Facet Joint and Medial Branch Block Injections for Spinal Pain

Policy Number: 2026T0004WW
Effective Date: September 10, 2026

➲ Instructions for Use

Table of Contents **Page**

Application 1
Coverage Rationale 1
Medical Records Documentation Used for Reviews 2
Definitions 2
Applicable Codes 3
Description of Services 4
Clinical Evidence 4
U.S. Food and Drug Administration 10
References 10
Policy History/Revision Information 11
Instructions for Use 12

Related Commercial/Individual Exchange Policies

- Ablative Treatment for Spinal Pain
- Anesthesia Policy, Professional
- Epidural Steroid Injections for Spinal Pain
- Occipital Nerve Injections and Ablation (Including Occipital Neuralgia and Headache)

Community Plan Policy

- Facet Joint and Medial Branch Block Injections for Spinal Pain

Medicare Advantage Policy

- Pain Management

Application

UnitedHealthcare Commercial

This Medical Policy applies to UnitedHealthcare Commercial benefit plans.

UnitedHealthcare Individual Exchange

This Medical Policy applies to Individual Exchange benefit plans.

Coverage Rationale

The following are proven and medically necessary:

- An initial diagnostic Facet Joint Injection/Medial Branch Block to determine facet joint origin when **all** the following criteria are met:
  - Pain is exacerbated by facet loading maneuvers on physical examination (e.g., hyperextension, rotation); and
  - Clinically significant improvement has not occurred (the pain remains at a 3 or more on a 1-10 pain scale) after a minimum of 4 weeks of conservative care (including but not limited to pharmacotherapy, exercise, or physical therapy); and
  - Clinical findings and imaging studies suggest no other cause of the pain (e.g., spinal stenosis with neurogenic claudication, disc herniation with radicular pain, infection, tumor, fracture, pain related to prior surgery); and
  - The spinal motion segment is not fused; and
  - A radiofrequency joint denervation/ablation procedure is being considered
- A second Facet Joint Injection/Medial Branch Block performed to confirm the validity of the clinical response to the initial Facet Joint Injection when **all** the following criteria are met:
  - Administered at the same level and side as the initial block; and
  - The initial diagnostic Facet Joint Injection produced a positive response, as demonstrated when **all** the following criteria are met:
    - For at least the expected minimum duration of the effect of the local anesthetic; and
    - Functional improvement that is specific to the individual, with demonstrable improvement in the physical functions previously limited by the facetogenic pain

Proprietary Information of UnitedHealthcare. Copyright 2026 United HealthCare Services, Inc.

and
    - A radiofrequency joint denervation/ablation procedure is being considered

The following are unproven and not medically necessary for Facet Joint Injections/Medial Branch Blocks due to insufficient evidence of efficacy:

- If a radiofrequency ablation procedure is not considered as a treatment option at the requested level(s)
- For treating spinal pain after diagnostic injections have been completed
- After two Facet Joint Injections/Medial Branch Blocks at the same level and same side (this is considered therapeutic rather than diagnostic)
- Therapeutic Facet Joint Injections and/or Facet Nerve Block (i.e., Medial Branch Block) for treating chronic spinal pain
- For a second Facet Joint Injection/Medial Branch Block if the initial injection did not confirm the joint as the source of pain
- In the presence of untreated Radiculopathy at the same level as the intended diagnostic injection (with the exception of Radiculopathy caused by a facet joint synovial cyst)
- If injection of volume of local anesthetics exceeds 0.5 mL for Medial Branch Blocks
- When performed under ultrasound guidance

Therapeutic Facet Joint/Medial Branch Block Injections at the cervical, thoracic, and lumbar levels of the spine are unproven and not medically necessary due to insufficient evidence of efficacy and safety.

Medical Records Documentation Used for Reviews

Benefit coverage for health services is determined by the member specific benefit plan document and applicable laws that may require coverage for a specific service. Medical records documentation may be required to assess whether the member meets the clinical criteria for coverage but does not guarantee coverage of the service requested; refer to the guidelines titled Medical Records Documentation Used for Reviews.

Definitions

Acute Low Back Pain: Low back pain present for up to 6 weeks. The early acute phase is defined as less than 2 weeks, and the late acute phase is defined as 2 to 6 weeks, secondary to the potential for delayed recovery or risk phases for the development of chronic low back pain. Low back pain can occur on a recurring basis. If there has been complete recovery between episodes, it is considered acute recurrent (Goertz et al., 2012).

Conservative Therapy: Consists of an appropriate combination of medication (for example, nonsteroidal anti-inflammatory drugs, analgesics, etc.) in addition to physical therapy, spinal manipulation therapy, cognitive behavior therapy, or other interventions based on the individual's specific presentation, physical findings, and imaging results (Agency for Healthcare Research and Quality, 2013; Qassem et al., 2017; Summers, 2013).

Facet Joint Injections: The injection of a local anesthetic and/or corticosteroid into the facet joint capsule. The injection/block applies directly to the facet joint(s) blocked and not to the number of nerves blocked that innervate the facet joint(s). Even though Facet Joint Injections can be used to diagnose facet joint pain, a Medial Branch Block is generally considered more appropriate. A diagnostic Facet Joint Injection/Medial Branch Block is considered positive when there is at least 50% relief of pain for at least the expected minimum duration of the effect of the local anesthetic used.

Facet Joint Syndrome: A condition that leads to chronic spinal pain due to unclear etiology. The classic findings of Facet Joint Syndrome are pain in the cervical or thoracic spine or low back radiating to the buttock and posterior thigh, pain due to hyperextension, pain on palpation of the joint, and absence of both Radiculopathy below the knee and neurological deficits.

Facet Nerve Block: The injection of a local anesthetic and/or corticosteroid along the nerves supplying the facet joints. A diagnostic Medial Branch Block is considered positive when there is at least 50% relief of pain for at least the expected minimum duration of the effect of the local anesthetic used.

Medial Branch Block: Refer to Facet Nerve Block.

Proprietary Information of UnitedHealthcare. Copyright 2026 United HealthCare Services, Inc.

