Evolent Clinical Guideline 1759 for Cervical Spine Surgery

Guideline ~~or Policy~~ Number: Evolent_CG_~~307~~**1759**	**Applicable Codes**	
"Evolent" refers to Evolent Health LLC and Evolent Specialty Services, Inc. 		
Original Date: July 2008	**Last Revised Date:** ~~December 2023~~**November 2024**	**Implementation Date:** July ~~2024~~**2025**

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STATEMENT

Operative treatment is indicated only when the natural history of surgically treated lesions is better than the natural history for non-operatively treated lesions. 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. All individuals being considered for surgical intervention should receive a comprehensive neuromusculoskeletal examination to identify pain generators that may either respond to non-surgical techniques or may be refractory to surgical intervention.

General Information

It is an expectation that all patients receive care/services from a licensed clinician. All appropriate supporting documentation, including recent pertinent office visit notes, laboratory data, and results of any special testing must be provided. If applicable: All prior relevant imaging results and the reason that alternative imaging cannot be performed must be included in the documentation submitted.

Purpose

This guideline outlines the key surgical treatments and indications for common cervical spinal disorders and is 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.

This guideline does not address spinal deformity surgeries or the clinical indications for spinal deformity surgery.

Scope

Spinal surgeries should be performed only by those with extensive and specialized surgical training (neurosurgery, orthopedic surgery). Choice of surgical approach is based on anatomy, pathology, and the surgeon's experience and preference.

Instrumentation, bone formation or grafting materials, including biologics, should be used at the surgeon’s discretion; however, use should be limited to FDA approved indications regarding the specific devices or biologics.

Special Note

See Legislative ~~Requirements~~ Language for specific mandates in the State of Washington

INDICATIONS

Anterior Cervical Discectomy with Fusion (ACDF) - Single Level

When one of the two following criteria are met [1,2,3,4,5,6,7,8]:

- Positive clinical findings of myelopathy with evidence of progressive neurologic deficits consistent with **spinal cord compression** - immediate surgical evaluation is indicated. Symptoms may include [9]:

- 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

- 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

When ALL of the following criteria are met [8,9,10]:

- Cervical radiculopathy or myelopathy from ruptured disc, spondylosis, spinal instability, or deformity
- Failure of **conservative treatment*** for a minimum of six (6) weeks within the last six (6) months;

NOTE - Failure of conservative treatment is defined as one of the following:

- **Lack of meaningful improvement after a full course of treatment; OR**
- **Progression or worsening of symptoms during treatment; OR**
- **Documentation of a medical reason the member is unable to participate in treatment**

Closure of medical or therapy offices, patient inconvenience, or noncompliance without explanation does not constitute "inability to complete" treatment.

- 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**. Imaging studies may include:
  - MRI (preferred study for assessing cervical spine soft tissue)
  - CT with or without myelography— indicated in individuals in whom MRI is contraindicated; preferred for examining bony structures, or in individuals presenting with clinical symptoms or signs inconsistent with MRI findings (e.g., foraminal compression not seen on MRI)

As first-line treatment without conservative care measures in the following clinical cases [1,2,6,11]:

- 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 3.5mm anterior subluxation in association with radicular/cord dysfunction
  - Subluxation at the (C1) level of the atlantodental interval of more than 3mm in an adult and 5mm in a child

Not recommended [10]:

- 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* ***Cervical Fusion for Treatment of Axial Neck Pain Criteria***

Anterior Cervical Discectomy with Fusion (ACDF) – Multiple Levels

When one of the two following criteria are met [1,2,3,4,5,6,7,8]:

- Positive clinical findings of myelopathy with evidence of progressive neurologic deficits consistent with worsening **spinal cord compression** – immediate surgical evaluation is indicated. 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
- 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

When ALL of the following criteria are met [8,10]:

- Cervical radiculopathy or myelopathy due to ruptured disc, spondylosis, spinal instability, or deformity
- Failure of **conservative treatment*** for a minimum of six (6) weeks within the last six (6) months;

NOTE - Failure of conservative treatment is defined as one of the following:

