whether a condition improves or worsens; and whether the magnitude of that change is clinically significant. The net health outcome is a balance of benefits and harms.

To assess whether the evidence is sufficient to draw conclusions about the net health outcome of a technology, 2 domains are examined: the relevance and the quality and credibility. To be relevant, studies must represent one or more intended clinical use of the technology in the intended population and compare an effective and appropriate alternative at a comparable intensity. For some conditions, the alternative will be supportive care or surveillance. The quality and credibility of the evidence depend on study design and conduct, minimizing bias and confounding that can generate incorrect findings. The randomized controlled trial is preferred to assess efficacy; however, in some circumstances, nonrandomized studies may be adequate. Randomized controlled trials are rarely large enough or long enough to capture less common adverse events and long-term effects. Other types of studies can be used for these purposes and to assess generalizability to broader clinical populations and settings of clinical practice.

**Spinal Stenosis**

**Lumbar Spinal Stenosis**

**Clinical Context and Therapy Purpose**
The purpose of laminectomy in patients who have lumbar spinal stenosis is to provide a treatment option that is an alternative to or an improvement on existing therapies.
The question addressed in this evidence review is: Does laminectomy improve the net health outcome in patients with lumbar spinal stenosis?

The following PICOs were used to select literature to inform this review.

**Patients**
The relevant population of interest is patients with lumbar spinal stenosis.

Degenerative lumbar spinal stenosis is a condition in which there is diminished space available for the neural and vascular elements in the lumbar spine secondary to degenerative changes in the spinal canal. Symptomatic patients usually have radiating buttock and leg pain exacerbated by walking (neurogenic claudication) and relieved by leaning forward or sitting. Pain may be accompanied by numbness, tingling, or weakness in a foot or leg. The value of symptom questionnaires and specific physical examination signs in making the diagnosis of spinal stenosis is not clear. Patients with spinal stenosis may or may not have back pain. MRI is the preferred test to confirm spinal stenosis. Degenerative material such as hypertrophic ligamentum flavum or osteophytes, or disc herniation or bulging can cause spinal stenosis. However, it is a misconception that spinal stenosis is a progressive, “degenerative” disease. Most patients improve or remain stable over time without surgery.

**Interventions**
The therapy being considered is laminectomy.

Surgical decompression is an option for patients with lumbar spinal stenosis who do not have deformity or instability and have not responded to a course of conservative care. Laminectomy is a surgical procedure that removes a portion of a vertebra (the lamina) to decompress the spine. Removal of the lamina provides greater space for the spinal cord and the nerve roots, thus relieving compression on these structures.

**Comparators**
The following therapies and practices are currently being used to make decisions about laminectomy.

For patients with lumbar spinal stenosis, alternatives are conservative, nonsurgical care, including activity modification for at least 6 weeks, oral analgesics and/or anti-inflammatory medications, physical therapy, chiropractic manipulation, and epidural steroid injections.

**Outcomes**
The general outcomes of interest are symptoms, functional outcomes, health status measures, quality of life, treatment-related mortality, and treatment-related morbidity.

Outcome measures for back surgery are relatively well-established (see Table 1). Most studies used back and leg visual analog scores or the Zurich Claudication
Questionnaire to assess pain and the ODI to assess functional limitations related to back pain. Most studies also use a broader functional status index such as the SF-12 or SF-36, particularly the physical function subscale of SF-36. Throughout this report, we refer to a combination of pain and function measures as “Back and Leg Pain Measures.” Determining the minimal clinically important differences (MCID) for these measures is complex. The MCID for a given measure can depend on the baseline score or severity of illness, the method used to calculate MCID, and the times at which the scores are measured. For these reasons, some investigators prefer to calculate a minimum detectable difference (MDD).

Both short-term and long-term outcomes are important in evaluating back treatments. For example, for definitive back surgery, net benefit should take into account immediate (perioperative) adverse events; improvements in pain, neurological status, and function at 12 to 24 months as measured by the ODI, SF-36, Zurich Claudication Questionnaire, or visual analog scale measures; and 5-year secondary surgery rates, which reflect longer-term complications, recurrences, and treatment failures. Less important, but still relevant outcomes are the frequency of sustained response and the eventual need for surgery.

Patient preferences are important in decision-making about elective back surgery. In particular, to avoid the morbidity and risk of complications of the surgery, some patients may choose to prolong conservative treatments even if it means they have additional pain and functional limitation. Conversely, some patients will accept long-term outcomes of surgery similar to those of conservative therapy to get faster relief of symptoms and improvement in function.

In some trials, the epidural injection has been considered an event indicative of treatment failure. This is usually not appropriate. Instead, patient-reported outcomes should be measured at prespecified time intervals in all patients, whether or not they undergo injections or secondary procedures. When possible, trials should use explicit criteria for secondary surgeries or measure patient-reported outcomes just prior to secondary procedures so those implicit criteria for reoperation can be compared across studies.

