Indications for Cervical Spine Surgery:

A. Anterior Cervical Decompression with Fusion (ACDF) - Single Level

Anterior cervical discectomy and fusion with either a bone bank allograft or autograft with or without plating is the standard approach anteriorly and is most commonly used for disc herniation. The following criteria must be met:

- Positive clinical findings of myelopathy with evidence of progressive neurologic deficits consistent with worsening spinal cord compression - immediate surgical evaluation is indicated (AAOS, 2013; Bono, 2011; Cunningham, 2010; Holly, 2009; Matz, 2009a; Matz, 2009b; Matz, 2009d; Matz, 2009e; Mummaneni, 2009; Tetreault, 2013; Yalamanchili, 2012; Zhu, 2013). Symptoms may include:
  - upper extremity weakness
  - unsteady gait related to myelopathy/balance or generalized lower extremity weakness
  - disturbance with coordination
  - hyperreflexia
  - Hoffmann sign
  - positive Babinski sign and/or clonus

OR

- Progressive neurological deficit (motor deficit, bowel or bladder dysfunction) with evidence of spinal cord or nerve root compression on Magnetic Resonance Imaging (MRI) or Computed Tomography (CT) imaging - immediate surgical evaluation is indicated. (Bono, 2011; Matz, 2009b; Tetreault, 2013).

OR

- When ALL of the following criteria are met (Bono, 2011; Nikolaidis, 2010):
  - Cervical radiculopathy or myelopathy from ruptured disc, spondylosis, spinal instability, or deformity; AND
  - Persistent or recurrent symptoms/pain with functional limitations that are unresponsive to at least 6 weeks of appropriate conservative treatment; AND
  - Documented failure of at least 6 consecutive weeks of any 2 of the following physician-directed conservative treatments:
    - Analgesics, steroids, and/or NSAIDs
    - Structured program of physical therapy
    - Structured home exercise program prescribed by a physical therapist, chiropractic provider or physician
    - Epidural steroid injections and/or selective nerve root block; AND
  - Imaging studies confirm the presence of spinal cord or spinal nerve root compression (disc herniation or foraminal stenosis) at the level corresponding with the clinical findings (Bono, 2011). Imaging studies may include:
    - MRI (preferred study for assessing cervical spine soft tissue); OR
    - CT with or without myelography—indicated in patients in whom MRI is contraindicated; preferred for examining bony structures, or in patients presenting with clinical symptoms or signs inconsistent with MRI findings (e.g., foraminal compression not seen on MRI).

*Cervical spine decompression with fusion as first-line treatment without conservative care measures in the following clinical cases (Matz, 2009b; Tetreault, 2013; Zhu, 2013; White, 1987):

- As outlined above for myelopathy or progressive neurological deficit scenarios.
• Significant spinal cord or nerve root compression due to tumor, infection or trauma.
• Fracture or instability on radiographic films measuring:
  o Sagittal plane angulation of greater than 11 degrees at a single interspace or greater than 3.5 mm anterior subluxation in association with radicular/cord dysfunction; OR
  o Subluxation at the (C1) level of the atlantodental interval of more than 3 mm in an adult and 5 mm in a child.

Not Recommended (Nikolaidis, 2010; van Middelkoop, 2012):
• In asymptomatic or mildly symptomatic cases of cervical spinal stenosis.
• In cases of neck pain alone, without neurological deficits, and no evidence of significant spinal nerve root or cord compression on MRI or CT. See E. Cervical Fusion for Treatment of Axial Neck Pain Criteria

**B. Anterior Cervical Decompression with Fusion (ACDF) - Multiple Level**
Anterior cervical disectomy and fusion with either a bone bank allograft or autograft with or without plating is the standard approach anteriorly and is most commonly used for disc herniation. The following criteria must be met:
• Positive clinical findings of myelopathy with evidence of progressive neurologic deficits consistent with worsening spinal cord compression - immediate surgical evaluation is indicated (AAOS, 2013; Bono, 2011; Cunningham, 2010; Holly, 2009; Matz, 2009a; Matz, 2009b; Matz, 2009d; Matz, 2009e; Mummaneni, 2009; Tetreault, 2013; Yalamanchili, 2012; Zhu, 2013). Symptoms may include:
  o upper extremity weakness
  o unsteady gait related to myelopathy/balance or generalized lower extremity weakness
  o disturbance with coordination
  o hyperreflexia
  o Hoffmann sign
  o positive Babinski sign and/or clonus

OR
• Progressive neurological deficit (motor deficit, bowel or bladder dysfunction) with corresponding evidence of spinal cord or nerve root compression on an MRI or CT scan images - immediate surgical evaluation is indicated (Bono,2011; Matz, 2009b; Tetreault, 2013).