- **Lack of meaningful improvement after a full course of treatment; OR**
- **Progression or worsening of symptoms during treatment; OR**
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- 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:
  - MRI (preferred study for assessing cervical spine soft tissue)
  - CT with or without myelography - indicated in individuals in whom MRI is

contraindicated; preferred for examining bony structures, or in individuals presenting with clinical symptoms or signs inconsistent with MRI findings (e.g., foraminal compression not seen on MRI)

As first-line treatment without conservative care measures in the following clinical cases [1,2,6,11]:

- 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 3.5mm anterior subluxation in association with radicular/cord dysfunction
  - Subluxation at the (C1) level of the atlantodental interval of more than 3mm in an adult and 5mm in a child

Not recommended [10]:

- 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* ***Cervical Fusion for Treatment of Axial Neck Pain Criteria***

Cervical Posterior Decompression with Fusion - Single Level

When one of the two following criteria are met [1,2,3,4,5,6,7,8,12]:

- Positive clinical findings of myelopathy with evidence of progressive neurologic deficits consistent with worsening **spinal cord compression** - immediate surgical evaluation is indicated**.** 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
- 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

When ALL of the following criteria are met [8,10]:

- Cervical radiculopathy or myelopathy from ruptured disc, spondylosis, spinal instability, or deformity
- Failure of **conservative treatment*** for a minimum of six (6) weeks within the last six (6) months;

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- 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**. Imaging studies may include:
  - MRI (preferred study for assessing cervical spine soft tissue)
  - CT with or without myelography – indicated in individuals in whom MRI is contraindicated; preferred for examining bony structures, or in individuals presenting with clinical symptoms or signs inconsistent with MRI findings (e.g., foraminal compression not seen on MRI)

As first-line treatment without conservative care measures in the following clinical cases [1,2,6,11,12]:

- 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 3.5mm anterior subluxation in association with radicular/cord dysfunction
  - Subluxation at the (C1) level of the atlantodental interval of more than 3mm in an adult and 5mm in a child

Not recommended [10]:

- 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* ***Cervical Fusion for Treatment of Axial Neck Pain Criteria***

Cervical Posterior Decompression with Fusion – Multiple Levels

When one of the two following criteria are met [1,2,3,4,5,6,7,8,12]:

- Positive clinical findings of myelopathy with evidence of progressive neurologic deficits consistent with worsening **spinal cord compression –** immediate surgical evaluation is indicated. 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

- 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

When ALL of the following criteria are met [8,10]:

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- Imaging studies indicate significant spinal cord or spinal nerve root compression at multiple levels **corresponding with the clinical findings**. Imaging studies may include:
  - MRI (preferred study for assessing cervical spine soft tissue)
  - CT with or without myelography - indicated in individuals in whom MRI is contraindicated; preferred for examining bony structures, or in individuals presenting with clinical symptoms or signs inconsistent with MRI findings (e.g., foraminal compression not seen on MRI)

As first-line treatment without conservative care measures in the following clinical cases [1,2,6,11,12]:

- 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 3.5mm anterior subluxation in association with radicular/cord dysfunction
  - Subluxation at the (C1) level of the atlantodental interval of more than 3mm in an adult and 5mm in a child

Not recommended [10]:

- 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* ***Cervical Fusion for Treatment of Axial Neck Pain Criteria***

Cervical Fusion for Treatment of Axial Neck Pain

Fusion In Individuals with Non-Radicular Cervical Pain

ALL of the following criteria must be met [13,14]

- 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 those debilitated with complex problems

  [**NOTE:** Mere passage of time with poorly guided treatment is not considered an active treatment program]

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

NOTE: The effectiveness of three-level or greater cervical fusion for non-radicular pain has not been established.

Cervical Posterior Decompression

The following criteria must be met* [1,2,4,5,6,7,8,15]**:**

- Positive clinical findings of myelopathy with evidence of progressive neurologic deficits consistent with worsening **spinal cord compression** - immediate surgical evaluation is indicated. 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
- 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

When <u>ALL</u> of the following criteria are met [8]**:**

- Cervical radiculopathy from ruptured disc, spondylosis, or deformity
- Failure of **<u>conservative treatment*</u>** for a minimum of six (6) weeks within the last six (6) months;

NOTE - Failure of conservative treatment is defined as one of the following:

- Lack of meaningful improvement after a full course of treatment; **OR**

- Progression or worsening of symptoms during treatment; **OR**
- Documentation of a medical reason the member is unable to participate in treatment

Closure of medical or therapy offices, patient inconvenience, or noncompliance without explanation does not constitute "inability to complete" treatment.

