Medical Coverage Policy

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Intraoperative Monitoring

Table of Contents

Related Coverage Resources

Electrodiagnostic Testing (EMG/NCV)

INSTRUCTIONS FOR USE

The following Coverage Policy applies to health benefit plans administered by Cigna Companies. Certain Cigna Companies and/or lines of business only provide utilization review services to clients and do not make coverage determinations. References to standard benefit plan language and coverage determinations do not apply to those clients. Coverage Policies are intended to provide guidance in interpreting certain standard benefit plans administered by Cigna Companies. Please note, the terms of a customer's particular benefit plan document [Group Service Agreement, Evidence of Coverage, Certificate of Coverage, Summary Plan Description (SPD) or similar plan document] may differ significantly from the standard benefit plans upon which these Coverage Policies are based. For example, a customer's benefit plan document may contain a specific exclusion related to a topic addressed in a Coverage Policy. In the event of a conflict, a customer's benefit plan document always supersedes the information in the Coverage Policies. In the absence of a controlling federal or state coverage mandate, benefits are ultimately determined by the terms of the applicable benefit plan document. Coverage determinations in each specific instance require consideration of 1) the terms of the applicable benefit plan document in effect on the date of service; 2) any applicable laws/regulations; 3) any relevant collateral source materials including Coverage Policies and; 4) the specific facts of the particular situation. Each coverage request should be reviewed on its own merits. Medical directors are expected to exercise clinical judgment where appropriate and have discretion in making individual coverage determinations. Where coverage for care or services does not depend on specific circumstances, reimbursement will only be provided if a requested service(s) is submitted in accordance with the relevant criteria outlined in the applicable Coverage Policy, including covered diagnosis and/or procedure code(s). Reimbursement is not allowed for services when billed for conditions or diagnoses that are not covered under this Coverage Policy (see "Coding Information" below). When billing, providers must use the most appropriate codes as of the effective date of the submission. Claims submitted for services that are not accompanied by covered code(s) under the applicable Coverage Policy will be denied as not covered. Coverage Policies relate exclusively to the administration of health

benefit plans. Coverage Policies are not recommendations for treatment and should never be used as treatment guidelines. In certain markets, delegated vendor guidelines may be used to support medical necessity and other coverage determinations.

Overview

This Coverage Policy addresses the performance of intraoperative monitoring (IOM). Intraoperative monitoring (IOM) is an umbrella term used to describe a variety of electrodiagnostic tests used to continuously monitor the integrity of neural pathways during surgical procedures when there may be risk of damage to the brain, spinal cord, or nerve. Monitoring that is not continuous does not meet the definition of intraoperative monitoring.

Coverage Policy

Continuous Intraoperative Monitoring (CPT Codes 95940, 95941; HCPCS Code G0453)

Continuous intraoperative neurophysiologic monitoring (IOM) is considered medically necessary when ALL of the following criteria are met:

- IOM is performed by either a licensed physician trained in clinical neurophysiology (e.g., a neurologist, physiatrist) or a trained technologist who is practicing within the scope of his/her state license /certification as defined by state law or appropriate authorities and is working under the direct supervision of a physician trained in neurophysiology and is not the operating surgeon or anesthesiologist.
- IOM is interpreted by a licensed physician trained in clinical neurophysiology, other than the operating surgeon or anesthesiologist, who is either physically in attendance in the operating suite or present by means of a real-time remote mechanism for all electroneurodiagnostic (END) monitoring situations and is immediately available to interpret the recording and advise the surgeon.
- Monitoring is conducted and interpreted real-time (either on-site or at a remote location) and continuously communicated to the surgical team.
- There is significant risk of brain, spinal cord, cranial nerve, or major peripheral nerve injury during a surgical procedure, such as the following:
  - monitoring of a cranial nerve during head and/or neck surgery (e.g., resection of skull base tumor, resection of tumor involving a cranial nerve, cavernous sinus tumor, neck dissection, epileptogenic brain tumor/tissue resection)
  - monitoring of recurrent laryngeal nerve function during high-risk thyroid surgery (e.g., complete resection of a lobe of the thyroid, removal of the entire gland, malignancy, or following a prior thyroid surgery where there is scar tissue surrounding the laryngeal nerve)
  - risk for cerebral ischemia (e.g., surgery of the aortic arch, thoracic aorta, internal carotid artery endarterectomy, intracranial arteriovenous malformation, bronchial artery arteriovenous malformation or tumor, cerebral aneurysm)
  - monitoring of facial nerve function during surgery (e.g., acoustic neuroma, microvascular decompression of the facial nerve for hemifacial spasm, parotid tumor resection, neurotologic/otologic procedures)
  - monitoring of spinal cord function during a spinal procedure when there is significant risk of spinal cord injury due to mechanical spinal distraction, correction of deformity, spinal cord tumor, myelotomy or spinal fracture (including reduction maneuvers) resulting in cord compression

- brachial or lumbar plexus surgery
- the planned surgery poses a high risk of significant damage to an essential nervous system structure (e.g., neuroma of peripheral nerve, leg lengthening procedure when there is traction on the sciatic nerve)

Please note: Train of four monitoring is considered integral to intraoperative monitoring and/or administration of anesthesia. Similarly, stimulus-triggered electromyography (EMG) is considered integral to intraoperative monitoring and/or the baseline surgical procedure when performed to aid placement of pedicle/facet screws.

The following are each considered experimental, investigational, or unproven:

- intraoperative neurophysiologic monitoring of visual evoked potentials
- intraoperative neurophysiologic monitoring of motor evoked potentials using transcranial magnetic stimulation
- surface electromyography (SEMG)

Intraoperative neurophysiologic monitoring (IOM) is not covered or reimbursable for ANY other indication, including the following:

- during lumbar surgery performed below spinal column level L1 - L2
- during cervical spine surgery (e.g., anterior and/or posterior cervical fusion, discectomy or laminectomy) in the absence of a vertebral or intraspinal tumor, traumatic spine/spinal cord injury including subluxation/dislocation, deformity correction, ossification of the posterior longitudinal ligament with severe cord compression, or surgery of the spinal cord
- during epidural injections
- during sacroiliac joint injections
- during radiofrequency ablation/denervation procedures
- during placement of spinal cord or dorsal root ganglion stimulator
- during placement of an intrathecal pain pump

<u>Baseline Electrodiagnostic Studies</u>

Baseline electrodiagnostic studies prior to surgery are separately reportable, however each baseline study is limited to once per operative session. The necessary baseline electrodiagnostic testing modality is determined by the location and type of surgery and may include any of the following modalities, alone or in combination, (this list may not be all-inclusive):

- Somatosensory evoked potentials (SSEP)
- Auditory brainstem evoked responses (ABR)/Brainstem auditory evoked potentials (BAEP)
- Transcranial electrical motor evoked potentials (tcMEP)
- Free running electromyography (EMG)
- Electroencephalography (EEG)

The above electrodiagnostic studies, performed alone or in combination, are considered medically necessary for the pre-operative evaluation of neural integrity when medical necessity criteria have been met for continuous intraoperative neurophysiologic monitoring.

Electrodiagnostic studies for preoperative evaluation of neural integrity are not covered or reimbursable when medical necessity criteria for continuous intraoperative neurophysiologic monitoring have not been met.

Electrodiagnostic studies performed for the evaluation of neural integrity as part of a non-covered surgical procedure listed above, in the absence of intraoperative monitoring, are additionally not covered or reimbursable.

General Background

Intraoperative monitoring (IOM) employs the use of electrodiagnostic modalities to record electrical signals produced by the nervous system in response to a stimuli; the intraoperative monitoring reflects the time spent during ongoing, concurrent, real time electrodiagnostic testing performed throughout the surgery. The goal of intraoperative monitoring is to detect response changes due to surgery, to diminish the risk of neurologic injury, improve patient safety and subsequent surgical outcomes.

In March 2023 a position statement of the American Clinical Neurophysiology Society, the American Association of Neuromuscular and Electrodiagnostic Medicine, the American Society of Neurophysiological Monitory, and ASET - The Neurodiagnostic Society was published to help define the qualifications of neurodiagnostic personnel (Lopez, et al., 2023). Regarding intraoperative monitoring of electrodiagnostic procedures, the associated job responsibilities, required level of education, experience, and certification vary depending on the practitioner's role, the monitoring being performed, and required degree of interpretation. However, in addition to federal, state, and local regulations, and unique facility requirements, it is recommended that a provider performing intraoperative monitoring adhere to the established guidelines to ensure quality care. The full guideline is available at the American Clinical Neurophysiology Society website.

Intraoperative Monitoring Modalities
Intraoperative monitoring modalities may include, but are not limited to the following neurophysiological techniques, alone or in combination:

- Sensory Evoked potentials (i.e., somatosensory [SSEP], auditory brainstem evoked responses [ABR], visual evoked potentials [VEP])
- Motor evoked potentials (MEP)
- Electromyography (EMG), free-running or stimulus-triggered
- Electroencephalogram (EEG)

Multiple modalities are typically used for IOM to overcome the limitations of individual monitoring. Selection of the approach used is dependent upon the type of surgery and the degree of risk.

Somatosensory Evoked Potentials (SSEP): SSEPs are electrical waves generated by the response of sensory neurons to stimuli, evaluate primarily posterior spinal cord function, and are a standard technique for IOM. SSEPs are generally combined with EMG monitoring to allow for an intraoperative evaluation that is both sensitive to damage and specific with regards to predicting outcome. SSEPs have low sensitivity to predict damage but high specificity whereas EMG has high sensitivity to nerve root function but low specificity in terms of predicting a persistent neurological deficit (Gunnarson, et al., 2004). IOM of the cervical spinal cord involves stimulation of the ulnar or median nerve, IOM of the thoracolumbar spinal cord involves stimulation of the posterior tibial or common peroneal nerve (American Clinical Neurophysiology Society [ACS], 2009).

Auditory Brainstem Evoked Responses (ABR): ABR monitoring, also referred to as brainstem auditory evoked potentials (BAEP) measures brainwave activity and is recorded in response to an

auditory stimulus from electrodes placed on the scalp. The electrodes pick up the brain's responses to the sounds and record them.

Visual Evoked Potentials (VEPs): Visual evoked potentials (VEPs) are used to track visual stimuli from the retina to the occipital cortex and have been indicated during surgical procedures involving lesions near the optic nerve, however this technique is still being investigated and clinical utility has not been established. Variables such as type of patterned stimuli, temperature, and anesthesia effects cannot be controlled in the operative setting.

Motor Evoked Potentials (MEP): MEPs are recorded over muscles or the spinal cord, and evaluate anterior spinal cord and motor pathways. The technique involves stimulation to the motor cortex using electromagnetic energy by way either trans-cranial electrical stimulation or pulsed magnetic stimulation via a coil placed over the head to stimulate motor neurons. SSEP and transcranial electrical MEPs are often performed in combination throughout surgery and are considered complimentary multimodal procedures; MEPs in combination with SSEPs appear to improve the accuracy of spinal cord monitoring (Liem, 2016). While transcranial electrical stimulation devices have been approved by the FDA devices for transcranial magnetic stimulation are not yet FDA approved.

Electromyography (EMG): EMG evaluation during surgery, a test that evaluates electrical activity of the muscle and an associated nerve, may be performed as free-run monitoring of EMG activity or as a stimulus-triggered EMG from anatomically appropriate muscles in order to detect injury to nerve roots during surgery. Free-run EMG is defined as continuous monitoring performed throughout the surgery. Stimulus-triggered EMG is frequently used to aid placement of pedicle screws and involves the use of a handheld monopolar probe controlled by the surgeon (Seubert, Mahla, 2009), and while sensitive is not as specific. Stimulus-triggered EMG assesses only pedicle integrity (i.e., if a screw has breached the pedicle wall posing a risk to the nerve root) and is not a strong predictor of neurological injury. Although both techniques can be used to monitor lumbar, thoracic and cervical fusion procedures, in addition to cranial nerve function to detect nerve root injury, stimulus-triggered EMG does not meet the criteria of concurrent, ongoing intraoperative neurophysiologic monitoring and when performed by the surgeon is incidental to the surgical procedure.

Electromyography (EMG) Monitoring and Nerve Conduction Testing: Electromyogram monitoring and nerve conduction velocity testing is often performed in the operating room to assess the status of the cranial or peripheral nerves (e.g., to identify the extent of nerve damage prior to nerve grafting or during resection of tumors). In addition, these techniques may be used during procedures around the nerve roots and around peripheral nerves to assess the presence of excessive traction or other impairment. Surgery in the region of cranial nerves can be monitored by electrically stimulating the proximal (brain) end of the nerve and recording via EMG in the facial or neck muscles. Thus monitoring is done in the direction opposite that of sensory-evoked potentials, but the intent is similar which is to verify that the neural pathway is intact.

Electroencephalogram (EEG): EEG monitoring is performed using scalp electrodes. IOM of EEG activity is performed to assess for cerebral ischemia, such as during carotid endarterectomy. Electrocorticography (ECog), or intracranial EEG (iEEG), is the recording of EEG impulses directly from an exposed cerebral cortex is used to identify epileptogenic regions for resection, and in general does not constitute intraoperative monitoring.

Monitoring of Neuromuscular Blockade: While under anesthesia, various tests may be performed to assess neuromuscular blockade (i.e., depth of anesthesia). One method commonly used, train of four testing, is a test of neuromuscular function performed with a peripheral nerve stimulator. Four stimuli are administered over a period of two seconds with comparison of

responses to determine the depth of anesthesia. While train of four monitoring of neuromuscular function is commonly performed periodically during surgical procedures, it is considered integral to the anesthesia.

Monitoring
The AANEM and the AAN published guidance for intraoperative monitoring. Baseline studies are obtained prior to the procedure. Monitoring should continue until closing of the surgical procedure but may be terminated earlier upon discretion of the surgeon. A logbook should be completed for each patient and include the time of the procedure, the time of each surgical manipulation of the central or peripheral nervous system, and the name, dose and times of anesthetics administered which may affect the central or peripheral nervous system or muscle.