OR
• When **ALL** of the following criteria are met (Bono, 2011; Nikolaidis, 2010):
  o Cervical radiculopathy or myelopathy due to ruptured disc, spondylosis, spinal instability, or deformity; **AND**
  o Persistent or recurrent pain/symptoms with functional limitations that are unresponsive to at least 6 weeks of conservative treatment; **AND**
  o Documented failure of at least 6 consecutive weeks of any 2 of the following physician-directed conservative treatments:
    ▪ Analgesics, steroids, and/or NSAIDs
    ▪ Structured program of physical therapy
    ▪ Structured home exercise program prescribed by a physical therapist, chiropractic provider or physician
    ▪ Epidural steroid injections and/or selective nerve root block; **AND**
  o Imaging studies confirm the presence of spinal cord or spinal nerve root compression (disc herniation or foraminal stenosis) at multiple levels corresponding with the clinical findings. Imaging studies may include any of the following (Bono 2011):
    ▪ MRI (preferred study for assessing cervical spine soft tissue); **OR**
CT with or without myelography - indicated in patients in whom MRI is contraindicated; preferred for examining bony structures, or in patients presenting with clinical symptoms or signs inconsistent with MRI findings (e.g., foraminal compression not seen on MRI)

*Cervical spine decompression with fusion performed as first-line treatment without conservative care measures in the following clinical cases (Matz, 2009b; Tetreault, 2013; White, 1987; Zhu, 2013):
- As outlined above for myelopathy or progressive neurological deficit scenarios.
- Significant spinal cord or nerve root compression due to tumor, infection or trauma.
- Fracture or instability on radiographic films measuring:
  - Sagittal plan angulation of greater than 11 degrees at a single interspace or greater than 3.5 mm anterior subluxation in association with radicular/cord dysfunction; OR
  - Subluxation at the (C1) level of the atlantodental interval of more than 3 mm in an adult and 5 mm in a child.

Not Recommended (Nikolaidis, 2010; van Middelkoop, 2012):
- In asymptomatic or mildly symptomatic cases of cervical spinal stenosis.
- In cases of neck pain alone, without neurological deficits, and no evidence of significant spinal nerve root or cord compression on MRI or CT. See E. Cervical Fusion for Treatment of Axial Neck Pain Criteria.

C. Cervical Posterior Decompression with Fusion - Single Level
Surgical indications for cervical spine stenosis/cervical spondylotic myelopathy (CSM) must meet the following criteria*:
  - Symptoms may include:
    - Upper extremity weakness
    - Unsteady gait related to myelopathy/balance or generalized lower extremity weakness
    - Disturbance with coordination
    - Hyperreflexia
    - Hoffmann sign
    - Positive Babinski sign and/or clonus

OR
- Progressive neurological deficit (motor deficit, bowel or bladder dysfunction) with corresponding evidence of spinal cord or nerve root compression on an MRI or CT scan images - immediate surgical evaluation is indicated (Bono, 2011; Matz, 2009b; Tetreault, 2013).

OR
- When ALL of the following criteria are met (Bono, 2011; Nikolaidis, 2010):
  - Cervical radiculopathy or myelopathy from ruptured disc, spondylosis, spinal instability, or deformity; **AND**
  - Persistent or recurrent symptoms/pain with functional limitations that are unresponsive to at least 6 weeks of conservative treatment; **AND**
  - Documented failure of at least 6 consecutive weeks of any 2 of the following physician-directed conservative treatments:
    - Analgesics, steroids, and/or NSAIDs
    - Structured program of physical therapy
Structured home exercise program prescribed by a physical therapist, chiropractic provider or physician

Epidural steroid injections and/or selective nerve root block; **AND**

- Imaging studies confirm the presence of spinal cord or spinal nerve root compression (disc herniation or foraminal stenosis) at single level corresponding with the clinical findings (Bono, 2011). Imaging studies may include:
  - MRI (preferred study for assessing cervical spine soft tissue); **OR**
  - CT with or without myelography - indicated in patients in whom MRI is contraindicated; preferred for examining bony structures, or in patients presenting with clinical symptoms or signs inconsistent with MRI findings (e.g., foraminal compression not seen on MRI); **AND**
  - Single level symptomatic cervical disease as evidence by (Anderson, 2007):
    - cervical spinal stenosis due to cervical spondylotic myelopathy (CSM); **or**
    - cervical spinal stenosis due to ossification of the posterior longitudinal ligament (OPLL); **or**
    - single level spinal cord or nerve root compression due to hemiated disc.