- Imaging studies confirm the presence of spinal cord or spinal nerve root compression at the level(s) **corresponding with the clinical findings.** Imaging studies may include **any** of the following:
  - MRI (preferred study for assessing cervical spine soft tissue)
  - CT with or without myelography— indicated in individuals in whom MRI is contraindicated; preferred for examining bony structures, or in individuals 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 [1,2,6,15]:

- As outlined above for myelopathy or progressive neurological deficit scenarios
- Spinal cord or nerve root compression due to tumor, infection, or trauma

Not Recommended [10]:

- In asymptomatic or mildly symptomatic cases
- In cases of neck pain alone, without neurological deficits and abnormal imaging findings. *See* ***Cervical Fusion for Treatment of Axial Neck Pain Criteria***
- In individuals with kyphosis or at risk for development of postoperative kyphosis

Cervical Artificial Disc Replacement (Single or Two Level) [8,16,17]

When all of the following criteria are met:

- Skeletally mature individual
- Intractable radiculopathy caused by one-or-two-level disease (either herniated disc or spondolytic osteophyte) located at C3-C7
- Failure of **conservative treatment*** for a minimum of six (6) weeks within the last six (6) months;

NOTE - Failure of conservative treatment is defined as one of the following:

- Lack of meaningful improvement after a full course of treatment; **OR**
- Progression or worsening of symptoms during treatment; **OR**
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- Imaging studies confirm the presence of compression at the level(s) corresponding with the clinical findings (MRI or CT)

- Use of an FDA-approved prosthetic intervertebral discs

Contraindications

- Symptomatic multiple level disease affecting 3 or more levels
- Infection (at site of implantation or systemic)
- Osteoporosis or osteopenia
- Instability
  - Translation greater than 3mm 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:
  - > 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

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.

Cervical Anterior Decompression (Without Fusion) [8,18]

All requests for anterior decompression without fusion will be reviewed on a **case-by-case basis**.

RISK FACTORS AND CONSIDERATIONS [19,20,21]

- Early intervention may be required in acute incapacitating pain or with progressive neurological deficits
- Individuals may present with pain, numbness, extremity weakness, loss of coordination, gait issues, or bowel and bladder complaints. Non-operative treatment is an important role in the care of individuals with degenerative cervical spine disorders. If these symptoms progress to neurological deficits, from corresponding

spinal cord or nerve root compression, surgical intervention may be warranted.

- Obesity is an identified risk factor for surgical site infection. For individuals undergoing posterior cervical decompression with or without fusion for a diagnosis other than myelopathy, BMI should be less than 40. These cases will be reviewed on a **case-by-case basis** and may be denied given the increased risk of infection.
- If operative intervention is being considered, especially procedures that require a fusion, it is required the person refrain from smoking/nicotine for **at least six weeks** prior to surgery and **during the time of healing**.
- In situations requiring possible need for an operation, a second opinion may be necessary. Psychological evaluation is strongly encouraged before surgery is performed for isolated axial pain to determine if the individual 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.

LEGISLATIVE LANGUAGE

Washington

20170120B – Artificial Disc Replacement – Re-review [(22)]

Washington State Health Care Authority

Health Technology Clinical Committee

Final Findings and Decision

HTCC coverage determination:

Cervical artificial disc replacement is a **covered benefit with conditions**, consistent with the criteria identified in the reimbursement determination.

HTCC Reimbursement Determination:

Limitations of coverage:

Patients must meet FDA approved indications for use and not have any contraindications. FDA approval is device specific but includes:

- Skeletally mature patients
- Disc replacement following one- or two-level discectomy for intractable symptomatic radiculopathy or myelopathy confirmed by patient findings and imaging.

Patients must have advanced imaging and clinical evidence of corresponding nerve root or spinal cord compression and have failed or be inappropriate for non-operative care. For two-level procedures, objective evidence of radiculopathy, myelopathy or spinal cord compression at two consecutive levels is required.