Group means are commonly designated as primary outcome measures in spine studies. Variation in the calculation and definition of MCIDs makes it difficult to compare response rates across studies. Nevertheless, clinical trials should prespecify an MCID for ODI and, when used, the other measures in the table and report response rates in addition to group means.
### Table 1. Patient-reported Outcome Measures for Back and Leg Pain

<table>
<thead>
<tr>
<th>Measure</th>
<th>Outcome Evaluated</th>
<th>Description</th>
<th>MDD and MCID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oswestry Disability Score (ODI)</td>
<td>Functional disability and pain related to back conditions.</td>
<td>Ten 5-point items; scores 0 (no disability) to 50 (totally disabled) or 0-100% of maximum score</td>
<td>MDD: 8-10 points, MCID varies; often 15 points (30 percentage points).</td>
</tr>
<tr>
<td>Zurich Claudication Questionnaire (ZCQ)</td>
<td>Pain, numbness, weakness, walking tolerance, and (if applicable) satisfaction with treatment results.</td>
<td>Eighteen items; three subscales. Total score is expressed in points or as a percentage of maximum score (higher scores are worse)</td>
<td>MDD: 5 points, MCID: Varies; sometimes defined as a detectable improvement on 2 of 3 subscales.</td>
</tr>
<tr>
<td>RMDQ</td>
<td>Disability from back problems.</td>
<td>Twenty-four items; scored 0-24 (higher scores are worse).</td>
<td>MCID: 30% reduction</td>
</tr>
<tr>
<td>Visual analog scale for leg pain</td>
<td>Degree of leg pain.</td>
<td>Patients indicate the degree of pain on a 0-100 scale.</td>
<td>MDD: 5 points</td>
</tr>
<tr>
<td>Visual analog scale for back pain</td>
<td>Degree of back pain.</td>
<td>Patients indicate the degree of pain on a 0-100 scale.</td>
<td>MDD: 2 points</td>
</tr>
</tbody>
</table>

MDD: minimal detectable difference; MCID: Minimal clinically important difference; RMDQ: Roland and Morris Disability Questionnaire.

### Study Selection Criteria

Methodologically credible studies were selected using the following principles:

a. To assess efficacy outcomes, comparative controlled prospective trials were sought, with a preference for RCTs;
b. In the absence of such trials, comparative observational studies were sought, with a preference for prospective studies.
c. To assess longer term outcomes and adverse events, single-arm studies that capture longer periods of follow-up and/or larger populations were sought.

Surgical decompression is an option for patients with lumbar spinal stenosis who do not have deformity or instability and have not responded to a course of conservative care. Laminectomy for decompression is widely considered effective, but the precise net benefit compared with intensive, prolonged conservative therapy is uncertain.5.
One of the three Spine Patient Outcomes Research Trial (SPORT) studies compared laminectomy to usual care in patients who had spinal stenosis and no spondylolisthesis and found advantages through four years of follow-up in clinical outcomes in patients who had surgery. In SPORT, Patients with at least 12 weeks of pseudoclaudication or radicular pain (central, lateral recesses, or neural foramina), and no spondylolisthesis or instability. The trial attempted to compare standard posterior laminectomy (88%) or decompression with fusion (11%) with usual care. Over four years, about two-thirds of patients underwent surgery. Overall, patients treated surgically had significantly greater improvement in pain, function and disability through two years. At four years, 61% in surgery group and 32% in non-operative group achieved a 15-point improvement in the ODI.

Lurie et al (2015) published a follow-up analysis of SPORT at 8 years. At that time point, 55% of the original randomized cohort was available. Of available patients, 70% assigned to surgery and 52% assigned to medical care had undergone surgery. On intention-to-treat analysis, there were no differences in the primary outcomes. On the as-treated analysis, the differences for the SF-36 and ODI measures were statistically significant at 4-year follow-up, but not at the 6- to 8-year follow-up time points. These widely cited SPORT results rest on observational analyses comparing patients who received surgery at any time with those who did not. That is, so many patients assigned to usual care had surgery that the data had to be analyzed as an (observational) randomized cohort study instead of as an RCT. These analyses included patients who were randomized as well as those who were enrolled in a prospective, observational cohort study. Because of high crossover rates, intention-to-treat analyses were generally negative for the SPORT trials. In this light, SPORT is best seen as a comparison of early surgery with the combination of conservative initial treatment and delayed surgery in selected patients. The SPORT results do not imply that immediate surgery is superior to continued conservative therapy; rather, they indicate that patients who choose surgery at various times after six weeks do better—short- and long-term—than those who continue usual care. One other small randomized trial and older observational studies and studies based on large databases also support the long-term effectiveness and safety of laminectomy for spinal stenosis.

