CPT® CODING OF PROCEDURES INCLUDING NEW AND CHANGED CODES FOR 2010

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Introduction

This syllabus reviews the CPT® codes for neurologic procedures for 2010. The most frequently asked questions (FAQs) about these codes are included along with the correct answers. CPT® code modifiers, the global period for some procedures, National Correct Coding Initiative edits and the CPT® code families for cerebrovascular arterial studies and neuroimaging studies are presented. The final sections discuss the creation and revision of neurologic CPT® codes, their ties to reimbursement, and regulations regarding the physician supervision of diagnostic tests. Relevant print and Internet resources are listed at the end of this syllabus.

The current CPT® codes and their definitions are derived from Current Procedural Terminology: CPT® 2010 published by the American Medical Association (AMA). All definitions of CPT® codes and modifiers in this syllabus are taken directly from Current Procedural Terminology: CPT® 2010. (CPT® only © 2009 American Medical Association. All Rights Reserved.) The author developed the comments on the codes and FAQs along with American Academy of Neurology (AAN) staff and members of the AAN Medical Economics and Management Committee.

For 2010, there are relatively few changes in neurologic procedure codes:

- Nerve Conduction Study Section Changes
  - New Preamble
  - New CPT Code 95905 – Motor and/or Sensory Nerve Conduction
- New CPT Code 92540 – Basic Vestibular Evaluation
- Revised CPT Code 95806 – Unattended Sleep Study
- New Category III Code – Tremor Analysis

The special “Category III” CPT® codes are for new and emerging medical technology. Several neurodiagnostic procedures are assigned Category III codes, which are listed towards the end of this syllabus.

The CPT® codes for neurologic procedures are not defined to include consultation or other evaluation and management services. When appropriate, therefore, codes for these services and skills may be submitted in addition to the codes for any neurologic procedures performed on a given patient on a given date.

Organization of This Syllabus

In general, this syllabus follows the subdivisions in the CPT® 2010 manual, but there are modifications to group the codes in a more logical manner and some relevant codes from other sections are included, when appropriate.

CPT® Codes for Neurologic Procedures and CPT® Code Modifiers

- New = new code, Revised = revised code, Add-on = add-on code,
- New text, Revised text

The Introduction at the beginning of the CPT® 2010 manual defines the meaning of “report.”

Results, Testing, Interpretation and Report

Results are the technical component of a service. Testing leads to results; results lead to interpretation. Reports are the work product of the interpretation of test results.

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Certain procedures or services described in the CPT® codebook involve a technical component (e.g., tests), which produce results (e.g., data, images, slides). For clinical use, some of these results require interpretation. Some CPT® descriptors specifically require interpretation and reporting to report that code.

**CPT® Codes for Neurologic Procedures**

Starting in 2003, the Neurology and Neuromuscular Procedures section (CPT® codes 95803-96020) was divided into several new subdivisions. The purpose was to make the logic underlying the code numbering system in this section more apparent. However, some sections included codes that are quite dissimilar. Some sections split up codes concerning very similar procedures (the two EEG sections, for example). Furthermore, several relevant CPT® codes are still listed under other sections of the manual. In 2009 the headings of the Neurology and Neuromuscular Procedures section were revised to make the groupings more logical. The former *Electromyography and Nerve Conduction Tests* section was subdivided into three sections covering *Electromyography*, *Guidance for Chemodenervation and Ischemic Muscle Testing* and *Nerve Conduction Tests*.

The current section headings in the CPT® 2010 manual are:

- **Sleep Testing**
  Codes 95803-95811
- **Routine Electroencephalography (EEG)**
  Codes 95812-95830
- **Muscle and Range of Motion Testing**
  Codes 95831-95857
- **Electromyography**
  Codes 95860-95872
- **Guidance for Chemodenervation and Ischemic Muscle Testing**
  Codes 95873-95875
- **<rev>Nerve Conduction Tests</rev>**
  Codes 95900-<new>95905</new>
- **Intraoperative Neurophysiology**
  Code 95920
- **Autonomic Function Tests**
  Codes 95921-95923
- **Evoked Potentials and Reflex Tests**
  Codes 95925-95937
- **Special EEG Tests**
  Codes 95950-95967
- **Neurostimulators, Analysis-Programming**
  Codes 95970-95982
- **Other Procedures**
  Codes 95990-95999
- **Motion Analysis**
  Codes 96000-96004
- **Functional Brain Mapping**
  Code 96020

**Neurology and Neuromuscular Procedures Section Introduction**

The Neurology and Neuromuscular Procedures section introduction states:

Neurologic services are typically consultative, and any of the levels of consultation (99241-99255) may be appropriate.
In addition, services and skills outlined under **Evaluation and Management** levels of service appropriate to neurologic illnesses should be reported similarly.

The EEG, autonomic function, evoked potential, reflex tests, EMG, NCV, and MEG services (95812-95829 and 95860-95967) include recording, interpretation by a physician, and report. For interpretation only, use modifier 26. For EMG guidance, see 95873, 95874.

(For repetitive transcranial magnetic stimulation for treatment of clinical depression, see Category III codes 0160T, 0161T)

(Do not report codes 95860-95875 in addition to 96000-96004)

**Add-On Codes**

Some of the listed procedures are commonly carried out in addition to the primary procedure performed. These additional or supplemental procedures are designated as “add-on” codes. Add-on codes in CPT® can be readily identified by specific descriptor nomenclature which includes phrases such as “each additional” or “(List separately in addition to primary procedure).” All add-on codes found in CPT® are exempt from the multiple procedure concept. They are exempt from the use of modifier 51, as these procedures are not reported as stand-alone codes.

*There are currently eight add-on codes for clinical neurophysiology: 95873, 95874, 95920, 95962, 95967, 95973, 95975, and 95979.*

**Sleep Testing**

Sleep studies and polysomnography refer to the continuous and simultaneous monitoring and recording of various physiological and pathophysiological parameters of sleep for six or more hours with physician review, interpretation and report. The studies are performed to diagnose a variety of sleep disorders and to evaluate a patient’s response to therapies such as nasal continuous positive airway pressure (NCPAP). Polysomnography is distinguished from sleep studies by the inclusion of sleep staging which is defined to include a 1-4 lead electroencephalogram (EEG) and electro-oculogram (EOG), and submental electromyogram (EMG). Additional parameters of sleep include: 1) ECG; 2) airflow; 3) ventilation and respiratory effort; 4) gas exchange by oximetry, transcutaneous monitoring, or end tidal gas analysis; 5) extremity muscle activity, motor activity-movement; 6) extended EEG monitoring; 7) penile tumescence; 8) gastroesophageal reflux; 9) continuous blood pressure monitoring; 10) snoring; 11) body positions; etc.

The sleep services (95805-95811) include recording, interpretation and report. For interpretation only, use modifier 26.

For a study to be reported as polysomnography, sleep must be recorded and staged.

**95803**  
Actigraphy testing, recording, analysis, interpretation, and report (minimum of 72 hours to 14 consecutive days of recording

(Do not report 95803 more than once in any 14 day period)

(Do not report 95803 in conjunction with 95806-95811)

(Report with modifier 52 if less than 6 hours of recording or in other cases of reduced services as appropriate)

(For unattended sleep study, use 95806)
95805  Multiple sleep latency or maintenance of wakefulness testing, recording analysis and interpretation of physiological measurements of sleep during multiple trials to assess sleepiness

<rev>95806  Sleep study, unattended, simultaneous recording of, heart rate, oxygen saturation, respiratory airflow, and respiratory effort (e.g., thoracoabdominal movement)</rev>

<rev>(Do not report 95806 in conjunction with 93012, 93014, 93041–93227, 93228, 93229, 93230–93272,0203T, 0204T)</rev>

<rev>(For unattended sleep study that measures heart rate, oxygen saturation, respiratory analysis, and sleep time, use 0203T)</rev>

<rev>(For unattended sleep study that measures heart rate, oxygen saturation, and respiratory analysis, use 0204T)</rev>

95807  Sleep study, simultaneous recording of ventilation, respiratory effort, ECG or heart rate, and oxygen saturation, attended by a technologist

95808  Polysomnography; sleep staging with 1-3 additional parameters of sleep, attended by a technologist

95810  sleep staging with 4 or more additional parameters of sleep, attended by a technologist

95811  sleep staging with 4 or more additional parameters of sleep, with initiation of continuous positive airway pressure therapy or bilevel ventilation, attended by a technologist

Revision of Code 95806 for 2010

The revisions support the new Category III codes 0203T and 0204T to report unattended sleep study testing services. They create consistent terminology within the sleep code family.

Actigraphy Code 95803

Code 95803 was established with the conversion of Category III code 0089T to Category I status to report actigraphy sleep assessment. Actigraphy provides objective long-term data on circadian rhythm and sleep patterns. Unlike attended polysomnography, actigraphy provides days or weeks of data that can be used to assess the stability of sleep wake patterns and circadian rhythms and provide a good estimate of sleep time. Actigraphy data are collected via a small device, downloaded to a computer at the end of the recording period, and analyzed by a physician trained in sleep medicine. It provides data on rest and activity, which has been shown to be a reliable estimate of sleep and wakefulness.

Code 95803 is intended to be reported for a minimum of 72 hours to a maximum of 14 consecutive days of recording. It is not appropriate to report code 95803 more than once in a 14-day period. An exclusionary parenthetical note was added instructing that code 95803 should not be reported in conjunction with code 95806 to reflect the overlapping services described in these codes.

Clinical Example (95803)
A 29-year-old male complained of excessive sleepiness, including difficulty maintaining wakefulness while driving. There was no history of snoring, abnormal breathing while sleeping, cataplexy, hypnagogic hallucinations, sleep paralysis, unusual behaviors during sleep, drug abuse, or psychiatric illness. He reported difficulty falling asleep until late at night and struggling to get out of bed most mornings. Actigraphy monitoring is performed.

Description of Procedure (95803)
The technician reviews the printout and raw data to determine if the test was conducted in an overall valid manner. The technician edits the raw data for sections that need to be excluded, adjusts lights out and lights on.
times to stated times according to sleep diary data, and correlates the objective data from the printout with the subjective data of the sleep diary provided by patient and initial history from the patient record.

The sleep diary consists of a standardized form covering a week at a time, with separate entries for each 24-hour segment. It is an integral part of the test. The diary consists of patient’s recording of lights out and lights on times; awakenings including when they were experienced during the sleep period and their estimated duration; perception of the total sleep time, sleep episodes, and their estimated durations during the regular wake period; and perception of alertness throughout the day. This allows objective correlation with the patient’s subjective report of such essential elements as total sleep time, awakening numbers, naps, etc. The final technical data report, consisting of a graphic activity plot, epoch by epoch data printout classified as wake or sleep, and summary data table of sleep latency, total, sleep time, etc, is created. An interpretation of the data is completed and diagnosis established.

FAQs - Sleep Studies (95805-95811)

Note that CPT® code 95811 (Polysomnography; sleep staging with 4 or more additional parameters of sleep, with initiation of continuous positive airway pressure therapy or bi-level ventilation, attended by a technologist) should be used for polysomnography with CPAP. Do not use a combination of CPT® 95810 and 94660 for this procedure any longer (as was done up through 1997, before code 95811 was approved). Polysomnography has been on the OIG (Office of Inspector General) work plan. Reviewing the Local Carrier Determination (LCD) for your carrier is advisable.

Electroencephalography

Routine Electroencephalography (EEG)

EEG codes 95812-95822 include hyperventilation and/or photic stimulation when appropriate. Routine EEG codes 95816-95822 include 20 to 40 minutes of recording. Extended EEG codes 95812-95813 include reporting times longer than 40 minutes.

95812 Electroencephalogram (EEG) extended monitoring; 41-60 minutes

95813 greater than one hour

95816 Electroencephalogram (EEG); including recording awake and drowsy

95819 including recording awake and asleep

95822 recording in coma or sleep only

95824 cerebral death evaluation only

95827 all night recording

(For 24-hour EEG monitoring, see 95950-95953 or 95956)

(For EEG during nonintracranial surgery, use 95955)

(For Wada test, use 95958)

(For digital analysis of EEG, use 95957)

95829 Electrocorticogram at surgery (separate procedure)

95830 Insertion by physician of sphenoidal electrodes for electroencephalographic (EEG) recording
Special EEG Tests

95950  Monitoring for identification and lateralization of cerebral seizure focus, electroencephalographic (eg, 8 channel EEG) recording and interpretation, each 24 hours

95951  Monitoring for localization of cerebral seizure focus by cable or radio, 16 or more channel telemetry, combined electroencephalographic (EEG) and video recording and interpretation (eg, for presurgical localization), each 24 hours

95953  Monitoring for localization of cerebral seizure focus by computerized portable 16 or more channel EEG; electroencephalographic (EEG) recording and interpretation, each 24 hours

95954  Pharmacological or physical activation requiring physician attendance during EEG recording of activation phase (eg, thiopental activation test)

95955  Electroencephalogram (EEG) during nonintracranial surgery (eg, carotid surgery)

95956  Monitoring for localization of cerebral seizure focus by cable or radio, 16 or more channel telemetry, electroencephalographic (EEG) recording and interpretation, each 24 hours

95957  Digital analysis of electroencephalogram (EEG) (eg, for epileptic spike analysis)

95958  Wada activation test for hemispheric function, including electroencephalographic (EEG) monitoring

95961  Functional cortical and subcortical mapping by stimulation and/or recording of electrodes on brain surface, or of depth electrodes, to provoke seizures or identify vital brain structures; initial hour of physician attendance

+95962  each additional hour of physician attendance (List separately in addition to code for primary procedure)

(Use 95962 in conjunction with 95961)

94772  Circadian respiratory pattern recording (pediatric pneumogram), 12 to 24 hour continuous recording, infant

(Separate procedure codes for electromyograms, EEG, ECG, and recordings of respiration are excluded when 94772 is reported.)