Non-covered indicators: NA

Washington State Health Care Authority

Health Technology Clinical Committee

Final Findings and Decision

HTCC Coverage Determination:

Cervical Spinal Fusion for Degenerative Disc Disease is a **covered benefit with conditions**.

HTCC Reimbursement Determination:

Limitations of Coverage

Cervical Spinal Fusion is covered when the following conditions are met:

1. Patients with signs and symptoms of radiculopathy; and
2. Advanced imaging evidence of corresponding nerve root compression; and
3. Failure of conservative (non-operative) care.

Non-Covered Indicators

Cervical Spinal Fusion is not a covered benefit for neck pain without evidence of radiculopathy or myelopathy.

CODING AND STANDARDS

Coding

CPT Codes

- **Anterior Cervical Discectomy with Fusion (ACDF) - Single Level:** 22548, 22551, 22554
- **Anterior Cervical Discectomy with Fusion (ACDF) - Multiple Levels:** +22552, +22585
- **Cervical Posterior Decompression with Fusion - Single Level:** 22590, 22595, 22600
- **Cervical Posterior Decompression with Fusion - Multiple Levels:** 22595, +22614
- **Cervical Artificial Disc Replacement - Single Level:** 22856, 22861, 22864
- **Cervical Artificial Disc Replacement - Two Levels:** +22858, +0095T, +0098T
- **Cervical Posterior Decompression (without fusion):** 63001, 63015, 63020, +63035, 63040, +63043, 63045, +63048, 63050, 63051
- **Cervical Anterior Decompression (without fusion):** 63075, +63076

Applicable Lines of Business

☒	CHIP (Children's Health Insurance Program)
☒	Commercial
☒	Exchange/Marketplace
☒	Medicaid
☒	Medicare Advantage

BACKGROUND

*Conservative Treatment

Non-operative conservative treatment should include a multimodality approach consisting of at least one (1) active and one (1) inactive component targeting the affected spinal region.

- Active ~~components~~**Modalities**
  - Physical therapy
  - Physician-supervised home exercise program (HEP)**
  - Chiropractic Care
- Inactive ~~components~~**Modalities**
  - Medications (e.g., NSAIDs, steroids, analgesics)
  - Injections (e.g., epidural steroid injection, selective nerve root block)
  - Medical devices (e.g., TENS unit, bracing)

**Home Exercise Program (HEP)

The following two elements are required to meet conservative therapy guidelines for HEP:

- Documentation of an exercise prescription/plan provided by a physician, physical therapist, or chiropractor; **AND**
- Follow-up documentation regarding completion of HEP after the required 6-week timeframe or inability to complete HEP due to a documented medical reason (i.e., increased pain or inability to physically perform exercises)

POLICY HISTORY

Date	Summary
November 2024	• **This guideline replaces Evolent Clinical Guideline 307 for Cervical Spine Surgery** • **Updated guideline formatting to Evolent standard** • **Added language about failure of conservative treatment to the Indications** • **Updated references**
December 2023	• Added legislative language for WA state • Added conservative care language
May 2023	• Updated references • Moved General Information phrase to top of GL

LEGAL AND COMPLIANCE

Guideline Approval

Committee

Reviewed / Approved by Evolent Specialty Clinical Guideline Review Committee

Disclaimer

Evolent Clinical Guidelines do not constitute medical advice. Treating health care professionals are solely responsible for diagnosis, treatment, and medical advice. Evolent uses Clinical Guidelines in accordance with its contractual obligations to provide utilization management. Coverage for services varies for individual members according to the terms of their health care coverage or government program. Individual members' health care coverage may not utilize some Evolent Clinical Guidelines. A list of procedure codes, services or drugs may not be all inclusive and does not imply that a service or drug is a covered or non-covered service or drug. Evolent reserves the right to review and update this Clinical Guideline in its sole discretion. Notice of any changes shall be provided as required by applicable provider agreements and laws or regulations. Members should contact their Plan customer service representative for specific coverage information.

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Purpose

This guideline outlines the key surgical treatments and indications for common cervical spinal disorders and is 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.