Malmivaara et al (2007) conducted a small RCT in Finland evaluating 94 patients from 4 university hospitals. Patients were randomized to laminectomy with or without fusion or to conservative therapy and followed for 2 years. All patients had lumbar spinal stenosis, persistent back pain for at least 6 months, and imaging studies demonstrating spinal stenosis at a level corresponding with the patient's symptoms. Crossover was allowed for progressive symptoms, and 4 of 44 patients assigned to nonoperative treatment underwent surgery over the 2-year follow-up. The primary outcome measures were ODI scores and visual analog scale (VAS) scores of leg pain and back pain (ranges, 0-10). At 2-year follow-up, the surgical group showed greater improvement on all 3 primary outcome measures. The mean difference in the ODI score was 7.8 points (95% CI, 0.8 to 14.9 points); the mean difference in VAS leg pain score was 1.51 points (95% CI, 0.25 to 2.77
points); and the mean difference in VAS back pain score was 2.13 points (95% CI, 0.98 to 3.28 points). There were 8 perioperative complications, 7 of which were injuries to the dural sac. An additional 4 complications occurred postoperatively (1 hematoma requiring reoperation, 1 respiratory distress due to pulmonary edema, 2 additional surgeries).

The literature includes a number of nonrandomized comparative studies, a representative sample of which is reviewed here. The Maine Lumbar Spine Study was a prospective comparative cohort assessment (2005) of patients with lumbar spinal stenosis followed for 10 years. Clinical data at baseline were obtained from a physician questionnaire, and follow-up patient surveys were solicited by mail at regular intervals. The surveys evaluated the primary outcomes of back pain, leg pain, functional status, and satisfaction with treatment. A total of 148 patients were initially enrolled; 105 patients were alive at 10 years, and 97 had long-term follow-up data. At baseline, patients who underwent surgery were more severely ill, as evidenced by worse symptoms and functional status, compared with patients who underwent nonsurgical care. At follow-ups between 1 and 4 years, there were greater improvements in the 4 outcome measures for the surgical groups, but at 8 to 10 years, the groups had similar improvements in outcomes for pain, functional status, and satisfaction with care.

Amundsen et al (2000) reported on a nonrandomized comparative study of long-term outcomes for 100 patients with symptomatic lumbar spinal stenosis. Nineteen were allocated to surgery for severe symptoms; 50 to conservative care for moderate symptoms; and 31 were randomized to surgery or conservative care with intermediate symptoms. Thirty-one patients were treated surgically, and 68 were treated conservatively. After 4 years, the authors reported that 80% of patients treated with surgery had "excellent" or "fair" results compared with 50% of patients treated conservatively (scale, excellent, fair, unchanged, worse; p not reported).

While immediate laminectomy is probably better than “usual care,” recent research is examining the effectiveness of organized approaches to conservative management vs decompression. In a randomized controlled trial (RCT) of 169 participants, surgical decompression (laminectomy) and a specific therapy program emphasizing physical therapy and exercise had similar outcomes. The main inclusion criteria were (1) lumbar spinal stenosis and from 0 to 5 mm of slippage (spondylolisthesis) (2) considered by a surgeon to be a candidate for decompression surgery and (3) willing to be randomized to decompression surgery or an intensive, organized program of nonsurgical therapy. Baseline Oswestry Disability Index (ODI) scores were comparable to those in the SPORT trial. A high proportion of patients assigned to nonsurgical care (57%) crossed over to surgery (in SPORT the proportion was 43%), but crossover from surgery to nonsurgical care was minimal.

The main implication of the trial results (see Table 2) is that about one-third of patients who were deemed candidates for decompression surgery but instead enter an intensive program of conservative care achieved outcomes similar to
those of a successful decompression.23 It should be noted that the trial results are most applicable to individuals who are interested in a prolonged nonsurgical option; the results are not generalizable to all patients who have spinal stenosis, particularly the subset who strongly prefer surgery. Another randomized trial of a specific physical therapy program vs laminectomy is currently underway in Sweden (see Appendix 2 Ongoing Studies.)

Table 2. Results of Delitto et al (2015)\textsuperscript{12}, Randomized Trial

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean SF-36 PHS\textsuperscript{1}</th>
<th>SF-36 PHS success\textsuperscript{1}</th>
<th>Mean ODI 2 years</th>
<th>Reoperations\textsuperscript{2}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgery (n=87)</td>
<td>22.4 (CI 16.9-27.9)</td>
<td>45/74</td>
<td>29.2</td>
<td>8/87</td>
</tr>
<tr>
<td>PT (n=82)</td>
<td>19.2 (CI 13.6-24.8)</td>
<td>39/73</td>
<td>29.5</td>
<td>6/87</td>
</tr>
</tbody>
</table>

CI: confidence interval; ODI: Oswestry Disability Index; PT: physical therapy; SF-36: 36-Item Short-Form Health Survey.
\textsuperscript{1}SF-36 Physical Function Subscale. Success was defined as >0.5 SD improvement at 2 years.
\textsuperscript{2}Includes reoperation of lumbar spine and other surgeries.