Nonradicular Back Pain: Pain that does not radiate along a dermatome (sensory distribution of a single root). Appropriate imaging does not reveal signs of spinal nerve root compression, and there is no evidence of spinal nerve root compression seen on clinical examination (Lenahan, 2018).

Radicular Back Pain: Pain that radiates from the spine into the extremity along the course of the spinal nerve root. The pain should follow the pattern of a dermatome associated with the irritated nerve root identified (Lenahan, 2018).

Radiculopathy: Radiculopathy is characterized by pain that radiates from the spine to extend outward to cause symptoms away from the source of the spinal nerve root irritation (Lenahan, 2018).

Subacute Low Back Pain: Low back pain with a duration of greater than 6 weeks after injury but no longer than 12 weeks after the onset of symptoms (Goertz et al., 2012).

Applicable Codes

The following list(s) of procedure and/or diagnosis codes is provided for reference purposes only and may not be all inclusive. Listing of a code in this policy does not imply that the service described by the code is a covered or non-covered health service. Benefit coverage for health services is determined by the member specific benefit plan document and applicable laws that may require coverage for a specific service. The inclusion of a code does not imply any right to reimbursement or guarantee claim payment. Other policies and guidelines may apply.

CPT Code	Description
0213T	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with ultrasound guidance, cervical or thoracic; single level
0214T	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with ultrasound guidance, cervical or thoracic; second level (List separately in addition to code for primary procedure)
0215T	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with ultrasound guidance, cervical or thoracic; third and any additional level(s) (List separately in addition to code for primary procedure)
0216T	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with ultrasound guidance, lumbar or sacral; single level
0217T	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with ultrasound guidance, lumbar or sacral; second level (List separately in addition to code for primary procedure)
0218T	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with ultrasound guidance, lumbar or sacral; third and any additional level(s) (List separately in addition to code for primary procedure)
64490	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with image guidance (fluoroscopy or CT), cervical or thoracic; single level
64491	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with image guidance (fluoroscopy or CT), cervical or thoracic; second level (List separately in addition to code for primary procedure)
64492	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with image guidance (fluoroscopy or CT), cervical or thoracic; third and any additional level(s) (List separately in addition to code for primary procedure)
64493	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with image guidance (fluoroscopy or CT), lumbar or sacral; single level
64494	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with image guidance (fluoroscopy or CT), lumbar or sacral; second level (List separately in addition to code for primary procedure)
64495	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with image guidance (fluoroscopy or CT), lumbar or sacral; third and any additional level(s) (List separately in addition to code for primary procedure)

CPT® is a registered trademark of the American Medical Association

Proprietary Information of UnitedHealthcare. Copyright 2026 United HealthCare Services, Inc.

Diagnosis Code	Description
M47.812	Spondylosis without myelopathy or radiculopathy, cervical region
M47.813	Spondylosis without myelopathy or radiculopathy, cervicothoracic region
M47.814	Spondylosis without myelopathy or radiculopathy, thoracic region
M47.815	Spondylosis without myelopathy or radiculopathy, thoracolumbar region
M47.816	Spondylosis without myelopathy or radiculopathy, lumbar region
M47.817	Spondylosis without myelopathy or radiculopathy, lumbosacral region
M47.819	Spondylosis without myelopathy or radiculopathy, site unspecified
M47.892	Other spondylosis, cervical region
M47.893	Other spondylosis, cervicothoracic region
M47.894	Other spondylosis, thoracic region
M47.895	Other spondylosis, thoracolumbar region
M47.896	Other spondylosis, lumbar region
M47.897	Other spondylosis, lumbosacral region
M47.899	Other spondylosis, site unspecified
M47.9	Spondylosis, unspecified

Description of Services

Facet Joint Injections and Medial Branch Block have been used to diagnose and treat pain that arises from facet joints. Imaging guidance and local anesthetic of the skin over the injection site are used, and the physician injects local anesthetic, with or without corticosteroid, into the facet joint that is identified as the probable source of pain. Medial Branch Block uses the same techniques of imaging guidance and local anesthetic to target the injection to the medial branch of the peripheral nerve dorsal ramus, which innervates the facet joints of the spine (Funicello, 2019).

These injections generally require local anesthetic only. However, for some individuals, moderate/conscious sedation, nonintravenous sedation, and monitored anesthesia care may be necessary. These sedation procedures are generally safe when administered by trained, certified providers, with appropriate monitoring, but are not without risk. Examples of procedures that typically do not require moderate sedation or an anesthesia care team include but are not limited to epidural steroid injections; epidural blood patch; trigger point injections; shoulder, hip, sacroiliac, facet, and knee joint injections; medial branch nerve blocks; and peripheral nerve blocks (American Society of Anesthesiologists, 2021).

Clinical Evidence

Facet Joint/Medial Branch Block Injections

Diagnostic Facet Joint/Medial Branch Block Injections

There is limited published, high-quality evidence regarding the efficacy and safety of facet joint/medial branch block injections of the thoracic spine.

Cohen et al. (2018) conducted a multicenter randomized controlled trial to evaluate the effectiveness of diagnostic lumbar facet joint or nerve blocks and their predictive value before radiofrequency denervation. A total of 229 participants were randomized in a 2:2:1 ratio to receive intra-articular facet injections with bupivacaine and steroid, medial branch blocks, or saline. Then, participants who had a positive facet joint injection test (a positive test was defined as 50% or more pain relief sustained for at least 3 hours to control for concomitant pain generators) and remained symptomatic went on to receive therapeutic radiofrequency denervation; all participants in the saline group who remained symptomatic received therapeutic radiofrequency denervation. This complex study design allowed the authors to test the usefulness of facet joint injection as a guide to decide the indication for therapeutic radiofrequency denervation. The inclusion criteria were age of 18 years or older; predominantly axial low back pain for 3 months or more; an average back pain score of more than 3 out of 10 over the last week on a numeric rating scale (NRS); no response to more conservative therapy (e.g., physical therapy, integrative therapy, pharmacotherapy); and paraspinal tenderness. Excluded from participation were participants with a known, specific etiology for low back pain (e.g., significant spinal stenosis or grade II or III spondylolisthesis); focal neurological signs or symptoms; a positive response to previous spine interventions such as epidural steroids or sacroiliac joint blocks for the current pain episode; previous facet interventions; lumbar spine fusion; untreated coagulopathy; and a concomitant medical condition likely to undermine the diagnostic workup or treatment