*Cervical spine decompression with fusion performed as first-line treatment without conservative care measures in the following clinical cases (Anderson, 2007; Tetreault, 2013; White, 1987; Zhu, 2013):

- As outlined above for myelopathy or progressive neurological deficit scenarios.
- Significant spinal cord or nerve root compression due to tumor, infection or trauma.
- Fracture or instability on radiographic films measuring:
  - Sagittal plane angulation of greater than 11 degrees at a single interspace or greater than 3.5 mm anterior subluxation in association with radicular/cord dysfunction; **OR**
  - Subluxation at the (C1) level of the atlantodental interval of more than 3 mm in an adult and 5 mm in a child.

Not Recommended (Nikolaidis, 2010; Wang, 2011):

- In asymptomatic or mildly symptomatic cases of cervical spinal stenosis.
- In cases of neck pain alone, without neurological deficits, and no evidence of significant spinal nerve root or cord compression on MRI or CT. See E. Cervical Fusion for Treatment of Axial Neck Pain Criteria.

**D. Cervical Posterior Decompression with Fusion - Multiple Levels**

Surgical indications for cervical spine stenosis/cervical spondylotic myelopathy (CSM) must meet the following criteria**:

  
  Symptoms may include:
  - upper extremity weakness
  - unsteady gait related to myelopathy/balance or generalized lower extremity weakness
  - disturbance with coordination
  - hyperreflexia
  - Hoffmann sign
  - positive Babinski sign and/or clonus

**OR**

- Progressive neurological deficit (motor deficit, bowel or bladder dysfunction) with corresponding evidence of spinal cord or nerve root compression on an MRI or CT scan images - immediate surgical evaluation is indicated (Bono, 2011; Matz, 2009b; Tetreault, 2013).
OR

- When **ALL** of the following criteria are met (Bono, 2011; Nikolaidis, 2010):
  - Cervical radiculopathy or myelopathy from ruptured disk, spondylosis, spinal instability, or deformity; **AND**
  - Persistent or recurrent symptoms/pain with functional limitations that are unresponsive to at least 6 weeks of conservative treatment; **AND**
  - Documented failure of at least 6 consecutive weeks of any 2 of the following physician-directed conservative treatments:
    - Analgesics, steroids, and/or NSAIDs
    - Structured program of physical therapy
    - Structured home exercise program prescribed by a physical therapist, chiropractic provider or physician
    - Epidural steroid injections and/or facet injections/selective nerve root block; **AND**
  - Imaging studies indicate significant spinal cord or spinal nerve root compression at multiple levels corresponding with the clinical findings. Imaging studies may include (Bono, 2011):
    - MRI (preferred study for assessing cervical spine soft tissue); **OR**
    - CT with or without myelography - indicated in patients in whom MRI is contraindicated; preferred for examining bony structures, or in patients presenting with clinical symptoms or signs inconsistent with MRI findings (e.g., foraminal compression not seen on MRI); **AND**
  - Multilevel (>=2) symptomatic cervical disease as evidence by (Anderson, 2007; Bono, 2011):
    - Cervical spinal stenosis due to cervical spondylotic myelopathy (CSM); **or**
    - Cervical spinal stenosis due to ossification of the posterior longitudinal ligament (OPLL); **or**
    - Evidence of significant spinal cord or nerve root compression from herniated discs at two or more levels.

*Cervical spine decompression with fusion performed as first-line treatment without conservative care measures in the following clinical cases (Anderson, 2007; Tetreault, 2013; White, 1987; Zhu, 2013):
- As outlined above for myelopathy or progressive neurological deficit scenarios.
- Significant spinal cord or nerve root compression due to tumor, infection or trauma.
- Fracture or instability on radiographic films measuring:
  - Sagittal plane angulation of greater than 11 degrees at a single interspace or greater than 3.5 mm anterior subluxation in association with radicular/cord dysfunction; **OR**
  - Subluxation at the (C1) level of the atlantodental interval of more than 3 mm in an adult and 5 mm in a child.

Not Recommended (Nikolaidis, 2010; Wang, 2011):
- In asymptomatic or mildly symptomatic cases of cervical spinal stenosis.
- In cases of neck pain alone, without neurological deficits, and no evidence of significant spinal nerve root or cord compression on MRI or CT. See E. Cervical Fusion for Treatment of Axial Neck Pain Criteria.

E. **Cervical Fusion for Treatment of Axial Neck Pain:**
In patients with non-radicular cervical pain for whom fusion is being considered, **ALL** of the following criteria must be met (Riew, 2010):
- Improvement of the symptoms has failed or plateaued, and the residual symptoms of pain and functional disability are unacceptable at the end of 6 to 12 consecutive months of appropriate, active treatment, or at the end of longer duration of non-operative programs for debilitated patients with complex problems [NOTE: Mere
The passage of time with poorly guided treatment is not considered an active treatment program; AND

- All pain generators are adequately defined and treated; AND
- All physical medicine and manual therapy interventions are completed; AND
- X-ray, MRI, or CT demonstrating disc pathology or spinal instability; AND
- Spine pathology limited to one or two levels unless other complicating factors are involved; AND
- Psychosocial evaluation for confounding issues addressed.