Electroencephalography: Coding Tips

Note that hyperventilation and photic stimulation procedures are not a mandatory part of EEG testing using codes 95812-95822. They are to be performed only when medically appropriate and not otherwise contraindicated. Hyperventilation and photic stimulation are bundled into the EEG service whenever they are performed – they cannot be coded separately.

For extended EEG monitoring, use 95812, 95813.

For ambulatory 24 hour EEG monitoring, use 95950.

For EEG during nonintracranial surgery, use 95955.
For digital analysis of EEG, use 95957. Use 95957 only with codes 95816, 95819, or 95954.
95819 is not any routine EEG, it is for a planned awake/asleep study with or without sedation.

Code 95819 if an awake/asleep study was intended even if patient did not sleep.

Use 95816 if an awake only study is planned. However, one may upcode to 95819 if the patient falls asleep and the recording time is sufficient.

95822 (“coma and sleep” EEG) can be used for patients that are:
- Anesthetized
- Neonates

Code 95961 can be used for both cortical and subcortical functional mapping. Depth electrodes can be used to identify vital cortical or subcortical structures. The same electrodes might be used for stimulation of brain tissue or for recording of brain cells during the mapping.

FAQs - Electroencephalography - Routine (95812-95827)

In previous years, a number of questions concerned when to use the extended monitoring EEG CPT® codes 95812 and 95813. Routine length of monitoring is now defined as lasting 20 to 40 minutes. The extended monitoring codes are to be used for monitoring times greater than 40 minutes. Code 95812 is defined as covering 41-60 min of monitoring and code 95813 is defined as covering any monitoring that is greater than one hour. Codes 95812 and 95813 can be used in place of 95816, 95819 or 95822 but are not to be billed together with them.

What is the minimum number of channels or electrodes to be used in order to report codes 95812, 95813, 95955 and 95822? One has to meet the minimum technical standards for an EEG test, not only with a minimum of 20 minutes of monitoring, but with a minimum of eight channels and other rules as set forth by national organizations such as the American Clinical Neurophysiology Society <http://www.acns.org/>.

Another question concerns the difference between code 95816 (EEG recording including awake and drowsy) and code 95819 (EEG recording including awake and asleep). The answer is that to use 95819 the patient must have fallen asleep, if not 95816 should be used. However, the line between drowsy and asleep can often be difficult to determine and it is permissible to use 95819 if a sleep study was intended, but, despite the best efforts of the technician, sleep was not obtained.

Some new EEG machines have video monitoring equipment to be trained on patients when they get regular EEGs. The purpose is to record what the patient was doing during the routine EEG for clinical correlation purposes. Is there an extra code to bill for an EEG with video in this situation? No – there is no extra fee or code for using the video in this context. It's still the same code as if no video.

FAQs - Electroencephalography - Long-Term Monitoring (95950-95956)

Most of these codes are reported for “each 24 hours” and one of the most common questions regarding these codes is what to do if the monitoring is less than 24 hours (i.e. 8 hours, 10 hours etc.). In the opinion of the American Academy of Neurology and the American Clinical Neurophysiology Society, more than half of the 24 hours of monitoring is adequate to use these codes. If the recording time is less than 12 hours, one should bill the appropriate monitoring code with modifier 52 to indicate the service was reduced in some way (as described in the CPT® book) and to indicate the actual number of hours that the study was performed. Principles of CPT® Coding, Sixth Edition states: “Video-EEG monitoring (95951) is used for prolonged monitoring of seizures lasting 24 hours. Sometimes the monitoring is shorter, e.g., because the patient was off monitoring to undergo magnetic resonance imaging (MRI). When monitoring is less than 12 hours, but more than 6 hours, modifier 52 is used. When monitoring is less than 6 hours, code 95813 is used instead of code 95951.” (page 459)

FAQs - Electroencephalography - Digital EEG Analysis (95957)

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Code 95957 should not be used simply when the EEG was recorded digitally. There is no additional charge for turning on an automated spike and seizure detector on a routine EEG, ambulatory EEG, or video-EEG monitoring. Nor is there an additional code for performing EEG on a digital machine instead of an older generation analog machine. Some features of digital EEG make it easier and quicker to read, and other features slow it down by providing new optional tricks and tools. Overall, it is about the same amount of work as an analog EEG.

Code 95957 is used when substantial additional digital analysis was medically necessary and was performed, such as 3D dipole localization. In general, this would entail an extra hour’s work by the technician to process the data from the digital EEG, and an extra 20-30 minutes of physician time to review the technician’s work and review the data produced. Most practitioners would not have the opportunity to do this advanced procedure. It would be more commonly used at specialty centers, e.g. epilepsy surgery programs. Note that the codes for “monitoring for identification and lateralization of cerebral seizure focus” already include epileptic spike analysis.

**FAQs - How Do I Choose Between CPT Codes 95956 and 95953?**

A recent CPT® Assistant article (CPT® Assistant December 2009 / Volume 19 Issue 12) provides clarification on how to code for two specialized EEG services—CPT® codes 95956 and 95953—specifically when provided in the physician office or free-standing facility.

The diagnostic test can be provided to patients in the standard inpatient or outpatient hospital settings as part of a comprehensive epilepsy evaluation or in intensive care units to detect seizures in patients with multiple medical problems (e.g., diabetes, renal failure, and cardiac rhythm disturbances) who are comatose. The test can be provided in a physician’s office, but more than likely, it will be in a free-standing facility or sleep center since a technician must monitor the patient throughout the 24 hour testing period.

It is important to note that code 95956 is rarely reported as a nonfacility procedure because few supervised 24-hour EEG sites exist. In addition, the code was valued with the assumption that there might be situations when a technician may monitor two patients at the same time.

The procedure described by CPT® code 95953, Monitoring for localization of cerebral seizure focus by computerized portable 16 or more channel EEG, electroencephalographic (EEG) recording and interpretation, each 24 hours, is more commonly provided in a physician’s office setting to patients with a known history of epilepsy. For code 95953, the patient is hooked-up to a portable EEG with 16 or more channels in the physician’s office or a free-standing facility. The patient is then sent home with the EEG equipment in order to capture possible seizure activity overnight after which the patient returns the equipment. The data is then transferred to a reading station and interpreted by the physician.

In summary, code 95953 describes an ambulatory, take-home test that does not require the continuous presence of an EEG technician. In the test described by code 95953, the data are collected, the procedure is stopped, and the data are subsequently reviewed and interpreted. CPT code 95956 describes a procedure, which is attended by a technician who will review and interpret data in real-time while the patient is being monitored. In addition, the physician can repeatedly review EEG recordings throughout each 24-hour period and immediately make medical decisions as needed throughout the monitoring of the patient.

**Magnetoencephalography**

95965  
Magnetoencephalography (MEG), recording and analysis; for spontaneous brain magnetic activity (eg, epileptic cerebral cortex localization)

95966  
for evoked magnetic fields, single modality (eg, sensory, motor, language or visual cortex localization)
for evoked magnetic fields, each additional modality (eg, sensory, motor, language, or visual cortex localization) (List separately in addition to code for primary procedure)

(Use 95967 in conjunction with code 95966)

(For electroencephalography performed in addition to magnetoencephalography, see 95812-95827)

(For somatosensory evoked potentials, auditory evoked potentials, and visual evoked potentials performed in addition to magnetic evoked field responses, see 92585, 95925, 95926, and/or 95930)

(For computerized tomography performed in addition to magnetoencephalography, see 70450-70470, 70496)

(For magnetic resonance imaging performed in addition to magnetoencephalography, see 70551-70553)

**Muscle and Range of Motion Testing**

95831  Muscle testing, manual (separate procedure) with report; extremity (excluding hand) or trunk

95832  hand, with or without comparison with normal side

95833  total evaluation of body, excluding hands

95834  total evaluation of body, including hands

95851  Range of motion measurements and report (separate procedure); each extremity (excluding hand) or each trunk section (spine)

95852  hand, with or without comparison with normal side

**FAQs – Muscle and Range of Motion Testing (95831-95852)**

These codes identify manual tests of muscle strength that are graded by an examiner according to standardized numerical grading scales. The definitions emphasize that a report is required for each of the manual muscle testing codes.

Most questions have concerned whether one can bill separately for these types of procedures in addition to an office visit, consult, etc. In *Principles of CPT® Coding, Sixth Edition* it is stated that these codes can be billed on the same date as an evaluation and management service if the E/M service is performed as a significant, separately identifiable effort from the muscle and range of motion testing procedure performed (pages 453).

**Nerve Conduction Studies, Reflex and Late Response Testing**

(For listing of nerves considered for separate study, see Appendix J in *CPT® 2010* [Appendix A in this syllabus])

The following applies to nerve conduction tests (95900-95904): Codes 95900-95904 describe nerve conduction tests when performed with individually placed stimulating, recording, and ground electrodes. The stimulating, recording, and ground electrode placement and the test design must be individualized to the patient’s unique anatomy. Nerves tested must be limited to the specific nerves and conduction studies needed for the particular clinical question being investigated. The stimulating electrode must be placed directly over the nerve to be tested, and stimulation parameters properly adjusted to avoid stimulating other nerves or nerve branches. In most motor nerve conduction studies, and in some sensory nerve conduction studies, both proximal and distal stimulation will be used. Motor nerve conduction study recordings must be made from electrodes placed directly over the motor point of the specific muscle to be tested. Sensory nerve conduction study recordings must be
made from electrodes placed directly over the specific nerve to be tested. Waveforms must be reviewed on site in real time, and the technique (stimulus site, recording site, ground site, filter settings) must be adjusted, as appropriate, as the test proceeds in order to minimize artifact, and to minimize the chances of unintended stimulation of adjacent nerves and the unintended recording from adjacent muscles or nerves. Reports must be prepared on site by the examiner, and consist of the work product of the interpretation of numerous test results, using well-established techniques to assess the amplitude, latency, and configuration of waveforms elicited by stimulation at each site of each nerve tested. This includes the calculation of nerve conduction velocities, sometimes including specialized F-wave indices, along with comparison to normal values, summarization of clinical and electrodiagnostic data, and physician or other qualified health care professional interpretation.

Code 95905 describes nerve conduction tests when performed with preconfigured electrodes customized to a specific anatomic site. 

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>95900</td>
<td>Nerve conduction, amplitude and latency/velocity study, each nerve; motor, without F-wave study</td>
</tr>
<tr>
<td>95903</td>
<td>motor, with F-wave study</td>
</tr>
<tr>
<td>95904</td>
<td>sensory</td>
</tr>
</tbody>
</table>

(Report 95900, 95903, and/or 95904 only once when multiple sites on the same nerve are stimulated or recorded)

95905 Motor and/or sensory nerve conduction, using preconfigured electrode array(s), amplitude and latency/velocity study, each limb, includes F-wave study when performed, with interpretation and report

(Report 95905 only once per limb studied)

(Do not report 95905 in conjunction with 95900-95904, 95934-95936)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>95933</td>
<td>Orbicularis oculi (blink) reflex, by electrodiagnostic testing</td>
</tr>
<tr>
<td>95934</td>
<td>H-reflex, amplitude and latency study; record gastrocnemius/soleus muscle</td>
</tr>
<tr>
<td>95936</td>
<td>record muscle other than gastrocnemius/soleus muscle</td>
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(To report a bilateral study, use modifier 50)

51792 Stimulus evoked response (eg, measurement of bulbocavernosus reflex latency time)

**Rationale for Code 95905**

Code 95905 has been established to report the performance of motor and sensory nerve conduction using pre-configured arrays. New introductory language to assist in differentiating nerve conduction studies performed with individually placed stimulating electrodes from tests performed with preconfigured electrodes has also been added:

- Testing should be limited to those nerves necessary to address the clinical question being investigated
- Standardized screening tests are not the same as carefully designed NCSs and do not entail the same physician work
- Waveforms must be reviewed on site
- Reports must be prepared on site

**Modifier 51 Exemption (95905)**
Similar to codes 95900, 95903 and 95904, a modifier 51 exemption designation has been added to code 95905, as this procedure is usually performed with other services, and thus the pre- and post-service activities in this service are minimal and already reflect a reduced relative value unit (RVU).

**Clinical Example (95905)**

A 42-year-old female data entry clerk reported that, although she had had no injuries and during the day she felt okay, she woke in the middle of each night for the past 2 weeks with a numb, aching, burning feeling in her right hand that was relieved by holding her hand down and shaking it, rubbing it and running cold water over it. Physical examination reveals weakness of right thumb abduction; wasting of the right thenar eminence; numbness of the palmar aspects of the right thumb, index finger and middle finger; and a Tinel’s sign over the right median nerve at the carpal tunnel. History and exam are reported separately with evaluation and management [E/M] codes. Nerve conduction testing using preconfigured arrays for the right arm is performed.

**Description of Procedure (95905)**

The physician reviews a summary of electrodagnostic data from each nerve tested and assesses it in the context of comparison to normal values and the patient’s history and physical examination.

**The Proper Use of Codes 95900-95904**

There have been two major ambiguities in the nerve conduction study code definitions:

- How to code for studies of two or more branches of a given motor or sensory nerve?
- How to code for a mixed nerve conduction study?

These ambiguities are clarified by the current definitions of codes 95900-95904 and supporting documentation from the AMA starting in CPT® 2006.