This guideline does not address spinal deformity surgeries or the clinical indications for spinal deformity surgery.

Scope

Spinal surgeries should be performed only by those with extensive and specialized surgical training (neurosurgery, orthopedic surgery). Choice of surgical approach is based on anatomy, pathology, and the surgeon's experience and preference.

Instrumentation, bone formation or grafting materials, including biologics, should be used at the surgeon's discretion; however, use should be limited to FDA approved indications regarding the specific devices or biologics.

Special Note

See Legislative Language for specific mandates in the State of Washington

INDICATIONS

Anterior Cervical Discectomy with Fusion (ACDF) - Single Level

When one of the two following criteria are met [1,2,3,4,5,6,7,8]:

- Positive clinical findings of myelopathy with evidence of progressive neurologic deficits consistent with **spinal cord compression** - immediate surgical evaluation is indicated. Symptoms may include [9]:
    - 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

- 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

When ALL of the following criteria are met [8,9,10]:

- Cervical radiculopathy or myelopathy from ruptured disc, spondylosis, spinal instability, or deformity
- Failure of **conservative treatment*** for a minimum of six (6) weeks within the last six (6) months;

NOTE - Failure of conservative treatment is defined as one of the following:

- Lack of meaningful improvement after a full course of treatment; **OR**
- Progression or worsening of symptoms during treatment; **OR**
- Documentation of a medical reason the member is unable to participate in treatment

Closure of medical or therapy offices, patient inconvenience, or noncompliance without explanation does not constitute "inability to complete" treatment.

- 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**. Imaging studies may include:
  - MRI (preferred study for assessing cervical spine soft tissue)
  - CT with or without myelography— indicated in individuals in whom MRI is contraindicated; preferred for examining bony structures, or in individuals presenting with clinical symptoms or signs inconsistent with MRI findings (e.g., foraminal compression not seen on MRI)

As first-line treatment without conservative care measures in the following clinical cases [1,2,6,11]:

- 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 3.5mm anterior subluxation in association with radicular/cord dysfunction
  - Subluxation at the (C1) level of the atlantodental interval of more than 3mm in an adult and 5mm in a child

Not recommended [10]:

- 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* ***Cervical Fusion for Treatment of Axial Neck Pain Criteria***

Anterior Cervical Discectomy with Fusion (ACDF) – Multiple Levels

When one of the two following criteria are met [1,2,3,4,5,6,7,8]:

- Positive clinical findings of myelopathy with evidence of progressive neurologic deficits consistent with worsening **spinal cord compression** – immediate surgical evaluation is indicated. 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
- 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

When ALL of the following criteria are met [8,10]:

- Cervical radiculopathy or myelopathy due to ruptured disc, spondylosis, spinal instability, or deformity
- Failure of **conservative treatment*** for a minimum of six (6) weeks within the last six (6) months;

NOTE - Failure of conservative treatment is defined as one of the following:

- Lack of meaningful improvement after a full course of treatment; **OR**
- Progression or worsening of symptoms during treatment; **OR**
- Documentation of a medical reason the member is unable to participate in treatment

Closure of medical or therapy offices, patient inconvenience, or noncompliance without explanation does not constitute "inability to complete" treatment.

- 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:
  - MRI (preferred study for assessing cervical spine soft tissue)
  - CT with or without myelography - indicated in individuals in whom MRI is contraindicated; preferred for examining bony structures, or in individuals

presenting with clinical symptoms or signs inconsistent with MRI findings (e.g., foraminal compression not seen on MRI)

As first-line treatment without conservative care measures in the following clinical cases [1,2,6,11]:

- 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 3.5mm anterior subluxation in association with radicular/cord dysfunction
  - Subluxation at the (C1) level of the atlantodental interval of more than 3mm in an adult and 5mm in a child

Not recommended [10]:

- 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* ***Cervical Fusion for Treatment of Axial Neck Pain Criteria***

Cervical Posterior Decompression with Fusion - Single Level

When one of the two following criteria are met [1,2,3,4,5,6,7,8,12]:

- Positive clinical findings of myelopathy with evidence of progressive neurologic deficits consistent with worsening **spinal cord compression** - immediate surgical evaluation is indicated**.** 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
- 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