Proprietary Information of UnitedHealthcare. Copyright 2026 United HealthCare Services, Inc.

response. The proportions of positive blocks were higher in the intra-articular (54%) and medial branch (55%) groups than in the placebo group (30%), suggesting that the response to the test injection went above and beyond a placebo effect. At 1 month, results showed a mean reduction in average NRS pain score of 0.7 ±1.6 in the intra-articular group, 0.7 ±1.8 in the medial branch block group, and 0.7 ±1.5 in the placebo group, suggesting a lack of therapeutic benefit for facet injections at 1 month; results showed a mean reduction in average NRS pain score at 1 month of 0.7 ±1.6 in the intra-articular group, 0.7 ±1.8 in the medial branch block group, and 0.7 ±1.5 in the placebo group, suggesting a lack of therapeutic benefit with facet injections at 1 month. Radiofrequency ablation was performed in 135 participants (45, 48, and 42 participants from the intra-articular, medial branch, and saline groups, respectively). At 3 months, the proportions of positive responders in the intra-articular, medial branch block, and placebo groups were 51%, 56%, and 24%, respectively. This finding suggests that the use of diagnostic facet joint injection improves individuals' outcomes when used to direct the selection of individuals who should receive radiofrequency ablation. Limitations include the fact that the study was designed primarily as a comparative effectiveness study and therefore used liberal selection criteria to enhance generalization, unlike studies designed to show efficacy, which ideally use rigorous criteria. The authors concluded that the study established that facet joint or nerve blocks are not therapeutic and that the higher responder rates in the two facet injection groups suggest that diagnostic facet blocks might provide prognostic value before radiofrequency ablation.

Manchikanti et al. (2016) conducted a systematic, evidence-based assessment methodology of controlled trials of diagnostic validity and randomized controlled trials to investigate the diagnostic validity and therapeutic value of lumbar facet joint interventions in managing chronic low back pain. The literature search was extensive, using various types of electronic search media, and the inclusion criteria encompassed all facet joint interventions performed in a controlled fashion. Across all databases, 16 high-quality diagnostic accuracy studies were identified, and multiple studies assessed the influence of multiple factors on diagnostic validity. In contrast to diagnostic validity studies, therapeutic efficacy trials were limited to a total of 14 randomized controlled trials, assessing the efficacy of intra-articular injections, facet or zygapophysial joint nerve blocks, and radiofrequency neurotomy of the innervation of the facet joints. The pain relief of greater than 50% was the outcome measure for diagnostic accuracy assessment of the controlled studies, with the ability to perform previously painful movements, whereas for randomized controlled therapeutic efficacy studies, the primary outcome was significant pain relief, and the secondary outcome was a positive change in functional status. For the inclusion of the diagnostic controlled studies, all studies must have used either placebo-controlled facet joint blocks or comparative local anesthetic blocks. In assessing therapeutic interventions, short-term and long-term relief was defined as either up to 6 months or greater than 6 months of relief. The evidence for the diagnostic validity of lumbar facet joint nerve blocks, with at least 75% pain relief and the ability to perform previously painful movements, was level I, based on a range of level I to V derived from a best-evidence synthesis. For therapeutic interventions, the evidence was variable from level II to III, with level II evidence for lumbar facet joint nerve blocks and radiofrequency neurotomy for long-term improvement (greater than 6 months) and level III evidence for lumbosacral zygapophysial joint injections for short-term improvement only. The authors concluded that this review provides significant evidence for the diagnostic validity of facet joint nerve blocks and moderate evidence for therapeutic radiofrequency neurotomy and therapeutic facet joint nerve blocks in managing chronic low back pain. Limitations of the study include the lack of a predefined protocol; additionally, the studies included were heterogeneous, the therapeutic evidence included very few high-quality randomized controlled trials, and many of the cited studies originated from a limited number of investigators and specialized interventional pain centers, which could lead to publication bias.

Boswell et al. (2015) conducted a systematic review of the diagnostic accuracy of spinal facet joint nerve blocks in chronic spinal pain. The evidence for the diagnostic accuracy of thoracic facet joint nerve blocks is based on three high-quality studies (two prospective and one retrospective), with ≥ 80% pain relief as the standard, and showed a prevalence ranging from 34% to 48% and false-positive rates ranging from 42% to 48%. There were no randomized studies, and no studies evaluated single blocks. The authors concluded that there is a paucity of evidence related to these diagnostic injections and the thoracic spine, and more high-quality research is needed.

Therapeutic Facet Joint/Medial Branch Block Injections

There is insufficient evidence to demonstrate that therapeutic facet joint injections are effective in the treatment of back pain, as evidence of the safety and efficacy is lacking and of low quality.

In a 2025 systematic review, Fogarty et al. evaluated the effectiveness of fluoroscopically guided lumbar intra-articular steroid injections (IASIs) for lumbar facet-mediated low back pain. The primary outcome was a ≥ 50% improvement in pain from baseline to ≥ 1 month, as measured by the visual analog scale (VAS) and/or NRS, and the secondary outcome was the rate of clinically important functional improvement after IASI, defined as at least a 30% improvement in functional scale from baseline for ≥ 1 month, as measured by validated function scales. The review included 21 studies, including four explanatory randomized controlled trials, nine pragmatic randomized controlled trials, and eight observational studies, for a total of 1,252 individuals treated with facet joint IASI. A meta-analysis of results could not be performed due to significant differences in study population selection and outcome measurement. According to the authors, there was wide

Proprietary Information of UnitedHealthcare. Copyright 2026 United HealthCare Services, Inc.