**Numbers of Motor and Sensory Nerve Studies**

Prior to 2006, there were two ways to determine the numbers of units of motor, sensory, and mixed nerve conduction studies:

1. By determining which electrodes were moved “(Report 95900, 95903, and/or 95904 only once when multiple sites on the same nerve are stimulated or recorded)”
2. By referring to a list of nerve conduction studies

If method 1 was used, as in previous years, if either the recording or the stimulating electrode remained stationary during a nerve conduction study, only one unit of codes 95900-95904 could be used. When both stimulating and recording electrodes were moved to different locations, coding for multiple units of 95900-95904 was correct.

Examples of multiple sites, one code:

- Ulnar motor nerve conduction study: record from abductor digiti minimi muscle; stimulate at wrist, below elbow, above elbow, axilla: 1 unit of 95900
- Median sensory nerve conduction study, stimulate at wrist, record from digits 1, 2, 3, and 4: 1 unit of 95904

Examples of different branches of motor or sensory nerves: two codes:

- Two motor nerve branch studies: Peroneal motor nerve at ankle to extensor digitorum brevis muscle, peroneal motor nerve below fibular head to tibialis anterior muscle: 2 units of 95900
- Two sensory nerve branch studies: Ulnar sensory nerve at wrist to digit 5, ulnar sensory nerve above wrist to dorsum of the hand: 2 units of 95904

Many coders and carriers did not understand how to define separate units of motor and sensory nerve conduction studies when determined by this method. This is understandable, because the coders and carriers do not perform nerve conduction studies themselves.
An alternative means of determining the correct number of nerve conduction studies was therefore created to better solve this problem. With the approval by the AMA CPT® Editorial Panel, the American Association of Neuromuscular & Electrodiagnostic Medicine (AANEM, formerly American Association of Electrodiagnostic Medicine) developed a list of all motor and sensory nerve conduction studies that can be coded as separate procedures. If a procedure was on this list, it could be coded as a separate unit of 95900, 95903 or 95904.

Initial versions of the list were published in two AMA publications: Principles of CPT® Coding, Second Edition (pages 374 and 375) and an article on electrodiagnostic medicine coding policies in the CPT® Assistant April 2002 issue (Volume 12, Issue 4). However, these versions contained several ambiguities, errors, and omissions. After extensive revisions, a modified, much improved list was published in the AMA’s CPT® Assistant April 2003 issue (Volume 13, Issue 4).

The list of nerves was revised once again and became official CPT® policy as of 2006. The latest version is included in Appendix J of CPT® 2010 (Appendix A in this syllabus), and is specifically referenced in the section on nerve conduction studies: “(For listing of nerves considered for separate study, see Appendix J).” There is no need to refer to any versions of the list that appeared in the earlier publications.

The statement “(Report 95900, 95903, and/or 95904 only once when multiple sites on the same nerve are stimulated or recorded)” has remained in CPT® 2010, however. It now serves solely as a reminder that a nerve conduction study assessing different segments of a single nerve cannot be coded as separate units. For example, study of four segments of the right ulnar motor nerve (without F-waves) – (1) axilla-above elbow, (2) above-below elbow, (3) below elbow-wrist, and (4) wrist-abductor digiti minimi muscle – can only be coded as one unit of 95900.

### Mixed Nerve Conduction Studies

Mixed nerve conduction studies are coded using CPT® code 95904. Mixed nerves contain sensory and motor fibers. To perform a mixed nerve conduction study: the examiner stimulates a mixed nerve, and records from another site over that nerve. A mixed nerve conduction study is a totally separate study from sensory or motor nerve conduction studies of a given nerve. For example, a thorough assessment of the median nerve across the carpal tunnel can consist of all three studies:

- Median motor (stimulate at wrist, record over abductor pollicis brevis muscle)
- Median sensory (stimulate at wrist, record sensory fibers supplying digit III)
- Median mixed nerve conduction (stimulate median mixed nerve in the palm containing sensory fibers and motor fibers to lumbrical muscles, record at wrist)

Conventional motor and sensory nerve conduction studies should not be bundled together into a single mixed nerve conduction study. They can and should be coded separately. The CPT® Assistant April 2002 article on electrodiagnostic medicine agrees with these points.

In CPT® 2001, code 95904 included “mixed” in its definition. This caused a great deal of confusion among Medicare and other carriers. For example, during the summer of 2000, CMS (Centers for Medicare & Medicaid Services, at that time the Health Care Financing Administration – HCFA) promulgated a Correct Coding Initiative edit that bundled all motor and sensory nerve conduction studies into code 95904! Because of this confusion, "mixed" was dropped from the definition of code 95904 starting in 2002. If a carrier still attempts to bundle motor and sensory nerve conduction study codes together, use modifier 59 with the motor nerve conduction study codes to make sure that the codes remain unbundled.

### Numbers of Studies That Should be Performed

Many physicians indicate that they are not being paid for nerve conduction studies (sensory or motor). Reasons for rejections include statements that the number of nerves tested is not necessary or the ICD-9 codes that have been used are not appropriate. The CPT® Assistant April 2002 article on electrodiagnostic medicine essentially reprinted the key points in the AANEM Recommended Policy for Electrodiagnostic Medicine that address these questions and many others. For example, this article included a table outlining the recommended numbers of
motor and sensory nerve conduction studies that can be used to diagnose 90% of patients with certain common
conditions and symptoms. Like the list of nerves, this table is included in Appendix J of CPT® 2010 (Appendix B
in this syllabus). The table, as carriers adopt it, should alleviate many, if not all, of the major coding problems
associated with these electrodiagnostic procedures.

CPT® Changes 2006: An Insider’s View explained the rationale behind this table as follows:

“The maximum number of studies table summarizes the recommended maximum number of studies per
diagnostic category necessary for a physician to arrive at a diagnosis in 90% of patients with that final diagnosis,
when performing needle electromyography (EMG) tests (95860-95864 and 95867-95870); nerve conduction
studies (95900, 95903, and 95904); and other EMG studies (95934, 95936, and 95937). The numbers in the table
are to be used as a tool to detect outliers to assist in appropriate reporting. Each number in the table represents
one study or unit. The maximum numbers are designed to apply to a diverse range of practice styles as well as
practice types, including those at referral centers where more complex testing is frequently necessary. In simple,
straightforward cases, fewer tests will be necessary. This is particularly true when results of the most critical tests
are normal. In complex tests, the maximum numbers in the table will be insufficient for the physician to arrive at a
complete diagnosis. In cases where there are borderline findings, additional tests may be required to determine if
the findings are significant.

The appropriate number of studies to be performed should be left to the judgment of the physician performing the
electrodiagnostic (EDX) evaluation; however, in the small number of cases that require testing in excess of the
numbers listed in the table, the physician should be able to provide supplementary documentation to justify the
additional testing. Such documentation should explain what other differential diagnostic problems needed to be
ruled out in that particular situation. In some patients, multiple diagnoses will be established by EDX testing, and
the recommendations listed in the table for a single diagnostic category will not apply. It should be noted that in
some situations it is necessary to test an asymptomatic contralateral limb to establish normative values for an
individual patient. Normal values based on the general population alone are less sensitive than this approach;
therefore, restrictions on contralateral asymptomatic limb testing will reduce the sensitivity of electrodiagnostic
tests.”

Other FAQs - Nerve Conduction, F-wave and H-Reflex Studies (95900-95904, 95934-95936)

Some payers reject code 95900 and/or code 95903 on a consistent basis whenever they are reported together for
the same patient, indicating 95900 is a component code of 95903. This is true, of course, if reported for the same
nerve, but is not true if reported for different nerves. The AAN has suggested submitting a paper claim with the
report indicating the number of nerves tested. This works in some cases but not others. CMS has suggested that
modifier 59 be used with each code to indicate it is a “distinct procedural service” being performed on a different
area of the body (different nerve). This may work for reimbursement, but is incorrect coding. These codes are
designed to be billed per nerve (no modifier needed) yet payers do not recognize this and reject them on a
regular basis. It is probably simpler to perform all motor nerve conduction studies on a given patient on a given
date either with or without F-waves, if possible.

Electromyography

Needle electromyography procedures include the interpretation of electrical waveforms measured by equipment
that produces both visible and audible components of electrical signals recorded from the muscle(s) studied by
the needle electrode.

95860 Needle electromyography; one extremity with or without related paraspinal areas
95861 two extremities with or without related paraspinal areas
(For dynamic electromyography performed during motion analysis studies, see 96002-96003)
95863 three extremities with or without related paraspinal areas
95864 four extremities with or without related paraspinal areas
CPT Coding of Procedures

95865 larynx

(Do not report modifier 50 in conjunction with 95865)

(For unilateral procedure, report modifier 52 in conjunction with 95865)

95866 hemidiaphragm

95867 cranial nerve supplied muscles, unilateral

95868 cranial nerve supplied muscles, bilateral

95869 thoracic paraspinal muscles (excluding T1 or T12)

95870 limited study of muscles in one extremity or non-limb (axial) muscles (unilateral or bilateral), other than thoracic paraspinal, cranial nerve supplied muscles, or sphincters

95872 Needle electromyography using single fiber electrode, with quantitative measurement of jitter, blocking and/or fiber density, any/all sites of each muscle studied

95875 Ischemic limb exercise test with serial specimen(s) acquisition for muscle(s) metabolite(s)

51784 Electromyography studies (EMG) of anal or urethral sphincter, other than needle, any technique

51785 Needle electromyography studies (EMG) of anal or urethral sphincter, any technique

92265 Needle oculoelectromyography, one or more extraocular muscles, one or both eyes, with interpretation and report

About the Electromyography Section Descriptor

The paragraph at the beginning of the Electromyography section defines what constitutes a needle EMG study. Not all techniques that purport to assess electrophysiological aspects of muscle function in health and disease are covered by the CPT® codes in this section. For example, this family of codes does not cover surface electromyography.

FAQs - Electromyography (95860-95875)

There are many questions regarding problems in getting paid for these procedures in various states (not quite as much problem as nerve conduction studies, but substantial nevertheless). The primary issues appear to be the limited number of ICD-9 codes considered appropriate by the payer to justify EMGs and the number of limbs that can be studied in a given patient. The AANEM recommended national policy addresses these issues. See the article on electrodiagnostic medicine in the CPT® Assistant April 2002 issue (Volume 12, Issue 4), parts of which are included in Appendix J of CPT® 2010 (Appendix B in this syllabus).

A common question concerns how many muscles should/need to be studied per limb in order to use the limb EMG codes. The proper procedure for Medicare patients has been outlined in the Federal Register (issue of October 31, 1997, Vol. 62, No. 211, page 59090, see below).

Another frequent question is whether one can bill codes for limited study of specific muscles (CPT® codes 95869 and 95870) multiple times for each muscle, etc. CMS clearly sets forth the procedures to be followed (see below).

Proper Use of Needle EMG CPT® Codes 95860 – 95870

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In order to clarify the proper use of these codes, CMS has formulated the following policies:

**CPT® codes 95860, 95861, 95863, and 95864 (Needle electromyography of 1, 2, 3, or 4 limbs with or without related paraspinal areas).**
To bill these codes, extremity muscles innervated by three nerves (for example, radial, ulnar, median, tibial, peroneal, femoral, not sub-branches) or four spinal levels must be evaluated, with a minimum of five muscles studied per limb.

One cannot bill paraspinals separately with these codes - unless studying paraspinals between T3-T11, in which case code 95869 is to be used.

**CPT® code 95869 (Needle electromyography, thoracic paraspinal muscles).**
This CPT® code should be used when exclusively studying thoracic paraspinal muscles, excluding T1 or T12. One unit can be billed, despite the number of levels studied or whether unilateral or bilateral. This code cannot be billed with CPT® codes 95860, 95861, 95863, or 95864 if only T1 and/or T2 are studied when an upper extremity was also studied.

**CPT® code 95870 (Needle electromyography; other than paraspinal (eg, abdomen, thorax)).**
This CPT® code can be billed at one unit per extremity. The code can also be used for muscles on the thorax or abdomen (unilateral or bilateral). One unit may be billed for studying cervical or lumbar paraspinal muscles (unilateral or bilateral), regardless of the number of levels tested. This code should not be billed when the paraspinal muscles corresponding to an extremity are tested and when the extremity codes 95860, 95861, 95863, or 95864 are also billed.

*Principles of CPT® Coding, Sixth Edition* states: “That code may be used more than once. For example, if three muscles are tested in each upper extremity, use code 95870 with two units of service, rather than code 95861.” (page 453)

**About Codes 95865 and 95866**

CPT® Codes 95865 (EMG of larynx) and 95866 (EMG of hemidiaphragm) were created because it was thought that the existing needle EMG codes did not properly cover certain “difficult EMG studies.” Note that code 95865 is defined as a bilateral code. Unilateral studies of the larynx should be coded with modifier 52 (Reduced Services) and modifier 50 (Bilateral Procedure) should never be used with this code. Code 95866 is defined as a unilateral code since it is described as an EMG of the “hemidiaphragm” not the “diaphragm.” Presumably a bilateral study (if one were ever done) would be coded as 95866-50 or 2 units of 95866 based on payer preference.

Needle EMG of the larynx is typically performed in order to diagnose laryngeal nerve and muscle disorders, for intraoperative monitoring during procedures performed on the larynx, and during Botox injections in the laryngeal muscles. Needle EMG of the larynx is typically performed on both sides. Needle EMG of the diaphragm is performed in order to diagnose respiratory muscle disorders and, less frequently, for intraoperative monitoring.

Incidentally, some coding ambiguity was introduced by the inclusion of code 95865: the larynx is innervated by a cranial nerve and existing codes 95867 and 95868 are for needle EMG of “cranial nerve supplied muscles.” This ambiguity should not pose a problem in practice.