When ALL of the following criteria are met [8,10]:

- Cervical radiculopathy or myelopathy from ruptured disc, spondylosis, spinal instability, or deformity
- Failure of **conservative treatment*** for a minimum of six (6) weeks within the last six (6) months;

NOTE - Failure of conservative treatment is defined as one of the following:

- Lack of meaningful improvement after a full course of treatment; **OR**
- Progression or worsening of symptoms during treatment; **OR**
- Documentation of a medical reason the member is unable to participate in treatment

Closure of medical or therapy offices, patient inconvenience, or noncompliance without explanation does not constitute "inability to complete" treatment.

- 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**. Imaging studies may include:
  - MRI (preferred study for assessing cervical spine soft tissue)
  - CT with or without myelography – indicated in individuals in whom MRI is contraindicated; preferred for examining bony structures, or in individuals presenting with clinical symptoms or signs inconsistent with MRI findings (e.g., foraminal compression not seen on MRI)

As first-line treatment without conservative care measures in the following clinical cases [1,2,6,11,12]:

- 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 3.5mm anterior subluxation in association with radicular/cord dysfunction
  - Subluxation at the (C1) level of the atlantodental interval of more than 3mm in an adult and 5mm in a child

Not recommended [10]:

- 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* ***Cervical Fusion for Treatment of Axial Neck Pain Criteria***

Cervical Posterior Decompression with Fusion – Multiple Levels

When one of the two following criteria are met [1,2,3,4,5,6,7,8,12]:

- Positive clinical findings of myelopathy with evidence of progressive neurologic deficits consistent with worsening **spinal cord compression –** immediate surgical evaluation is indicated. 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

- 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

When ALL of the following criteria are met [8,10]:

- Cervical radiculopathy or myelopathy from ruptured disc, spondylosis, spinal instability, or deformity
- Failure of **conservative treatment*** for a minimum of six (6) weeks within the last six (6) months;

NOTE - Failure of conservative treatment is defined as one of the following:

- Lack of meaningful improvement after a full course of treatment; **OR**
- Progression or worsening of symptoms during treatment; **OR**
- Documentation of a medical reason the member is unable to participate in treatment

Closure of medical or therapy offices, patient inconvenience, or noncompliance without explanation does not constitute "inability to complete" treatment.

- Imaging studies indicate significant spinal cord or spinal nerve root compression at multiple levels **corresponding with the clinical findings**. Imaging studies may include:
  - MRI (preferred study for assessing cervical spine soft tissue)
  - CT with or without myelography - indicated in individuals in whom MRI is contraindicated; preferred for examining bony structures, or in individuals presenting with clinical symptoms or signs inconsistent with MRI findings (e.g., foraminal compression not seen on MRI)

As first-line treatment without conservative care measures in the following clinical cases [1,2,6,11,12]:

- 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 3.5mm anterior subluxation in association with radicular/cord dysfunction
  - Subluxation at the (C1) level of the atlantodental interval of more than 3mm in an adult and 5mm in a child

Not recommended [10]:

- 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* ***Cervical Fusion for Treatment of Axial Neck Pain Criteria***

Cervical Fusion for Treatment of Axial Neck Pain

Fusion In Individuals with Non-Radicular Cervical Pain

ALL of the following criteria must be met [13,14]

- 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 those debilitated with complex problems

  [**NOTE:** Mere passage of time with poorly guided treatment is not considered an active treatment program]

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

NOTE: The effectiveness of three-level or greater cervical fusion for non-radicular pain has not been established.

Cervical Posterior Decompression

The following criteria must be met* [1,2,4,5,6,7,8,15]**:**

- Positive clinical findings of myelopathy with evidence of progressive neurologic deficits consistent with worsening **spinal cord compression** - immediate surgical evaluation is indicated. 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
- 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

When <u>ALL</u> of the following criteria are met [8]**:**

- Cervical radiculopathy from ruptured disc, spondylosis, or deformity
- Failure of **<u>conservative treatment*</u>** for a minimum of six (6) weeks within the last six (6) months;

NOTE - Failure of conservative treatment is defined as one of the following:

- Lack of meaningful improvement after a full course of treatment; **OR**

- Progression or worsening of symptoms during treatment; **OR**
- Documentation of a medical reason the member is unable to participate in treatment

Closure of medical or therapy offices, patient inconvenience, or noncompliance without explanation does not constitute "inability to complete" treatment.