The intraoperative monitoring team should consist of surgeons who have a fundamental background in neurophysiology, a monitoring team with a fundamental background in intraoperative monitoring, and anesthesiologists. In addition, according to the AANEM (2008), the IOM team must include a trained clinical neurophysiologist (MD or DO).

Monitoring must be performed by qualified personnel acting within the scope of his/her license/certification as defined by state law or appropriate authorities. According to a guideline by the AAN (2018), it is expected that a well-trained technologist will be in continuous attendance in the operating room, recoding and monitoring a single surgical case. Although credentialing varies among professional organizations, the AANEM and AAN both provide guidance that the monitoring technologist should be under the direct supervision of a clinical neurophysiologist (AAN, 2018; AANEM, 2008).

Typically, the licensed oversight professional provides remote supervision or in-person supervision of the technologist performing IOM studies with the actual intra-operative monitoring being performed in the operating room by a technologist in constant attendance. Some operating rooms have a central physician monitoring room, where a physician may simultaneously monitor cases. The number of procedures being monitored by the clinical neurophysiologist physician is determined by the nature of the surgical procedure. The severity of the case being monitored may determine the location of the neurophysiologist; they may be located in the operating room, in the same building, monitoring real-time recordings from a remote location, or at a location from which the operating room is accessible within minutes to view the recording procedure.

When performing intraoperative monitoring, the electroneurodiagnostic technologist should monitor only one surgical procedure at a time; multiple monitoring could result in restricted surgical efficiency, prolonged anesthesia, and possible compromise of judgment (American Society of Electroneurodiagnostic Technologists [ASET], 2022).

Real-time monitoring allows timely intervention to prevent risk of damage. Consequently, it is imperative that either the physical (on-site) or electronic capacity (off-site, remote location) for real-time communication exists between the monitoring team and surgeon.

Baseline Studies
According to a position statement by the AANEM (2008) regarding the role of the intraoperative monitoring team, during intraoperative monitoring baseline tracings should be obtained prior to the surgical intervention. Pre-procedural baseline studies are performed immediately prior to the proposed surgery for comparison with the studies performed during surgery. Intraoperative monitoring however does not include the time spent in activities performing or interpreting baseline studies. According to the American Academy of Neurology, each baseline study should be reported only once per operative session (American Academy of Neurology [AAN], 2018).

Intraoperative Monitoring Indications
Intraoperative monitoring allows for immediate intervention thus preventing or minimizing postoperative neurological deficits although there is no clear consensus as to which patients should undergo IOM, other than for individuals at greater risk of injury to a neural structure. According to the AAN (2018), there is no need for IOM in situations where historical data and current practices reveal no potential for neural damage.

Intraoperative monitoring of ABRs are performed to monitor auditory nerve function, hearing preservation and vascular perfusion of the brainstem during surgeries that include, but are not limited to resection of acoustic neuroma, vestibular schwannomas, facial nerve decompression, vestibular nerve section and brainstem tumor resection.

Electroencephalogram (EEG) monitoring is often performed to assess for cerebral ischemia, such as with carotid endarterectomy procedures.

Intraoperative free-running EMG responses are recommended for patients undergoing surgical procedures that result in significant risk of damage to nerve structures that may be associated with the following types of surgery (this list may not be all inclusive):

- surgeries that place the facial nerve at risk for injury (e.g., acoustic neuroma, microvascular decompression of the facial nerve for hemifacial spasm, parotid tumor resection, neurotologic/otologic procedures)
- head and/or neck surgery that places the cranial nerves at risk for injury (e.g., resection of skull base tumors, thyroid tumor surgery, neck dissections)
- brachial or lumbar plexus surgery
- spinal surgery, for nerve root or spinal cord monitoring (e.g., complex instrumentation, mechanical spinal distraction)

Surgery where SSEP monitoring has been recommended for monitoring of the posterior cord includes the following procedures (American Society of Neurophysiological Monitoring [ASNM], 2005, updated 2010; Mahla, et al., 2005; Aminoff, 2003; Linden, et al.,1997):

- aortic and thoracic aneurysm repair
- aortic cross-clamping
- arteriovenous malformation of the spinal cord
- brachial plexus surgery/ brachial plexus exploration after injury to the brachial plexus
- brain (e.g., craniotomy for tumor removal, craniotomy for aneurysm repair, carotid endarterectomy, and localization of cortex during craniotomy)
- cerebrovascular surgery
- clipping of intracranial aneurysms
- interventional neuroradiology
- assessment of nerve root function (e.g., pedicle screw instrumentation, cauda equina tumor removal, release of tethered cord, spina bifida)
- pelvic fracture surgery
- peripheral nerve and plexus (e.g., peripheral nerve repair, position-related ulnar nerve and brachial plexus dysfunction, avoidance of neuropraxia during shoulder arthroscopy, and protection of sciatic nerve function during hip surgery)
- repair of coarctation of the aorta
- resection of fourth ventricular cyst
- resection of intracranial vascular lesions involving the sensory cortex
- resection of spinal cord tumor, cyst, or vascular lesion
- resection of thalamic tumor
- scoliosis correction with instrumentation

- spinal cord decompression and stabilization after acute spinal cord injury
- conditions resulting in spinal cord compression, including cervical, thoracic, and thoraco-lumbar (e.g., anterior and posterior cervical spinal fusions, scoliosis/kyphosis correction, abdominal aortic aneurysm, removal of spinal cord tumor, spinal fracture repair, and arteriovenous malformation repair)
- correction of surgical spondylosis
- stereotactic surgery of the brain stem, thalamus, and cerebral cortex
- surgical correction after spine fractures resulting in spinal cord compression
- thalamotomy
- thalamus and brain stem (e.g., craniotomy for removal of C-P angle tumor, thalamotomy)
- thyroid surgery

Intraoperative Monitoring Limitations
In 2019, the American Association of Neuromuscular & Electrodiagnostic Medicine (AANEM) updated their position statement on electrodiagnostic medicine. The recommendations indicate that intraoperative sensory-evoked potentials have demonstrated utility for monitoring of spinal cord, brainstem, and brain sensory tracts. In addition the AANEM supports that intraoperative SSEP monitoring is indicated for select spine surgeries in which there is a risk of additional nerve root or spinal cord injury. Indications for SSEP monitoring may include, but are not limited to, complex, extensive, or lengthy procedures, and when mandated by hospital policy. However, intraoperative SSEP monitoring may not be indicated for routine lumbar or cervical root decompression.

Hadley and colleagues (2017) published guidelines regarding the use of electrophysiological monitoring during spine surgery. The authors evaluated the diagnostic utility, therapeutic role and cost effectiveness of IOM during spinal cord or spinal column surgery and published recommendations based on their systematic review of the literature. The evidence reviewed suggests multimodal IOM (MIOM) is reliable and accurate as a diagnostic tool of the integrity of the spinal cord during spinal cord or spinal column surgery (Level 1 recommendation, Class I, II and combined Class I/II studies [RCTs, systematic reviews of RCTs]). A therapeutic role for IOM was not supported, the authors stated "while IOM does accurately detect a neurological injury during spinal surgery (diagnostic utility) its use does not result in improved outcomes when neurological loss during the procedure is correctly predicted by IOM (therapeutic role). There are no class I or class II medical evidence studies that support the use of MIOM as a therapeutic tool in this setting. There are 2 class II medical evidence studies whose results refute the potential therapeutic benefit of MIOM during spinal surgery. The group assigned a Level III recommendation (defined as case series, expert opinion) stating: There is insufficient evidence to suggest a therapeutic relationship between electrophysiological monitoring, including SSEP and MEP recordings, during spinal cord/spinal column surgery, and neurological outcome; its use is not recommended for this purpose".

The evidence evaluating the use of IONM to reduce RLN injury during cervical spinal surgery consists mainly of observational cohort studies and a few systematic reviews/meta-analyses. Outcomes are mixed although some authors report there is no therapeutic benefit. Nevertheless, increased risk of recurrent laryngeal nerve injury has been reported following repeat cervical spine surgery, multilevel cervical spine surgery and when cervical spine surgery involves corpectomy (Erwood, et al., 2016; Ajiboye, et al., 2017a). One systematic review and meta-analysis evaluating intraoperative neuromonitoring for anterior cervical spine surgery (ACSS) was published by Ajiboye and colleagues (2017a) who found no difference with the use of IOM versus no IOM. The authors compared anterior cervical spine surgery with and without IOM and evaluated the differences in sensitivity and specificity of IOM for ACSS. The review included 10 studies (two level III, eight level IV evidence) totaling 26,357 subjects. Indications for ACSS were limited to myelopathy or radiculopathy in three of the studies, and in the remaining studies

indications were infection, tumor, trauma, and ossified posterior longitudinal ligament. There were 49 events of neurological injury among 26,357 subjects, the unweighted risk of adverse event was 19%; the weighted risk of neurological injury after ACSS was .64%; for surgery including fusion it was .20%; and for surgery involving corpectomy it was 1.02%. For ACDF there was no difference in the risk of neurological injury with or without IOM. Unimodal IOM had a higher sensitivity than multimodal, 99% versus 92% respectively and in the authors' opinion may minimize subclinical intraoperative alerts in ACSS. No statistically significant difference in sensitivity between unimodal and multimodal was found.

Intraoperative neurophysiologic monitoring is being performed as part of various other surgical procedures when there is presumed potential for nerve injury, such as for joint arthroscopy/arthroplasty procedures, interventional pain injections (e.g., epidural steroid injections) and during implantation of spinal cord stimulators. However, evidence in the published medical literature evaluating the use of intraoperative monitoring for these procedures is insufficient to demonstrate monitoring reduces the occurrence of neurological injury and improves net health outcomes.

IOM of SSEPs/MEPs for evaluation of nerve injury when performed for spine surgery is performed cephalad to (above) the termination of the cord (Jameson, et al., 2007). The spinal cord ends between spinal level L1 and L2; there is no clinical utility for IOM of SSEPs or MEPs for surgical procedures below spinal level L1-L2.

Intraoperative SSEP monitoring is not indicated for routine lumbar or cervical root decompression or for routine cervical or lumbar laminectomy or fusion (AANEM, 1999a). The American Association of Neuromuscular and Electrodiagnostic Medicine (AANEM, 2019) supports that intraoperative SSEP monitoring may be indicated for select spine surgeries in which there is a risk of nerve root or spinal cord injury. According to the AANEM indications for SSEP intraoperative monitoring may include, but are not limited to, complex, extensive, or lengthy procedures, and when mandated by hospital policy.

Performance of IOM during pedicle screw placement and other instrumented spinal procedures has been evaluated by several author groups (Bose, et al., 2002; Raynor, et al., 2007; Alemo, et al., 2010; Wang, et al., 2010; Eager, et al., 2010; Parker, et al., 2011, Rajappa, et al., 2021; Alluri, et al., 2021; Koffie, et al., 2022) however a majority of the published studies are retrospective, lack control groups, and have mixed results regarding sensitivity, specificity, threshold levels for determining a breach and improved surgical outcomes. One systematic review by Fehling et al. (2010), which included a review of 32 published articles, suggested that there is a high level of evidence that multimodal IOM is sensitive and specific for detecting intraoperative neurologic injury during spine surgery although a low level of evidence that IOM reduces the rate of new or worsened perioperative neurologic deficits. The level of evidence that an intraoperative response to a neuromonitoring alert reduced the rate of perioperative neurologic deterioration was very low. In addition, it has been suggested that imaging-based modalities are more reliable for assessing pedicle screw breaches (Alemo, et al., 2010; Wang, et al., 2010) and that triggered EMG should be used as an adjunct technique for alerting potential nerve injury (Raynor; et al., 2007).

Regarding spine surgery specifically, IOM is indicated in select spine surgeries when there is high risk for spinal cord injury. Intraoperative monitoring of SSEPs has not been shown to be of clinical benefit for routine lumbar or cervical nerve root decompression (AANEM, 2019), routine lumbar or cervical laminectomy or fusion (AANEM, 1999a). Resnick et al. (2005) reported in guidelines for the performance of fusion procedures for degenerative disease of the lumbar spine that based on the medical literature reviewed by the authors there does not appear to be support for the hypothesis that any form of intraoperative monitoring improves patient outcomes following lumbar decompression or fusion procedures for degenerative spinal disease. Changes to DSEP and SSEP

monitoring appear to be sensitive to nerve root injury, however there is a high false-positive rate and changes are frequently not related to nerve injury. In 2014 an update to the 2005 guideline was published (Sharan, et al., 2014). The authors again reviewed the literature to determine if the use of IOM during lumbar or lumbosacral fusion was able to prevent nerve root injury and influence patient outcomes. Based on the results of their review, which included three new publications evaluating IOM of lumbar surgery since the 2005 review by Resnick et al., there is no evidence to support IOM during lumbar fusion impacts surgical outcomes (Sharan, et al., 2014). The evidence suggesting a correlation between SSEP signals and nerve root injury during lumbar surgery was graded as low quality; however, the authors found no evidence to support intraoperative maneuvers lead to recovery of nerve function once a change occurred (Sharan, et al., 2014). A recent review of the literature continues to support that the added value of intraoperative monitoring for spine surgery remains unknown.

Nuwer et al. (2012) published an evidence-based guideline update evaluating SSEPs and tcMEPs as part of intraoperative spinal monitoring (endorsed by the AANEM and the AAN, 2018). The authors reviewed four Class I (prospective cohort study) and eight Class II studies (case-control study with retrospective collection of data) which met inclusion criteria for analysis. All subjects within the studies had IOM although it was not clear which spinal level surgery was performed on. The outcomes of patients with evoked potential (EP) changes were compared with outcomes of patients without EP changes. Four class I diagnostic studies demonstrated that 16% to 40% of subjects who had an EP change during IOM had paraparesis, paraplegia, or quadriplegia while the subjects without an EP change had no adverse events. The authors concluded that IOM is established as effective to predict an increased risk of the adverse outcomes of paraparesis, paraplegia, or quadriplegia in spinal surgery.