NOTE: The effectiveness of three-level or greater cervical fusion for non-radicular pain has not been established (van Middelkoop, 2012).

F. Cervical Posterior Decompression
Surgical indications for cervical nerve root decompression due to radiculopathy, disc herniation or foraminal stenosis. A posterior laminotomy and discectomy is occasionally used for patients with specific lateral disc herniations when the surgeon's preference is that the individual would respond better with a posterior approach than an anterior one.

The following criteria must be met:

- Positive clinical findings of myelopathy with evidence of progressive neurologic deficits consistent with worsening spinal cord compression - immediate surgical evaluation is indicated (AAOS, 2013; Bono, 2011; Heary, 2009; Mummaneni, 2009; Ryken, 2009; Tetreault, 2013; Wang, 2013; Yalamanchili, 2012; Zhu, 2013). Symptoms may include:
  - upper extremity weakness
  - unsteady gait related to myelopathy/balance or generalized lower extremity weakness
  - disturbance with coordination
  - hyperreflexia
  - Hoffmann sign
  - positive Babinski sign and/or clonus

OR

- Progressive neurological deficit (motor deficit, bowel or bladder dysfunction) with corresponding evidence of spinal cord or nerve root compression on an MRI or CT scan images - immediate surgical evaluation is indicated (Tetreault, 2013; Wang, 2013).

OR

- When ALL of the following criteria are met (Bono, 2011):
  - Cervical radiculopathy from ruptured disc, spondylosis, or deformity; AND
  - Persistent or recurrent symptoms/pain with functional limitations that are unresponsive to at least 6 weeks of appropriate conservative treatment; AND
  - Documented failure of at least 6 consecutive weeks of any 2 of the following physician-directed conservative treatments:
    - Analgesics, steroids, and/or NSAIDs
    - Structured program of physical therapy
    - Structured home exercise program prescribed by a physical therapist, chiropractic provider or physician
    - Epidural steroid injections and/or facet injections/selective nerve root block; AND
  - Imaging studies confirm the presence of spinal cord or spinal nerve root compression at the level(s) corresponding with the clinical findings (Bono, 2011). Imaging studies may include any of the following:
    - MRI (preferred study for assessing cervical spine soft tissue); OR

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- CT with or without myelography—indicated in patients in whom MRI is contraindicated; preferred for examining bony structures, or in patients presenting with clinical symptoms or signs inconsistent with MRI findings (e.g., foraminal compression not seen on MRI);

*Cervical decompression performed as first-line treatment without conservative care in the following clinical cases (Ryken, 2009; Tetreault, 2013; Wang, 2013; Zhu, 2013):
- As outlined above for myelopathy or progressive neurological deficit scenarios.
- Spinal cord or nerve root compression due to tumor, infection or trauma.

Not Recommended (Nikolaidis, 2010; Wang, 2011):
- In asymptomatic or mildly symptomatic cases.
- In cases of neck pain alone, without neurological deficits and abnormal imaging findings. See E. Cervical Fusion for Treatment of Axial Neck Pain Criteria.
- In patients with kyphosis or at risk for development of postoperative kyphosis.

G. Cervical Artificial Disc Replacement (Single or Two Level)
This involves the insertion of a prosthetic device into the cervical intervertebral space with the goal of maintaining physiologic motion at the treated cervical segment. The use of artificial discs in motion-preserving technology is based on the surgeon's preference and training. Only FDA-approved artificial discs are appropriate.

Indications for artificial cervical disc replacement are as follows (Bono, 2011; Cheng, 2009; Davis, 2015; Matz, 2009e):
- Skeletally mature patient; AND
- Patient has intractable radiculopathy caused by one or two level disease (either herniated disc or spondolytic osteophyte) located at C3-C7; AND
- Persistent or recurrent symptoms/pain with functional limitations that are unresponsive to at least 6 weeks of appropriate conservative treatment; AND
- Documented failure of at least 6 consecutive weeks of any 2 of the following physician-directed conservative treatments:
  - Analgesics, steroids, and/or NSAIDs
  - Structured program of physical therapy
  - Structured home exercise program prescribed by a physical therapist, chiropractic provider or physician
  - Epidural steroid injections and/or facet injections/selective nerve root block; AND
- Imaging studies confirm the presence of compression at the level(s) corresponding with the clinical findings (MRI or CT); AND
- No prior neck surgery; AND
- Use of an FDA-approved prosthetic intervertebral discs.

