



Medical Coverage Policy

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Intraoperative Monitoring

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Related Coverage Resources

[Electrodiagnostic Testing \(EMG/NCV\) \(CPG 129\)](#)

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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 monitor the integrity of neural pathways during surgical procedures when there may be risk of damage to the brain, spinal cord or nerve.

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., 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 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

Intraoperative neurophysiologic monitoring (IOM) is considered not medically necessary 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, 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

Baseline Electrodiagnostic Studies

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 is considered not medically necessary when medical necessity criteria for continuous intraoperative neurophysiologic monitoring have not been met.

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.

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 (Gunnarsson, 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 (2008), it is expected that a specifically trained technologist or non-physician monitorist, preferably with credentials from the American Board of Neurophysiologic Monitoring or the American Board of Registration of Electrodiagnostic Technologists (ABRET), will be in continuous attendance in the operating room, with either the physical or electronic capacity for real-time communication with the supervising physician. 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, 2008; 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], 2005).

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], 2012).

IOM 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 (2012), 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

IOM Limitations

Hayes published a Technology Directory Report evaluating multimodal intraoperative monitoring (MIOM) during cervical spine surgery (Hayes, 2016, reviewed 2020). Within this report Hayes reviewed studies that met inclusion criteria, all of which assessed the diagnostic accuracy of MIOM for detecting neurological deficits among subjects undergoing cervical spine surgery. Hayes concluded “there is low-quality evidence suggesting that MIOM during cervical spinal surgery accurately monitors the neurological status of the patient, identifying patients at risk of postoperative neurological damage. Only very-low-quality evidence exists to suggest that monitoring has clinical utility in terms of patient management outcomes; however, clinical utility might be inferred given the associated intervention that occurs once a warning alert has been triggered.” MIOM for cervical spinal

surgery has potential but unproven benefit. In a separate report evaluating MIOM during corrective surgery for scoliosis and spinal deformity Hayes concluded there is moderate-quality evidence suggesting that MIOM during corrective surgery for scoliosis and other spinal deformities accurately monitors the neurological status of the patient, identifying patients with neurological degradation and triggering an intervention to prevent postoperative damage (Hayes, 2016, reviewed 2020). Upon subsequent annual review of both reports the Hayes conclusions remain unchanged.

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, 2014) 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), 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, 2004), 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).

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, 2012). 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, abortion of procedures, increased procedure/anesthesia time, increased procedural difficulty, or increased risk of needle-sticks for the operative team.

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 approved through the 510(k) process. Several evoked stimulator electrical devices have been approved by the FDA.

Use Outside of United States: 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).

Medicare Coverage Determinations

| | Contractor | Policy Name/Number | Revision Effective Date |
|-----|--|--|-------------------------|
| NCD | National | No NCD | |
| LCD | Wisconsin Physicians Service Insurance Corporation | Intraoperative Neurophysiological Testing (L34623) | 7/30/2020 |
| 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.

Coding/Billing Information

- Note:** 1) This list of codes may not be all-inclusive.
 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 |
|-------------|---|
| 92585 | Auditory evoked potentials for evoked response audiometry and/or testing of the central nervous system; comprehensive (Code deleted 12/31/2020) |
| 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; 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) |
| 95886 | 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) |
| 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

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

| HCPCS 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 |
| 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) |

| HCPCS Codes | Description |
|-------------|--|
| 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) |
| 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 Medically Necessary - 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 |
| 92585 | Auditory evoked potentials for evoked response audiometry and/or testing of the central nervous system; comprehensive (Code deleted 12/31/2020) |
| 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 |
| 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 |

| CPT®* Codes | Description |
|--------------------|--|
| 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) |
| 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 |
| 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 |
| 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 |

| ICD-10-CM Diagnosis Codes | Description |
|---------------------------|--|
| 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 |
| 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 |

| ICD-10-CM Diagnosis Codes | Description |
|--|--|
| 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 degeneration, lumbosacral region |
| M51.87 | Other intervertebral disc disorders, lumbosacral region |
| M51.9 | Unspecified thoracic, thoracolumbar and lumbosacral intervertebral disc disorder |
| 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 |
| 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 |
| M54.5 | Low back pain (Code invalid 09/30/2021) |
| M54.50 | Low back pain, unspecified (Code effective 10/01/2021) |
| M54.51 | Vertebrogenic low back pain (Code effective 10/01/2021) |
| M54.59 | Other low back pain (Code effective 10/01/2021) |
| 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 |

| ICD-10-CM Diagnosis Codes | Description |
|--|---|
| M99.64 | Osseous and spondyloarthropathy 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 |
| 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 |

| ICD-10-CM Diagnosis Codes | Description |
|--|--|
| 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 |
| S32.019A | Unspecified fracture of first lumbar vertebra, initial encounter for closed fracture |
| S32.019B | Unspecified fracture of first lumbar vertebra, initial encounter for open fracture |
| S32.019D | Unspecified fracture of first lumbar vertebra, subsequent encounter for fracture with routine healing |
| S32.019G | Unspecified fracture of first lumbar vertebra, subsequent encounter for fracture with delayed healing |
| S32.019K | Unspecified fracture of first lumbar vertebra, subsequent encounter for fracture with nonunion |
| S32.019S | Unspecified fracture of first 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 |
| 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 |

| ICD-10-CM Diagnosis Codes | Description |
|--|--|
| 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 |
| 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 |
| S32.040D | Wedge compression fracture of fourth lumbar vertebra, subsequent encounter for fracture with routine healing |

| ICD-10-CM Diagnosis Codes | Description |
|--|--|
| 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 |
| 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 |

| ICD-10-CM Diagnosis Codes | Description |
|--|--|
| 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 |
| 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 |

| ICD-10-CM Diagnosis Codes | Description |
|--|---|
| 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 |
| 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 |
| 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 |

| ICD-10-CM Diagnosis Codes | Description |
|--|--|
| 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 |
| 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 |

| ICD-10-CM Diagnosis Codes | Description |
|---------------------------|---|
| 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 |
| 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 |

| ICD-10-CM Diagnosis Codes | Description |
|---------------------------------|---|
| 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 |
| 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 |

| ICD-10-CM Diagnosis Codes | Description |
|---------------------------|--|
| 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) |
| 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 |

| ICD-10-CM Diagnosis Codes | Description |
|---------------------------|---|
| 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 |
| 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 |

| ICD-10-CM Diagnosis Codes | Description |
|--|--|
| 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 |
| 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 |

| ICD-10-CM Diagnosis Codes | Description |
|---------------------------|--|
| 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 |
| 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 |
| 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 |

| ICD-10-CM Diagnosis Codes | Description |
|--|---|
| 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 |
| 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 |

| ICD-10-CM Diagnosis Codes | Description |
|---------------------------|---|
| 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 |
| 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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