Section Summary: Lumbar Spinal Stenosis
For individuals who have lumbar spinal stenosis and spinal cord or nerve root compression who receive lumbar laminectomy, the evidence includes randomized controlled trials (RCTs) and nonrandomized comparative studies. Relevant outcomes are symptoms, functional outcomes, health status measures, quality of life, and treatment-related mortality and morbidity. In patients with spinal stenosis, there is sufficient evidence that laminectomy is more effective than nonoperative “usual care” in individuals with spinal stenosis who do not improve after eight weeks of conservative treatment. The superiority of laminectomy is sustained through up to eight years of follow-up. This conclusion applies best to individuals who do not want to undergo intensive, organized conservative treatment, or who do not have access to such a program. For individuals who want to delay surgery and participate in an organized program of physical therapy and exercise, early surgery with the combination of conservative initial treatment and delayed surgery in selected patients have similar outcomes at two years. From a policy perspective, this means that immediate laminectomy and intensive conservative care are both viable options.

Cervical Spinal Stenosis

Clinical Context and Therapy Purpose
The purpose of cervical laminectomy in patients who have cervical spinal stenosis is to provide a treatment option that is an alternative to or an improvement on existing therapies.

The question addressed in this evidence review is: Does cervical laminectomy improve the net health outcome in patients with cervical spinal stenosis?

The following PICOs were used to select literature to inform this review.
Patients
The relevant population of interest is patients with cervical spinal stenosis. The most common diagnosis treated with laminectomy is spinal stenosis. In spinal stenosis, the spinal canal (vertebral foramen) is narrowed, thus compressing the spinal cord. Narrowing of the spinal canal may be congenital or degenerative in origin.

Interventions
The therapy being considered is cervical laminectomy.

Laminectomy is a surgical procedure that removes a portion of a vertebra (the lamina) to decompress the spine. Removal of the lamina provides greater space for the spinal cord and the nerve roots, thus relieving compression on these structures. Laminectomy is an inpatient procedure performed under general anesthesia. An incision is made over the affected region, and the muscles are dissected to expose the spinal cord. The lamina is then removed from the vertebral body, along with any inflamed or thickened ligaments that may be contributing to compression. Following resection, the muscles are reapproximated and the soft tissues sutured back into place. The extent of laminectomy varies, but most commonly extends 2 levels above and below the site of maximal cord compression.

Comparators
The following therapies and practices are currently being used to make decisions about cervical laminectomy.

For patients with cervical spinal stenosis, alternatives are conservative, nonsurgical care, including activity modification for at least 6 weeks, oral analgesics and/or anti-inflammatory medications, physical therapy, chiropractic manipulation, and epidural steroid injections.

Outcomes
The general outcomes of interest are symptoms, functional outcomes, health status measures, quality of life, treatment-related mortality, and treatment-related morbidity.

Both short-term and long-term outcomes are important in evaluating cervical spine treatments. For example, for definitive back surgery, net benefit should take into account immediate (perioperative) adverse events; improvements in pain, neurological status, and function at 1 to 24 months as measured by the ODI, SF-36, Zurich Claudication Questionnaire, or visual analog scale measures; and 5-year secondary surgery rates, which reflect longer-term complications, recurrences, and treatment failures.

Study Selection Criteria
Methodologically credible studies were selected using the following principles:

a. To assess efficacy outcomes, comparative controlled prospective trials were
sought, with a preference for RCTs;
b. In the absence of such trials, comparative observational studies were sought, with a preference for prospective studies.
c. To assess longer term outcomes and adverse events, single-arm studies that capture longer periods of follow-up and/or larger populations were sought.

Many of the studies of laminectomy for cervical spinal stenosis have included patients with either or both spondylosis or posterior longitudinal ligament ossification. Those that specifically address the posterior longitudinal ligament ossification are addressed separately.

**Cervical Myelopathy**

There are few controlled trials comparing laminectomy to conservative management for patients who had symptomatic cervical spinal stenosis. One small RCT (2002) was identified, comparing decompressive surgery with nonsurgical treatment, patients with mild or moderate cervical myelopathy. The surgical techniques used were variations on laminectomy (ie, anterior decompression with fusion, corpectomy, laminoplasty); standard laminectomy was not used. Other published RCTs have compared various surgical techniques and therefore did not address the efficacy of surgery itself.