variability in success rates for clinically significant pain relief that ranged from 13% to 74%; functional improvement was reported in only one study and was 29% at 1 month. Mean improvements in all included studies ranged from 11% to 59% for pain improvement and 8% to 58% for functional improvement at ≥ 1 month. When evaluating the overall quality of the evidence, the authors noted that although multiple randomized controlled trials were available, the body of evidence was downgraded due to a risk of bias, indirectness, inconsistency, and imprecision. Additionally, three sham-controlled trials failed to demonstrate clinical efficacy, which raised concerns about the actual effectiveness of the intervention. For those reasons, the quality of evidence was downgraded from high to very low, indicating that the true effectiveness of IASIs is highly uncertain, and any observed benefits may be due to bias or chance rather than actual treatment efficacy. The authors noted that while some individuals may experience short-term symptomatic improvement, the heterogeneity of outcomes, lack of consistent long-term benefit, and limited high-quality, comparative data diminish confidence in the therapeutic values of lumbar IASIs as a reliable intervention. Future randomized, placebo-controlled studies using gold-standard diagnostic tools for facet joint pathology are needed to provide more reliable and definitive conclusions. Limitations include the heterogeneity in the study design, inconsistent reporting of outcomes, lack of standardized dosing or injection technique, and limited availability of long-term data.

In a 2024 systematic review and meta-analysis, Manchikanti et al. evaluated the effectiveness of therapeutic facet joint nerve blocks in managing chronic axial spine pain of facet joint origin. The primary outcome measure was the proportion of individuals with significant relief and functional improvement of greater than 50% for at least 3 months. The review included nine randomized clinical trials and 12 observational studies, with application of spinal facet joint nerve blocks as therapeutic modalities. There were three studies, with 320 individuals, that evaluated pain levels, comparing local anesthetic (control) vs local anesthetic and steroid in a dual-arm meta-analysis for 3 months; no statistically significant difference between the two groups (standardized mean difference, 0.03; -0.19 to 0.25; p = 0.78) was observed. There were three studies, with 320 individuals, that evaluated functionality, comparing the control with the steroid group in a dual-arm meta-analysis for 3 months; no statistical difference in functionality (standardized mean difference, -0.18; -0.48 to 0.11; p = 0.22) was observed. There were 13 studies used to assess pain scores in a single-arm meta-analysis using medial branch blocks at 3 months using the NRS. The pooled mean difference in pain scores from baseline to the 3-month follow-up was 4.091 points decreased (95% CI, -4.136 to -4.047; p < 0.0001). There were five studies using radiofrequency ablation included to assess functionality scores in a single-arm meta-analysis at 3 months using NRS. The pooled mean difference in pain scores from baseline to the 3-month follow-up was 14.880 points decreased (95% CI, -15.324 to -14.436; p < 0.0001). While the authors concluded that therapeutic facet joint nerve blocks are recommended for managing spinal facet joint pain, those findings are not supported by the primary outcomes stated in the article, and other findings should be considered exploratory. Limitations of the study include the overall paucity of evidence, variations in the selection criteria, lack of placebo-controlled trials, lack of comparison groups, flawed methodology, and potential bias due to the meta-analysis for dual arm being based off single authorship. (The following publication, previously cited in this policy, is included in this systematic review: Manchikanti et al., 2010.)

A 2018 Hayes Technology Assessment, updated in 2022, stated that a low-quality body of evidence from randomized controlled trials of lumbar facet joint injections shows that this technique may provide a significant degree of pain relief and improve function/disability (Oswestry Disability Index) compared with baseline levels in individuals with chronic, nonresponsive spinal pain in that region. However, the duration of pain relief was variable, with a follow-up of 3 to 6 months. The lack of appropriate placebo control groups in the randomized controlled trials precluded an accurate assessment of the treatment effect of the intervention; thus, there is considerable uncertainty regarding the magnitude and durability of benefit. The use of facet joint injections in the lumbar spine region appears to be generally safe, with relatively few minor side effects. The evidence is insufficient to assess the efficacy and safety of facet joint injections in treating chronic, nonresponsive spinal pain of facet joint origin in the thoracic or cervical spine. Additional studies are needed to evaluate the long-term efficacy and safety of facet joint injections vs placebo for the treatment of chronic lumbar, thoracic, or cervical spinal pain and to assess the comparative effectiveness of this treatment vs that of definitive alternatives such as radiofrequency denervation and pulsed radiofrequency.

Vekaria et al. (2016) conducted a systematic review, which included a narrative synthesis, to determine if intra-articular facet joint injections with an active drug are more effective in reducing back pain and back pain–related disability than a sham procedure or a placebo/inactive injection. The authors also evaluated if intra-articular facet joint injections with an active drug or placebo/inactive injection are more effective in reducing back pain and back pain–related disability than conservative treatment. Electronic databases were searched through April 2015. Data were screened, and single extraction, with independent verification and a risk-of-bias assessment, was performed. A total of 391 records were screened, and six trials were included. The trials included were small (range, 18-109 individuals), and overall, in terms of pain and disability outcomes, most were inconclusive. Only two of the trials reported any significant between-group differences in pain or disability outcomes. The authors addressed limitations and flaws in these trials that were clinically diverse and precluded any meta-analysis. Several methodological issues were identified. The positive results are interpreted with caution and suggest that there is a need for further high-quality work in this area. Further randomized

Proprietary Information of UnitedHealthcare. Copyright 2026 United HealthCare Services, Inc.

controlled trials of a higher methodological standard that compare facet joint injection with a sham/placebo control or conservative treatment are needed to serve as a basis for any conclusion on the effectiveness of facet joints in improving pain and disability outcomes.

Ultrasound Guidance

There is no evidence in the peer-reviewed literature demonstrating the overall health benefit of the use of ultrasonic guidance during spinal injections over the use of fluoroscopy or computed tomography (CT) guidance. Furthermore, clinical guidelines do not recommend the use of ultrasound-guided facet joint injections. Well-designed randomized controlled trials that compare ultrasound guidance with fluoroscopy or CT-guided facet joint injections are needed to demonstrate improved net health outcomes with ultrasound-guided injections.