**Neuromuscular Junction Testing**

95857 Tensilon test for myasthenia gravis

(95858 has been deleted)

95937 Neuromuscular junction testing (repetitive stimulation, paired stimuli), each nerve, any one method

**Evoked Potentials**
92585  Auditory evoked potentials for evoked response audiometry and/or testing of the central nervous system; comprehensive
92586  limited
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  in lower limbs
95927  in the trunk or head
(To report a unilateral study, use modifier 52)
95928  Central motor evoked potential study (transcranial motor stimulation); upper limbs
95929  lower limbs
95930  Visual evoked potential (VEP) testing central nervous system, checkerboard or flash

About Codes 92585 and 92586

Code 92585 was revised in 2001 to clarify that this code is to be used for the performance of a comprehensive auditory evoked response (AER) exam. The comprehensive AER exam includes middle latency and late cortical responses, in addition to evaluation of brainstem response. By combining these three types of auditory evoked potentials, the status of several areas of the central auditory nervous system are evaluated, including auditory periphery and brainstem; pathways between midbrain, thalamus, and auditory receptive areas of each temporal lobe; and multiple generator sites throughout the cortex (cortical AERs).

CPT® code 95826 was added in 2001 to describe a limited audiometry examination. 95826 is intended to report the performance of limited auditory brainstem response (ABR) testing used primarily in infant screening evaluations. The ABR screening will be obtained and replicated only at one or two intensity levels for each ear. If replication of the waveforms is obtained at the respective intensity levels, then the infant passes the screening with no specific recommendations for follow-up. If, however, the ABR cannot be detected and replicated at either a high or low intensity level, then the child will be referred for a diagnostic threshold ABR.

FAQs – Somatosensory Evoked Potentials

The most common questions concern the numbers of units of the codes that can be used when multiple nerves or dermatomes (skin sites) are stimulated in a given limb. Only one unit of 95925 can be used regardless of the number of nerves or dermatomes (skin sites) that are stimulated in each upper limb (on one or both sides). Similarly, only one unit of 95926 can be used regardless of the number of nerves or dermatomes (skin sites) that are stimulated in each lower limb (on one or both sides). Note that the codes are defined as bilateral codes. Modifier 52 must be used for unilateral studies.

Another common question is whether these codes (95925-95930) can be reported together - the answer is yes. Physicians have asked how many peripheral nerves or skin sites must be tested in order to bill the codes (95925-27) – the answer is two – one stimulation site on each upper (95925) or lower (95926) limb or on each side of the trunk or head (95927).

About Codes 95928 and 95929

Two new codes, 95928 and 95929, were established in 2005 to describe central motor evoked potential studies for the upper and lower limbs. Code 95928 is reported for central motor evoked potential studies on the upper
Transcranial electrical motor stimulation is a method that allows for stimulation of the motor area of the cerebral cortex and recording from peripheral muscles of the upper and lower extremities. It allows for assessment of motor pathway function and integrity. During surgical procedures typically involving the spinal cord, there is a potential for compromise of the motor and the sensory tracts. Somatosensory evoked potential recording is typically done to monitor the sensory tracts during these surgeries. However, this method does not monitor the motor tracts, which may be impaired leading to paresis or paralysis. Intraoperatively, transcranial electrical motor stimulation is a method that allows for physician interpretation of motor responses in order to determine if a significant change in the responses has occurred.

Central motor evoked potential studies may be used intraoperatively to monitor procedures involving scoliosis instrumentation, intramedullary spinal cord tumors, brain tumor resection, laminectomies, or other surgical procedures to repair spondylosis and spinal stenosis.

In the outpatient setting, these studies are used as a diagnostic test that can assist in identifying upper motor neuron involvement in many disorders including motor neuron diseases such as amyotrophic lateral sclerosis (ALS) and multiple sclerosis (MS). A non-invasive technique called transcranial magnetic stimulation (TMS) is used in which a magnetic coil is placed over the vertex and used to stimulate the motor cortex as peripheral muscles record surface electromyographic signals.

**Intraoperative Neurophysiology Monitoring**

+95920  
Intraoperative neurophysiology testing, per hour (List separately in addition to code for primary procedure)

(Use 95920 in conjunction with the study performed, 92585, 95822, 95860, 95861, 95867, 95868, 95870, 95900, 95904, 95925-95937.)

(Code 95920 describes ongoing electrophysiologic testing and monitoring performed during surgical procedures. Code 95920 is reported per hour of service, and includes only the ongoing electrophysiologic monitoring time distinct from performance of specific type(s) of baseline electrophysiologic study(s) (95860, 95861, 95867, 95868, 95870, 95900, 95904, 95928, 95929, 95933-95937) or interpretation of specific type(s) of baseline electrophysiologic study(s) (92585, 95822, 95870, 95925-95928, 95929, 95930). The time spent performing or interpreting the baseline electrophysiologic study(s) should not be counted as intraoperative monitoring, but represents separately reportable procedures. Code 95920 should be used once per hour even if multiple electrophysiologic studies are performed. The baseline electrophysiologic study(s) should be used once per operative session.)

(For electrocorticography, use 95829)

(For intraoperative EEG during nonintracranial surgery, use 95955)

(For intraoperative functional cortical or subcortical mapping, see 95961-95962)

(For intraoperative neurostimulator programming and analysis, see 95970-95975)

**Comments on Code 95920**

Note that many clinical neurophysiological studies are included in the code definition. However, this list is not intended to exclude other neurophysiological procedures that may be performed in the operating room, such as 95903. Note also that the conventional “awake and drowsy” (95816) and “awake and asleep” (95819) EEG codes are not listed in the current definition of 95920, although the “coma and sleep only” EEG code (95822) is included.
Anal sphincter EMG (code 51785) is frequently done on lumbosacral spine cases, but is often erroneously denied as not billable with 95920. When this code is denied, the decision should be appealed.

**Electroencephalography in the OR**

**Carotid monitoring:**
- **95955** Electroencephalogram (EEG) during nonintracranial surgery (eg, carotid surgery)

**For noncarotid monitoring (eg, AVM clipping) use:**
- **95822** Electroencephalogram (EEG); recording in coma and sleep only
- **+95920** Intraoperative neurophysiology testing, per hour

**For electrocorticography or functional cortical mapping use 95829, 95961, 95962.**
Examples would be cortical stimulation used for localization of language cortex in an awake patient during craniotomy.

**Nerve Conduction Studies in the OR**

Appropriate motor or sensory nerve conduction code
- **+95920** Intraoperative neurophysiology testing, per hour

**Evoked Potential Studies in the OR**

Appropriate evoked potential code
- **+95920** Intraoperative neurophysiology testing, per hour

**FAQs - Intraoperative Monitoring (95920)**

There are a number of questions on how to account for the time appropriately when billing code 95920 (intraoperative testing). This code is billed along with the code for the particular evoked potential or other neurodiagnostic test that is being performed intraoperatively. The evoked potential code or other procedure code covers the usual baseline test time of 20-60 minutes and one adds one unit of code 95920 for each additional 60 minutes of monitoring beyond what is normally done. These questions should be asked less frequently now that the definition of this code has been revised to include more details on how it is to be used.

Code 95920 is set up so that the typical use is one in which the physician is present in the room monitoring one patient. Being in the room is not absolutely mandatory, however. Note that the local Medicare carriers that allow off-site monitoring ask that there be one-on-one attention paid to that patient when monitored at a distance. In that setting, having one physician watch lots of rooms is not what the code was meant for - at least that's not what the reimbursement rate was set up to reflect. Furthermore, the anesthesiologist or the surgeon who is doing the case cannot use the code. There is variability among payers: some other carriers other than Medicare may permit one physician to monitor multiple patients. Regardless of the location of the monitoring physician, modifier 26 would always be used when reporting these services.

**Autonomic Function Tests**

- **93660** Evaluation of cardiovascular function with tilt table evaluation, with continuous ECG monitoring and intermittent blood pressure monitoring, with or without pharmacological intervention
  
  (For testing of autonomic nervous system function, see 95921-95923))

(93760, 93762 have been deleted)
CPT Coding of Procedures

95921 Testing of autonomic nervous system function; cardiovagal innervation (parasympathetic function), including two or more of the following: heart rate response to deep breathing with recorded R-R interval, Valsalva ratio, and 30:15 ratio

95922 Vasomotor adrenergic innervation (sympathetic adrenergic function), including beat-to-beat blood pressure and R-R interval changes during Valsalva maneuver and at least five minutes of passive tilt

95923 Sudomotor, including one or more of the following: quantitative sudomotor axon reflex test (QSART), silastic sweat imprint, thermoregulatory sweat test, and changes in sympathetic skin potential

FAQs - Autonomic Testing (95921-95923)

The most common questions are whether any of these codes can be billed more than one time for tests performed on a single patient on the same date and whether codes 95921-95923 can be reported together - the answer is no and yes respectively. There are many reimbursement problems for these tests across the country - many payers, including some Medicare carriers, still consider them to be "investigational."

Neurostimulators, Analysis-Programming

A simple neurostimulator pulse generator/transmitter (95970, 95971) is one capable of affecting 3 or fewer of the following: pulse amplitude, pulse duration, pulse frequency, 8 or more electrode contacts, cycling, stimulation train duration, train spacing, number of programs, number of channels, alternating electrode polarities, dose time (stimulation parameters changing in time periods of minutes including dose lockout times), more than 1 clinical feature (e.g., rigidity, dyskinesia, tremor). A complex neurostimulator pulse generator/transmitter (95970, 95972-95975) is one capable of affecting more than three of the above.

Code 95970 describes subsequent electronic analysis of a previously-implanted simple or complex brain, spinal cord, or peripheral neurostimulator pulse generator system, without reprogramming. Code 95971 describes intraoperative or subsequent electronic analysis of an implanted simple spinal cord or peripheral (i.e., peripheral nerve, autonomic nerve, neuromuscular) neurostimulator pulse generator system, with programming. Codes 95972 and 95973 describe intraoperative (at initial insertion/revision) or subsequent electronic analysis of an implanted complex spinal cord or peripheral (except cranial nerve) neurostimulator pulse generator system, with programming. Codes 95974 and 95975 describe intraoperative (at initial insertion/revision) or subsequent electronic analysis of an implanted complex cranial nerve neurostimulator pulse generator system, with programming. Codes 95978 and 95979 describe initial or subsequent electronic analysis of an implanted brain neurostimulator pulse generator system, with programming.

Code 95980 describes intraoperative electronic analysis of an implanted gastric neurostimulator pulse generator system, with programming; code 95981 describes subsequent analysis of the device; code 95982 describes subsequent analysis and reprogramming. For electronic analysis and reprogramming of gastric neurostimulator, lesser curvature, see 95980-95982.

(For insertion of neurostimulator pulse generator, see 61885, 63685, 64590)

(For revision or removal of neurostimulator pulse generator or receiver, see 61888, 63688, 64595)

<rev>(For implantation of neurostimulator electrodes, see 43647, 43881, 61850-61875, 63650-63655, 64553-64580, 0155T, 0157T. For revision or removal of neurostimulator electrodes, see 43648, 43882, 61880, 63661-63664, 64585, 0156T, 0158T)</rev>

95970 Electronic analysis of implanted neurostimulator pulse generator system (e.g., rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); simple or complex
brain, spinal cord, or peripheral (ie, cranial nerve, peripheral nerve, autonomic nerve, neuromuscular) neurostimulator pulse generator/transmitter, without reprogramming

95971  simple spinal cord, or peripheral (ie, peripheral nerve, autonomic nerve, neuromuscular) neurostimulator pulse generator/transmitter, with intraoperative or subsequent programming

95972  complex spinal cord, or peripheral (except cranial nerve) neurostimulator pulse generator/transmitter, with intraoperative or subsequent programming, first hour

+95973  complex spinal cord, or peripheral (except cranial nerve) neurostimulator pulse generator/transmitter, with intraoperative or subsequent programming, each additional 30 minutes after first hour (List separately in addition to code for primary procedure)

(Use 95973 in conjunction with 95972)

95974  complex cranial nerve neurostimulator pulse generator/transmitter, with intraoperative or subsequent programming, with or without nerve interface testing, first hour

+95975  complex cranial nerve neurostimulator pulse generator/transmitter, with intraoperative or subsequent programming, each additional 30 minutes after first hour (List separately in addition to code for primary procedure)

(Use 95975 in conjunction with 95974)

(For electronic analysis, programming, and reprogramming of gastric neurostimulator pulse generator, lesser curvature [morbid obesity], use Category III code 0162T)

95978  Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, battery status, electrode selectability and polarity, impedance and patient compliance measurements), complex deep brain neurostimulator pulse generator/transmitter, with initial or subsequent programming

+95979  each additional 30 minutes after first hour (List separately in addition to code for primary procedure)

(Use 95979 in conjunction with 95978)

95980  Electronic analysis of implanted neurostimulator pulse generator system (e.g., rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient measurements) gastric neurostimulator pulse generator/transmitter; intraoperative, with programming

95981  subsequent, without reprogramming

95982  subsequent, with reprogramming

FAQs - Neurostimulators, Analysis-Programming (95970-95982)

1. When is time a factor in reporting these procedures?
For complex cranial neurostimulation, billing is always time-based. Code 95974 is used to report programming and intraoperative (at initial insertion/revision) or subsequent electronic analysis of an implanted complex cranial nerve neurostimulator. 95975 is used to report each additional 30 minutes after the first hour.

For brain, spinal cord, and other peripheral neurostimulation, billing is time-based if the device qualifies as complex.
For purposes of reporting these codes, time includes but is not limited to face-to-face time spent with the patient. It includes time spent on the floor or unit after adjusting the programming, waiting for the patient to respond and to monitor for side effects.

2. **When is time not a factor?**
   Time is not a factor in programming and analysis of a simple neurostimulator (95971). Nor is time a factor in reporting analysis of a previously-implanted simple or complex neurostimulator without re-programming (95970).