One small, prospective, nonrandomized, multicenter study (2000) evaluated surgical and nonsurgical treatments in 62 patients with cervical myelopathy. Follow-up data were obtained for 43 (69%) of 62 patients, 20 of whom underwent surgery, and 23 of whom had nonsurgical treatment. Details on the specific types of surgery were sparse, though authors indicated that the primary procedure was posterior laminotomy or laminectomy with or without foraminotomy. Patients in the surgical group improved significantly on the overall functional status measure (worst pain rating) and average pain rating, while patients in the nonsurgical group only showed significant improvements in average pain rating. No between-group comparisons or complications were reported.

The AOSpine North America Prospective Multi-Center Study, a single-arm cohort study (2013), evaluated surgical decompression outcomes for cervical myelopathy. The study enrolled 278 consecutive patients, presenting to 12 North American centers, with symptomatic cervical myelopathy, objective cord compression on magnetic resonance imaging, and no evidence of lumbar spinal stenosis. The treating surgeon decided the specific surgical approach. Details on the approach were not reported, but approximately one-third of patients received laminectomy. At 1-year follow-up, there was a significant improvement on multiple measures of symptoms and functional status, including improvement on 7 of 8 SF-36 scales. Complications occurred in 18.7% of patients. The most common complications were postoperative dysphagia (3.6%), superficial infection (2.9%), and need for revision surgery (2.2%). Worsening myelopathic symptoms postoperatively developed in 3 patients, 2 of whom returned to baseline by 1 year.

A separate 2012 publication from the AOSpine study reported on short- and long-term surgical complications. Perioperative complications occurred in 15.6%
(47/302) of patients, the most common being minor cardiopulmonary events (3.0%), dysphagia (3.0%), and superficial wound infection (2.3%). Worsening of perioperative myelopathy occurred in 1.3% (n=4) of patients. Of patients who completed 2-year follow-up, late complications occurred in 4.4% (14/275), of which 6 were considered major.

Some studies have compared laminectomy with alternative surgical approaches. A meta-analysis by Liu et al (2016) summarized studies comparing laminectomy plus fusion with laminoplasty for cervical compressive myelopathy. Across the 23 studies meeting inclusion criteria, with 743 and 774 patients treated with laminectomy and laminoplasty and fusion, respectively, there were generally no significant differences in most clinical outcomes, although laminoplasty-treated patients had lower rates of C5 palsy (pooled odds ratio, 0.26; 95% CI, 0.15 to 0.44).

A 2017 meta-analysis with more restrictive selection criteria compared laminectomy plus fusion with expansive laminectomy for multiple-level cervical spondylotic myelopathy. Reviewers included 10 studies-2 prospective RCTs and 8 retrospective observational studies. For most clinical outcomes, there were no significant differences between groups, except a higher complication rate in the laminectomy plus fusion group.

Ossification of the Posterior Longitudinal Ligament
Singhatanadgige et al (2016) reported on a systematic review of studies comparing laminoplasty with laminectomy plus fusion in patients with ossification of the posterior longitudinal ligament leading to myelopathy. Four studies were identified, 1 prospective and 3 retrospective cohort studies (total N=334 patients; range 38-164 patients); the overall body of evidence was assessed using GRADE criteria. Follow-up ranged from 12 to 72 months. Outcomes were not pooled; primary outcomes were summarized. Myelopathy recovery rates did not differ significantly at 12 months in 2 studies, but in 2 other retrospective studies recovery rates were higher in the laminoplasty group (65.2%) than in the laminectomy plus fusion group (50.8%; p = reported as significant) in 1 study but the opposite in the other (25.1% vs 43.5%). The 2 studies that reported on pain did not find differences between groups. All 4 studies that reported on the incidence of cranial nerve 5palsy found that it was higher in patients treated plus laminectomy with fusion (range, 9.6%-25%) than laminoplasty (range, 0%-8%). Reviewers concluded that their analysis did not establish the superiority of either procedure.

Nakashima et al (2016) reported on the prospective, multicenter AOSpine CSM International study, which was designed to evaluate whether the underlying mechanism of disease (eg, cervical spondylotic myelopathy, posterior longitudinal ligament ossification) in degenerative cervical myelopathy has an impact on the outcomes of surgical decompression. The study included 479 patients with symptomatic degenerative cervical myelopathy, of whom 135 (28.2%) had radiographic evidence of posterior longitudinal ligament ossification. Patients were treated at the discretion of their surgeons-anteriorly by cervical
discectomy and/or corpectomy with fusion, or posteriorly by laminectomy with or without fusion or laminoplasty. At 2-year follow-up, there were no significant differences between groups in symptoms or functional outcomes.