Viva et al. (2024) conducted a systematic review to evaluate the efficacy and accuracy of ultrasound-guided injections for cervical facet joint syndrome. The review included nine studies, with a total of 958 individuals. The outcome measures were pain measures using the VAS or NRS; clinical symptoms and functional features as motor measure; patient-reported outcome measures questionnaires; subjective assessment of treatment results; and valuation of the accuracy of the intervention through cervical spine CT to evaluate the presence of the injected substance at the target site of the procedure. According to the authors, the overall risk of bias in all the studies showed concerns for selection, performance, detection, attrition, and reporting. Specifically, 45.5% of the studies highlighted some concerns, while 55.5% of them had a high risk of bias. In the included studies, there were no significant side effects or reactions to ultrasound-guided procedures reported. When compared with fluoroscopy- and CT-guided procedures, the advantages of ultrasound guidance were the lack of exposure to ionizing radiation, net of the drugs used, improvement obtained in the VAS and NRS scales, and increase in the cervical range of motion and motor functions. Additionally, ultrasound guidance allowed real-time visualization of soft tissues, which allows for more reliable reach of the anatomical target, without running the risk of damaging noble structures such as blood vessels. The analysis also showed that ultrasound-guided injections guarantee a shorter duration of the procedure and a less invasive path for the needle to pass through the soft tissues, which translates into less discomfort for the individual. The authors did note that the ultrasound-guided infiltration is more operator dependent, requiring greater skill and experience and a long learning curve. One study noted that an expert committee determined that the level of difficulty of cervical medial branch block procedures was level III (advanced), and a great deal of practice is required to carry out the procedure. Limitations of the review include the moderate risk of bias in six studies, high risk of bias in one study, and high heterogeneity in terms of intervention, methodology, and outcomes. The authors suggested conducting further studies to explore the benefits of the procedure as well as investing in comprehensive training programs to enhance clinicians' proficiency.

Ashmore et al. (2022) conducted a systematic review and meta-analysis to determine the risk of incorrect needle placement when using ultrasound to perform lumbar medial branch block and facet joint injection, as confirmed by fluoroscopy or CT. The authors noted an 11% risk difference of incorrect needle placement for ultrasound-guided medial branch block confirmed using fluoroscopy, with and without contrast, that was based on a pooled analysis of seven studies. There was a 13% risk difference of incorrect needle placement for ultrasound-guided facet joint injection confirmed using CT, based on a pooled analysis of three studies. The authors noted that there was low to very low certainty in the evidence, based on risk of bias, inconsistency, and imprecision. Limitations include the variance of the details of how the procedures were performed and training differences between ultrasound- and fluoroscopically guided spine procedures, which may affect generalizability, as skill level among pain specialty physicians may vary. The authors concluded that the risk of incorrect needle placement associated with ultrasound-guided medial branch block and facet joint injection is high when needle position is confirmed using fluoroscopy or CT.

Ultrasound-guided spine injection therapy is a comparatively new technique in the management of axial and radicular pain from degenerative lumbar spinal conditions and may be a reasonable alternative to conventional methods of injection guidance. In 2020, Tay et al. completed a retrospective clinical audit in 42 patients who underwent ultrasound-guided lumbar spinal injection at a single institution for chronic axial and radicular pain in an acute public hospital sports medicine center between June 1, 2018, and June 1, 2019. Overall, 27 patients (64.3%) received facet joint injections, and 18 patients (42.9%) received nerve root injections. The majority (90.5%) of patients experienced an improvement of > 30% in pain intensity at 3 months post injection, using the NRS pain score ($p < 0.001$), with 40 patients (95.2%) experiencing a reduction in Oswestry Disability Index score ($p < 0.001$). No complications were reported. It was concluded that the experience of this institution confirms the safety, feasibility, and effectiveness of ultrasound-guided lumbar spinal injection for the treatment of axial and radicular pain. The authors also noted that ultrasound-guided spinal injection remains technically challenging and requires a steep learning phase and careful patient selection and that the study was not designed to directly compare outcomes with ultrasound-guided injection against those with the conventional standard of care. A larger dataset is required to confirm the efficacy of ultrasound-guided spine injection and the rate of adverse events, and a prospective study would be useful to determine clinical factors predicting success. This study is also limited by the lack of a comparison group and a small number of patients receiving standard of care.

Proprietary Information of UnitedHealthcare. Copyright 2026 United HealthCare Services, Inc.

Clinical Practice Guidelines

American Association of Neurological Surgeons (AANS)/Congress of Neurological Surgeons (CNS)

In 2014, the AANS and CNS published updated guidelines on the treatment of degenerative disease of the lumbar spine. The AANS/CNS recommend to use a double-injection technique, with an improvement threshold of 80% or greater, to establish a diagnosis of lumbar facet-mediated pain; additionally, it is noted that there is no evidence to support the use of diagnostic facet blocks as a predictor of lumbar fusion outcome in patients with chronic low back pain from degenerative lumbar disease.

American College of Occupational and Environmental Medicine (ACOEM)

In the 2021 guidelines for invasive treatments for low back disorders, the ACOEM states the following for therapeutic facet joint injections:

- Not recommended (I), moderate confidence for treatment of acute, subacute low back pain or for any radicular pain syndrome.
- Not recommended (I), moderate confidence for treatment of acute, subacute low back pain or for any radicular pain syndrome.
- Moderately not recommended (B), moderate confidence for routine treatment of chronic, nonspecific axial pain.
- Repeat use of intra-articular therapeutic facet joint injections is moderately not recommended (B); moderate confidence for patients who have not achieved lasting functional improvements with a prior injection.