3. **What is the difference between a simple and complex neurostimulator?**
   The number of features it is capable of affecting. In CPT® 2002, the notes were updated to reflect assessment capabilities and types of analyses performed using current neurostimulator technology, making all thalamic deep brain stimulator reprogramming complex. A simple neurostimulator is capable of affecting three or fewer of the following; a complex neurostimulator is capable of affecting more than three:
   - pulse amplitude
   - pulse duration
   - pulse frequency
   - 8 or more electrode contacts
   - cycling
   - stimulation train duration
   - train spacing
   - number of programs
   - number of channels
   - alternating electrode polarities
   - dose time (stimulation parameters changing in the time periods of minutes including dose lockout time)
   - more than 1 clinical feature (e.g., rigidity, dyskinesia, tremor).

### Motion Analysis

Codes 96000-96004 describe services performed as part of a major therapeutic or diagnostic decision making process. Motion analysis is performed in a dedicated motion analysis laboratory (ie, a facility capable of performing videotaping from the front, back and both sides, computerized 3-D kinematics, 3-D kinetics, and dynamic electromyography). Code 96000 may include 3-D kinetics and stride characteristics. Codes 96002-96003 describe dynamic electromyography.

Code 96004 should only be reported once regardless of the number of study(ies) reviewed/interpreted.

(For performance of needle electromyography procedures, see 95860-95875)

(For gait training, use 97116)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>96000</td>
<td>Comprehensive computer-based motion analysis by video-taping and 3-D kinematics;</td>
</tr>
<tr>
<td>96001</td>
<td>with dynamic plantar pressure measurements during walking</td>
</tr>
<tr>
<td>96002</td>
<td>Dynamic surface electromyography, during walking or other functional activities; 1-12 muscles</td>
</tr>
<tr>
<td>96003</td>
<td>Dynamic fine wire electromyography, during walking or other functional studies, 1 muscle</td>
</tr>
<tr>
<td></td>
<td>(Do not report 96002, 96003 in conjunction with 95860-95864, 95869-95872)</td>
</tr>
<tr>
<td>96004</td>
<td>Physician review and interpretation of comprehensive computer based motion analysis, dynamic plantar pressure measurements, dynamic surface electromyography during walking or other functional activities, and dynamic fine wire electromyography, with written report</td>
</tr>
</tbody>
</table>

### Functional Brain Mapping

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Code 96020 includes selection and administration of testing of language, memory, cognition, movement, sensation, and other neurological functions when conducted in association with functional neuroimaging, monitoring of performance of this testing, and determination of validity of neurofunctional testing relative to separately interpreted functional magnetic resonance images.

96020  Neurofunctional testing selection and administration during noninvasive imaging functional brain mapping, with test administered entirely by a physician or psychologist, with review of test results and report

(For functional magnetic resonance imaging [fMRI], brain, use 70555)

(Do not report 96020 in conjunction with 96101-96103, 96116-96120)

(Do not report 96020 in conjunction with 70554)

(Evaluation and Management services codes should not be reported on the same day as 96020)

About Code 96020

Codes 96020 and 70555 were established to report neurofunctional brain mapping of blood flow changes in the brain by magnetic resonance imaging in response to tests administered by physicians and psychologists correlating to specific brain functions (motor skills, vision, language and memory).

Functional brain mapping is a preoperative non-invasive test most commonly performed for patients with brain neoplasm (and metastases), arteriovenous malformations, intractable epilepsy and any other brain lesion that may require invasive (e.g., surgical excision) or focal treatment (e.g., irradiation). The information derived from functional brain mapping is utilized to predict the potential for neurological deficits that may arise from tumor growths and surgical interventions, thus making it possible for the physician and patient to make informed decisions concerning the feasibility and risk of intervention, determine the extent of surgical intervention (eg, subtotal vs. total resection) and identify expendable and nonexpendable cortical regions.

Preoperative non-invasive neurofunctional mapping is performed as an alternative to direct cortical stimulation or somatosensory evoked potentials performed intraoperatively which may be unsuccessful and associated with visual distortion, seizure, and increased surgical time.

The testing component of functional brain mapping described in code 96020 administered by a physician or psychologist is performed during the imaging procedure and communication between the patient and the administrator of the test is essential to assure or monitor whether the patient is correctly performing the required activities. This testing entails the physician's understanding of expected function of the involved or adjacent cortex, and the patient's ability to perform cognitive tasks (eg, finger tapping, auditory stimulation, language tasks, memory testing). The psychological, neuropsychological, and neurobehavioral testing methodologies (eg, 96101-96103, 96116-96120) are encompassed within code 96020 and should not be reported separately, as indicated in the exclusionary note following 96020.

The data acquired during imaging is usually transferred to an off-line computer, where the testing physician reviews and statistically analyzes the patient's performance and measured results on each task, and provides validity measures associated with the brain activation region and the specific neurological and cognitive operations/components involved. The testing physician summarizes the patient's performance on the neurological tasks and the behavioral/cognitive components in a written report. Both the physician's analysis and report are encompassed in code 96020 and should not be reported separately.

Additionally, an exclusionary note has been added to preclude reporting code 96020 on the same day as the Evaluation and Management services codes. In some instances, testing during MRI imaging does not require interaction with a physician or psychologists and instead is performed by a technologist or physicist. When testing is performed by an individual other than a physician or psychologist, this procedure is included in the radiology code 70554 which encompasses both the administration of test and imaging.
Clinical Example (96020)
A 62 year-old man presents with headache secondary to a 5 cm intra-axial solid mass involving the left temporo-parietal junction (superior temporal, supramarginal, and angular gyri) with extension superiorly to approach the left precentral gyrus. The neurosurgeon requests functional MRI (fMRI) for pre-operative mapping of language function and motor function and to determine their anatomic location in the brain tissue relative to the tumor. The patient's clinical status requires neurofunctional testing administered by a physician or psychologist (96020 reported separately) during the functional MRI (70555).

Description of Procedure (96020)
Once the patient arrives, a brief focused interview and a limited cognitive/neurological examination are performed to determine the patient's ability to perform the pre-selected functional test battery. Depending on results of the interview and examination, the test battery may be modified to accommodate the patient's cognitive and/or neurological impairments. The patient then practices the tests outside of the MRI scanner room. The testing physician/psychologist determines if the correct test equipment and protocols are available in the MRI scanner suite. After the patient is placed in the MRI scanner and initial structural sequences are obtained, the six functional tests are administered during fMRI scanning. Prior to administration of each test, the testing physician/psychologist provides the patient with test instructions, initiates the test, and monitors the patient's performance. If the patient experiences difficulty in performing the test, the physician/psychologist determines if the patient has experienced problems due to an inability to comprehend the test, remember test instructions, perceive the test stimuli, and/or properly use the response controls. The functional test battery may be modified during the actual fMRI study (e.g., substituting tests, adding additional tests, substituting or modifying stimuli) based upon the patient's performance. The testing physician/psychologist ensures that the test results during fMRI scanning are adequate to effectively interpret. Following the fMRI scanning, the testing physician/psychologist reviews and statistically analyzes the patient's performance on each of the six tests. Performance parameters may include accuracy (percent correct), latency (reaction time), or other relevant measures. The testing physician/psychologist determines if the performance parameters are valid for associating neurological/cognitive functions with measures of regional brain activation.

Central Nervous System Assessments/Tests
(e.g., Neuro-Cognitive, Mental Status, Speech Testing)

The following codes are used to report the services provided during testing of the cognitive function of the central nervous system. The testing of cognitive processes, visual motor responses, and abstractive abilities is accomplished by the combination of several types of testing procedures. It is expected that the administration of these tests will generate material that will be formulated into a report.

(For development of cognitive skills, see 97532, 97533)

(For mini-mental status examination performed by a physician, see Evaluation and Management services codes)

96101 Psychological testing (includes psychodiagnostic assessment of emotionality, intellectual abilities, personality and psychopathology, e.g., MMPI, Rorschach, WAIS), per hour of the psychologist's or physician's time, both face-to-face time administering tests to with the patient and time interpreting these test results and preparing the report

(96101 is also used in those circumstances when additional time is necessary to integrate other sources of clinical data, including previously completed and reported technician- and computer-administered tests)

(Do not report 96101 for the interpretation and report of 96102, 96103)
96102  Psychological testing (includes psychodiagnostic assessment of emotionality, intellectual abilities, personality and psychopathology, eg, MMPI and WAIS), with qualified health care professional interpretation and report, administered by technician, per hour of technician time, face-to-face

96103  Psychological testing (includes psychodiagnostic assessment of emotionality, intellectual abilities, personality and psychopathology, eg, MMPI), administered by a computer, with qualified health care professional interpretation and report

96105  Assessment of aphasia (includes assessment of expressive and receptive speech and language function, language comprehension, speech production ability, reading, spelling, writing, eg, by Boston Diagnostic Aphasia Examination) with interpretation and report, per hour

96110  Developmental testing; limited (eg, Developmental Screening Test II, Early Language Milestone Screen), with interpretation and report

96111  extended (includes assessment of motor, language, social, adaptive and/or cognitive functioning by standardized developmental instruments) with interpretation and report

96116  Neurobehavioral status exam (clinical assessment of thinking, reasoning and judgment, eg, acquired knowledge, attention, language, memory, planning and problem solving, and visual spatial abilities), per hour of the psychologist’s or physician’s time, both face-to-face time with the patient and time interpreting test results and preparing the report

96118  Neuropsychological testing (e.g., Halstead-Reitan Neuropsychological Battery, Wechsler Memory Scales and Wisconsin Card Sorting Test), per hour of the psychologist’s or physician’s time, both face-to-face time administering tests to with the patient and time interpreting these test results and preparing the report

(96118 is also used in those circumstances when additional time is necessary to integrate other sources of clinical data, including previously completed and reported technician- and computer-administered tests)

(Do not report 96118 for the interpretation and report of 96119 or 96120)

96119  Neuropsychological testing battery (eg, Halstead-Reitan Neuropsychological Battery, Wechsler Memory Scales and Wisconsin Card Sorting Test), with qualified health care professional interpretation and report, administered by technician, per hour of technician time, face-to-face

96120  Neuropsychological testing battery (eg, Wisconsin Card Sorting Test), administered by a computer, with qualified health care professional interpretation and report

96125  Standardized cognitive performance testing (e.g., Ross Information Processing Assessment) per hour of a qualified health care professional's time, both face-to-face time administering tests to the patient and time interpreting these test results and preparing the report

(For psychological and neuropsychological testing by a physician or psychologist, see 96101-96103, 96118-96120)

About Central Nervous System Assessments/Tests

This section was revised considerably in 2006, then fine-tuned in 2008. Code 96100 was deleted and three codes (96101, 96102, and 96103) were established to more accurately describe the services performed in psychological testing. These codes were added to discern between the testing administration and to provide clear guidance concerning the performance and inclusion of the interpretation and report. Code 96101 is reported for the test administration by the psychologist or physician, with subsequent interpretation and report. Code 96102 is
reported for the technician-administered testing, with subsequent interpretation and report by the psychologist or physician. Code 96103 is reported for the computer-administered testing, with subsequent interpretation and report by the psychologist or physician.

Since codes 96102 and 96103 were added to define the technical aspects of the testing, the physician interpretation and report of the results of these tests are separately reported with code 96101.

Codes 96115 and 96117 were deleted, and four new codes (96116, 96118, 96119, 96120) were established to clarify the various modalities of performance of neuropsychological examinations in order to more clearly differentiate between the modalities used to provide the central nervous system assessment/tests, the varied levels of face-to-face time, current test descriptions, computerized testing, and interpretive services.

The neurobehavioral status exam, reported with 96116, is intended to describe the performance of gathering information to provide an important first analysis of brain dysfunction and the progression and changes in the symptoms over time.

Neuropsychological assessment is defined as testing that is intended to diagnose and characterize the neurocognitive effects of medical disorders that impinge directly or indirectly on the brain. Neuropsychological testing procedures differ from psychological testing in that neuropsychological testing consists primarily of individually administered ability tests that comprehensively sample ability domains that are known to be sensitive to the functional integrity of the brain (e.g., abstraction, memory and learning, attention, language, problem solving, sensorimotor functions, constructional praxis). These tests are objective and quantitative and require the patient to directly demonstrate his or her level of competence in a particular cognitive domain.

With the deletion of 96115, code 96116 was established for reporting the neurobehavioral status examination by the psychologist or physician, with subsequent interpretation and report. Codes 96118-96120 were established for reporting the procedures previously reported with deleted code 96117. Code 96118 is reported for the neuropsychological test administration by the psychologist or physician, with subsequent interpretation and report. Code 96119 is reported for the technician-administered neuropsychological testing, with subsequent interpretation and report by the psychologist or physician. Code 96130 is reported for the computer-administered neuropsychological testing, with subsequent interpretation and report by the psychologist or physician. Since codes 96119 and 96120 were established to describe the technical aspects of neuropsychological testing, the physician interpretation and report of the results of these tests are separately reported with code 96118.

A discussion of these codes is on the AAN Web site at: <http://www.aan.com/globals/axon/assets/2512.pdf>

There is ongoing discussion related to the correct use of codes 96101-96103 and 96116-96119. Recently CMS published a Med Learn Matters article and posted FAQ’s related to these codes on the CMS website. Unfortunately some carriers have been slow to enact the edit changes that will allow correct processing of these claims. CMS clarified that a physician may use code 96101 or 96118 to report the separate work of incorporating the various testing results into a more formal comprehensive report. Helpful tips are available on the American Psychological Association Practice Organization Web site: <http://www.apapracticecentral.org/>.