A prospective study of 63 patients who underwent cervical decompressive surgery for ossification of the posterior longitudinal ligament was published by Kommu et al (2014). Laminectomy was performed by 1 of 2 methods, either the anterior or posterior approach. The primary outcome measure was the Nurick Scale for myelopathy (score range, 0-5), with higher numbers representing more severe myelopathy. At 24-month follow-up, improvement in the Nurick Scale grade was reported for 54 (86%) of 63 patients, and mean Nurick grade improved from 2.82 at baseline to 2.03 at final follow-up (p<0.05).

Lee et al (2016) published a retrospective study of 57 patients who underwent surgery for cervical myelopathy caused by ossification of the posterior longitudinal ligament and had at least 24 months of follow-up. Three surgical variations were used: laminectomy alone, laminectomy plus fusion, and laminoplasty. Outcomes reported included radiographic evidence of cervical sagittal balance, Neck Disability Index, and VAS for pain. Progressive improvements were reported in the radiographic and clinical outcomes over time in all groups. Progression of posterior longitudinal ligament ossification was seen more commonly in the group treated with laminectomy alone than with laminectomy plus fusion.

Section Summary: Cervical Spinal Stenosis
For cervical spinal stenosis, the evidence is more limited than for lumbar spinal stenosis, with no published RCTs. Some nonrandomized comparative evidence is available on the treatment of cervical spondylotic myelopathy with decompressive surgery vs nonsurgical management, but this evidence assesses spinal stenosis and other etiologies, and includes various techniques for decompression, without reporting on laminectomy separately. Single-arm studies have reported significant improvements in postsurgical pain and functional status but have not provided relevant evidence on the comparative efficacy of surgical vs nonsurgical management.

Space-Occupying Lesions of the Spinal Canal

Clinical Context and Therapy Purpose
The purpose of cervical, thoracic, or lumbar laminectomy in patients who have cervical, thoracic, or lumbar spinal stenosis or space-occupying lesion(s) of the spinal canal and spinal cord or nerve root compression is to provide a treatment option that is an alternative to or an improvement on existing therapies.

The question addressed in this evidence review is: Does laminectomy improve the net health outcome in patients with cervical, thoracic or lumbar spinal stenosis or space-occupying lesion(s) of the spinal canal and spinal cord or nerve root compression?

The following PICOs were used to select literature to inform this review.
**Patients**
The relevant population of interest is patients with space-occupying lesion(s) of the spinal canal and spinal cord or nerve root compression. Conditions other than spinal stenosis that cause pressure on the spine and spinal nerve roots include those where a mass lesion is present (eg, tumor, abscess, other localized infection).

**Interventions**
The therapy being considered is cervical laminectomy.

Laminectomy is a surgical procedure that removes a portion of a vertebra (the lamina) to decompress the spine. Removal of the lamina provides greater space for the spinal cord and the nerve roots, thus relieving compression on these structures. Laminectomy is an inpatient procedure performed under general anesthesia. An incision is made in the back over the affected region, and the back muscles are dissected to expose the spinal cord. The lamina is then removed from the vertebral body, along with any inflamed or thickened ligaments that may be contributing to compression. Following resection, the muscles are reapproximated and the soft tissues sutured back into place. The extent of laminectomy varies, but most commonly extends 2 levels above and below the site of maximal cord compression.

**Comparators**
The following practices are currently being used to make decisions about cervical laminectomy. For patients with space-occupying lesion(s) of the spinal canal and spinal cord or nerve root compression alternatives include resection and/or drainage alone without cervical laminectomy.

**Outcomes**
The general outcomes of interest are symptoms, functional outcomes, health status measures, quality of life, treatment-related mortality, and treatment-related morbidity.

Both short-term and long-term outcomes are important in evaluating back treatments. For example, for definitive back surgery, net benefit should take into account immediate (perioperative) adverse events; improvements in pain, neurological status, and function at 12 to 24 months as measured by the ODI, SF-36, Zurich Claudication Questionnaire, or visual analog scale measures; and 5-year secondary surgery rates, which reflect longer-term complications, recurrences, and treatment failures.
Study Selection Criteria
For indications other than spinal stenosis, the evidence consists primarily of case reports and retrospective case series. Representative examples of the types of studies available for specific indications are provided next.

Neoplasms of the Spine
Zong et al (2013) retrospectively evaluated 110 patients with extramedullary schwannomas treated surgically. Three variations of laminectomy were used: laminectomy plus microscopic excision, hemilaminectomy plus microscopic excision, and laminectomy plus microscopic excision and pedicle screw fixation. The authors compared various surgical parameters across procedures, such as blood loss, operative time, and length of stay. No clinical outcomes were reported.

Tredway et al (2006) reported on 6 patients with intradural spinal neoplasms (4 lumbar, 1 thoracic, 1 cervical) treated with laminectomy and dural resection by minimally invasive techniques. The authors reported that all patients underwent successful resection without complications. On follow-up magnetic resonance imaging, complete resection was seen in all cases, with no evidence of residual tumor.