The American Association of Neurological Surgeons/Congress of Neurological Surgeons (AANS/CNS) updated a position statement for intraoperative electrophysiological monitoring (AANS/CNS, 2018). Within this document, the AANS/CNS states, that "there is Level I evidence that IOM is a reliable diagnostic tool for assessment of spinal cord integrity during surgery. MEPs have been shown to be superior to SSEPs in the assessment of spinal cord integrity during surgery. Intraoperative MEPs have been shown to predict recovery in traumatic cervical spinal cord injury. There is insufficient evidence (Level III) of a therapeutic benefit of IOM during spinal surgery. While IOM is generally regarded as integral to lateral spine surgery, there is insufficient evidence to support a therapeutic benefit. The cost-effectiveness of IOM has been inadequately studied." There is no published data to suggest that IOM results in alterations of procedures, increased procedure/anesthesia time, increased procedural difficulty, or increased risk of needle-sticks for the operative team.

The National Institute for Health and Care Excellence (NICE) has issued procedural guidance for intraoperative nerve monitoring during thyroid surgery. Within this guidance NICE reports that "evidence on intraoperative nerve monitoring (IONM) during thyroid surgery raises no major safety concerns. In terms of efficacy, some surgeons find IONM helpful in performing more complex operations such as reoperative surgery and operations on large thyroid glands. Therefore, it may be used with normal arrangements for consent, audit and clinical governance" (NICE).

U.S. Food and Drug Administration (FDA): Intraoperative monitoring is a procedure and is not subject to FDA regulation. Evoked stimulator electrical devices used to apply an electrical stimulus through use of skin electrodes, to measure evoked potentials are regulated by the FDA as Class II devices and are cleared through the 510(k) process. Several evoked stimulator electrical devices have been approved by the FDA.

Medicare Coverage Determinations

	Contractor	Determination Name/Number	Revision Effective Date
NCD	National	No Determination found	
LCD	Wisconsin Physicians Service Insurance Corporation	Intraoperative Neurophysiological Testing (L34623)	2/1/2024
LCD	Novitas Solutions, Inc.	Intraoperative Neurophysiological Testing (L35003)	11/14/2019

Note: Please review the current Medicare Policy for the most up-to-date information.
(NCD = National Coverage Determination; LCD = Local Coverage Determination)

Coding Information

Notes:

1. This list of codes may not be all-inclusive since the American Medical Association (AMA) and Centers for Medicare & Medicaid Services (CMS) code updates may occur more frequently than policy updates.
2. Deleted codes and codes which are not effective at the time the service is rendered may not be eligible for reimbursement.

Continuous Intraoperative Monitoring

Considered Medically Necessary when criteria in the applicable policy statements listed above are met:

CPT®* Codes	Description
95940	Continuous intraoperative neurophysiology monitoring in the operating room, one on one monitoring requiring personal attendance, each 15 minutes (List separately in addition to code for primary procedure)
95941	Continuous intraoperative neurophysiology monitoring, from outside the operating room (remote or nearby) or for monitoring of more than one case while in the operating room, per hour (List separately in addition to code for primary procedure)

HCPCS Codes	Description
G0453	Continuous intraoperative neurophysiology monitoring, from outside the operating room (remote or nearby), per patient, (attention directed exclusively to one patient) each 15 minutes (list in addition to primary procedure)

Pre-Procedural Baseline Electrodiagnostic Studies

Considered Medically Necessary when criteria in the applicable policy statements listed above are met:

Electroencephalogram (EEG)

CPT®* Codes	Description
95707	Electroencephalogram (EEG), without video, review of data, technical description by EEG technologist, 2-12 hours; with continuous, real-time monitoring and maintenance
95717	Electroencephalogram (EEG), continuous recording, physician or other qualified health care professional review of recorded events, analysis of spike and seizure detection, interpretation and report, 2-12 hours of EEG recording; without video
95812	Electroencephalogram (EEG) extended monitoring; 41-60 minutes
95813	Electroencephalogram (EEG) extended monitoring; 61-119 minutes
95822	Electroencephalogram (EEG); recording in coma or sleep only
95955	Electroencephalogram (EEG) during nonintracranial surgery (eg, carotid surgery)
95957	Digital analysis of electroencephalogram (EEG) (eg, for epileptic spike analysis)

Somatosensory Evoked Potential (SSEP)

CPT®* Codes	Description
95925	Short-latency somatosensory evoked potential study, stimulation of any/all peripheral nerves or skin sites, recording from the central nervous system; in upper limbs
95926	Short-latency somatosensory evoked potential study, stimulation of any/all peripheral nerves or skin sites, recording from the central nervous system; in lower limbs
95927	Short-latency somatosensory evoked potential study, stimulation of any/all peripheral nerves or skin sites, recording from the central nervous system; in the trunk or head
95938	Short-latency somatosensory evoked potential study, stimulation of any/all peripheral nerves or skin sites, recording from the central nervous system; in upper and lower limbs

Motor Evoked Potential (MEP)

CPT®* Codes	Description
95928	Central motor evoked potential study (transcranial motor stimulation); upper limbs
95929	Central motor evoked potential study (transcranial motor stimulation); lower limbs
95939	Central motor evoked potential study (transcranial motor stimulation); in upper and lower limbs

Auditory Brainstem Evoked Potential/Brainstem Auditory Evoked Potential (ABR/BAEP)

CPT®* Codes	Description
92652	Auditory evoked potentials; for threshold estimation at multiple frequencies, with interpretation and report
92653	Auditory evoked potentials; neurodiagnostic, with interpretation and report

Peripheral Nerve Stimulation (use only one code with IOM codes)

CPT®* Codes	Description
95885	Needle electromyography, each extremity, with related paraspinal areas, when performed, done with nerve conduction, amplitude and latency/velocity study; limited (List separately in addition to code for primary procedure)
95886	Needle electromyography, each extremity, with related paraspinal areas, when performed, done with nerve conduction, amplitude and latency/velocity study; complete, five or more muscles studied, innervated by three or more nerves or four or more spinal levels (List separately in addition to code for primary procedure
95887	Needle electromyography, non-extremity (cranial nerve supplied or axial) muscle(s) done with nerve conduction, amplitude and latency/velocity study (List separately in addition to code for primary procedure)
95907	Nerve conduction studies; 1-2 studies
95908	Nerve conduction studies; 3-4 studies
95909	Nerve conduction studies; 5-6 studies
95910	Nerve conduction studies; 7-8 studies
95911	Nerve conduction studies; 9-10 studies
95912	Nerve conduction studies; 11-12 studies
95913	Nerve conduction studies; 13 or more studies

Oculomotor, Facial, Trigeminal and Lower Cranial Nerve Monitoring:

CPT®* Codes	Description
95867	Needle electromyography; cranial nerve supplied muscle(s), unilateral
95868	Needle electromyography; cranial nerve supplied muscles, bilateral
95933	Orbicularis oculi (blink) reflex, by electrodiagnostic testing

Free-Running Electromyography (EMG)

CPT®* Codes	Description
51785	Needle electromyography studies (EMG) of anal or urethral sphincter, any technique
95860	Needle electromyography; 1 extremity with or without related paraspinal areas
95861	Needle electromyography; 2 extremities with or without related paraspinal areas
95863	Needle electromyography; 3 extremities with or without related paraspinal areas
95864	Needle electromyography; 4 extremities with or without related paraspinal areas
95870	Needle electromyography; limited study of muscles in 1 extremity or non-limb (axial) muscles (unilateral or bilateral), other than thoracic paraspinal, cranial nerve supplied muscles, or sphincters

Visual Evoked potential (VEP)

Not covered when used in combination with intraoperative monitoring:

CPT®* Codes	Description
95930	Visual evoked potential (VEP) checkerboard or flash testing, central nervous system except glaucoma, with interpretation and report

Neuromuscular Blockade Testing (including but not limited to Train of Four testing)

Not separately reimbursed when used to monitor the depth of anesthesia during surgery:

CPT®* Codes	Description
95937	Neuromuscular junction testing (repetitive stimulation, paired stimuli), each nerve, any 1 method
95999	Unlisted neurological or neuromuscular diagnostic procedure

Surface Electromyography (EMG)

Considered Experimental/Investigational/Unproven:

HCPCS Codes	Description
S3900	Surface electromyography (EMG)

Interventional Pain Management

Not Covered or Reimbursable for intraoperative neurophysiologic monitoring (IOM) during epidural injections, radiofrequency ablation/denervation procedures, placement of spinal cord stimulator, and placement of an intrathecal pain pump:

CPT®* Codes	Description
27096	Injection procedure for sacroiliac joint, anesthetic/steroid, with image guidance (fluoroscopy or CT) including arthrography when performed
62320	Injection(s), of diagnostic or therapeutic substance(s) (eg, anesthetic, antispasmodic, opioid, steroid, other solution), not including neurolytic substances, including needle or catheter placement, interlaminar epidural or subarachnoid, cervical or thoracic; without imaging guidance
62321	Injection(s), of diagnostic or therapeutic substance(s) (eg, anesthetic, antispasmodic, opioid, steroid, other solution), not including neurolytic substances, including needle or catheter placement, interlaminar epidural or subarachnoid, cervical or thoracic; with imaging guidance (ie, fluoroscopy or CT)
62322	Injection(s), of diagnostic or therapeutic substance(s) (eg, anesthetic, antispasmodic, opioid, steroid, other solution), not including neurolytic substances, including needle or catheter placement, interlaminar epidural or subarachnoid, lumbar or sacral (caudal); without imaging guidance
62323	Injection(s), of diagnostic or therapeutic substance(s) (eg, anesthetic, antispasmodic, opioid, steroid, other solution), not including neurolytic substances, including needle or catheter placement, interlaminar epidural or subarachnoid, lumbar or sacral (caudal); with imaging guidance (ie, fluoroscopy or CT)
62324	Injection(s), including indwelling catheter placement, continuous infusion or intermittent bolus, of diagnostic or therapeutic substance(s) (eg, anesthetic, antispasmodic, opioid, steroid, other solution), not including neurolytic substances, interlaminar epidural or subarachnoid, cervical or thoracic; without imaging guidance

CPT®* Codes	Description
62325	Injection(s), including indwelling catheter placement, continuous infusion or intermittent bolus, of diagnostic or therapeutic substance(s) (eg, anesthetic, antispasmodic, opioid, steroid, other solution), not including neurolytic substances, interlaminar epidural or subarachnoid, cervical or thoracic; with imaging guidance (ie, fluoroscopy or CT)
62326	Injection(s), including indwelling catheter placement, continuous infusion or intermittent bolus, of diagnostic or therapeutic substance(s) (eg, anesthetic, antispasmodic, opioid, steroid, other solution), not including neurolytic substances, interlaminar epidural or subarachnoid, lumbar or sacral (caudal); without imaging guidance
62327	Injection(s), including indwelling catheter placement, continuous infusion or intermittent bolus, of diagnostic or therapeutic substance(s) (eg, anesthetic, antispasmodic, opioid, steroid, other solution), not including neurolytic substances, interlaminar epidural or subarachnoid, lumbar or sacral (caudal); with imaging guidance (ie, fluoroscopy or CT)
62350	Implantation, revision or repositioning of tunneled intrathecal or epidural catheter, for long-term medication administration via an external pump or implantable reservoir/infusion pump; without laminectomy
62351	Implantation, revision or repositioning of tunneled intrathecal or epidural catheter, for long-term medication administration via an external pump or implantable reservoir/infusion pump; with laminectomy
63650	Percutaneous implantation of neurostimulator electrode array, epidural
63655	Laminectomy for implantation of neurostimulator electrodes, plate/paddle, epidural
63663	Revision including replacement, when performed, of spinal neurostimulator electrode percutaneous array(s), including fluoroscopy, when performed
63664	Revision including replacement, when performed, of spinal neurostimulator electrode plate/paddle(s) placed via laminotomy or laminectomy, including fluoroscopy, when performed
64479	Injection(s), anesthetic agent(s) and/or steroid; transforaminal epidural, with imaging guidance (fluoroscopy or CT), cervical or thoracic, single level
64480	Injection(s), anesthetic agent(s) and/or steroid; transforaminal epidural, with imaging guidance (fluoroscopy or CT), cervical or thoracic, each additional level (List separately in addition to code for primary procedure)
64483	Injection(s), anesthetic agent(s) and/or steroid; transforaminal epidural, with imaging guidance (fluoroscopy or CT), lumbar or sacral, single level
64484	Injection(s), anesthetic agent(s) and/or steroid; transforaminal epidural, with imaging guidance (fluoroscopy or CT), lumbar or sacral, each additional level (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)

CPT®* Codes	Description
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)
64625	Radiofrequency ablation, nerves innervating the sacroiliac joint, with image guidance (ie, fluoroscopy or computed tomography)
64633	Destruction by neurolytic agent, paravertebral facet joint nerve(s), with imaging guidance (fluoroscopy or CT); cervical or thoracic, single facet joint
64634	Destruction by neurolytic agent, paravertebral facet joint nerve(s), with imaging guidance (fluoroscopy or CT); cervical or thoracic, each additional facet joint (List separately in addition to code for primary procedure)
64635	Destruction by neurolytic agent, paravertebral facet joint nerve(s), with imaging guidance (fluoroscopy or CT); lumbar or sacral, single facet joint
64636	Destruction by neurolytic agent, paravertebral facet joint nerve(s), with imaging guidance (fluoroscopy or CT); lumbar or sacral, each additional facet joint (List separately in addition to code for primary procedure)

Not Covered or Reimbursable - IOM Performed During Lumbar Surgery Below Spinal Column Level L1-L2 And/Or During Cervical Spine Surgery

Intraoperative neurophysiologic monitoring (IOM), including baseline electrodiagnostic studies

CPT®* Codes	Description
51785	Needle electromyography studies (EMG) of anal or urethral sphincter, any technique
92652	Auditory evoked potentials; for threshold estimation at multiple frequencies, with interpretation and report
92653	Auditory evoked potentials; neurodiagnostic, with interpretation and report
95707	Electroencephalogram (EEG), without video, review of data, technical description by EEG technologist, 2-12 hours; with continuous, real-time monitoring and maintenance
95717	Electroencephalogram (EEG), continuous recording, physician or other qualified health care professional review of recorded events, analysis of spike and seizure detection, interpretation and report, 2-12 hours of EEG recording; without video
95812	Electroencephalogram (EEG) extended monitoring; 41-60 minutes
95813	Electroencephalogram (EEG) extended monitoring; 61-119 minutes
95822	Electroencephalogram (EEG); recording in coma or sleep only
95860	Needle electromyography; 1 extremity with or without related paraspinal areas
95861	Needle electromyography; 2 extremities with or without related paraspinal areas
95863	Needle electromyography; 3 extremities with or without related paraspinal areas
95864	Needle electromyography; 4 extremities with or without related paraspinal areas