Cervical Artificial Disc Replacement is NOT indicated when any of the following clinical scenarios exist (Davis, 2015):
- Symptomatic multiple level disease affecting 3 or more levels
- Adjacent level disease: degenerative disease adjacent to a previous cervical fusion
- Infection (at site of implantation or systemic)
- Osteoporosis or osteopenia
- Instability
  - Translation greater than 3 mm difference between lateral flexion-extension views at the symptomatic levels;
  - 11 degrees of angular difference between lateral flexion-extension views at the symptomatic levels
- Sensitivity or allergy to implant materials
- Severe spondylosis defined as (Davis, 2015):
  - 50% disc height loss compared to minimally or non-degenerated levels; OR
  - Bridging osteophytes: OR
Absence of motion on lateral flexion-extension views at the symptomatic site
• Severe facet arthropathy
• Ankylosing spondylitis
• Rheumatoid arthritis
• Previous fracture with anatomical deformity
• Ossification of the posterior longitudinal ligament (OPLL)
• Active cervical spine malignancy

H. Cervical Fusion Without Decompression
Cervical fusion without decompression will be reviewed on a case-by-case basis. Atraumatic instability due to Down Syndrome-related spinal deformity, rheumatoid arthritis, or basilar invagination are uncommon, but may require cervical fusion (Truemes, 2017).

I. Cervical Anterior Decompression (Without Fusion)
All requests for anterior decompression without fusion will be reviewed on a case-by-case basis (Bono, 2011; Botelho, 2012; Gebremariam, 2012; Matz, 2009a; Matz, 2009e).

Policy Guidelines

*Conservative Therapy: (Musculoskeletal) includes primarily physical therapy and/or injections; and a combination of modalities, such as rest, ice, heat, modified activities, medical devices, (such as crutches, immobilizer, metal braces, orthotics, rigid stabilizer or splints, etc. and not to include neoprene sleeves), medications, diathermy, chiropractic treatments, or physician supervised home exercise program. Part of this combination may include the physician instructing patient to rest the area or stay off the injured part.

**Home Exercise Program - (HEP) – the following two elements are required to meet guidelines for completion of conservative therapy:
• Information provided on exercise prescription/plan AND
• Follow up with member with documentation provided regarding completion of HEP, (after 4 – 6 week period) or inability to complete HEP due to physical reason- i.e. increased pain, inability to physically perform exercises. (Patient inconveniences or noncompliance without explanation does not constitute “inability to complete” HEP).

A comprehensive assimilation of factors should lead to a specific diagnosis with positive identification of the pathologic condition(s).
• Early intervention may be required in acute incapacitating pain or in the presence of progressive neurological deficits.
• Operative treatment is indicated when the natural history of surgically treated lesions is better than the natural history for non-operatively treated lesions.
• Patients may present with localized pain or severe pain in combination with numbness, extremity weakness, loss of coordination, gait issues, or bowel and bladder complaints. Nonoperative treatment continues to play an important role in the care of patients with degenerative cervical spine disorders. If these symptoms progress to neurological deficits, from corresponding spinal cord or nerve root compression, than surgical intervention may be warranted.
• All patients being considered for surgical intervention should first undergo a comprehensive neuromusculoskeletal examination to identify those pain generators that may either respond to non-surgical techniques, or may be refractory to surgical intervention.
• If operative intervention is being considered, particularly those procedures that require a fusion, it is recommended that the person refrain from smoking for at least six weeks prior to surgery and during the time of healing.
• In situations requiring the possible need for operation, a second opinion may be necessary. Psychological evaluation is strongly encouraged when surgery is being
performed for isolated axial pain to determine if the patient will likely benefit from the treatment.

- It is imperative for the clinician to rule out non-physiologic modifiers of pain presentation, or non-operative conditions mimicking radiculopathy, myelopathy or spinal instability (peripheral compressive neuropathy, chronic soft tissue injuries, and psychological conditions), prior to consideration of elective surgical intervention.

Degenerative cervical spine disorders, while often benign and episodic in nature, can become debilitating, resulting in axial pain and neurological damage to the spinal cord or roots. Compression on the nerve root and/or spinal cord may be caused by (1) a herniated disc with or without extrusion of disc fragments and/or (2) degenerative cervical spondylosis.