**FAQs - Codes 96101-96125 and Mini-Mental Status Testing**

The clarification at the beginning of this section states how to properly code for mini-mental status testing. It cannot be coded as a procedure separate from the evaluation and management code appropriate for that patient encounter.

**Lumbar Puncture (Diagnostic and Therapeutic)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>62270</td>
<td>Spinal puncture, lumbar, diagnostic</td>
</tr>
<tr>
<td>62272</td>
<td>Spinal puncture, therapeutic, for drainage of cerebrospinal fluid (by needle or catheter)</td>
</tr>
</tbody>
</table>
62273  Injection, lumbar epidural, of blood or clot patch

(For injection of diagnostic or therapeutic substance(s), see 62310, 62311, 62318, 62319)

96450  Chemotherapy administration, into CNS (eg, intrathecal), requiring and including spinal puncture

96542  Chemotherapy injection, subarachnoid or intraventricular via subcutaneous reservoir, single or multiple agents

Destruction by Neurolytic Agent (e.g., Chemical, Thermal, Electrical or Radiofrequency)

Codes 64600-64681 include the injection of other therapeutic agents (e.g., corticosteroids). (For therapies that are not destructive of the target nerve [e.g., pulsed radiofrequency]), use 64999)

Botulinum Toxin Injections

64612  Chemodenervation of muscle(s); muscle(s) innervated by facial nerve (eg, for blepharospasm, hemifacial spasm)

64613  neck muscles (e.g., for spasmodic torticollis, spasmodic dysphonia)

64614  extremity(s) and/or trunk muscle(s) (eg, for dystonia, cerebral palsy, multiple sclerosis)

(For chemodenervation guided by needle electromyography or muscle electrical stimulation, see 95873, 95874)

(For chemodenervation for strabismus involving the extraocular muscles, use 67345)

(For chemodenervation of internal anal sphincter, use 46505)

67345  Chemodenervation of extraocular muscle

(For chemodenervation for blepharospasm and other neurological disorders, see 64612 and 64613)

46505  Chemodenervation of internal anal sphincter

(For chemodenervation of other muscles, see 64612-64614, 64640)

(Report the specific service in conjunction with the specific substance(s) or drug(s) provided)

64650  Chemodenervation of eccrine glands; both axillae

64653  other area(s) (eg, scalp, face, neck), per day

(Report the specific service in conjunction with code(s) for the specific substance(s) or drug(s) provided)

(For chemodenervation of extremities (eg, hands or feet), use 64999)

64999  Unlisted procedure, nervous system

Neurophysiological Guidance of Botulinum Toxin Injections

+95873  Electrical stimulation for guidance in conjunction with chemodenervation (List separately in addition to code for primary procedure)
+95874 Needle electromyography for guidance in conjunction with chemodenervation (List separately in addition to code for primary procedure)

(Use 95873, 95874 in conjunction with 64612-64614)

(Do not report 95874 in conjunction with 95873)

(Do not report 95873, 95874 in conjunction with 95860-95870)

Proper Use of the Botulinum Toxin Injection Codes

Prior to CPT® 2001, codes 64612 and 64613 described chemodenervation (including the use of botulinum toxin) of muscles of the face and neck only. There was no specific code for injections of botulinum toxin into the muscles of the limbs, even though this was becoming a common procedure in clinical practice. Code 64614, introduced in 2001, describes this procedure for use in the limbs and trunk muscles to treat dystonia, spasticity, and muscle spasms, etc.

Codes 64612 and 64613 were revised in 2001 to omit the phrase “destruction by neurolytic agent.” The term “destruction” does not apply to these procedures, as the nerve is not technically “destroyed” but “chemodenervated,” meaning the effect of the injected drug is largely or completely reversible over time.

Since the inception of codes 64612-64614, the AMA, AAN, and AANEM have taught that they are to be reported once per patient per date, even though multiple injections are performed in sites along a particular muscle and several muscles are typically injected. For example, we taught that code 64614 describes any/all injections into limbs and/or trunk muscles per patient per date. The reason for this teaching is the parenthetical “s” in “muscle(s),” a word used in all three code definitions. A similar construction, the word “extremity(s),” is included in the definition of 64614. In the most common CPT® parlance, this type of construction is a logical “OR,” i.e. “muscle(s)” means “muscle or muscles,” and “extremity(s)” means “extremity or extremities.” This is why we stated that these codes should be used as one unit for unilateral OR bilateral studies.

However, we have revised our teaching on this matter. In recent years there have been some changes made to the Medicare Fee Schedule indicating that Medicare allows providers to bill for these procedures bilaterally. From a detailed review of the 2010 Medicare Fee Schedule, CMS allows two units of codes 64612, 64613 and 64614 to be submitted if bilateral procedures are performed. According to the 2010 Medicare Physician Fee Schedule, bilateral procedures are payable at 150% of the allowed amount for a unilateral procedure. Anecdotally, there are a variety of differing policies from other payers. We now advise our members that there is variability in how different insurance carriers handle these codes. Some may allow two units of each of the codes to be submitted if bilateral injections were done. Others may allow only one unit of each of the codes even for bilateral injections. The individual provider will need to determine what is the proper billing procedure for these codes in his or her locality. The official AMA CPT® stance is that these codes are billable once per day, so it is in your best interest to make sure you are following each individual payer’s billing guidelines when billing for these services. It is common and incorrect to assume that if you were paid, you billed the service correctly. To avoid any compliance risk, check with each payer. Getting it right will allow you to appropriately maximize reimbursement for these services.

Can CPT® codes 64612-64614 be billed together? Yes, they can be reported together as they pertain to different anatomical regions. Can CPT® codes 64612-64614 be billed more than once on a date of service? Only if the procedure is performed bilaterally and the payer allows coding for bilateral procedures.

While these procedures are gaining acceptance by payers for many diagnoses, coverage policies vary. CPT® policy explicitly excludes the use of these codes to report injections for facial wrinkles or hyperhydrosis, but coverage for other diagnoses is determined at the carrier level. To ensure efficient processing and limit rejections, it is best to check with individual carriers and understand their coverage policies before submitting claims.
These codes do not include guidance by EMG or electrical stimulation, if done at the time of the injection, or the drug itself (see below).

**How to Code for the Medication Used**

In addition to coding for the procedure, physicians should also code for the drug itself. There are different Healthcare Common Procedure Coding System (HCPCS) supply codes for the two types of botulinum toxin currently in clinical use:

- **J0585** Botulinum toxin type A, per unit
- **J0587** Botulinum toxin type B, per 100 units

Botulinum toxin type A is supplied in single-dose vials of 100 units. To receive proper reimbursement, it's important to correctly code the amount used for each patient following individual payer instructions.

A typical payer procedure for billing when a single patient is injected is as follows. If less than 100 units is administered during a single session and the remainder is not used for another patient, specify 100 units in the “Days/Units” field (item 24G) on the CMS 1500 claim form. For Medicare, if you have unavoidable drug wastage, the quantity of wasted drug must be reported on a separate line with the JW modifier. So, if a patient receives 75 units of drug and the remaining 25 units are wasted, the first line will be reported as J0585 with a quantity of 75, and the second line will be J0585 with a JW modifier with a quantity of 25. It is very important that drug wastage be documented in the medical record. If wastage is not documented appropriately in the record, your practice could be subject to recoupment for the undocumented wastage.

If more than 100 units are administered and the remainder is not used for another patient, round up to the nearest 100 units (eg, 150 units would be billed as 200 units). If you are dividing a vial between patients, the correct way to do this depends on how the drug was obtained. If you have received the drug via mail order pharmacy or if the patient brought their own from a local pharmacy, the portion of drug that is not used for that patient should be wasted and documented in the note as such even if an opportunity exists for it to be used on another patient. Pre-paid drugs should never be shared between patients even if they have the same insurance plan. For patients where the practice has purchased and is billing for the drug, the actual units dispensed to each patient should be billed to each patient or their insurance and if there is some amount that is wasted it should be assigned to the patient who was last injected and again documented in the medical record as having been wasted. Not documenting wastage is a compliance risk even if the practice is not billing for the drug, and may subject a practice to recoupment for quantities of drug not accounted for in a note. The Medicare Part B Drug Competitive Acquisition Program (CAP) was discontinued in 2009.

Similar considerations apply to botulinum toxin type B, although the units differ.

**The Global Period for Chemodenervation Procedures**

There is a 10-day global period for chemodenervation procedures. This means that payment for these procedures includes any related services performed one day pre-operatively, on the day of the procedure and 10 days post-operatively. Any E/M service related to the chemodenervation procedure that is performed within the first 10 days post-operatively won't be paid separately. If E/M services rendered in the postoperative period are unrelated to the reason for chemodenervation, then modifier 24 needs to be appended to the E/M code in order for it to be paid, and you must use a different diagnosis code on that claim. A separately identifiable E/M service on the date of injection should be billed with modifier 25, or, if it was a decision for surgery, modifier 57.

**Payment Adjustment Rule for Multiple Chemodenervation Procedures**

In the Medicare fee schedule, standard payment adjustment rules for multiple procedures apply to chemodenervation codes. If procedure is reported on the same day as another procedure with an indicator of 1, 2, or 3, rank the procedures by fee schedule amount and apply the appropriate reduction to this code (100%, etc.).
50%, 50%, 50%, 50% and by report). Base the payment on the lower of (a) the actual charge, or (b) the fee schedule amount reduced by the appropriate percentage.

About Codes 64650 and 64653

Two codes (64650 and 64653) describe chemodenervation of the eccrine glands and other areas including scalp, face, and neck. The other chemodenervation codes do not adequately describe structures like eccrine sweat glands, which are innervated by sympathetic nerves. Code 64650 is intended to be reported for chemodenervation of the eccrine glands. Code 64653 is intended to be reported per day for chemodenervation of other areas, including the scalp, face, and neck, regardless of the number of injections provided per session.

An instructional parenthetical note has been added to instruct the user that the specific substance(s) or drug(s) are separately reported. Chemodenervation aids in the treatment of severe focal hyperhidrosis. An additional parenthetical instructs in the use of unlisted code 64999.

About the Codes for Neurophysiological Guidance of Botulinum Toxin Injections

Prior to the chemodenervation procedure, it is sometimes necessary to perform a more precise localization for needle placement before the chemical is injected. Therefore the physician may perform electrical stimulation or needle EMG to achieve this localization.

What are the correct CPT® codes to use for EMG-guided botulinum toxin injections? Prior to 2005, it depended on the muscles that were studied during the procedure.

In 2005 the proper method of billing chemodenervation injections with EMG guidance was changed. The Centers for Medicare & Medicaid Services (CMS) stated that physicians were only allowed to use CPT® code 95870 along with codes 64612-64614 and/or 64640 for chemodenervation procedures with EMG-guidance, regardless of the number of limbs or muscles studied by EMG during the procedure.

National Correct Coding Initiative (NCCI) edits that went into effect April 1, 2004 limited the EMG codes that could be used with the chemodenervation codes. Additionally, NCCI was scheduled to bundle all remaining EMG codes into the chemodenervation codes as of January 1, 2005. CMS held a conference call with the American Association of Neuromuscular & Electrodiagnostic Medicine (AANEM) and other organizations to discuss the issue of using chemodenervation codes with needle EMG codes. Rather than ruling that no needle EMG codes would be allowed to be billed with the chemodenervation codes, CMS agreed to allow physicians to bill a limited EMG study (95870) for one year while other methods of assuring appropriate reimbursement were researched.

Starting in 2006, there are two new add-on CPT® codes to describe these two neurophysiological guidance techniques (electrical stimulation and needle EMG) used during chemodenervation procedures. The two codes should be used only in conjunction with codes 64612-64614. They cannot be used together. Other needle EMG codes cannot be used in conjunction with these new codes. How many botulinum toxin injection guidance codes 95873, 95874 can be billed per session? One per botulinum toxin injection code – these represent separate and distinct services.

Vestibular Evaluation

<new>92540 Basic vestibular evaluation, includes spontaneous nystagmus test with eccentric gaze fixation nystagmus, with recording, positional nystagmus test, minimum of 4 positions, with recording, optokinetic nystagmus test, bidirectional foveal and peripheral stimulation, with recording, and oscillation tracking test, with recording</new>

<new>(Do not report 92540 in conjunction with 92541, 92542, 92544, or 92545)</new>

About the New Vestibular Evaluation Code for 2010
The new code combines work previously reported using a series of ENG codes typically reported together. All individual codes remain listed since they may continue to be performed and reported separately. Previously physicians could code 92541, 92542, 92544 and 92545 in addition to 92546 and 92547. Now they can only code 92540 with 92546 and 92547 for the same service. The bundling of vestibular tests was part of the most recent five-year RUC CMS review. Codes that were done together more than 75% of the time were bundled. That applied to 92541, 92542, 92544, and 92545. Codes 92543, 92546, and 92547 were not a part of the bundling. The rationale was that codes usually done together should be bundled because there is an economy of scale achieved - some parts of the service are done once, not four separate times.

**Canalith Repositioning Procedure**

95992 Canalith repositioning procedure(s) (e.g., Epley maneuver, Semont maneuver), per day

(Do not report 95992 in conjunction with 92531, 92532)

**About the Canalith Repositioning Code**

Code 95992 was established in 2009 to report the maneuvers required to accomplish canalith repositioning. Canalith repositioning procedure describes a prescribed series of movements of the patient’s body and head. The maneuver is designed to use the force of gravity to redeposit calcium crystal debris that is in the semi-circular canal system (debris causes benign paroxysmal positional vertigo [BPPV]) into a “neutral” part of the end organ where it cannot cause vertigo.