American Society of Interventional Pain Physicians (ASIPP)

In 2020, the ASIPP updated the evidence-based guidelines on the use of facet joint interventions for the management of chronic spinal pain and makes the following recommendations:

- The use of facet joint nerve blocks for the diagnosis of facet joint pain is recommended for:
  - Lumbar spine (moderate to strong), based on the results of 10 relevant diagnostic accuracy studies, with four of 10 studies using controlled comparative local anesthetics with concordant pain relief. The prevalence rates ranged from 27% to 40%, with false-positive rates of 27% to 47% and ≥ 80% pain relief.
  - Cervical spine (moderate), based on the results of 10 relevant diagnostic accuracy studies; nine of the 10 studies, with either controlled comparative local anesthetic blocks or placebo controls with concordant pain relief and a criterion standard of ≥ 80%, were included. The prevalence and false-positive rates ranged from 29% to 60% and 27% to 63%, with high variability.
  - Thoracic spine (moderate), based on the results of three relevant, included diagnostic accuracy studies, with controlled comparative local anesthetic blocks, concordant pain relief, and a criterion standard of ≥ 80%. The prevalence varied from 34% to 48%, whereas false-positive rates varied from 42% to 58%.
- The use of facet joint nerve blocks for the treatment of facet joint pain is recommended for:
  - Lumbar spine (moderate), based on the results of three relevant randomized controlled trials, with long-term improvement.
  - Cervical spine (moderate), based on the results of one relevant randomized controlled trial and three observational studies, with long-term improvement.
  - Thoracic spine:
    - Therapeutic facet joint nerve blocks (moderate), based on the results of two randomized controlled trials and two observational studies, with long-term improvement.
    - Therapeutic intra-articular facet joint injections (weak), based on one randomized controlled trial, with a 6-month follow-up and emerging evidence.

American Society of Regional Anesthesia and Pain Medicine (ASRA Pain Medicine)

Consensus practice guidelines on the interventions for lumbar facet joint pain from a multispecialty, international working group (Cohen et al., 2020) make the following recommendations and observations:

- A 3-month trial of different conservative treatments before facet joint interventions; conservative therapies may include medications (e.g., nonsteroidal anti-inflammatory drugs, antidepressants), physical treatments (exercise, heat or cold therapy, or massage), integrative treatments (acupuncture or spinal manipulation, if indicated), and others (nutrition, weight loss, or sleep hygiene).
- Lumbar (medial branch blocks) should be performed with < 0.5 mL (total volume) to reduce spread to adjacent structures.
- Lumbar (interarticular) facet joint injections should be performed with a volume of < 1.5 mL to prevent capsular rupture and reduce spread to adjacent structures.

Proprietary Information of UnitedHealthcare. Copyright 2026 United HealthCare Services, Inc.

- Recommend against the routine use of therapeutic facet injections, but acknowledge that in patients who may be at risk of adverse consequences from radiofrequency ablation (e.g., young athletes, older patients on anticoagulation therapy or with implantable cardiac devices) or in whom there is a strong likelihood of success (e.g., patients who obtained prolonged relief from previous diagnostic injections, with or without steroids), it may be reasonable to add steroids to a block in the hope of deriving intermediate-term relief.
- A > 50% reduction in pain may be considered a positive block, but recognize that studies should be performed to determine whether lower cutoffs may prove to be optimal.
- A single block is recommended. There is moderate evidence that dual blocks result in a higher subsequent success rate for medial branch radiofrequency but that the use of a zero-block paradigm results in the highest overall number of patients with a positive response to the radiofrequency ablation.
- Facet joint injections meet the criteria for diagnostic interventions for facet-mediated pain but are less predictive than medial branch blocks.
- As diagnostic tools, medial branch blocks have limitations related to aberrant lumbar facet joint innervation.
- Compared with saline controls, both facet and medial branch injections with local anesthetic provide better predictive information for medial branch radiofrequency ablation.
- Sedation should not be administered routinely for facet injections in the absence of reasonable indications; however, when sedation is used, the lowest doses of short-acting sedatives, ideally without opioids, should be given.

Consensus practice guidelines on interventions for cervical spine facet joint pain from a multispecialty, international working group (Hurley et al., 2021) make the following recommendations and observations:

- History and physical examination cannot reliably identify painful atlanto-occipital (C0-C1) or atlanto-axial (C1-C2) joints but can guide injection decisions, which could confirm the joints as pain generators.
- When selecting targets for blocks, the levels should be determined based on clinical presentation [tenderness on palpation (preferably performed under fluoroscopy)] or pain referral patterns.
- Conservative management before prognostic blocks in patients with at least 3 months of neck pain.
  - At least a 6-week trial of conservative therapy, which may vary based on a personalized medicine paradigm.
  - Concomitant use of conservative measures to accompany prognostic blocks.
- Preprocedural advanced imaging of the cervical spine with either CT or magnetic resonance imaging should be obtained prior to performing atlanto-occipital and atlanto-axial joint injections to ascertain pathology and help guide needle trajectory.
- At least a 50% reduction in pain should be considered a positive prognostic block.
  - Nonpain measures such as activity level should not be used as the sole criterion to determine the success or failure of a prognostic block but may be used in conjunction with pain assessment.
- Fluoroscopy or ultrasound should be used for cervical medial branch block.
- For cervical medial branch block, volumes are ≤ 0.3 mL (slightly higher volumes may be considered if contrast spread fails to capture the most frequent patterns of medial branch innervation).
- For cervical interarticular facet joint injection, a total volume is not to exceed 1 mL, including contrast injection (to prevent capsular rupture and/or aberrant injectate spread and enhance the specificity of the block).
- Recommend against the routine use of interarticular injections while acknowledging that for patients at risk of adverse events such as young athletes, patients on anticoagulants, those who have an implantable cardiac device, and/or those with limited access to cervical medial branch radiofrequency ablation, it may be reasonable to consider these injections with nonparticulate steroid at C2 to 3.
- The routine use of steroids with cervical medial branch block should be avoided.

Department of Veterans Affairs (VA)/Department of Defense (DOD)

The 2022 clinical practice guidelines for the diagnosis and treatment of low back pain suggest against the injection of corticosteroids for intra-articular facet joint injections and therapeutic medial branch blocks with steroid.

North American Spine Society (NASS)

A 2016 NASS coverage policy makes the following recommendations for facet joint interventions.