CPT®* Codes	Description
95867	Needle electromyography; cranial nerve supplied muscle(s), unilateral
95868	Needle electromyography; cranial nerve supplied muscles, bilateral
95870	Needle electromyography; limited study of muscles in 1 extremity or non-limb (axial) muscles (unilateral or bilateral), other than thoracic paraspinal, cranial nerve supplied muscles, or sphincters
95885	Needle electromyography, each extremity, with related paraspinal areas, when performed, done with nerve conduction, amplitude and latency/velocity study; limited (List separately in addition to code for primary procedure)
95886	Needle electromyography, each extremity, with related paraspinal areas, when performed, done with nerve conduction, amplitude and latency/velocity study; complete, five or more muscles studied, innervated by three or more nerves or four or more spinal levels (List separately in addition to code for primary procedure)
95887	Needle electromyography, non-extremity (cranial nerve supplied or axial) muscle(s) done with nerve conduction, amplitude and latency/velocity study (List separately in addition to code for primary procedure)
95907	Nerve conduction studies; 1-2 studies
95908	Nerve conduction studies; 3-4 studies
95909	Nerve conduction studies; 5-6 studies
95910	Nerve conduction studies; 7-8 studies
95911	Nerve conduction studies; 9-10 studies
95912	Nerve conduction studies; 11-12 studies
95913	Nerve conduction studies; 13 or more studies
95925	Short-latency somatosensory evoked potential study, stimulation of any/all peripheral nerves or skin sites, recording from the central nervous system; in upper limbs
95926	Short-latency somatosensory evoked potential study, stimulation of any/all peripheral nerves or skin sites, recording from the central nervous system; in lower limbs
95927	Short-latency somatosensory evoked potential study, stimulation of any/all peripheral nerves or skin sites, recording from the central nervous system; in the trunk or head
95928	Central motor evoked potential study (transcranial motor stimulation); upper limbs
95929	Central motor evoked potential study (transcranial motor stimulation); lower limbs
95933	Orbicularis oculi (blink) reflex, by electrodiagnostic testing
95938	Short-latency somatosensory evoked potential study, stimulation of any/all peripheral nerves or skin sites, recording from the central nervous system; in upper and lower limbs
95939	Central motor evoked potential study (transcranial motor stimulation); in upper and lower limbs
95940	Continuous intraoperative neurophysiology monitoring in the operating room, one on one monitoring requiring personal attendance, each 15 minutes (List separately in addition to code for primary procedure)
95941	Continuous intraoperative neurophysiology monitoring, from outside the operating room (remote or nearby) or for monitoring of more than one case while in the operating room, per hour (List separately in addition to code for primary procedure)
95955	Electroencephalogram (EEG) during nonintracranial surgery (eg, carotid surgery)

CPT®* Codes	Description
95957	Digital analysis of electroencephalogram (EEG) (eg, for epileptic spike analysis)

HCPCS Codes	Description
G0453	Continuous intraoperative neurophysiology monitoring, from outside the operating room (remote or nearby), per patient, (attention directed exclusively to one patient) each 15 minutes (list in addition to primary procedure)

Lumbar Surgery Below Spinal Column Level L1-L2

ICD-10-CM Diagnosis Codes	Description
C41.4	Malignant neoplasm of pelvic bones, sacrum and coccyx
C72.1	Malignant neoplasm of cauda equina
D16.8	Benign neoplasm of pelvic bones, sacrum and coccyx
G54.1	Lumbosacral plexus disorders
G54.4	Lumbosacral root disorders, not elsewhere classified
G83.4	Cauda equina syndrome
G95.81	Conus medullaris syndrome
M40.36	Flatback syndrome, lumbar region
M40.37	Flatback syndrome, lumbosacral region
M40.46	Postural lordosis, lumbar region
M40.47	Postural lordosis, lumbosacral region
M40.56	Lordosis, unspecified, lumbar region
M40.57	Lordosis, unspecified, lumbosacral region
M41.56	Other secondary scoliosis, lumbar region
M41.57	Other secondary scoliosis, lumbosacral region
M41.86	Other forms of scoliosis, lumbar region
M41.87	Other forms of scoliosis, lumbosacral region
M43.06	Spondylolysis, lumbar region
M43.07	Spondylolysis, lumbosacral region
M43.08	Spondylolysis, sacral and sacrococcygeal region
M43.16	Spondylolisthesis, lumbar region
M43.17	Spondylolisthesis, lumbosacral region
M43.18	Spondylolisthesis, sacral and sacrococcygeal region
M43.26	Fusion of spine, lumbar region
M43.27	Fusion of spine, lumbosacral region
M43.28	Fusion of spine, sacral and sacrococcygeal region
M43.5X6	Other recurrent vertebral dislocation, lumbar region
M43.5X7	Other recurrent vertebral dislocation, lumbosacral region
M43.5X8	Other recurrent vertebral dislocation, sacral and sacrococcygeal region
M43.8X6	Other specified deforming dorsopathies, lumbar region
M43.8X7	Other specified deforming dorsopathies, lumbosacral region
M43.8X8	Other specified deforming dorsopathies, sacral and sacrococcygeal region
M45.6	Ankylosing spondylitis lumbar region
M45.7	Ankylosing spondylitis of lumbosacral region
M45.8	Ankylosing spondylitis sacral and sacrococcygeal region
M46.26	Osteomyelitis of vertebra, lumbar region

ICD-10-CM Diagnosis Codes	Description
M46.27	Osteomyelitis of vertebra, lumbosacral region
M46.28	Osteomyelitis of vertebra, sacral and sacrococcygeal region
M46.36	Infection of intervertebral disc (pyogenic), lumbar region
M46.37	Infection of intervertebral disc (pyogenic), lumbosacral region
M46.38	Infection of intervertebral disc (pyogenic), sacral and sacrococcygeal region
M46.46	Discitis, unspecified, lumbar region
M46.47	Discitis, unspecified, lumbosacral region
M46.48	Discitis, unspecified, sacral and sacrococcygeal region
M46.56	Other infective spondylopathies, lumbar region
M46.57	Other infective spondylopathies, lumbosacral region
M46.58	Other infective spondylopathies, sacral and sacrococcygeal region
M46.86	Other specified inflammatory spondylopathies, lumbar region
M46.87	Other specified inflammatory spondylopathies, lumbosacral region
M46.88	Other specified inflammatory spondylopathies, sacral and sacrococcygeal region
M46.96	Unspecified inflammatory spondylopathy, lumbar region
M46.97	Unspecified inflammatory spondylopathy, lumbosacral region
M46.98	Unspecified inflammatory spondylopathy, sacral and sacrococcygeal region
M47.016	Anterior spinal artery compression syndromes, lumbar region
M47.16	Other spondylosis with myelopathy, lumbar region
M47.26	Other spondylosis with radiculopathy, lumbar region
M47.27	Other spondylosis with radiculopathy, lumbosacral region
M47.28	Other spondylosis with radiculopathy, sacral and sacrococcygeal region
M47.816	Spondylosis without myelopathy or radiculopathy, lumbar region
M47.817	Spondylosis without myelopathy or radiculopathy, lumbosacral region
M47.818	Spondylosis without myelopathy or radiculopathy, sacral and sacrococcygeal region
M47.896	Other spondylosis, lumbar region
M47.897	Other spondylosis, lumbosacral region
M47.898	Other spondylosis, sacral and sacrococcygeal region
M48.061	Spinal stenosis, lumbar region without neurogenic claudication
M48.062	Spinal stenosis, lumbar region with neurogenic claudication
M48.07	Spinal stenosis, lumbosacral region
M48.08	Spinal stenosis, sacral and sacrococcygeal region
M48.16	Ankylosing hyperostosis [Forestier], lumbar region
M48.17	Ankylosing hyperostosis [Forestier], lumbosacral region
M48.18	Ankylosing hyperostosis [Forestier], sacral and sacrococcygeal region
M48.26	Kissing spine, lumbar region
M48.27	Kissing spine, lumbosacral region
M48.36	Traumatic spondylopathy, lumbar region
M48.37	Traumatic spondylopathy, lumbosacral region
M48.38	Traumatic spondylopathy, sacral and sacrococcygeal region
M48.56XA	Collapsed vertebra, not elsewhere classified, lumbar region, initial encounter for fracture
M48.56XD	Collapsed vertebra, not elsewhere classified, lumbar region, subsequent encounter for fracture with routine healing
M48.56XG	Collapsed vertebra, not elsewhere classified, lumbar region, subsequent encounter for fracture with delayed healing
M48.56XS	Collapsed vertebra, not elsewhere classified, lumbar region, sequela of fracture

ICD-10-CM Diagnosis Codes	Description
M48.57XA	Collapsed vertebra, not elsewhere classified, lumbosacral region, initial encounter for fracture
M48.57XD	Collapsed vertebra, not elsewhere classified, lumbosacral region, subsequent encounter for fracture with routine healing
M48.57XG	Collapsed vertebra, not elsewhere classified, lumbosacral region, subsequent encounter for fracture with delayed healing
M48.57XS	Collapsed vertebra, not elsewhere classified, lumbosacral region, sequela of fracture
M48.58XA	Collapsed vertebra, not elsewhere classified, sacral and sacrococcygeal region, initial encounter for fracture
M48.58XD	Collapsed vertebra, not elsewhere classified, sacral and sacrococcygeal region, subsequent encounter for fracture with routine healing
M48.58XG	Collapsed vertebra, not elsewhere classified, sacral and sacrococcygeal region, subsequent encounter for fracture with delayed healing
M48.58XS	Collapsed vertebra, not elsewhere classified, sacral and sacrococcygeal region, sequela of fracture
M48.8X6	Other specified spondylopathies, lumbar region
M48.8X7	Other specified spondylopathies, lumbosacral region
M48.8X8	Other specified spondylopathies, sacral and sacrococcygeal region
M49.86	Spondylopathy in diseases classified elsewhere, lumbar region
M49.87	Spondylopathy in diseases classified elsewhere, lumbosacral region
M49.88	Spondylopathy in diseases classified elsewhere, sacral and sacrococcygeal region
M51.06	Intervertebral disc disorders with myelopathy, lumbar region
M51.16	Intervertebral disc disorders with radiculopathy, lumbar region
M51.17	Intervertebral disc disorders with radiculopathy, lumbosacral region
M51.26	Other intervertebral disc displacement, lumbar region
M51.27	Other intervertebral disc displacement, lumbosacral region
M51.36	Other intervertebral disc degeneration, lumbar region
M51.37	Other intervertebral disc degeneration, lumbosacral region
M51.46	Schmorl's nodes, lumbar region
M51.47	Schmorl's nodes, lumbosacral region
M51.86	Other intervertebral disc disorders, lumbar region
M51.87	Other intervertebral disc disorders, lumbosacral region
M51.9	Unspecified thoracic, thoracolumbar and lumbosacral intervertebral disc disorder
M51.A0	Intervertebral annulus fibrosus defect, lumbar region, unspecified size
M51.A1	Intervertebral annulus fibrosus defect, small, lumbar region
M51.A2	Intervertebral annulus fibrosus defect, large, lumbar region
M51.A3	Intervertebral annulus fibrosus defect, lumbosacral region, unspecified size
M51.A4	Intervertebral annulus fibrosus defect, small, lumbosacral region
M51.A5	Intervertebral annulus fibrosus defect, large, lumbosacral region
M53.2X6	Spinal instabilities, lumbar region
M53.2X7	Spinal instabilities, lumbosacral region
M53.2X8	Spinal instabilities, sacral and sacrococcygeal region
M53.3	Sacrococcygeal disorders, not elsewhere classified
M53.86	Other specified dorsopathies, lumbar region
M53.87	Other specified dorsopathies, lumbosacral region
M53.88	Other specified dorsopathies, sacral and sacrococcygeal region
M54.16	Radiculopathy, lumbar region

ICD-10-CM Diagnosis Codes	Description
M54.17	Radiculopathy, lumbosacral region
M54.18	Radiculopathy, sacral and sacrococcygeal region
M54.30	Sciatica, unspecified side
M54.31	Sciatica, right side
M54.32	Sciatica, left side
M54.40	Lumbago with sciatica, unspecified side
M54.41	Lumbago with sciatica, right side
M54.42	Lumbago with sciatica, left side
M54.50	Low back pain, unspecified
M54.51	Vertebrogenic low back pain
M54.59	Other low back pain
M99.23	Subluxation stenosis of neural canal of lumbar region
M99.24	Subluxation stenosis of neural canal of sacral region
M99.33	Osseous stenosis of neural canal of lumbar region
M99.34	Osseous stenosis of neural canal of sacral region
M99.43	Connective tissue stenosis of neural canal of lumbar region
M99.44	Connective tissue stenosis of neural canal of sacral region
M99.53	Intervertebral disc stenosis of neural canal of lumbar region
M99.54	Intervertebral disc stenosis of neural canal of sacral region
M99.63	Osseous and subluxation stenosis of intervertebral foramina of lumbar region
M99.64	Osseous and subluxation stenosis of intervertebral foramina of sacral region
M99.73	Connective tissue and disc stenosis of intervertebral foramina of lumbar region
M99.74	Connective tissue and disc stenosis of intervertebral foramina of sacral region
M99.83	Other biomechanical lesions of lumbar region
M99.84	Other biomechanical lesions of sacral region
Q05.2	Lumbar spina bifida with hydrocephalus
Q05.3	Sacral spina bifida with hydrocephalus
Q05.7	Lumbar spina bifida without hydrocephalus
Q05.8	Sacral spina bifida without hydrocephalus
Q76.426	Congenital lordosis, lumbar region
Q76.427	Congenital lordosis, lumbosacral region
Q76.428	Congenital lordosis, sacral and sacrococcygeal region
S32.000A	Wedge compression fracture of unspecified lumbar vertebra, initial encounter for closed fracture
S32.000B	Wedge compression fracture of unspecified lumbar vertebra, initial encounter for open fracture
S32.000D	Wedge compression fracture of unspecified lumbar vertebra, subsequent encounter for fracture with routine healing
S32.000G	Wedge compression fracture of unspecified lumbar vertebra, subsequent encounter for fracture with delayed healing
S32.000K	Wedge compression fracture of unspecified lumbar vertebra, subsequent encounter for fracture with nonunion
S32.000S	Wedge compression fracture of unspecified lumbar vertebra, sequela
S32.001A	Stable burst fracture of unspecified lumbar vertebra, initial encounter for closed fracture
S32.001B	Stable burst fracture of unspecified lumbar vertebra, initial encounter for open fracture