- Imaging studies confirm the presence of spinal cord or spinal nerve root compression at the level(s) **corresponding with the clinical findings.** Imaging studies may include **any** of the following:
  - MRI (preferred study for assessing cervical spine soft tissue)
  - CT with or without myelography— indicated in individuals in whom MRI is contraindicated; preferred for examining bony structures, or in individuals 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 [1,2,6,15]:

- As outlined above for myelopathy or progressive neurological deficit scenarios
- Spinal cord or nerve root compression due to tumor, infection, or trauma

Not Recommended [10]:

- In asymptomatic or mildly symptomatic cases
- In cases of neck pain alone, without neurological deficits and abnormal imaging findings. *See* ***Cervical Fusion for Treatment of Axial Neck Pain Criteria***
- In individuals with kyphosis or at risk for development of postoperative kyphosis

Cervical Artificial Disc Replacement (Single or Two Level) [8,16,17]

When all of the following criteria are met:

- Skeletally mature individual
- Intractable radiculopathy caused by one-or-two-level disease (either herniated disc or spondolytic osteophyte) located at C3-C7
- Failure of **conservative treatment*** for a minimum of six (6) weeks within the last six (6) months;

NOTE - Failure of conservative treatment is defined as one of the following:

- Lack of meaningful improvement after a full course of treatment; **OR**
- Progression or worsening of symptoms during treatment; **OR**
- Documentation of a medical reason the member is unable to participate in treatment

Closure of medical or therapy offices, patient inconvenience, or noncompliance without explanation does not constitute "inability to complete" treatment.

- Imaging studies confirm the presence of compression at the level(s) corresponding with the clinical findings (MRI or CT)

- Use of an FDA-approved prosthetic intervertebral discs

Contraindications

- Symptomatic multiple level disease affecting 3 or more levels
- Infection (at site of implantation or systemic)
- Osteoporosis or osteopenia
- Instability
  - Translation greater than 3mm 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:
  - > 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

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.

Cervical Anterior Decompression (Without Fusion) [8,18]

All requests for anterior decompression without fusion will be reviewed on a **case-by-case basis**.

RISK FACTORS AND CONSIDERATIONS [19,20,21]

- Early intervention may be required in acute incapacitating pain or with progressive neurological deficits
- Individuals may present with pain, numbness, extremity weakness, loss of coordination, gait issues, or bowel and bladder complaints. Non-operative treatment is an important role in the care of individuals with degenerative cervical spine disorders. If these symptoms progress to neurological deficits, from corresponding

spinal cord or nerve root compression, surgical intervention may be warranted.

- Obesity is an identified risk factor for surgical site infection. For individuals undergoing posterior cervical decompression with or without fusion for a diagnosis other than myelopathy, BMI should be less than 40. These cases will be reviewed on a **case-by-case basis** and may be denied given the increased risk of infection.
- If operative intervention is being considered, especially procedures that require a fusion, it is required the person refrain from smoking/nicotine for **at least six weeks** prior to surgery and **during the time of healing**.
- In situations requiring possible need for an operation, a second opinion may be necessary. Psychological evaluation is strongly encouraged before surgery is performed for isolated axial pain to determine if the individual 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.

LEGISLATIVE LANGUAGE

Washington

20170120B – Artificial Disc Replacement – Re-review [(22)]

Washington State Health Care Authority

Health Technology Clinical Committee

Final Findings and Decision

HTCC coverage determination:

Cervical artificial disc replacement is a **covered benefit with conditions**, consistent with the criteria identified in the reimbursement determination.

HTCC Reimbursement Determination:

Limitations of coverage:

Patients must meet FDA approved indications for use and not have any contraindications. FDA approval is device specific but includes:

- Skeletally mature patients
- Disc replacement following one- or two-level discectomy for intractable symptomatic radiculopathy or myelopathy confirmed by patient findings and imaging.