This procedure (i.e., BPPV) is unilateral in nature and is typically performed unilaterally. This procedure is commonly performed by a physician on the same day as an Evaluation and Management (E/M) service that would be separately reported with the appropriate E/M code and the modifier 25. Audiologists and physical therapists also perform this service, but these providers do not typically report E/M services. Therefore, it would not be appropriate to append modifier 51 to code 95992. It would also not be appropriate to report code 95992 in conjunction with nystagmus testing codes 92531 and 95932 on the same day.

**Clinical Example (95992)**

A 65-year-old man reports brief attacks of position-related vertigo. He has been diagnosed as having benign paroxysmal positional vertigo, and the appropriate involved canal has been determined. The decision is made to perform a canalith repositioning procedure.

**Description of Procedure (95992)**

The physician or other qualified health care provider instructs the patient in the canalith repositioning procedure. He is counseled that during the repositioning maneuver he may experience dizziness and nausea and may vomit, but that dizziness is expected and is not cause for alarm.

*Position 1-2:* The patient is rapidly moved from the sitting-upright position to the head-hanging-right position. The head is held at about 45 degrees to the right in the supine position with the neck slightly hyperextended. The nystagmus evoked is observed. Once it subsides, the patient is moved to position 3.

*Position 3:* From the head-hanging-right position, the head is then turned about 90 degrees to the left so that the head is in the head-hanging-left position.

*Position 4:* The patient rolls over to his/her left side about 90 degrees and turns toward the opposite ear.

*Position 5:* From this position, the patient is moved in a manner that allows the head to turn nearly facing the floor. The head is held in that position for 1-30 seconds.

*Position 6:* From position 5, the patient is taken en bloc to a seated position. The patient’s head is straightened and the patient remains seated upright for posterior canal debris to settle the vestibule. The entire process (positions 1-5) is then repeated at least once.

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All Other Unlisted Neurologic or Neuromuscular Diagnostic Procedures

95999 Unlisted neurological or neuromuscular diagnostic procedure

A description of the technique billed as 95999 should accompany the billing form.

t-PA Administration

37195 Thrombolysis, cerebral, by intravenous infusion

This code is intended to reflect the administration of the medication and does not involve an E/M service. Physicians will not generally use this code, therefore. If the appropriate key components of an E/M service are met, a level of E/M may be reported in addition to code 37195. Possibilities, depending on the circumstances, include:

1. Emergency care services
2. Initial inpatient care
3. Subsequent inpatient care
4. Critical care services
5. Prolonged care services
7. Initial and subsequent care consultation codes

An in-depth discussion of coding options is on the AAN Web site at:

Anticoagulation Management

Anticoagulant services are intended to describe the outpatient management of warfarin therapy, including ordering, reviewing, and interpretation of International Normalized Ratio (INR) testing, communication with patient, and dosage adjustments as appropriate.

When reporting these services, the work of anticoagulant management may not be used as a basis for reporting an evaluation and management (E/M) service or care plan oversight time during the reporting period. Do not report these services with 98966-98969, 99441-99444 when telephone or on-line services address anticoagulation with warfarin management. If a significant, separately identifiable E/M service is performed, report the appropriate E/M service code using modifier 25.

These services are outpatient services only. When anticoagulation therapy is initiated or continued in the inpatient or observation setting, a new period begins after discharge and is reported with 99364. Do not report 99363-99364 with 99217-99239, 99291-99292, 99304-99318, 99471-99480 or other code(s) for physician review, interpretation, and patient management of home INR testing for a patient with mechanical heart valve(s).

Any period less than 60 continuous outpatient days is not reported. If less than the specified minimum number of services per period are performed, do not report the anticoagulant management services (99363-99364).

99363 Anticoagulant management for an outpatient taking warfarin, physician review and interpretation of International Normalized Ratio (INR) testing, patient instructions, dosage adjustment (as needed), and ordering of additional tests; initial 90 days of therapy (must include minimum of 8 INR measurements)

99364 each subsequent 90 days of therapy (must include a minimum of 3 INR measurements)

Hydration, Therapeutic, Prophylactic, Diagnostic Injections and Infusions, and Chemotherapy and Other Highly Complex Drug or Highly Complex Biologic Agent Administration

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Physician work related to hydration, injection, and infusion services predominantly involves affirmation of treatment plan and direct supervision of staff.

If a significant, separately identifiable Evaluation and Management service is performed, the appropriate E/M service code should be reported using modifier 25 in addition to 96360-96549. For same day E/M service, a different diagnosis is not required.

If performed to facilitate the infusion or injection, the following services are included and are not reported separately:

- Use of local anesthesia
- IV start
- Access to indwelling IV, subcutaneous catheter or port
- Flush at conclusion of infusion
- Standard tubing, syringes, and supplies

(For declotting a catheter or port, use 36593)

When multiple drugs are administered, report the service(s) and the specific materials or drugs for each.

When administering multiple infusions, injections or combinations, only one “initial” service code should be reported, unless protocol requires that two separate IV sites must be used. If an injection or infusion is of a subsequent or concurrent nature, even if it is the first such service within that group of services, then a subsequent or concurrent code from the appropriate section should be reported (e.g., the first IV push given subsequent to an initial one-hour infusion is reported using a subsequent IV push code).

<rev>In order to determine which of service should be reported as the initial service when there is more than one type of service, hierarchies have been created. These vary by whether the physician or facility is reporting. The order of selection for physicians is based upon the physician knowledge of the clinical condition(s) and treatment(s). The hierarchy that facilities are to use is based upon a structural algorithm. When these codes reported by the physician, the "initial" code that best describes the key or primary reason for the encounter should always be reported irrespective of the order in which the infusions or injections occur. </rev>

<rev>When these codes are reported by the facility, the following instructions apply. The initial code should be selected using a hierarchy whereby chemotherapy services are primary to the therapeutic, prophylactic, and diagnostic services which are primary to hydration services. Infusions are primary to pushes, which are primary to injections. This hierarchy is to be followed by facilities and supersedes parenthetical instructions for add-on codes that suggest an add-on of a higher hierarchical position may be reported in conjunction with a base code of a lower position. (For example, the hierarchy would not permit reporting 96376 with 96360, as 96376 is a higher-order code. IV push is primary to hydration.)</rev>

When reporting codes for which infusion time is a factor, use the actual time over which the infusion is administered. Intravenous or intra-arterial push is defined as: (a) an injection in which the health care professional who administers the substance/drug is continuously present to administer the injection and observe the patient, or (b) an infusion of 15 minutes or less.

**Therapeutic, Prophylactic, and Diagnostic Injections and Infusions (Excludes Chemotherapy and Other Highly Complex Drug or Highly Complex Biologic Agent Administration)**

A therapeutic, prophylactic or diagnostic IV infusion or injection (other than hydration) is for the administration of substances/drugs. When fluids are used to administer the drug(s), the administration of the fluid is considered incidental hydration and is not separately reportable. These services typically require direct physician supervision for any or all purposes of patient assessment, provision of consent, safety oversight, and intra-service supervision of staff. Typically, such infusions require special consideration to prepare, dose or dispose of, require practice training and competency for staff who administer the infusions, and require periodic patient assessment with vital
sign monitoring during the infusion. These codes are not intended to be reported by the physician in the facility setting.

See codes 96401-96549 for the administration of chemotherapy or other highly complex drug or highly complex biologic agent services. These highly complex services require advanced practice training and competency for staff who provide these services; special considerations for preparation, dosage or disposal; and commonly, these services entail significant patient risk and frequent monitoring. Examples are frequent changes in the infusion rate, prolonged presence of nurse administering the solution for patient monitoring and infusion adjustments, and frequent conferring with the physician about these issues.

(Do not report 96365-96379 with codes for which IV push or infusion is an inherent part of the procedure (e.g., administration of contrast material for a diagnostic imaging study)

96365 Intravenous infusion, for therapy, prophylaxis, or diagnosis (specify substance or drug); initial, up to 1 hour

+96366 each additional hour (List separately in addition to code for primary Procedure)

(Report 96366 in conjunction with 96365, 96367)

(Report 96366 for additional hour(s) of sequential infusion)

(Report 96366 for infusion intervals of greater than 30 minutes beyond 1 hour increments)

+96367 additional sequential infusion, up to 1 hour (List separately in addition to code for primary procedure)

(Report 96367 in conjunction with 96365, 96374, 96409, 96413 if provided as a secondary or subsequent service after a different initial service is administered through the same IV access. Report 96367 only once per sequential infusion of same infusate mix)

+96368 concurrent infusion (List separately in addition to code for primary procedure)

(Report 96368 only once per encounter)

(Report 96368 in conjunction with 96365, 96366, 96413, 96415, 96416)

96369 Subcutaneous infusion for therapy or prophylaxis (specify substance or drug); initial, up to 1 hour, including pump set-up and establishment of subcutaneous infusion site(s)

(For infusions of 15 minutes or less, use 96372)

+96370 each additional hour (List separately in addition to code for primary procedure)

(Use 96370 in conjunction with 96369)

(Use 96370 for infusion intervals of greater than 30 minutes beyond 1 hour increments)

+96371 additional pump set-up with establishment of new subcutaneous infusion site(s) (List separately in addition to code for primary procedure)

(Use 96371 in conjunction with 96369)

(Use 96369, 96371 only once per encounter)
96372 Therapeutic, prophylactic, or diagnostic injection (specify substance or drug); subcutaneous or intramuscular

(For administration of vaccines/toxoids, see 90465, 90466, 90471, 90472)

(Report 96372 for non-antineoplastic hormonal therapy injections)

(Report 96401 for anti-neoplastic nonhormonal injection therapy)

(Report 96402 for anti-neoplastic hormonal injection therapy)

(Physicians do not report 96372 for injections given without direct physician supervision. To report, use 99211. Hospitals may report 96372 when the physician is not present.)

(96372 does not include injections for allergen immunotherapy. For allergen immunotherapy injections, see 95115-95117)

96373 intra-arterial

96374 intravenous push, single or initial substance/drug

+96375 each additional sequential intravenous push of a new substance/drug (List separately in addition to code for primary procedure)

(Use 96375 in conjunction with 96365, 96374, 96409, 96413)

(Report 96375 to identify intravenous push of a new substance/drug if provided as a secondary or subsequent service after a different initial service is administered through the same IV access)

+96376 each additional sequential intravenous push of the same substance/drug provided in a facility (List separately in addition to code for primary procedure)

(Do not report 96376 for a push performed within 30 minutes of a reported push of the same substance or drug)

(96376 may be reported by facilities only)

96379 Unlisted therapeutic, prophylactic, or diagnostic intravenous or intra-arterial injection or infusion

(For allergy immunology, see 95004 et seq)

Chemotherapy and Other Highly Complex Drug or Highly Complex Biologic Agent Administration

Chemotherapy administration codes 96401-96549 apply to parenteral administration of non-radionuclide anti-neoplastic drugs; and also to anti-neoplastic agents provided for treatment of noncancer diagnoses (e.g., cyclophosphamide for auto-immune conditions) or to substances such as certain monoclonal antibody agents, and other biologic response modifiers. The highly complex infusion of chemotherapy or other drug or biologic agents requires physician work and/or clinical staff monitoring well beyond that of therapeutic drug agents (96360-96379) because the incidence of severe adverse patient reactions are typically greater. These services can be provided by any physician. Chemotherapy services are typically highly complex and require direct physician supervision for any or all purposes of patient assessment, provision of consent, safety oversight, and intraservice supervision of staff. Typically, such chemotherapy services require advanced practice training and competency for staff who provide these services; special considerations for preparation, dosage, or disposal; and commonly, these services entail significant patient risk and frequent monitoring. Examples are frequent changes in at the infusion rate, prolonged presence of the nurse administering the solution for patient monitoring and
infusion adjustments, and frequent conferring with the physician about these issues. When performed to facilitate the infusion of injection, preparation of chemotherapy agent(s), highly complex agents(s), or other highly complex drugs is included and is not reported separately. To report infusions that do not require this level of complexity, see 96360-96379. Codes 96401-96402, 96409-96425, 96521-96523 are not intended to be reported by the physician in the facility setting.

The term “chemotherapy” in 96401-96549 includes other highly complex drugs or highly complex biologic agents.

Report separate codes for each parenteral method of administration employed when chemotherapy is administered by different techniques. The administration of medications (e.g., antibiotics, steroidal agents, antiemetics, narcotics, analgesics) administered independently or sequentially as supportive management of chemotherapy administration should be separately reported using 96360,96361,96365,96379 as appropriate.

Report both the specific service as well as code(s) for the specific substance(s) or drug(s) provided. The fluid used to administer the drug(s) is considered incidental hydration and is not separately reportable.

Regional (isolation) chemotherapy perfusion should be reported using the codes for arterial infusion (96420-96425). Placement of the intra-arterial catheter should be reported using the appropriate code from the Cardiovascular Surgery section. Placement of arterial and venous cannula(s) for extracorporeal circulation via a membrane oxygenator perfusion pump should be reported using 36823. Code 36823 includes dose calculation and administration of the chemotherapy agent by injection into the perfusate. Do not report 96409-96425 in conjunction with 36823.

(For home infusion services, see 99601-99602)

**Injection and Intravenous Infusion Chemotherapy and Other Highly Complex Drug or Highly Complex Biologic Agent Administration**

Intravenous or intra-arterial push is defined as: (a) an injection in which the healthcare professional who administers the substance/drug is continuously present to administer the injection and observe the patient, or (b) an infusion of 15 minutes or less.