ICD-10-CM Diagnosis Codes	Description
S32.001D	Stable burst fracture of unspecified lumbar vertebra, subsequent encounter for fracture with routine healing
S32.001G	Stable burst fracture of unspecified lumbar vertebra, subsequent encounter for fracture with delayed healing
S32.001K	Stable burst fracture of unspecified lumbar vertebra, subsequent encounter for fracture with nonunion
S32.001S	Stable burst fracture of unspecified lumbar vertebra, sequela
S32.002A	Unstable burst fracture of unspecified lumbar vertebra, initial encounter for closed fracture
S32.002B	Unstable burst fracture of unspecified lumbar vertebra, initial encounter for open fracture
S32.002D	Unstable burst fracture of unspecified lumbar vertebra, subsequent encounter for fracture with routine healing
S32.002G	Unstable burst fracture of unspecified lumbar vertebra, subsequent encounter for fracture with delayed healing
S32.002K	Unstable burst fracture of unspecified lumbar vertebra, subsequent encounter for fracture with nonunion
S32.002S	Unstable burst fracture of unspecified lumbar vertebra, sequela
S32.008A	Other fracture of unspecified lumbar vertebra, initial encounter for closed fracture
S32.008B	Other fracture of unspecified lumbar vertebra, initial encounter for open fracture
S32.008D	Other fracture of unspecified lumbar vertebra, subsequent encounter for fracture with routine healing
S32.008G	Other fracture of unspecified lumbar vertebra, subsequent encounter for fracture with delayed healing
S32.008K	Other fracture of unspecified lumbar vertebra, subsequent encounter for fracture with nonunion
S32.008S	Other fracture of unspecified lumbar vertebra, sequela
S32.009A	Unspecified fracture of unspecified lumbar vertebra, initial encounter for closed fracture
S32.009B	Unspecified fracture of unspecified lumbar vertebra, initial encounter for open fracture
S32.009D	Unspecified fracture of unspecified lumbar vertebra, subsequent encounter for fracture with routine healing
S32.009G	Unspecified fracture of unspecified lumbar vertebra, subsequent encounter for fracture with delayed healing
S32.009K	Unspecified fracture of unspecified lumbar vertebra, subsequent encounter for fracture with nonunion
S32.009S	Unspecified fracture of unspecified lumbar vertebra, sequela
S32.020A	Wedge compression fracture of second lumbar vertebra, initial encounter for closed fracture
S32.020B	Wedge compression fracture of second lumbar vertebra, initial encounter for open fracture
S32.020D	Wedge compression fracture of second lumbar vertebra, subsequent encounter for fracture with routine healing
S32.020G	Wedge compression fracture of second lumbar vertebra, subsequent encounter for fracture with delayed healing
S32.020K	Wedge compression fracture of second lumbar vertebra, subsequent encounter for fracture with nonunion

ICD-10-CM Diagnosis Codes	Description
S32.020S	Wedge compression fracture of second lumbar vertebra, sequela
S32.021A	Stable burst fracture of second lumbar vertebra, initial encounter for closed fracture
S32.021B	Stable burst fracture of second lumbar vertebra, initial encounter for open fracture
S32.021D	Stable burst fracture of second lumbar vertebra, subsequent encounter for fracture with routine healing
S32.021G	Stable burst fracture of second lumbar vertebra, subsequent encounter for fracture with delayed healing
S32.021K	Stable burst fracture of second lumbar vertebra, subsequent encounter for fracture with nonunion
S32.021S	Stable burst fracture of second lumbar vertebra, sequela
S32.022A	Unstable burst fracture of second lumbar vertebra, initial encounter for closed fracture
S32.022B	Unstable burst fracture of second lumbar vertebra, initial encounter for open fracture
S32.022D	Unstable burst fracture of second lumbar vertebra, subsequent encounter for fracture with routine healing
S32.022G	Unstable burst fracture of second lumbar vertebra, subsequent encounter for fracture with delayed healing
S32.022K	Unstable burst fracture of second lumbar vertebra, subsequent encounter for fracture with nonunion
S32.022S	Unstable burst fracture of second lumbar vertebra, sequela
S32.028A	Other fracture of second lumbar vertebra, initial encounter for closed fracture
S32.028B	Other fracture of second lumbar vertebra, initial encounter for open fracture
S32.028D	Other fracture of second lumbar vertebra, subsequent encounter for fracture with routine healing
S32.028G	Other fracture of second lumbar vertebra, subsequent encounter for fracture with delayed healing
S32.028K	Other fracture of second lumbar vertebra, subsequent encounter for fracture with nonunion
S32.028S	Other fracture of second lumbar vertebra, sequela
S32.029A	Unspecified fracture of second lumbar vertebra, initial encounter for closed fracture
S32.029B	Unspecified fracture of second lumbar vertebra, initial encounter for open fracture
S32.029D	Unspecified fracture of second lumbar vertebra, subsequent encounter for fracture with routine healing
S32.029G	Unspecified fracture of second lumbar vertebra, subsequent encounter for fracture with delayed healing
S32.029K	Unspecified fracture of second lumbar vertebra, subsequent encounter for fracture with nonunion
S32.029S	Unspecified fracture of second lumbar vertebra, sequela
S32.030A	Wedge compression fracture of third lumbar vertebra, initial encounter for closed fracture
S32.030B	Wedge compression fracture of third lumbar vertebra, initial encounter for open fracture
S32.030D	Wedge compression fracture of third lumbar vertebra, subsequent encounter for fracture with routine healing

ICD-10-CM Diagnosis Codes	Description
S32.030G	Wedge compression fracture of third lumbar vertebra, subsequent encounter for fracture with delayed healing
S32.030K	Wedge compression fracture of third lumbar vertebra, subsequent encounter for fracture with nonunion
S32.030S	Wedge compression fracture of third lumbar vertebra, sequela
S32.031A	Stable burst fracture of third lumbar vertebra, initial encounter for closed fracture
S32.031B	Stable burst fracture of third lumbar vertebra, initial encounter for open fracture
S32.031D	Stable burst fracture of third lumbar vertebra, subsequent encounter for fracture with routine healing
S32.031G	Stable burst fracture of third lumbar vertebra, subsequent encounter for fracture with delayed healing
S32.031K	Stable burst fracture of third lumbar vertebra, subsequent encounter for fracture with nonunion
S32.031S	Stable burst fracture of third lumbar vertebra, sequela
S32.032A	Unstable burst fracture of third lumbar vertebra, initial encounter for closed fracture
S32.032B	Unstable burst fracture of third lumbar vertebra, initial encounter for open fracture
S32.032D	Unstable burst fracture of third lumbar vertebra, subsequent encounter for fracture with routine healing
S32.032G	Unstable burst fracture of third lumbar vertebra, subsequent encounter for fracture with delayed healing
S32.032K	Unstable burst fracture of third lumbar vertebra, subsequent encounter for fracture with nonunion
S32.032S	Unstable burst fracture of third lumbar vertebra, sequela
S32.038A	Other fracture of third lumbar vertebra, initial encounter for closed fracture
S32.038B	Other fracture of third lumbar vertebra, initial encounter for open fracture
S32.038D	Other fracture of third lumbar vertebra, subsequent encounter for fracture with routine healing
S32.038G	Other fracture of third lumbar vertebra, subsequent encounter for fracture with delayed healing
S32.038K	Other fracture of third lumbar vertebra, subsequent encounter for fracture with nonunion
S32.038S	Other fracture of third lumbar vertebra, sequela
S32.039A	Unspecified fracture of third lumbar vertebra, initial encounter for closed fracture
S32.039B	Unspecified fracture of third lumbar vertebra, initial encounter for open fracture
S32.039D	Unspecified fracture of third lumbar vertebra, subsequent encounter for fracture with routine healing
S32.039G	Unspecified fracture of third lumbar vertebra, subsequent encounter for fracture with delayed healing
S32.039K	Unspecified fracture of third lumbar vertebra, subsequent encounter for fracture with nonunion
S32.039S	Unspecified fracture of third lumbar vertebra, sequela
S32.040A	Wedge compression fracture of fourth lumbar vertebra, initial encounter for closed fracture
S32.040B	Wedge compression fracture of fourth lumbar vertebra, initial encounter for open fracture

ICD-10-CM Diagnosis Codes	Description
S32.040D	Wedge compression fracture of fourth lumbar vertebra, subsequent encounter for fracture with routine healing
S32.040G	Wedge compression fracture of fourth lumbar vertebra, subsequent encounter for fracture with delayed healing
S32.040K	Wedge compression fracture of fourth lumbar vertebra, subsequent encounter for fracture with nonunion
S32.040S	Wedge compression fracture of fourth lumbar vertebra, sequela
S32.041A	Stable burst fracture of fourth lumbar vertebra, initial encounter for closed fracture
S32.041B	Stable burst fracture of fourth lumbar vertebra, initial encounter for open fracture
S32.041D	Stable burst fracture of fourth lumbar vertebra, subsequent encounter for fracture with routine healing
S32.041G	Stable burst fracture of fourth lumbar vertebra, subsequent encounter for fracture with delayed healing
S32.041K	Stable burst fracture of fourth lumbar vertebra, subsequent encounter for fracture with nonunion
S32.041S	Stable burst fracture of fourth lumbar vertebra, sequela
S32.042A	Unstable burst fracture of fourth lumbar vertebra, initial encounter for closed fracture
S32.042B	Unstable burst fracture of fourth lumbar vertebra, initial encounter for open fracture
S32.042D	Unstable burst fracture of fourth lumbar vertebra, subsequent encounter for fracture with routine healing
S32.042G	Unstable burst fracture of fourth lumbar vertebra, subsequent encounter for fracture with delayed healing
S32.042K	Unstable burst fracture of fourth lumbar vertebra, subsequent encounter for fracture with nonunion
S32.042S	Unstable burst fracture of fourth lumbar vertebra, sequela
S32.048A	Other fracture of fourth lumbar vertebra, initial encounter for closed fracture
S32.048B	Other fracture of fourth lumbar vertebra, initial encounter for open fracture
S32.048D	Other fracture of fourth lumbar vertebra, subsequent encounter for fracture with routine healing
S32.048G	Other fracture of fourth lumbar vertebra, subsequent encounter for fracture with delayed healing
S32.048K	Other fracture of fourth lumbar vertebra, subsequent encounter for fracture with nonunion
S32.048S	Other fracture of fourth lumbar vertebra, sequela
S32.049A	Unspecified fracture of fourth lumbar vertebra, initial encounter for closed fracture
S32.049B	Unspecified fracture of fourth lumbar vertebra, initial encounter for open fracture
S32.049D	Unspecified fracture of fourth lumbar vertebra, subsequent encounter for fracture with routine healing
S32.049G	Unspecified fracture of fourth lumbar vertebra, subsequent encounter for fracture with delayed healing
S32.049K	Unspecified fracture of fourth lumbar vertebra, subsequent encounter for fracture with nonunion
S32.049S	Unspecified fracture of fourth lumbar vertebra, sequela

ICD-10-CM Diagnosis Codes	Description
S32.050A	Wedge compression fracture of fifth lumbar vertebra, initial encounter for closed fracture
S32.050B	Wedge compression fracture of fifth lumbar vertebra, initial encounter for open fracture
S32.050D	Wedge compression fracture of fifth lumbar vertebra, subsequent encounter for fracture with routine healing
S32.050G	Wedge compression fracture of fifth lumbar vertebra, subsequent encounter for fracture with delayed healing
S32.050K	Wedge compression fracture of fifth lumbar vertebra, subsequent encounter for fracture with nonunion
S32.050S	Wedge compression fracture of fifth lumbar vertebra, sequela
S32.051A	Stable burst fracture of fifth lumbar vertebra, initial encounter for closed fracture
S32.051B	Stable burst fracture of fifth lumbar vertebra, initial encounter for open fracture
S32.051D	Stable burst fracture of fifth lumbar vertebra, subsequent encounter for fracture with routine healing
S32.051G	Stable burst fracture of fifth lumbar vertebra, subsequent encounter for fracture with delayed healing
S32.051K	Stable burst fracture of fifth lumbar vertebra, subsequent encounter for fracture with nonunion
S32.051S	Stable burst fracture of fifth lumbar vertebra, sequela
S32.052A	Unstable burst fracture of fifth lumbar vertebra, initial encounter for closed fracture
S32.052B	Unstable burst fracture of fifth lumbar vertebra, initial encounter for open fracture
S32.052D	Unstable burst fracture of fifth lumbar vertebra, subsequent encounter for fracture with routine healing
S32.052G	Unstable burst fracture of fifth lumbar vertebra, subsequent encounter for fracture with delayed healing
S32.052K	Unstable burst fracture of fifth lumbar vertebra, subsequent encounter for fracture with nonunion
S32.052S	Unstable burst fracture of fifth lumbar vertebra, sequela
S32.058A	Other fracture of fifth lumbar vertebra, initial encounter for closed fracture
S32.058B	Other fracture of fifth lumbar vertebra, initial encounter for open fracture
S32.058D	Other fracture of fifth lumbar vertebra, subsequent encounter for fracture with routine healing
S32.058G	Other fracture of fifth lumbar vertebra, subsequent encounter for fracture with delayed healing
S32.058K	Other fracture of fifth lumbar vertebra, subsequent encounter for fracture with nonunion
S32.058S	Other fracture of fifth lumbar vertebra, sequela
S32.059A	Unspecified fracture of fifth lumbar vertebra, initial encounter for closed fracture
S32.059B	Unspecified fracture of fifth lumbar vertebra, initial encounter for open fracture
S32.059D	Unspecified fracture of fifth lumbar vertebra, subsequent encounter for fracture with routine healing
S32.059G	Unspecified fracture of fifth lumbar vertebra, subsequent encounter for fracture with delayed healing
S32.059K	Unspecified fracture of fifth lumbar vertebra, subsequent encounter for fracture with nonunion
S32.059S	Unspecified fracture of fifth lumbar vertebra, sequela