Diagnostic Medial Branch Blocks

- Dual blocks, performed in the same location(s) on two separate occasions, are necessary to confirm the diagnosis due to the unacceptably high false-positive rate of single diagnostic anesthetic injections in the spine.
- A second confirmatory injection is indicated only if the first injection produces ≥ 80% relief of the primary (index) pain and the onset and minimum duration of relief is consistent with the agent used. This confirmatory block confirms the tested joint as the source if the index pain is reduced by > 80%.

Proprietary Information of UnitedHealthcare. Copyright 2026 United HealthCare Services, Inc.

- A second injection may also be performed at a different or additional level if the pain is believed to be arising from a different joint (and the pain relief from the initial block was < 80%).

Therapeutic Medial Branch Blocks

Therapeutic medial branch blocks are performed in the same manner as diagnostic medial branch blocks and are intended to achieve long-term pain management. The current evidence does not support their use as a therapeutic intervention.

NASS also states that there is no published literature addressing the use of intra-articular injections for thoracic pain, and the studies regarding medial branch blocks are limited to retrospective studies and case series. They recommend that clinicians weigh the risks and benefits of these interventions compared with other palliative care for patients with thoracic spine pain who appear to have limited remaining treatment outcomes.

In the 2020 *Evidence-Based Clinical Guidelines for Multidisciplinary Spine Care: Diagnosis & Treatment of Low Back Pain*, NASS states that there is insufficient evidence to make a recommendation for or against the use of the following for facet joint and medial branch block injections:

- Patient-reported reproduction of pain during a zygapophyseal joint injection as a predictor of response to dual diagnostic blocks. Grade of recommendation: I.
- In patients selected for facet joint procedures using diagnostic criteria of a physical examination and a response to a single diagnostic intra-articular injection with 50% relief, it is suggested that intra-articular injection of steroids provides no clinically meaningful improvement at 6 months. Grade of recommendation: B.
- In patients selected for facet joint procedures using diagnostic criteria of a physical examination and a response to a single diagnostic intra-articular injection with 50% relief, there is insufficient evidence to make a recommendation for or against the use of radiofrequency neurotomy or periarticular phenol injections. Grade of recommendation: I.
- The use of steroid injections into the zygapophyseal joint in patients with chronic back pain and a physical examination suggestive of facet-mediated pain. Grade of recommendation: I.
- The use of uncontrolled medial branch blocks vs pericapsular blocks for the diagnosis of zygapophyseal joint pain based on the outcomes of medial branch nerve cryoablation. Grade of recommendation: I.
- The use of a 50% reduction in pain following medial branch blockade for the diagnosis of zygapophyseal joint pain. Grade of recommendation: I.

World Federation of Neurosurgical Societies (WFNS)

In 2020, the WFNS published the *Spine Committee Recommendations on Conservative Treatment and Percutaneous Pain Relief in Patients With Lumbar Spinal Stenosis* (Fornari et al., 2020). They state that facet joint injections provide a useful diagnostic tool for low back pain.

U.S. Food and Drug Administration (FDA)

This section is to be used for informational purposes only. FDA approval alone is not a basis for coverage.

Facet joint and medial branch block injections are procedures and therefore not subject to FDA regulation. However, devices, drugs, and tests used as part of this procedure may be regulated. Additional information may be obtained from the U.S. Food and Drug Administration Center for Drug Evaluation and Research at: https://www.fda.gov/about-fda/fda-organization/center-drug-evaluation-and-research-cder. (Accessed January 8, 2026)

References

American College of Occupational and Environmental Medicine (ACOEM) Guidelines. Invasive Treatments for Low Back Disorders. 2021.

American Society of Anesthesiologists (ASA). Committee on Pain Medicine. Statement on Anesthetic Care During Interventional Pain Procedures for Adults. October 2005; Amended October 2021. https://www.asahq.org/standards-and-practice-parameters/statement-on-anesthetic-care-during-interventional-pain-procedures-for-adults. Accessed January 8, 2026.

Ashmore ZM, Bies MM, Meiling JB, et al. Ultrasound-guided lumbar medial branch blocks and intra-articular facet joint injections: a systematic review and meta-analysis. Pain Rep. 2022 May;7(3):e1008.

Boswell MV, Manchikanti L, Kaye AD, et al. A best-evidence systematic appraisal of the diagnostic accuracy and utility of facet (zygapophysial) joint injections in chronic spinal pain. Pain Physician. 2015 Jul-Aug;18(4):E497-E533.

Proprietary Information of UnitedHealthcare. Copyright 2026 United HealthCare Services, Inc.

Cohen SP, Bhaskar A, Bhatia A, et al. Consensus practice guidelines on interventions for lumbar facet joint pain from a multispecialty, international working group. Reg Anesth Pain Med. 2020 Jun;45(6):424-467.

Cohen SP, Doshi TL, Constantinescu OC, et al. Effectiveness of lumbar facet joint blocks and predictive value before radiofrequency denervation: the Facet Treatment Study (FACTS), a randomized, controlled clinical trial. Anesthesiology. 2018 Sep;129(3):517-535.

Fogarty AE, Buttner JA, Duszynski B, et al. The effectiveness of fluoroscopically guided lumbar facet steroid joint injections: a systematic review. Interv Pain Med. 2025 May;4(2):100587.

Fornari M, Robertson SC, Pereira P, et al. Conservative treatment and percutaneous pain relief techniques in patients with lumbar spinal stenosis: WFNS Spine Committee Recommendations. World Neurosurg X. 2020 Jun;7:100079.

Funicello R. Facet Joint Injections and Medial Branch Blocks [Internet]. Deerfield, IL: Veritas Health. Spine-health; 2019 June 6. Available from: https://www.spine-health.com/treatment/injections/facet-joint-injections-and-medial-branch-blocks. Accessed January 8, 2026.

Goertz M, Thorson D, Bonsell J, et al. Institute for Clinical Systems Improvement. Adult acute and subacute low back pain. Updated November 2012.

Hayes, Inc. Health Technology Assessment. Intra-articular facet joint injections for the treatment of chronic nonmalignant spinal pain of facet joint origin. Lansdale, PA: April 2018. Updated April 2022.