**Key Primary CPT Codes:**

**Anterior Cervical Decompression with Fusion (ACDF) - Single Level**
- 22548, 22551, 22554

**Anterior Cervical Decompression with Fusion (ACDF) - Multiple Level**
- 22548, 22551, 22554, +22552, +22585

**Cervical Posterior Decompression with Fusion - Single Level**
- 22590, 22595, 22600

**Cervical Posterior Decompression with Fusion - Multiple Levels**
- 22590, 22595, 22600, +22614

**Cervical Artificial Disc - Single Level**
- 22856, 22861, 22864

**Cervical Artificial Disc - Two Levels**
- 22858, 0095T, 0098T (0375T is not a covered service and is not reimbursable)

**Cervical Anterior Decompression without Fusion**
- 63075, +63076

**Cervical Posterior Decompression without Fusion**
- 63001, 63015, 63020, 63040, 63045, 63050, 63051, +63035, +63043, +63048

**Description**

This guideline outlines the key surgical treatments and indications for common cervical spinal disorders and is a consensus document based upon the best available evidence. Spine surgery is a complex area of medicine, and this document breaks out the clinical indications by surgical type. Operative treatment is indicated only when the natural history of an operatively treatable problem is better than the natural history of the problem without operative treatment. Choice of surgical approach is based on anatomy, the patient's pathology, and the surgeon's experience and preference. All operative interventions must be based on a positive correlation with clinical findings, the natural history of the disease, the clinical course, and diagnostic tests or imaging results.

**Related Policies**

- N/A
Benefit Application

Benefit determinations should be based in all cases on the applicable contract language. To the extent there are any conflicts between these guidelines and the contract language, the contract language will control. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage of these services as it applies to an individual member.

Some state or federal mandates (e.g., Federal Employee Program [FEP]) prohibits plans from denying Food and Drug Administration (FDA)-approved technologies as investigational. In these instances, plans may have to consider the coverage eligibility of FDA-approved technologies on the basis of medical necessity alone.

Regulatory Status

- N/A

Rationale

Degenerative cervical spine disorders, while often benign and episodic in nature, can become debilitating, resulting in axial pain and neurological damage to the spinal cord or roots. Compression on the nerve root and/or spinal cord may be caused by (1) a herniated disc with or without extrusion of disc fragments and/or (2) degenerative cervical spondylosis.

Anterior Approaches - Additional Information:

- Anterior surgical approaches to cervical spine decompression emerged in the 1950s in response to technical limitations experienced with posterior approaches, including restricted access to and exposure of midline bony spurs and disc fragments.
- The first reports in the literature describe anterior cervical discectomy combined with a spinal fusion procedure (ACDF). Fusion was added to address concerns about potential for loss of spinal stability and disc space height, leading to late postoperative complications such as kyphosis and radicular pain (Sonntag and Klara, 1996; Dowd and Wirth, 1999; Matz et al, 2009a; Matz et al 2009b; Denaro and Di Martino, 2011; Botelho et al, 2012; van Middelkoop et al, 2012).
- Anterior cervical fusion (ACF) accounted for approximately 80% of cervical spine procedures performed in the United States between 2002 and 2009, while posterior cervical fusion (PCF) accounted for 8.5% of these procedures (Oglesby et al, 2013).
- Anterior Cervical Discectomy and Fusion (ACDF) - removal of all or part of a herniated or ruptured disc or spondylytic bony spur to alleviate pressure on the nerve roots or on the spinal cord in patients with symptomatic radiculopathy. Discectomy is most often combined with fusion to stabilize the spine.

Posterior Approaches

- Laminectomy - removal of the bone between the spinal process and facet pedicle junction to expose the neural elements of the spine; this allows for the inspection of the spinal canal, identification and removal of pathological tissue, and decompression of the cord and roots.
- Laminoplasty - the opening of the lamina to enlarge the spinal canal. There are several laminoplasty techniques; all aim to alleviate cord compression by reconstructing the spinal canal. Laminoplasty is commonly performed to decompress the spinal cord in patients with multilevel degenerative spinal stenosis and neutral or lordotic alignment.
- Laminoforaminotomy (also known as posterior discectomy) - the creation of a small window in the lamina to facilitate removal of arthritic bone spurs and herniated disc material pressing on the nerve root as it exits through the foramen. The procedure widens the opening of the foramen so that the nerve exits without being compressed.
References


**Documentation for Clinical Review**

**Please provide the following documentation (if/when requested):**

- History and physical and/or consultation notes including:
  - Activity limitations
  - Clinical findings
  - Comorbidities
  - Conservative treatments and duration
  - Duration of back pain
  - Reason for procedure
- Radiology report(s) (i.e., MRI, CT, discogram)

**Post Service**

- Procedure report(s)
### Coding

This Policy relates only to the services or supplies described herein. Benefits may vary according to product design; therefore, contract language should be reviewed before applying the terms of the Policy. Inclusion or exclusion of codes does not constitute or imply member coverage or provider reimbursement.