ICD-10-CM Diagnosis Codes	Description
S32.10XA	Unspecified fracture of sacrum, initial encounter for closed fracture
S32.10XB	Unspecified fracture of sacrum, initial encounter for open fracture
S32.10XD	Unspecified fracture of sacrum, subsequent encounter for fracture with routine healing
S32.10XG	Unspecified fracture of sacrum, subsequent encounter for fracture with delayed healing
S32.10XK	Unspecified fracture of sacrum, subsequent encounter for fracture with nonunion
S32.10XS	Unspecified fracture of sacrum, sequela
S32.110A	Nondisplaced Zone I fracture of sacrum, initial encounter for closed fracture
S32.110B	Nondisplaced Zone I fracture of sacrum, initial encounter for open fracture
S32.110D	Nondisplaced Zone I fracture of sacrum, subsequent encounter for fracture with routine healing
S32.110G	Nondisplaced Zone I fracture of sacrum, subsequent encounter for fracture with delayed healing
S32.110K	Nondisplaced Zone I fracture of sacrum, subsequent encounter for fracture with nonunion
S32.110S	Nondisplaced Zone I fracture of sacrum, sequela
S32.111A	Minimally displaced Zone I fracture of sacrum, initial encounter for closed fracture
S32.111B	Minimally displaced Zone I fracture of sacrum, initial encounter for open fracture
S32.111D	Minimally displaced Zone I fracture of sacrum, subsequent encounter for fracture with routine healing
S32.111G	Minimally displaced Zone I fracture of sacrum, subsequent encounter for fracture with delayed healing
S32.111K	Minimally displaced Zone I fracture of sacrum, subsequent encounter for fracture with nonunion
S32.111S	Minimally displaced Zone I fracture of sacrum, sequela
S32.112A	Severely displaced Zone I fracture of sacrum, initial encounter for closed fracture
S32.112B	Severely displaced Zone I fracture of sacrum, initial encounter for open fracture
S32.112D	Severely displaced Zone I fracture of sacrum, subsequent encounter for fracture with routine healing
S32.112G	Severely displaced Zone I fracture of sacrum, subsequent encounter for fracture with delayed healing
S32.112K	Severely displaced Zone I fracture of sacrum, subsequent encounter for fracture with nonunion
S32.112S	Severely displaced Zone I fracture of sacrum, sequela
S32.119A	Unspecified Zone I fracture of sacrum, initial encounter for closed fracture
S32.119B	Unspecified Zone I fracture of sacrum, initial encounter for open fracture
S32.119D	Unspecified Zone I fracture of sacrum, subsequent encounter for fracture with routine healing
S32.119G	Unspecified Zone I fracture of sacrum, subsequent encounter for fracture with delayed healing
S32.119K	Unspecified Zone I fracture of sacrum, subsequent encounter for fracture with nonunion
S32.119S	Unspecified Zone I fracture of sacrum, sequela
S32.120A	Nondisplaced Zone II fracture of sacrum, initial encounter for closed fracture
S32.120B	Nondisplaced Zone II fracture of sacrum, initial encounter for open fracture

ICD-10-CM Diagnosis Codes	Description
S32.120D	Nondisplaced Zone II fracture of sacrum, subsequent encounter for fracture with routine healing
S32.120G	Nondisplaced Zone II fracture of sacrum, subsequent encounter for fracture with delayed healing
S32.120K	Nondisplaced Zone II fracture of sacrum, subsequent encounter for fracture with nonunion
S32.120S	Nondisplaced Zone II fracture of sacrum, sequela
S32.121A	Minimally displaced Zone II fracture of sacrum, initial encounter for closed fracture
S32.121B	Minimally displaced Zone II fracture of sacrum, initial encounter for open fracture
S32.121D	Minimally displaced Zone II fracture of sacrum, subsequent encounter for fracture with routine healing
S32.121G	Minimally displaced Zone II fracture of sacrum, subsequent encounter for fracture with delayed healing
S32.121K	Minimally displaced Zone II fracture of sacrum, subsequent encounter for fracture with nonunion
S32.121S	Minimally displaced Zone II fracture of sacrum, sequela
S32.122A	Severely displaced Zone II fracture of sacrum, initial encounter for closed fracture
S32.122B	Severely displaced Zone II fracture of sacrum, initial encounter for open fracture
S32.122D	Severely displaced Zone II fracture of sacrum, subsequent encounter for fracture with routine healing
S32.122G	Severely displaced Zone II fracture of sacrum, subsequent encounter for fracture with delayed healing
S32.122K	Severely displaced Zone II fracture of sacrum, subsequent encounter for fracture with nonunion
S32.122S	Severely displaced Zone II fracture of sacrum, sequela
S32.129A	Unspecified Zone II fracture of sacrum, initial encounter for closed fracture
S32.129B	Unspecified Zone II fracture of sacrum, initial encounter for open fracture
S32.129D	Unspecified Zone II fracture of sacrum, subsequent encounter for fracture with routine healing
S32.129G	Unspecified Zone II fracture of sacrum, subsequent encounter for fracture with delayed healing
S32.129K	Unspecified Zone II fracture of sacrum, subsequent encounter for fracture with nonunion
S32.129S	Unspecified Zone II fracture of sacrum, sequela
S32.130A	Nondisplaced Zone III fracture of sacrum, initial encounter for closed fracture
S32.130B	Nondisplaced Zone III fracture of sacrum, initial encounter for open fracture
S32.130D	Nondisplaced Zone III fracture of sacrum, subsequent encounter for fracture with routine healing
S32.130G	Nondisplaced Zone III fracture of sacrum, subsequent encounter for fracture with delayed healing
S32.130K	Nondisplaced Zone III fracture of sacrum, subsequent encounter for fracture with nonunion
S32.130S	Nondisplaced Zone III fracture of sacrum, sequela
S32.131A	Minimally displaced Zone III fracture of sacrum, initial encounter for closed fracture
S32.131B	Minimally displaced Zone III fracture of sacrum, initial encounter for open fracture

ICD-10-CM Diagnosis Codes	Description
S32.131D	Minimally displaced Zone III fracture of sacrum, subsequent encounter for fracture with routine healing
S32.131G	Minimally displaced Zone III fracture of sacrum, subsequent encounter for fracture with delayed healing
S32.131K	Minimally displaced Zone III fracture of sacrum, subsequent encounter for fracture with nonunion
S32.131S	Minimally displaced Zone III fracture of sacrum, sequela
S32.132A	Severely displaced Zone III fracture of sacrum, initial encounter for closed fracture
S32.132B	Severely displaced Zone III fracture of sacrum, initial encounter for open fracture
S32.132D	Severely displaced Zone III fracture of sacrum, subsequent encounter for fracture with routine healing
S32.132G	Severely displaced Zone III fracture of sacrum, subsequent encounter for fracture with delayed healing
S32.132K	Severely displaced Zone III fracture of sacrum, subsequent encounter for fracture with nonunion
S32.132S	Severely displaced Zone III fracture of sacrum, sequela
S32.139A	Unspecified Zone III fracture of sacrum, initial encounter for closed fracture
S32.139B	Unspecified Zone III fracture of sacrum, initial encounter for open fracture
S32.139D	Unspecified Zone III fracture of sacrum, subsequent encounter for fracture with routine healing
S32.139G	Unspecified Zone III fracture of sacrum, subsequent encounter for fracture with delayed healing
S32.139K	Unspecified Zone III fracture of sacrum, subsequent encounter for fracture with nonunion
S32.139S	Unspecified Zone III fracture of sacrum, sequela
S32.14XA	Type 1 fracture of sacrum, initial encounter for closed fracture
S32.14XB	Type 1 fracture of sacrum, initial encounter for open fracture
S32.14XD	Type 1 fracture of sacrum, subsequent encounter for fracture with routine healing
S32.14XG	Type 1 fracture of sacrum, subsequent encounter for fracture with delayed healing
S32.14XK	Type 1 fracture of sacrum, subsequent encounter for fracture with nonunion
S32.14XS	Type 1 fracture of sacrum, sequela
S32.15XA	Type 2 fracture of sacrum, initial encounter for closed fracture
S32.15XB	Type 2 fracture of sacrum, initial encounter for open fracture
S32.15XD	Type 2 fracture of sacrum, subsequent encounter for fracture with routine healing
S32.15XG	Type 2 fracture of sacrum, subsequent encounter for fracture with delayed healing
S32.15XK	Type 2 fracture of sacrum, subsequent encounter for fracture with nonunion
S32.15XS	Type 2 fracture of sacrum, sequela
S32.16XA	Type 3 fracture of sacrum, initial encounter for closed fracture
S32.16XB	Type 3 fracture of sacrum, initial encounter for open fracture
S32.16XD	Type 3 fracture of sacrum, subsequent encounter for fracture with routine healing
S32.16XG	Type 3 fracture of sacrum, subsequent encounter for fracture with delayed healing

ICD-10-CM Diagnosis Codes	Description
S32.16XK	Type 3 fracture of sacrum, subsequent encounter for fracture with nonunion
S32.16XS	Type 3 fracture of sacrum, sequela
S32.17XA	Type 4 fracture of sacrum, initial encounter for closed fracture
S32.17XB	Type 4 fracture of sacrum, initial encounter for open fracture
S32.17XD	Type 4 fracture of sacrum, subsequent encounter for fracture with routine healing
S32.17XG	Type 4 fracture of sacrum, subsequent encounter for fracture with delayed healing
S32.17XK	Type 4 fracture of sacrum, subsequent encounter for fracture with nonunion
S32.17XS	Type 4 fracture of sacrum, sequela
S32.19XA	Other fracture of sacrum, initial encounter for closed fracture
S32.19XB	Other fracture of sacrum, initial encounter for open fracture
S32.19XD	Other fracture of sacrum, subsequent encounter for fracture with routine healing
S32.19XG	Other fracture of sacrum, subsequent encounter for fracture with delayed healing
S32.19XK	Other fracture of sacrum, subsequent encounter for fracture with nonunion
S32.19XS	Other fracture of sacrum, sequela
S32.2XXA	Fracture of coccyx, initial encounter for closed fracture
S32.2XXB	Fracture of coccyx, initial encounter for open fracture
S32.2XXD	Fracture of coccyx, subsequent encounter for fracture with routine healing
S32.2XXG	Fracture of coccyx, subsequent encounter for fracture with delayed healing
S32.2XXK	Fracture of coccyx, subsequent encounter for fracture with nonunion
S32.2XXS	Fracture of coccyx, sequela
S33.100A	Subluxation of unspecified lumbar vertebra, initial encounter
S33.100D	Subluxation of unspecified lumbar vertebra, subsequent encounter
S33.100S	Subluxation of unspecified lumbar vertebra, sequela
S33.101A	Dislocation of unspecified lumbar vertebra, initial encounter
S33.101D	Dislocation of unspecified lumbar vertebra, subsequent encounter
S33.101S	Dislocation of unspecified lumbar vertebra, sequela
S33.120A	Subluxation of L2/L3 lumbar vertebra, initial encounter
S33.120D	Subluxation of L2/L3 lumbar vertebra, subsequent encounter
S33.120S	Subluxation of L2/L3 lumbar vertebra, sequela
S33.121A	Dislocation of L2/L3 lumbar vertebra, initial encounter
S33.121D	Dislocation of L2/L3 lumbar vertebra, subsequent encounter
S33.121S	Dislocation of L2/L3 lumbar vertebra, sequela
S33.130A	Subluxation of L3/L4 lumbar vertebra, initial encounter
S33.130D	Subluxation of L3/L4 lumbar vertebra, subsequent encounter
S33.130S	Subluxation of L3/L4 lumbar vertebra, sequela
S33.131A	Dislocation of L3/L4 lumbar vertebra, initial encounter
S33.131D	Dislocation of L3/L4 lumbar vertebra, subsequent encounter
S33.131S	Dislocation of L3/L4 lumbar vertebra, sequela
S33.140A	Subluxation of L4/L5 lumbar vertebra, initial encounter
S33.140D	Subluxation of L4/L5 lumbar vertebra, subsequent encounter
S33.140S	Subluxation of L4/L5 lumbar vertebra, sequela
S33.141A	Dislocation of L4/L5 lumbar vertebra, initial encounter
S33.141D	Dislocation of L4/L5 lumbar vertebra, subsequent encounter
S33.141S	Dislocation of L4/L5 lumbar vertebra, sequela
S33.2XXA	Dislocation of sacroiliac and sacrococcygeal joint, initial encounter
S33.2XXD	Dislocation of sacroiliac and sacrococcygeal joint, subsequent encounter