Hurley RW, Adams MCB, Barad M, et al. Consensus practice guidelines on interventions for cervical spine (facet) joint pain from a multispecialty international working group. Reg Anesth Pain Med. 2022 Jan;47(1):3-59.

Lenahan CM. Current Guidelines for Management of Low Back Pain. Clinical Advisor. 2018.

Manchikanti L, Hirsch JA, Falco FJ, et al. Management of lumbar zygapophysial (facet) joint pain. World J Orthop. 2016 May;7(5):315-337.

Manchikanti L, Kaye AD, Soin A, et al. Comprehensive evidence-based guidelines for facet joint interventions in the management of chronic spinal pain: American Society of Interventional Pain Physicians (ASIPP) guidelines facet joint interventions 2020 guidelines. Pain Physician. 2020 May;23(3S):S1-S127.

Manchikanti L, Knezevic E, Knezevic NN, et al. Effectiveness of facet joint nerve blocks in managing chronic axial spinal pain of facet joint origin: a systematic review and meta-analysis. Pain Physician. 2024 Feb;27(2):E169-E206.

Manchikanti L, Singh V, Falco FJ, et al. Evaluation of lumbar facet joint nerve blocks in managing chronic low back pain: a randomized, double-blind, controlled trial with a 2-year follow-up. Int J Med Sci. 2010 May;7(3):124-135.

North American Spine Society (NASS). Coverage Policy Recommendations. Facet Joint Interventions. 2016.

North American Spine Society (NASS). Evidence Based Clinical Guidelines for Multidisciplinary Spine Care: Diagnosis and Treatment of Low Back Pain. 2020.

Qassem A, Wilt TJ, McLean RM, et al. Noninvasive treatments for acute, subacute, and chronic low back pain: a clinical practice guideline from the American College of Physicians. Ann Intern Med. 2017 Apr;166(7):514-530.

Summers J. International Spine Intervention Society Recommendations for Treatment of Cervical and Lumbar Spine Pain. 2013.

Tay M, Sian SCSH, Eow CZ, et al. Ultrasound-guided lumbar spine injection for axial and radicular pain: a single institution early experience. Asian Spine J. 2021 Apr;15(2):216-223.

Vekaria R, Bhatt R, Ellard DR, et al. Intra-articular facet joint injections for low back pain: a systematic review. Eur Spine J. 2016 Apr;25(4):1266-1281.

Veterans Affairs and Department of Defense (VA/DOD) Clinical Practice Guidelines: the diagnosis and treatment of low back pain. Version 3.0. 2022.

Viva MG, Sveva V, Ruggiero M, et al. Efficacy and accuracy of ultrasound guided injections in the treatment of cervical facet joint syndrome: a systematic review. J Clin Med. 2024 Sep;13(17):5290.

Policy History/Revision Information

Date	Summary of Changes
10/01/2026	**Related Policy** • Removed reference link to the Medical Policy titled *Office-Based Procedures – Site of Service* (retired Oct. 1, 2026)

Proprietary Information of UnitedHealthcare. Copyright 2026 United HealthCare Services, Inc.

Date	Summary of Changes
09/10/2026	**Medical Records Documentation Used for Reviews** • Updated and reformatted list of Medical Records Documentation Used for Reviews to reflect/include: ○ Requested procedure codes ○ Body part being treated; include laterality if relevant (left, right, or bilateral) ○ Diagnosis codes of the condition or concern targeted by requested service ○ State-specific documentation applicable to the requested service, if any (e.g., regulatory, coverage, or program-specific criteria) ○ Functional impairment, related to the condition targeted by requested service, and interference with activities of daily living (ADLs) ○ Relevant history related to the target condition for which the service is requested; symptoms and function should be measured and reported using standardized tools, if any tools are listed below ○ Comorbidities relevant to the condition targeted by the requested service; provide severity and duration of each ○ Nicotine history and status, including nicotine cessation, if applicable (e.g., smoking pack year history) ○ Other than medications, list relevant prior therapies, treatments, or conservative management tried and/or contraindicated or not tolerated; include the dates and duration, reason for discontinuation (if stopped), and therapeutic response ○ List of medications (over-the-counter and prescription) that have been tried, contraindicated, or not tolerated and the therapeutic response; include duration of use ○ Imaging reports (e.g., x-rays, CT, MRI, nuclear scans); include dates and reports demonstrating pathology that justifies the requested service (e.g., ACR-RADS) ○ Results of relevant tests (e.g., laboratory studies, tests, procedures) ○ Physical examination and relevant findings ○ Specific plan, including the type of implant and/or graft and pre- and post-service care to optimize outcomes ○ Reason for revision or removal, including indication ○ For revision or removal, provide treatment plan **Supporting Information** • Archived previous policy version 2026T0004VV

Instructions for Use

This Medical Policy provides assistance in interpreting UnitedHealthcare standard benefit plans. When deciding coverage, the member specific benefit plan document must be referenced as the terms of the member specific benefit plan may differ from the standard plan. In the event of a conflict, the member specific benefit plan document governs. Before using this policy, check the member specific benefit plan document and any applicable federal or state mandates. UnitedHealthcare reserves the right to modify its policies and guidelines as necessary. This Medical Policy is provided for informational purposes. It does not constitute medical advice.

This Medical Policy may also be applied to Medicare Advantage plans in certain instances. In the absence of a Medicare National Coverage Determination (NCD), Local Coverage Determination (LCD), or other Medicare coverage guidance, CMS allows a Medicare Advantage Organization (MAO) to create its own coverage determinations, using objective evidence-based rationale relying on authoritative evidence (Medicare IOM Pub. No. 100-16, Ch. 4, §90.5).

UnitedHealthcare may also use tools developed by third parties, such as the InterQual® criteria, to assist us in administering health benefits. UnitedHealthcare Medical Policies are intended to be used in connection with the independent professional medical judgment of a qualified health care provider and do not constitute the practice of medicine or medical advice.

Proprietary Information of UnitedHealthcare. Copyright 2026 United HealthCare Services, Inc.