**MN/IE**

The following services may be considered medically necessary in certain instances and investigational in others. Services may be considered medically necessary when policy criteria are met. Services may be considered investigational when the policy criteria are not met or when the code describes application of a product in the position statement that is investigational.

<table>
<thead>
<tr>
<th>Type</th>
<th>Code</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>MN/IE</td>
<td>0095T</td>
<td>Removal of total disc arthroplasty (artificial disc), anterior approach, each additional interspace, cervical (List separately in addition to code for primary procedure)</td>
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<tr>
<td>MN/IE</td>
<td>0098T</td>
<td>Revision including replacement of total disc arthroplasty (artificial disc), anterior approach, each additional interspace, cervical (List separately in addition to code for primary procedure)</td>
</tr>
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<td>MN/IE</td>
<td>0274T</td>
<td>Percutaneous laminotomy/laminectomy (interlaminar approach) for decompression of neural elements, (with or without ligamentous resection, disectomy, facetectomy and/or foraminotomy), any method, under indirect image guidance (e.g., fluoroscopic, CT), single or multiple levels, unilateral or bilateral; cervical or thoracic</td>
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<td>MN/IE</td>
<td>0375T</td>
<td>Total disc arthroplasty (artificial disc), anterior approach, including disectomy with end plate preparation (includes osteophytectomy for nerve root or spinal cord decompression and microdissection), cervical, three or more levels</td>
</tr>
<tr>
<td>CPT®</td>
<td>22548</td>
<td>Arthrodesis, anterior transoral or extraoral technique, clivus-C1-C2 (atlas-axis), with or without excision of odontoid process</td>
</tr>
<tr>
<td>CPT®</td>
<td>22551</td>
<td>Arthrodesis, anterior interbody, including disc space preparation, disectomy, osteophytectomy and decompression of spinal cord and/or nerve roots; cervical below C2</td>
</tr>
<tr>
<td>CPT®</td>
<td>22552</td>
<td>Arthrodesis, anterior interbody, including disc space preparation, disectomy, osteophytectomy and decompression of spinal cord and/or nerve roots; cervical below C2, each additional interspace (List separately in addition to code for separate procedure)</td>
</tr>
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<td>CPT®</td>
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<td>Arthrodesis, anterior interbody technique, including minimal disectomy to prepare interspace (other than for decompression); cervical below C2</td>
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<td>CPT®</td>
<td>22585</td>
<td>Arthrodesis, anterior interbody technique, including minimal disectomy to prepare interspace (other than for decompression); each additional interspace (List separately in addition to code for primary procedure)</td>
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<td>22590</td>
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<td>Arthrodesis, posterior technique, atlas-axis (C1-C2)</td>
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<td>CPT®</td>
<td>22600</td>
<td>Arthrodesis, posterior or posterolateral technique, single level; cervical below C2 segment</td>
</tr>
<tr>
<td>CPT®</td>
<td>22614</td>
<td>Arthrodesis, posterior or posterolateral technique, single level; each additional vertebral segment (List separately in addition to code for primary procedure)</td>
</tr>
<tr>
<td>Type</td>
<td>Code</td>
<td>Description</td>
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<tr>
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</tr>
<tr>
<td></td>
<td>22856</td>
<td>Total disc arthroplasty (artificial disc), anterior approach, including discectomy with end plate preparation (includes osteophytectomy for nerve root or spinal cord decompression and microdissection); single interspace, cervical</td>
</tr>
<tr>
<td></td>
<td>22858</td>
<td>Total disc arthroplasty (artificial disc), anterior approach, including discectomy with end plate preparation (includes osteophytectomy for nerve root or spinal cord decompression and microdissection); second level, cervical (List separately in addition to code for primary procedure)</td>
</tr>
<tr>
<td></td>
<td>22861</td>
<td>Revision including replacement of total disc arthroplasty (artificial disc), anterior approach, single interspace; cervical</td>
</tr>
<tr>
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<td>22864</td>
<td>Removal of total disc arthroplasty (artificial disc), anterior approach, single interspace; cervical</td>
</tr>
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<td></td>
<td>63001</td>
<td>Laminectomy with exploration and/or decompression of spinal cord and/or cauda equina, without facetectomy, foraminotomy or discectomy (e.g., spinal stenosis), 1 or 2 vertebral segments; cervical</td>
</tr>
<tr>
<td></td>
<td>63015</td>
<td>Laminectomy with exploration and/or decompression of spinal cord and/or cauda equina, without facetectomy, foraminotomy or discectomy (e.g., spinal stenosis), more than 2 vertebral segments; cervical</td>
</tr>
<tr>
<td></td>
<td>63020</td>
<td>Laminotomy (hemilaminectomy), with decompression of nerve root(s), including partial facetectomy, foraminotomy and/or excision of hemiated intervertebral disc; 1 interspace, cervical</td>
</tr>
<tr>
<td></td>
<td>63035</td>
<td>Laminotomy (hemilaminectomy), with decompression of nerve root(s), including partial facetectomy, foraminotomy and/or excision of hemiated intervertebral disc; each additional interspace, cervical or lumbar (List separately in addition to code for primary procedure)</td>
</tr>
<tr>
<td></td>
<td>63040</td>
<td>Laminotomy (hemilaminectomy), with decompression of nerve root(s), including partial facetectomy, foraminotomy and/or excision of hemiated intervertebral disc, reexploration, single interspace; cervical</td>
</tr>
<tr>
<td></td>
<td>63043</td>
<td>Laminotomy (hemilaminectomy), with decompression of nerve root(s), including partial facetectomy, foraminotomy and/or excision of hemiated intervertebral disc, reexploration, single interspace; each additional cervical interspace (List separately in addition to code for primary procedure)</td>
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<tr>
<td></td>
<td>63045</td>
<td>Laminectomy, facetectomy and foraminotomy (unilateral or bilateral with decompression of spinal cord, cauda equina and/or nerve root[s], e.g., spinal or lateral recess stenosis), single vertebral segment; cervical</td>
</tr>
<tr>
<td></td>
<td>63048</td>
<td>Laminectomy, facetectomy and foraminotomy (unilateral or bilateral with decompression of spinal cord, cauda equina and/or nerve root[s], e.g., spinal or lateral recess stenosis), single vertebral segment; each additional segment, cervical, thoracic, or lumbar (List separately in addition to code for primary procedure)</td>
</tr>
<tr>
<td></td>
<td>63050</td>
<td>Laminoplasty, cervical, with decompression of the spinal cord, 2 or more vertebral segments</td>
</tr>
<tr>
<td></td>
<td>63051</td>
<td>Laminoplasty, cervical, with decompression of the spinal cord, 2 or more vertebral segments; with reconstruction of the posterior bony elements (including the application of bridging bone graft and non-segmental fixation devices, e.g., wire, suture, mini-plates, when performed)</td>
</tr>
<tr>
<td></td>
<td>63075</td>
<td>Discectomy, anterior, with decompression of spinal cord and/or nerve root(s), including osteophytectomy; cervical, single interspace</td>
</tr>
</tbody>
</table>
### Policy History