ICD-10-CM Diagnosis Codes	Description
S33.2XXS	Dislocation of sacroiliac and sacrococcygeal joint, sequela
S33.30XA	Dislocation of unspecified parts of lumbar spine and pelvis, initial encounter
S33.30XD	Dislocation of unspecified parts of lumbar spine and pelvis, subsequent encounter
S33.30XS	Dislocation of unspecified parts of lumbar spine and pelvis, sequela
S33.39XA	Dislocation of other parts of lumbar spine and pelvis, initial encounter
S33.39XD	Dislocation of other parts of lumbar spine and pelvis, subsequent encounter
S33.39XS	Dislocation of other parts of lumbar spine and pelvis, sequela
S33.6XXA	Sprain of sacroiliac joint, initial encounter
S33.6XXD	Sprain of sacroiliac joint, subsequent encounter
S33.6XXS	Sprain of sacroiliac joint, sequela
S33.8XXA	Sprain of other parts of lumbar spine and pelvis, initial encounter
S33.8XXD	Sprain of other parts of lumbar spine and pelvis, subsequent encounter
S33.8XXS	Sprain of other parts of lumbar spine and pelvis, sequela
S34.102A	Unspecified injury to L2 level of lumbar spinal cord, initial encounter
S34.102D	Unspecified injury to L2 level of lumbar spinal cord, subsequent encounter
S34.102S	Unspecified injury to L2 level of lumbar spinal cord, sequela
S34.103A	Unspecified injury to L3 level of lumbar spinal cord, initial encounter
S34.103D	Unspecified injury to L3 level of lumbar spinal cord, subsequent encounter
S34.103S	Unspecified injury to L3 level of lumbar spinal cord, sequela
S34.104A	Unspecified injury to L4 level of lumbar spinal cord, initial encounter
S34.104D	Unspecified injury to L4 level of lumbar spinal cord, subsequent encounter
S34.104S	Unspecified injury to L4 level of lumbar spinal cord, sequela
S34.105A	Unspecified injury to L5 level of lumbar spinal cord, initial encounter
S34.105D	Unspecified injury to L5 level of lumbar spinal cord, subsequent encounter
S34.105S	Unspecified injury to L5 level of lumbar spinal cord, sequela
S34.109A	Unspecified injury to unspecified level of lumbar spinal cord, initial encounter
S34.109D	Unspecified injury to unspecified level of lumbar spinal cord, subsequent encounter
S34.109S	Unspecified injury to unspecified level of lumbar spinal cord, sequela
S34.112A	Complete lesion of L2 level of lumbar spinal cord, initial encounter
S34.112D	Complete lesion of L2 level of lumbar spinal cord, subsequent encounter
S34.112S	Complete lesion of L2 level of lumbar spinal cord, sequela
S34.113A	Complete lesion of L3 level of lumbar spinal cord, initial encounter
S34.113D	Complete lesion of L3 level of lumbar spinal cord, subsequent encounter
S34.113S	Complete lesion of L3 level of lumbar spinal cord, sequela
S34.114A	Complete lesion of L4 level of lumbar spinal cord, initial encounter
S34.114D	Complete lesion of L4 level of lumbar spinal cord, subsequent encounter
S34.114S	Complete lesion of L4 level of lumbar spinal cord, sequela
S34.115A	Complete lesion of L5 level of lumbar spinal cord, initial encounter
S34.115D	Complete lesion of L5 level of lumbar spinal cord, subsequent encounter
S34.115S	Complete lesion of L5 level of lumbar spinal cord, sequela
S34.119A	Complete lesion of unspecified level of lumbar spinal cord, initial encounter
S34.119D	Complete lesion of unspecified level of lumbar spinal cord, subsequent encounter
S34.119S	Complete lesion of unspecified level of lumbar spinal cord, sequela
S34.122A	Incomplete lesion of L2 level of lumbar spinal cord, initial encounter
S34.122D	Incomplete lesion of L2 level of lumbar spinal cord, subsequent encounter
S34.122S	Incomplete lesion of L2 level of lumbar spinal cord, sequela

ICD-10-CM Diagnosis Codes	Description
S34.123A	Incomplete lesion of L3 level of lumbar spinal cord, initial encounter
S34.123D	Incomplete lesion of L3 level of lumbar spinal cord, subsequent encounter
S34.123S	Incomplete lesion of L3 level of lumbar spinal cord, sequela
S34.124A	Incomplete lesion of L4 level of lumbar spinal cord, initial encounter
S34.124D	Incomplete lesion of L4 level of lumbar spinal cord, subsequent encounter
S34.124S	Incomplete lesion of L4 level of lumbar spinal cord, sequela
S34.125A	Incomplete lesion of L5 level of lumbar spinal cord, initial encounter
S34.125D	Incomplete lesion of L5 level of lumbar spinal cord, subsequent encounter
S34.125S	Incomplete lesion of L5 level of lumbar spinal cord, sequela
S34.129A	Incomplete lesion of unspecified level of lumbar spinal cord, initial encounter
S34.129D	Incomplete lesion of unspecified level of lumbar spinal cord, subsequent encounter
S34.129S	Incomplete lesion of unspecified level of lumbar spinal cord, sequela
S34.131A	Complete lesion of sacral spinal cord, initial encounter
S34.131D	Complete lesion of sacral spinal cord, subsequent encounter
S34.131S	Complete lesion of sacral spinal cord, sequela
S34.132A	Incomplete lesion of sacral spinal cord, initial encounter
S34.132D	Incomplete lesion of sacral spinal cord, subsequent encounter
S34.132S	Incomplete lesion of sacral spinal cord, sequela
S34.139A	Unspecified injury to sacral spinal cord, initial encounter
S34.139D	Unspecified injury to sacral spinal cord, subsequent encounter
S34.139S	Unspecified injury to sacral spinal cord, sequela
S34.21XA	Injury of nerve root of lumbar spine, initial encounter
S34.21XD	Injury of nerve root of lumbar spine, subsequent encounter
S34.21XS	Injury of nerve root of lumbar spine, sequela
S34.22XA	Injury of nerve root of sacral spine, initial encounter
S34.22XD	Injury of nerve root of sacral spine, subsequent encounter
S34.22XS	Injury of nerve root of sacral spine, sequela
S34.3XXA	Injury of cauda equina, initial encounter
S34.3XXD	Injury of cauda equina, subsequent encounter
S34.3XXS	Injury of cauda equina, sequela
S34.4XXA	Injury of lumbosacral plexus, initial encounter
S34.4XXD	Injury of lumbosacral plexus, subsequent encounter
S34.4XXS	Injury of lumbosacral plexus, sequela

Cervical Spine Surgery

ICD-10-CM Diagnosis Codes	Description
G95.89	Other specified diseases of spinal cord
G96.00	Cerebrospinal fluid leak, unspecified
G96.01	Cranial cerebrospinal fluid leak, spontaneous
G96.02	Spinal cerebrospinal fluid leak, spontaneous
G96.08	Other cranial cerebrospinal fluid leak
G96.09	Other spinal cerebrospinal fluid leak
G96.11	Dural tear
G96.12	Meningeal adhesions (cerebral) (spinal)

ICD-10-CM Diagnosis Codes	Description
G97.41	Accidental puncture or laceration of dura during a procedure
G97.48	Accidental puncture and laceration of other nervous system organ or structure during a nervous system procedure
G97.49	Accidental puncture and laceration of other nervous system organ or structure during other procedure
G97.61	Postprocedural hematoma of a nervous system organ or structure following a nervous system procedure
G97.62	Postprocedural hematoma of a nervous system organ or structure following other procedure
G97.63	Postprocedural seroma of a nervous system organ or structure following a nervous system procedure
G97.64	Postprocedural seroma of a nervous system organ or structure following other procedure
M25.78	Osteophyte, vertebrae
M40.03	Postural kyphosis, cervicothoracic region
M40.12	Other secondary kyphosis, cervical region
M40.13	Other secondary kyphosis, cervicothoracic region
M40.202	Unspecified kyphosis, cervical region
M40.203	Unspecified kyphosis, cervicothoracic region
M40.292	Other kyphosis, cervical region
M40.293	Other kyphosis, cervicothoracic region
M42.01	Juvenile osteochondrosis of spine, occipito-atlanto-axial region
M42.02	Juvenile osteochondrosis of spine, cervical region
M42.03	Juvenile osteochondrosis of spine, cervicothoracic region
M42.11	Adult osteochondrosis of spine, occipito-atlanto-axial region
M42.12	Adult osteochondrosis of spine, cervical region
M42.13	Adult osteochondrosis of spine, cervicothoracic region
M43.01	Spondylolysis, occipito-atlanto-axial region
M43.02	Spondylolysis, cervical region
M43.03	Spondylolysis, cervicothoracic region
M43.3	Recurrent atlantoaxial dislocation with myelopathy
M43.4	Other recurrent atlantoaxial dislocation
M43.8X1	Other specified deforming dorsopathies, occipito-atlanto-axial region
M43.8X2	Other specified deforming dorsopathies, cervical region
M43.8X3	Other specified deforming dorsopathies, cervicothoracic region
M45.1	Ankylosing spondylitis of occipito-atlanto-axial region
M45.2	Ankylosing spondylitis of cervical region
M45.3	Ankylosing spondylitis of cervicothoracic region
M47.021	Vertebral artery compression syndromes, occipito-atlanto-axial region
M47.022	Vertebral artery compression syndromes, cervical region
M47.029	Vertebral artery compression syndromes, site unspecified
M47.11	Other spondylosis with myelopathy, occipito-atlanto-axial region
M47.12	Other spondylosis with myelopathy, cervical region
M47.13	Other spondylosis with myelopathy, cervicothoracic region
M47.21	Other spondylosis with radiculopathy, occipito-atlanto-axial region
M47.22	Other spondylosis with radiculopathy, cervical region
M47.23	Other spondylosis with radiculopathy, cervicothoracic region
M47.811	Spondylosis without myelopathy or radiculopathy, occipito-atlanto-axial region

ICD-10-CM Diagnosis Codes	Description
M47.812	Spondylosis without myelopathy or radiculopathy, cervical region
M47.813	Spondylosis without myelopathy or radiculopathy, cervicothoracic region
M47.891	Other spondylosis, occipito-atlanto-axial region
M47.892	Other spondylosis, cervical region
M47.893	Other spondylosis, cervicothoracic region
M48.01	Spinal stenosis, occipito-atlanto-axial region
M48.02	Spinal stenosis, cervical region
M48.03	Spinal stenosis, cervicothoracic region
M48.11	Ankylosing hyperostosis [Forestier], occipito-atlanto-axial region
M48.12	Ankylosing hyperostosis [Forestier], cervical region
M48.13	Ankylosing hyperostosis [Forestier], cervicothoracic region
M48.21	Kissing spine, occipito-atlanto-axial region
M48.22	Kissing spine, cervical region
M48.23	Kissing spine, cervicothoracic region
M48.31	Traumatic spondylopathy, occipito-atlanto-axial region
M48.32	Traumatic spondylopathy, cervical region
M48.33	Traumatic spondylopathy, cervicothoracic region
M48.41XD	Fatigue fracture of vertebra, occipito-atlanto-axial region, subsequent encounter for fracture with routine healing
M48.42XD	Fatigue fracture of vertebra, cervical region, subsequent encounter for fracture with routine healing
M48.43XD	Fatigue fracture of vertebra, cervicothoracic region, subsequent encounter for fracture with routine healing
M48.51XD	Collapsed vertebra, not elsewhere classified, occipito-atlanto-axial region, subsequent encounter for fracture with routine healing
M48.52XD	Collapsed vertebra, not elsewhere classified, cervical region, subsequent encounter for fracture with routine healing
M48.53XD	Collapsed vertebra, not elsewhere classified, cervicothoracic region, subsequent encounter for fracture with routine healing
M49.81	Spondylopathy in diseases classified elsewhere, occipito-atlanto-axial region
M49.82	Spondylopathy in diseases classified elsewhere, cervical region
M49.83	Spondylopathy in diseases classified elsewhere, cervicothoracic region
M50.00	Cervical disc disorder with myelopathy, unspecified cervical region
M50.01	Cervical disc disorder with myelopathy, high cervical region
M50.020	Cervical disc disorder with myelopathy, mid-cervical region, unspecified level
M50.021	Cervical disc disorder at C4-C5 level with myelopathy
M50.022	Cervical disc disorder at C5-C6 level with myelopathy
M50.023	Cervical disc disorder at C6-C7 level with myelopathy
M50.03	Cervical disc disorder with myelopathy, cervicothoracic region
M50.10	Cervical disc disorder with radiculopathy, unspecified cervical region
M50.11	Cervical disc disorder with radiculopathy, high cervical region
M50.120	Mid-cervical disc disorder, unspecified level
M50.121	Cervical disc disorder at C4-C5 level with radiculopathy
M50.122	Cervical disc disorder at C5-C6 level with radiculopathy
M50.123	Cervical disc disorder at C6-C7 level with radiculopathy
M50.13	Cervical disc disorder with radiculopathy, cervicothoracic region
M50.20	Other cervical disc displacement, unspecified cervical region
M50.21	Other cervical disc displacement, high cervical region

ICD-10-CM Diagnosis Codes	Description
M50.220	Other cervical disc displacement, mid-cervical region, unspecified level
M50.221	Other cervical disc displacement at C4-C5 level
M50.222	Other cervical disc displacement at C5-C6 level
M50.223	Other cervical disc displacement at C6-C7 level
M50.23	Other cervical disc displacement, cervicothoracic region
M50.30	Other cervical disc degeneration, unspecified cervical region
M50.31	Other cervical disc degeneration, high cervical region
M50.320	Other cervical disc degeneration, mid-cervical region, unspecified level
M50.321	Other cervical disc degeneration at C4-C5 level
M50.322	Other cervical disc degeneration at C5-C6 level
M50.323	Other cervical disc degeneration at C6-C7 level
M50.33	Other cervical disc degeneration, cervicothoracic region
M50.80	Other cervical disc disorders, unspecified cervical region
M50.81	Other cervical disc disorders, high cervical region
M50.820	Other cervical disc disorders, mid-cervical region, unspecified level
M50.821	Other cervical disc disorders at C4-C5 level
M50.822	Other cervical disc disorders at C5-C6 level
M50.823	Other cervical disc disorders at C6-C7 level
M50.83	Other cervical disc disorders, cervicothoracic region
M50.90	Cervical disc disorder, unspecified, unspecified cervical region
M50.91	Cervical disc disorder, unspecified, high cervical region
M50.920	Unspecified cervical disc disorder, mid-cervical region, unspecified level
M50.921	Unspecified cervical disc disorder at C4-C5 level
M50.922	Unspecified cervical disc disorder at C5-C6 level
M50.923	Unspecified cervical disc disorder at C6-C7 level
M50.93	Cervical disc disorder, unspecified, cervicothoracic region
M53.0	Cervicocranial syndrome
M53.1	Cervicobrachial syndrome
M53.81	Other specified dorsopathies, occipito-atlanto-axial region
M53.82	Other specified dorsopathies, cervical region
M53.83	Other specified dorsopathies, cervicothoracic region
M54.01	Panniculitis affecting regions of neck and back, occipito-atlanto-axial region
M54.02	Panniculitis affecting regions of neck and back, cervical region
M54.03	Panniculitis affecting regions of neck and back, cervicothoracic region
M54.11	Radiculopathy, occipito-atlanto-axial region
M54.12	Radiculopathy, cervical region
M54.13	Radiculopathy, cervicothoracic region
M54.2	Cervicalgia
M54.81	Occipital neuralgia
M99.01	Segmental and somatic dysfunction of cervical region
M99.81	Other biomechanical lesions of cervical region
Q76.411	Congenital kyphosis, occipito-atlanto-axial region
Q76.412	Congenital kyphosis, cervical region
Q76.49	Other congenital malformations of spine, not associated with scoliosis
S12.000D	Unspecified displaced fracture of first cervical vertebra, subsequent encounter for fracture with routine healing
S12.001D	Unspecified nondisplaced fracture of first cervical vertebra, subsequent encounter for fracture with routine healing