Patients must have advanced imaging and clinical evidence of corresponding nerve root or spinal cord compression and have failed or be inappropriate for non-operative care. For two-level procedures, objective evidence of radiculopathy, myelopathy or spinal cord compression at two consecutive levels is required.

Non-covered indicators: NA

Washington State Health Care Authority

Health Technology Clinical Committee

Final Findings and Decision

HTCC Coverage Determination:

Cervical Spinal Fusion for Degenerative Disc Disease is a **covered benefit with conditions**.

HTCC Reimbursement Determination:

Limitations of Coverage

Cervical Spinal Fusion is covered when the following conditions are met:

1. Patients with signs and symptoms of radiculopathy; and
2. Advanced imaging evidence of corresponding nerve root compression; and
3. Failure of conservative (non-operative) care.

Non-Covered Indicators

Cervical Spinal Fusion is not a covered benefit for neck pain without evidence of radiculopathy or myelopathy.

CODING AND STANDARDS

Coding

CPT Codes

- **Anterior Cervical Discectomy with Fusion (ACDF) - Single Level:** 22548, 22551, 22554
- **Anterior Cervical Discectomy with Fusion (ACDF) - Multiple Levels:** +22552, +22585
- **Cervical Posterior Decompression with Fusion - Single Level:** 22590, 22595, 22600
- **Cervical Posterior Decompression with Fusion - Multiple Levels:** 22595, +22614
- **Cervical Artificial Disc Replacement - Single Level:** 22856, 22861, 22864
- **Cervical Artificial Disc Replacement - Two Levels:** +22858, +0095T, +0098T
- **Cervical Posterior Decompression (without fusion):** 63001, 63015, 63020, +63035, 63040, +63043, 63045, +63048, 63050, 63051
- **Cervical Anterior Decompression (without fusion):** 63075, +63076

Applicable Lines of Business

☒	CHIP (Children's Health Insurance Program)
☒	Commercial
☒	Exchange/Marketplace
☒	Medicaid
☒	Medicare Advantage

BACKGROUND

*Conservative Treatment

Non-operative conservative treatment should include a multimodality approach consisting of at least one (1) active and one (1) inactive component targeting the affected spinal region.

- Active Modalities
  - Physical therapy
  - Physician-supervised home exercise program (HEP)**
  - Chiropractic Care
- Inactive Modalities
  - Medications (e.g., NSAIDs, steroids, analgesics)
  - Injections (e.g., epidural steroid injection, selective nerve root block)
  - Medical devices (e.g., TENS unit, bracing)

**Home Exercise Program (HEP)

The following two elements are required to meet conservative therapy guidelines for HEP:

- Documentation of an exercise prescription/plan provided by a physician, physical therapist, or chiropractor; **AND**
- Follow-up documentation regarding completion of HEP after the required 6-week timeframe or inability to complete HEP due to a documented medical reason (i.e., increased pain or inability to physically perform exercises)

POLICY HISTORY

Date	Summary
November 2024	• This guideline replaces Evolent Clinical Guideline 307 for Cervical Spine Surgery • Updated guideline formatting to Evolent standard • Added language about failure of conservative treatment to the Indications • Updated references
December 2023	• Added legislative language for WA state • Added conservative care language
May 2023	• Updated references • Moved General Information phrase to top of GL

LEGAL AND COMPLIANCE

Guideline Approval

Committee

Reviewed / Approved by Evolent Specialty Clinical Guideline Review Committee

Disclaimer

Evolent Clinical Guidelines do not constitute medical advice. Treating health care professionals are solely responsible for diagnosis, treatment, and medical advice. Evolent uses Clinical Guidelines in accordance with its contractual obligations to provide utilization management. Coverage for services varies for individual members according to the terms of their health care coverage or government program. Individual members' health care coverage may not utilize some Evolent Clinical Guidelines. A list of procedure codes, services or drugs may not be all inclusive and does not imply that a service or drug is a covered or non-covered service or drug. Evolent reserves the right to review and update this Clinical Guideline in its sole discretion. Notice of any changes shall be provided as required by applicable provider agreements and laws or regulations. Members should contact their Plan customer service representative for specific coverage information.

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