This section provides a chronological history of the activities, updates and changes that have occurred with this Medical Policy.

<table>
<thead>
<tr>
<th>Effective Date</th>
<th>Action</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/01/2017</td>
<td>Adoption of National Imaging Associates (NIA) Clinical Guidelines</td>
<td>Medical Policy Committee</td>
</tr>
<tr>
<td>07/01/2018</td>
<td>NIA Clinical Guideline update</td>
<td>Administrative Review</td>
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</table>

### Definitions of Decision Determinations

**Medically Necessary:** A treatment, procedure, or drug is medically necessary only when it has been established as safe and effective for the particular symptoms or diagnosis, is not investigational or experimental, is not being provided primarily for the convenience of the patient or the provider, and is provided at the most appropriate level to treat the condition.

**Investigational/Experimental:** A treatment, procedure, or drug is investigational when it has not been recognized as safe and effective for use in treating the particular condition in accordance with generally accepted professional medical standards. This includes services where approval by the federal or state governmental is required prior to use, but has not yet been granted.

**Split Evaluation:** Blue Shield of California/Blue Shield of California Life & Health Insurance Company (Blue Shield) policy review can result in a split evaluation, where a treatment, procedure, or drug will be considered to be investigational for certain indications or conditions, but will be deemed safe and effective for other indications or conditions, and therefore potentially medically necessary in those instances.

### Prior Authorization Requirements (as applicable to your plan)

Within five days before the actual date of service, the provider must confirm with Blue Shield that the member's health plan coverage is still in effect. Blue Shield reserves the right to revoke an authorization prior to services being rendered based on cancellation of the member's eligibility. Final determination of benefits will be made after review of the claim for limitations or exclusions.

Questions regarding the applicability of this policy should be directed to the Prior Authorization Department. Please call (800) 541-6652 or visit the provider portal at www.blueshieldca.com/provider.

Disclaimer: This medical policy is a guide in evaluating the medical necessity of a particular service or treatment. Blue Shield of California may consider published peer-reviewed scientific literature, national guidelines, and local standards of practice in developing its medical policy. Federal and state law, as well as contract language, including definitions and specific contract provisions/exclusions, take precedence over medical policy and must be considered first in determining covered services. Member contracts may differ in their benefits. Blue Shield reserves the right to review and update policies as appropriate.