ICD-10-CM Diagnosis Codes	Description
S12.01XD	Stable burst fracture of first cervical vertebra, subsequent encounter for fracture with routine healing
S12.02XD	Unstable burst fracture of first cervical vertebra, subsequent encounter for fracture with routine healing
S12.030D	Displaced posterior arch fracture of first cervical vertebra, subsequent encounter for fracture with routine healing
S12.031D	Nondisplaced posterior arch fracture of first cervical vertebra, subsequent encounter for fracture with routine healing
S12.040D	Displaced lateral mass fracture of first cervical vertebra, subsequent encounter for fracture with routine healing
S12.041D	Nondisplaced lateral mass fracture of first cervical vertebra, subsequent encounter for fracture with routine healing
S12.090D	Other displaced fracture of first cervical vertebra, subsequent encounter for fracture with routine healing
S12.091D	Other nondisplaced fracture of first cervical vertebra, subsequent encounter for fracture with routine healing
S12.100D	Unspecified displaced fracture of second cervical vertebra, subsequent encounter for fracture with routine healing
S12.101D	Unspecified nondisplaced fracture of second cervical vertebra, subsequent encounter for fracture with routine healing
S12.110D	Anterior displaced Type II dens fracture, subsequent encounter for fracture with routine healing
S12.111D	Posterior displaced Type II dens fracture, subsequent encounter for fracture with routine healing
S12.112D	Nondisplaced Type II dens fracture, subsequent encounter for fracture with routine healing
S12.120D	Other displaced dens fracture, subsequent encounter for fracture with routine healing
S12.121D	Other nondisplaced dens fracture, subsequent encounter for fracture with routine healing
S12.130D	Unspecified traumatic displaced spondylolisthesis of second cervical vertebra, subsequent encounter for fracture with routine healing
S12.131D	Unspecified traumatic nondisplaced spondylolisthesis of second cervical vertebra, subsequent encounter for fracture with routine healing
S12.14XD	Type III traumatic spondylolisthesis of second cervical vertebra, subsequent encounter for fracture with routine healing
S12.150D	Other traumatic displaced spondylolisthesis of second cervical vertebra, subsequent encounter for fracture with routine healing
S12.151D	Other traumatic nondisplaced spondylolisthesis of second cervical vertebra, subsequent encounter for fracture with routine healing
S12.190D	Other displaced fracture of second cervical vertebra, subsequent encounter for fracture with routine healing
S12.191D	Other nondisplaced fracture of second cervical vertebra, subsequent encounter for fracture with routine healing
S12.200D	Unspecified displaced fracture of third cervical vertebra, subsequent encounter for fracture with routine healing
S12.201D	Unspecified nondisplaced fracture of third cervical vertebra, subsequent encounter for fracture with routine healing

ICD-10-CM Diagnosis Codes	Description
S12.230D	Unspecified traumatic displaced spondylolisthesis of third cervical vertebra, subsequent encounter for fracture with routine healing
S12.231D	Unspecified traumatic nondisplaced spondylolisthesis of third cervical vertebra, subsequent encounter for fracture with routine healing
S12.24XD	Type III traumatic spondylolisthesis of third cervical vertebra, subsequent encounter for fracture with routine healing
S12.250D	Other traumatic displaced spondylolisthesis of third cervical vertebra, subsequent encounter for fracture with routine healing
S12.251D	Other traumatic nondisplaced spondylolisthesis of third cervical vertebra, subsequent encounter for fracture with routine healing
S12.290D	Other displaced fracture of third cervical vertebra, subsequent encounter for fracture with routine healing
S12.291D	Other nondisplaced fracture of third cervical vertebra, subsequent encounter for fracture with routine healing
S12.300D	Unspecified displaced fracture of fourth cervical vertebra, subsequent encounter for fracture with routine healing
S12.301D	Unspecified nondisplaced fracture of fourth cervical vertebra, subsequent encounter for fracture with routine healing
S12.330D	Unspecified traumatic displaced spondylolisthesis of fourth cervical vertebra, subsequent encounter for fracture with routine healing
S12.331D	Unspecified traumatic nondisplaced spondylolisthesis of fourth cervical vertebra, subsequent encounter for fracture with routine healing
S12.34XD	Type III traumatic spondylolisthesis of fourth cervical vertebra, subsequent encounter for fracture with routine healing
S12.350D	Other traumatic displaced spondylolisthesis of fourth cervical vertebra, subsequent encounter for fracture with routine healing
S12.351D	Other traumatic nondisplaced spondylolisthesis of fourth cervical vertebra, subsequent encounter for fracture with routine healing
S12.390D	Other displaced fracture of fourth cervical vertebra, subsequent encounter for fracture with routine healing
S12.391D	Other nondisplaced fracture of fourth cervical vertebra, subsequent encounter for fracture with routine healing
S12.400D	Unspecified displaced fracture of fifth cervical vertebra, subsequent encounter for fracture with routine healing
S12.401D	Unspecified nondisplaced fracture of fifth cervical vertebra, subsequent encounter for fracture with routine healing
S12.430D	Unspecified traumatic displaced spondylolisthesis of fifth cervical vertebra, subsequent encounter for fracture with routine healing
S12.431D	Unspecified traumatic nondisplaced spondylolisthesis of fifth cervical vertebra, subsequent encounter for fracture with routine healing
S12.44XD	Type III traumatic spondylolisthesis of fifth cervical vertebra, subsequent encounter for fracture with routine healing
S12.450D	Other traumatic displaced spondylolisthesis of fifth cervical vertebra, subsequent encounter for fracture with routine healing
S12.451D	Other traumatic nondisplaced spondylolisthesis of fifth cervical vertebra, subsequent encounter for fracture with routine healing
S12.490D	Other displaced fracture of fifth cervical vertebra, subsequent encounter for fracture with routine healing

ICD-10-CM Diagnosis Codes	Description
S12.491D	Other nondisplaced fracture of fifth cervical vertebra, subsequent encounter for fracture with routine healing
S12.500D	Unspecified displaced fracture of sixth cervical vertebra, subsequent encounter for fracture with routine healing
S12.501D	Unspecified nondisplaced fracture of sixth cervical vertebra, subsequent encounter for fracture with routine healing
S12.530D	Unspecified traumatic displaced spondylolisthesis of sixth cervical vertebra, subsequent encounter for fracture with routine healing
S12.531D	Unspecified traumatic nondisplaced spondylolisthesis of sixth cervical vertebra, subsequent encounter for fracture with routine healing
S12.54XD	Type III traumatic spondylolisthesis of sixth cervical vertebra, subsequent encounter for fracture with routine healing
S12.550D	Other traumatic displaced spondylolisthesis of sixth cervical vertebra, subsequent encounter for fracture with routine healing
S12.551D	Other traumatic nondisplaced spondylolisthesis of sixth cervical vertebra, subsequent encounter for fracture with routine healing
S12.590D	Other displaced fracture of sixth cervical vertebra, subsequent encounter for fracture with routine healing
S12.591D	Other nondisplaced fracture of sixth cervical vertebra, subsequent encounter for fracture with routine healing
S12.600D	Unspecified displaced fracture of seventh cervical vertebra, subsequent encounter for fracture with routine healing
S12.601D	Unspecified nondisplaced fracture of seventh cervical vertebra, subsequent encounter for fracture with routine healing
S12.630D	Unspecified traumatic displaced spondylolisthesis of seventh cervical vertebra, subsequent encounter for fracture with routine healing
S12.631D	Unspecified traumatic nondisplaced spondylolisthesis of seventh cervical vertebra, subsequent encounter for fracture with routine healing
S12.64XD	Type III traumatic spondylolisthesis of seventh cervical vertebra, subsequent encounter for fracture with routine healing
S12.650D	Other traumatic displaced spondylolisthesis of seventh cervical vertebra, subsequent encounter for fracture with routine healing
S12.651D	Other traumatic nondisplaced spondylolisthesis of seventh cervical vertebra, subsequent encounter for fracture with routine healing
S12.690D	Other displaced fracture of seventh cervical vertebra, subsequent encounter for fracture with routine healing
S12.691D	Other nondisplaced fracture of seventh cervical vertebra, subsequent encounter for fracture with routine healing
S13.0XXA	Traumatic rupture of cervical intervertebral disc, initial encounter
S13.0XXD	Traumatic rupture of cervical intervertebral disc, subsequent encounter
S13.0XXS	Traumatic rupture of cervical intervertebral disc, sequela
S13.100A	Subluxation of unspecified cervical vertebra, initial encounter
S13.100D	Subluxation of unspecified cervical vertebrae, subsequent encounter
S13.100S	Subluxation of unspecified cervical vertebrae, sequela
S13.101A	Dislocation of unspecified cervical vertebra, initial encounter
S13.101D	Dislocation of unspecified cervical vertebrae, subsequent encounter
S13.101S	Dislocation of unspecified cervical vertebrae, sequela
S13.4XXA	Sprain of ligaments of cervical spine, initial encounter
S13.4XXD	Sprain of ligaments of cervical spine, subsequent encounter

ICD-10-CM Diagnosis Codes	Description
S13.4XXS	Sprain of ligaments of cervical spine, sequela
S13.8XXA	Sprain of joints and ligaments of other parts of neck, initial encounter
S13.8XXD	Sprain of joints and ligaments of other parts of neck, subsequent encounter
S13.8XXS	Sprain of joints and ligaments of other parts of neck, sequela
S13.9XXA	Sprain of joints and ligaments of unspecified parts of neck, initial encounter
S13.9XXD	Sprain of joints and ligaments of unspecified parts of neck, subsequent encounter
S13.9XXS	Sprain of joints and ligaments of unspecified parts of neck, sequela
S14.119A	Complete lesion at unspecified level of cervical spinal cord, initial encounter
S14.119D	Complete lesion at unspecified level of cervical spinal cord, subsequent encounter
S14.119S	Complete lesion at unspecified level of cervical spinal cord, sequela
S14.159A	Other incomplete lesion at unspecified level of cervical spinal cord, initial encounter
S14.159D	Other incomplete lesion at unspecified level of cervical spinal cord, subsequent encounter
S14.159S	Other incomplete lesion at unspecified level of cervical spinal cord, sequela
T84.216A	Breakdown (mechanical) of internal fixation device of vertebrae, initial encounter
T84.216D	Breakdown (mechanical) of internal fixation device of vertebrae, subsequent encounter
T84.216S	Breakdown (mechanical) of internal fixation device of vertebrae, sequela
T84.226A	Displacement of internal fixation device of vertebrae, initial encounter
T84.226D	Displacement of internal fixation device of vertebrae, subsequent encounter
T84.226S	Displacement of internal fixation device of vertebrae, sequela
T84.296A	Other mechanical complication of internal fixation device of vertebrae, initial encounter
T84.296D	Other mechanical complication of internal fixation device of vertebrae, subsequent encounter
T84.296S	Other mechanical complication of internal fixation device of vertebrae, sequela
T84.428A	Displacement of other internal orthopedic devices, implants and grafts, initial encounter
T84.428D	Displacement of other internal orthopedic devices, implants and grafts, subsequent encounter
T84.428S	Displacement of other internal orthopedic devices, implants and grafts, sequela
T84.498A	Other mechanical complication of other internal orthopedic devices, implants and grafts, initial encounter
T84.498D	Other mechanical complication of other internal orthopedic devices, implants and grafts, subsequent encounter
T84.498S	Other mechanical complication of other internal orthopedic devices, implants and grafts, sequela
T84.85XA	Stenosis due to internal orthopedic prosthetic devices, implants and grafts, initial encounter
T84.85XD	Stenosis due to internal orthopedic prosthetic devices, implants and grafts, subsequent encounter
T84.85XS	Stenosis due to internal orthopedic prosthetic devices, implants and grafts, sequela
T84.89XA	Other specified complication of internal orthopedic prosthetic devices, implants and grafts, initial encounter

ICD-10-CM Diagnosis Codes	Description
T84.89XD	Other specified complication of internal orthopedic prosthetic devices, implants and grafts, subsequent encounter
T84.89XS	Other specified complication of internal orthopedic prosthetic devices, implants and grafts, sequela
T85.698A	Other mechanical complication of other specified internal prosthetic devices, implants and grafts, initial encounter
T85.698D	Other mechanical complication of other specified internal prosthetic devices, implants and grafts, subsequent encounter
T85.698S	Other mechanical complication of other specified internal prosthetic devices, implants and grafts, sequela
T85.898A	Other specified complication of other internal prosthetic devices, implants and grafts, initial encounter
T85.898D	Other specified complication of other internal prosthetic devices, implants and grafts, subsequent encounter
T85.898S	Other specified complication of other internal prosthetic devices, implants and grafts, sequela
Z47.2	Encounter for removal of internal fixation device
Z48.811	Encounter for surgical aftercare following surgery on the nervous system

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Revision Details

Type of Revision	Summary of Changes	Date
Focused review	• Added noncoverage policy statement for electrodiagnostic studies performed for the evaluation of neural integrity as part of a non-covered surgical procedure.	4/15/2024
Annual review	• Added surface electromyography (SEMG) to noncoverage policy statement. • Added clarification to include verbiage absence of "ossification of posterior longitudinal ligament (OPLL)" to noncoverage policy statement for cervical spine surgery.	10/15/2023