Epidural Abscess
Piccolo et al (1999) reported on a series of 5 patients with cervical epidural abscess treated with surgical drainage plus laminectomy or surgical drainage alone, depending degree of cervical spinal involvement. Surgical outcome was poor in 1 of 2 patients treated with laminectomy, who had extensive disease spanning more than 3 vertebral segments.

Section Summary: Space-Occupying Lesions of the Spinal Canal
The evidence evaluating the use of cervical, thoracic, or lumbar laminectomy to treat space-occupying lesion(s) of the spinal canal or nerve root compression consists of small and retrospective case series. These series have reported that most patients with myelopathy experience improvements in symptoms or abatement of symptom progression after laminectomy. However, this uncontrolled trial evidence does not provide a basis to determine the efficacy of the procedure compared with alternatives.

Summary of Evidence
For individuals who have lumbar spinal stenosis and spinal cord or nerve root compression who receive lumbar laminectomy, the evidence includes randomized controlled trials (RCTs) and nonrandomized comparative studies. Relevant outcomes are symptoms, functional outcomes, health status measures, quality of life, and treatment-related mortality and morbidity. In patients with spinal stenosis, there is sufficient evidence that laminectomy is more effective than nonoperative “usual care” in individuals with spinal stenosis who do not improve after eight weeks of conservative treatment. The superiority of laminectomy is sustained through up to eight years of follow-up. This conclusion applies best to individuals who do not want to undergo intensive, organized conservative treatment, or who do not have access to such a program. For individuals who want
to delay surgery and participate in an organized program of physical therapy and exercise, early surgery with the combination of conservative initial treatment and delayed surgery in selected patients have similar outcomes at two years. From a policy perspective, this means that immediate laminectomy and intensive conservative care are both viable options. The evidence is sufficient to determine that the technology results in a meaningful improvement in the net health outcome.

For individuals who have cervical spinal stenosis and spinal cord or nerve root compression who receive cervical laminectomy, the evidence includes RCTs and nonrandomized comparative studies. Relevant outcomes are symptoms, functional outcomes, health status measures, quality of life, and treatment-related mortality and morbidity. There is a lack of high-quality, comparative evidence for this indication, although what evidence there is offers outcomes similar to those for lumbar spinal stenosis. Given the parallels between cervical laminectomy and lumbar laminectomy, a chain of evidence can be developed that the benefit reported for lumbar laminectomy supports a benefit for cervical laminectomy. The evidence is sufficient to determine that the technology results in a meaningful improvement in the net health outcome.

For individuals who have space-occupying lesion(s) of the spinal canal or nerve root compression who receive cervical, thoracic, or lumbar laminectomy, the evidence includes case series. Relevant outcomes are symptoms, functional outcomes, health status measures, quality of life, and treatment-related mortality and morbidity. Most case series are small and retrospective. They have reported that most patients with myelopathy experience improvements in symptoms or abatement of symptom progression after laminectomy. However, this uncontrolled evidence does not provide a basis to determine the efficacy of the procedure compared with alternatives. The evidence is insufficient to determine the effects of the technology on health outcomes.

The current standard of care, clinical input obtained in 2015, clinical practice guidelines, and the absence of alternative treatments all support the use of laminectomy for space-occupying lesions of the spinal canal. As a result, laminectomy may be considered medically necessary for patients with space-occupying lesions of the spinal cord.

SUPPLEMENTAL INFORMATION

Clinical Input From Physician Specialty Societies and Academic Medical Centers

While the various physician specialty societies and academic medical centers may collaborate with and make recommendations during this process, through the provision of appropriate reviewers, input received does not represent an endorsement or position statement by the physician specialty societies or academic medical centers, unless otherwise noted.
In response to requests, input was received from 2 specialty societies and 4 academic medical centers when this policy was in development in 2015. Input informed criteria for medical necessity for the indications of mass lesions and cervical laminectomy.

**Practice Guidelines and Position Statements**

The North American Spine Society issued evidence-based guidelines (2011) on the diagnosis and treatment of degenerative lumbar spinal stenosis. The guidelines stated that patients with mild symptoms of lumbar spinal stenosis are not considered surgical candidates; however, decompressive surgery was suggested to improve outcomes in patients with moderate-to-severe symptoms of lumbar spinal stenosis (grade B recommendation). The Society also indicated that current evidence was insufficient to recommend for or against the placement of interspinous process spacing devices to treat spinal stenosis.

Excerpts from the North American Spine Society Coverage Recommendations

Laminectomy

1. Spinal Stenosis (including recurrent spinal stenosis, congenital stenosis, stenosis associated with achondroplasia) meeting the following criteria:
   a. signs and symptoms of neurogenic claudication or radiculopathy correlated with imaging:
   b. at least 6 weeks of nonoperative treatment
   c. the following can mitigate the need for initial nonoperative trial
      i. severity of symptoms causes forced bed rest
      ii. stenosis results in functionally limiting motor weakness (e.g., foot drop)
      iii. progressive neurological deficit

U.S. Preventive Services Task Force Recommendations

Not applicable.

Medicare National Coverage

There is no national coverage determination. In the absence of a national coverage determination, coverage decisions are left to the discretion of local Medicare carriers.

**Ongoing and Unpublished Clinical Trials**

**Table 3. Summary of Key Trials**

<table>
<thead>
<tr>
<th>NCT No.</th>
<th>Trial Name</th>
<th>Planned Enrollment</th>
<th>Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ongoing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NCT02215551</td>
<td>Toward Optimizing Decompressive Laminectomy Outcomes: Looking Outside the Spine</td>
<td>350</td>
<td>Jul 2019</td>
</tr>
<tr>
<td>NCT Number</td>
<td>Study Title</td>
<td>Enrollment</td>
<td>Start Date</td>
</tr>
<tr>
<td>------------</td>
<td>-------------</td>
<td>------------</td>
<td>------------</td>
</tr>
<tr>
<td>NCT03388307</td>
<td>Unilateral Decompression Approach for Lumbar Canal Stenosis</td>
<td>30</td>
<td>Nov 2018</td>
</tr>
<tr>
<td>NCT01455805a</td>
<td>Minuteman Spinal Fusion Implant Versus Surgical Decompression for Lumbar Spinal Stenosis</td>
<td>50</td>
<td>Mar 2024</td>
</tr>
<tr>
<td>NCT03495661</td>
<td>Uppsala Spinal Stenosis Study: Decompression vs Physical Training for the Treatment of Lumbar Spinal Stenosis (UppSten)</td>
<td>150</td>
<td>Dec 2021</td>
</tr>
</tbody>
</table>

NCT: national clinical trial.
a Denotes industry-sponsored or cosponsored trial.

REFERENCES


**Billing Coding/Physician Documentation Information**

**63001** Laminectomy with exploration and/or decompression of spinal cord and/or cauda equina, without facetectomy, foraminotomy or discectomy (eg, spinal stenosis), 1 or 2 vertebral segments; cervical

**63005** Laminectomy with exploration and/or decompression of spinal cord and/or cauda equina, without facetectomy, foraminotomy or discectomy (eg, spinal stenosis), 1 or 2 vertebral segments; lumbar, except for spondylolisthesis

**63015** Laminectomy with exploration and/or decompression of spinal cord and/or cauda equina, without facetectomy, foraminotomy or discectomy (eg, spinal stenosis), more than 2 vertebral segments; cervical

**63017** Laminectomy with exploration and/or decompression of spinal cord and/or cauda equina, without facetectomy, foraminotomy or discectomy (eg, spinal stenosis), more than 2 vertebral segments; lumbar
Laminectomy for excision of intraspinal lesion other than neoplasm, intradural; cervical

Laminectomy for excision of intraspinal lesion other than neoplasm, intradural; lumbar

Laminectomy for biopsy/excision of intraspinal neoplasm; extradural, cervical

Laminectomy for biopsy/excision of intraspinal neoplasm; extradural, lumbar

Laminectomy for biopsy/excision of intraspinal neoplasm; intradural, extramedullary, cervical

Laminectomy for biopsy/excision of intraspinal neoplasm; intradural, extramedullary, lumbar

Laminectomy for biopsy/excision of intraspinal neoplasm; intradural, intramedullary, cervical

Laminectomy for biopsy/excision of intraspinal neoplasm; intradural, intramedullary, thoracolumbar

**ICD-10 Codes**

C72.0 Malignant neoplasm of spinal cord
C79.40 Secondary malignant neoplasm of unspecified part of nervous system
G06.1 Intraspinal abscess and granuloma
M48.00-M48.08 Spinal stenosis, code range
M48.8X1-M48.8X9 Other specified spondylopathies code range (includes ossification of posterior longitudinal ligament NOS)

**Additional Policy Key Words**

N/A

**Policy Implementation/Update Information**

8/1/15 New Policy. Laminectomy may be considered medically necessary for spinal stenosis or mass lesions of the spine when criteria are met.

8/1/16 No policy statement changes.

8/1/17 No policy statement changes.

8/1/18 No policy statement changes.

8/1/19 No policy statement changes.

State and Federal mandates and health plan contract language, including specific provisions/exclusions, take precedence over Medical Policy and must be considered first in determining eligibility for coverage. The medical policies contained herein are for informational purposes. The medical policies do not constitute medical advice or medical care. Treating health care providers are independent contractors and are neither employees nor agents Blue KC and are solely responsible for diagnosis, treatment and medical advice. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, photocopying, or otherwise, without permission from Blue KC.