- **96401** Chemotherapy administration, subcutaneous or intramuscular; non-hormonal anti-neoplastic
- **96402** hormonal anti-neoplastic
- **96405** Chemotherapy administration; intralesional, up to and including 7 lesions
- **96406** intralesional, more than 7 lesions
- **96409** intravenous, push technique, single or initial substance/drug
+**96411** intravenous, push technique, each additional substance/drug (List separately in addition to code for primary procedure)

(Use 96411 in conjunction with 96409, 96413)

- **96413** Chemotherapy administration, intravenous infusion technique; up to 1 hour, single or initial substance/drug

(Report 96361 to identify hydration if administered as a secondary or subsequent service in association with 96413 through the same IV access)
(Report 96366, 96367, 96375 to identify therapeutic, prophylactic, or diagnostic drug infusion or injection, if administered as a secondary or subsequent service in association with 96413 through the same IV access)

+96415 each additional hour (List separately in addition to code for primary procedure)

(Use 96415 in conjunction with 96413)

(Report 96415 for infusion intervals of greater than 30 minutes beyond 1-hour increments)

96416 initiation of prolonged chemotherapy infusion (more than 8 hours), requiring use of a portable or implantable pump

(For refilling and maintenance of a portable pump or an implantable infusion pump or reservoir for drug delivery, see 96521-96523)

+96417 each additional sequential infusion (different substance/drug), up to 1 hour (List separately in addition to code for primary procedure)

(Use 96417 in conjunction with 96413)

(Report only once per sequential infusion. Report 96415 for additional hour(s) of sequential infusion)

Intra-Arterial Chemotherapy and Other Highly Complex Drug or Highly Complex Biologic Agent Administration

96420 Chemotherapy administration, intra-arterial; push technique

96422 infusion technique, up to 1 hour

+96423 infusion technique, each additional hour (List separately in addition to code for primary procedure)

(Use 96423 in conjunction with 96422)

(Report 96423 for infusion intervals of greater than 30 minutes beyond 1-hour increments)

(For regional chemotherapy perfusion via membrane oxygenator perfusion pump to an extremity, use 36823)

96425 infusion technique, initiation of prolonged infusion (more than 8 hours), requiring the use of a portable or implantable pump

(For refilling and maintenance of a portable pump or an implantable infusion pump or reservoir for drug delivery, see 96521-96523)

Other Injection and Infusion Services

Code 96523 does not require direct physician supervision. Codes 96521-96523 may be reported when these devices are used for therapeutic drugs other than chemotherapy.

(For collection of blood specimen from a completely implantable venous access device, use 36591)

96440 Chemotherapy administration into pleural cavity, requiring and including thoracentesis
CPT Coding of Procedures

96445  Chemotherapy administration into peritoneal cavity, requiring and including peritoneocentesis

96450  Chemotherapy administration, into CNS (e.g., intrathecal), requiring and including spinal puncture

(For intravesical (bladder) chemotherapy administration, use 51720)

(For insertion of subarachnoid catheter and reservoir for infusion of drug, see 62350, 62351, 62360-62362; for insertion of intraventricular catheter and reservoir, see 61210, 61215)

96521  Refilling and maintenance of portable pump

96522  Refilling and maintenance of implantable pump or reservoir for drug delivery, systemic (e.g., intravenous, intra-arterial)

(For refilling and maintenance of an implantable infusion pump for spinal or brain drug infusion, use 95990-95991)

96523  Irrigation of implanted venous access device for drug delivery systems

(Do not report 96523 if any other services are provided on the same day)

96542  Chemotherapy injection, subarachnoid or intraventricular via subcutaneous reservoir, single or multiple agents

(For radioactive isotope therapy, use 79005)

96549  Unlisted chemotherapy procedure

About the Injection and Infusion Services Codes

In 2009, in order to assist users in more convenient comparison and use of the infusion services procedures, codes 90760-90779 were deleted and renumbered for proximity to the chemotherapy and other complex infusion services reported with codes 96401-96549. With the deletion and renumbering of codes 90760-90779 to codes 96360-96379, the overarching guidelines that previously appeared before these codes have been relocated and revised to reflect the application of the overarching principles to the entire set of infusion codes, through codes 96401-96542. To reflect this change in focus, the subheading was also revised to reflect the applicability of the guidelines for chemotherapy and other complex infusions, in addition to hydration and therapeutic infusion services, and to include these codes in the major subsection. The subsection titles and guidelines for the hydration and therapeutic infusion codes were also editorially revised to differentiate the use of codes 96401-96549 for complex infusions from codes 93665-93679 for less complex infusions.

The guidelines now refer the user to the complex infusion codes when the services required meet the defined required level of service (advanced practice training and competency for staff; entail significant patient risk and frequent monitoring, including frequent changes in the infusion rate; prolonged presence of nurse administering the solution for patient monitoring and infusion adjustments; and frequent conferring with the physician). The overarching guidelines that precede codes 96360-96379 were also revised by inclusion of text that was previously only included in parenthetical instructions. These guidelines apply to the entire series of codes 96360-96549. An example of this type of revision is the inclusion of the push injection definition. Additional instructions were added to address the use and interpretation of the hierarchy of the injections to assist the user in determining the instructions that are most applicable when a coding situation is addressed by the guidelines and parenthetical instructions.

In order to reflect current use of the infusion codes, the instructions related to use of some codes in the facility setting were revised. As an example, of this revision, the last sentence of the first paragraph in the entire complex injections sections was revised to specify that codes 96401, 96402, 96409-96425, 96521-96523 should not be
reported for physician services in the facility setting. The gaps in these series include codes 96405, 96406, 96440, 96445, and 96450, which describe services that may require reporting in the facility setting.

**Coding for Natalizumab (Tysabri) Administration**

Medicare has established Local Coverage Decisions in many localities for natalizumab (Tysabri). Before infusing this drug, it is necessary to review the local carrier’s policy regarding coverage and documentation requirements to justify medical necessity.

Report the first hour of natalizumab infusion using code 96413 (Chemotherapy administration, intravenous infusion technique; up to one hour, single or initial substance/drug). Use code 96415 (Chemotherapy administration, intravenous infusion technique; each additional hour [list separately in addition to code for primary procedure]) to report each additional hour of infusion. To bill for the infused drug, use HCPCS code J2323: Injection, Natalizumab, 1 mg. The normal saline infusion may be reported using the appropriate HCPCS J code for the quantity of saline being infused.

The reportable infusion time is the actual infusion time only, not the time spent in the waiting room or for IV prep, patient assessment, waiting for the pharmacy to deliver the drug, flushing the port, post-service monitoring/recovery. The minimum additional infusion time required to use code 96415 is 31 minutes.

*By permission of the author, these paragraphs were adapted from: McDermott M. Natalizumab return means new codes for reimbursement. AANnews. 2006;19:8, and updated to reflect new policies for 2008.*

**Refilling/Reprogramming Pumps**

**62367**  
Electronic analysis of programmable, implanted pump for intrathecal or epidural drug infusion (includes evaluation of reservoir status, alarm status, drug prescription status); without reprogramming

**62368**  
with reprogramming

(For refilling and maintenance of an implantable infusion pump for spinal or brain drug therapy, use 95990-95991)

**95990**  
Refilling and maintenance of implantable pump or reservoir for drug delivery, spinal (intrathecal, epidural) or brain (intraventricular);

(For analysis and/or reprogramming of implantable infusion pump, see 62367-62368)

(For refill and maintenance of implanted infusion pump or reservoir for systemic drug therapy (eg, chemotherapy or insulin, use 96522)

**95991**  
administered by physician

**96521**  
Refilling and maintenance of portable pump

**96522**  
Refilling and maintenance of implantable pump or reservoir for drug delivery, systemic (eg, intravenous, intra-arterial)

(For refilling and maintenance of an implantable infusion pump for spinal or brain drug infusion, use 95990-95991)

**96523**  
Irrigation of implanted venous access device for drug delivery systems

(Do not report 96523 if any other services are provided on the same day)

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Comment on Refilling Pumps

If this service is provided in a physician's office, don't forget to bill the appropriate HCPCS J code for the drug that is being refilled!

Reprogramming a Programmable Cerebrospinal Shunt

62252 Reprogramming of programmable cerebrospinal shunt

Muscle Biopsy

20200 Biopsy, muscle; superficial

20205 deep

20206 Biopsy, muscle, percutaneous needle

(If imaging guidance is performed, see 76942, 77012, 77021)

(For fine needle aspiration, use 10021 or 10022)

(For evaluation of fine needle aspirate, see 88172-88173)

(For excision of muscle tumor, deep, see specific anatomic section)

Nerve Biopsy

64795 Biopsy of nerve

Skin Biopsy

11100 Biopsy of skin, subcutaneous tissue and/or mucous membrane (including simple closure), unless otherwise listed, single lesion

+11101 each separate/additional lesion (List separately in addition to code for primary procedure)

These codes can be used for punch biopsy to test for small fiber neuropathy.

Biofeedback

(For psychophysiological therapy incorporating biofeedback training, see 90875, 90876)

90901 Biofeedback training by any modality

90911 Biofeedback training, perineal muscles, anorectal or urethral sphincter, including EMG and/or manometry

(For testing of rectal sensation, tone and compliance, use 91120)

(For incontinence treatment by pulsed magnetic neuromodulation, use 53899)

Acupuncture
Acupuncture is reported based on 15 minute increments of personal (face-to-face) contact with the patient, not the duration of acupuncture needle(s) placement.

If no electrical stimulation is used during a 15 minute increment, use 97810, 97811. If electrical stimulation of any needle is used during a 15 minute increment, use 97813, 97814.

Only one code may be reported for each 15-minute increment. Use either 97810 or 97813 for the initial 15-minute increment. Only one initial code is reported per day.

Evaluation and Management services may be reported separately, using modifier 25, if the patient’s condition requires a significant separately identifiable E/M service above and beyond the usual preservice and postservice work associated with the acupuncture services. The time of the E/M service is not included in the time of the acupuncture service.

97810  
Acupuncture, 1 or more needles; without electrical stimulation, initial 15 minutes of personal one-on-one contact with the patient

(Do not report 97810 in conjunction with 97813)

+97811  
without electrical stimulation, each additional 15 minutes of personal one-on-one contact with the patient, with re-insertion of needle(s) (List separately in addition to code for primary procedure)

(Use 97811 in conjunction with 97810, 97813)

97813  
with electrical stimulation, initial 15 minutes of personal one-on-one contact with the patient

(Do not report 97813 in conjunction with 97810)

+97814  
with electrical stimulation, each additional 15 minutes of personal one-on-one contact with the patient, with re-insertion of needle(s) (List separately in addition to code for primary procedure)

(Use 97814 in conjunction with 97810, 97813)

About the Acupuncture Codes

The codes in this section were changed in 2006 to alert users to report (1) these codes according to time spent providing the service (15-minute increments), (2) only one code per 15-minute increment according to the specific type of acupuncture treatment during that period, and (3) only a single initial service code (i.e., either 97811 or 97813) according to the specific acupuncture service that was performed to initiate the session. The revisions allow users the ability to report in a more granular method, identifying a single type of acupuncture according to the method used during that 15-minute increment (e.g., a patient that requires an initial electrical application on his or her ventral abdomen and, via use of separate needles, nonelectrical stimulation on his or her back during a separate 15-minute increment).

Cerebrovascular Arterial Studies

A complete transcranial Doppler (TCD) study (93886) includes ultrasound evaluation of the right and left anterior circulation territories and the posterior circulation territory (to include vertebral arteries and basilar artery). In a limited TCD study (93888) there is ultrasound evaluation of two or fewer of these territories. For TCD, ultrasound evaluation is a reasonable and concerted attempt to identify arterial signals through an acoustic window.
93875 Noninvasive physiologic studies of extracranial arteries, complete bilateral study (eg, periorbital flow direction with arterial compression, ocular pneumoplethysmography, Doppler ultrasound spectral analysis)

93880 Duplex scan of extracranial arteries; complete bilateral study

93882 unilateral or limited study

(To report common carotid intima-media thickness (IMT) study for evaluation of atherosclerotic burden or coronary heart disease risk factor assessment, use Category III code 0126T)

93886 Transcranial Doppler study of the intracranial arteries; complete study

93888 limited study

93890 vasoreactivity study

93892 emboli detection without intravenous microbubble injection

93893 emboli detection with intravenous microbubble injection

(Do not report 93890-93893 in conjunction with 93888)

About the Transcranial Doppler Codes

The transcranial Doppler (TCD) study section was updated in 2005 to include explanatory notes to define the terms “complete” and “limited” utilized in codes 93886 and 93888. Additionally, three new TCD codes were added for cerebrovascular reactivity testing (93890) and embolus detection monitoring (93892, 93893). These three tests require additional equipment, laboratory time and expertise not included in the standard TCD examinations (93886, 93888).

Cerebrovascular reactivity (93890) is performed to evaluate carotid and vertebrobasilar stenosis /occlusion (eg, transient ischemic attack (TIA), stroke, cerebral hemodynamic insufficiency). It is also performed preoperatively to assess cerebrovascular reserve prior to carotid endarterectomy, carotid interventional treatment, coronary artery bypass graft surgery, or other vascular or cardiac procedures that can involve or affect flow to the brain. The typical cerebrovascular reactivity involves measuring bilateral middle cerebral arteries (MCA) continuously during the resting phase, hypercapnic (after hyperventilation) and hypocapnic (after administration of CO2 inhalation). A preprogrammed calculation program built into the equipment calculates the cerebrovascular reserve.

Embolus detection monitoring is performed to detect embolic activity in arterial insufficiencies (eg, internal carotid artery atherothromboembolic disease, vertebrobasilar atherothromboembolic disease) and cardiac conditions (eg, atrial fibrillation, dilated cardiomyopathy, left ventricular thrombus, infectious endocarditis). Specialized hardware and software is utilized to detect each embolic event. The physician/interpreter, knowledgeable in embolus detection must utilize his skills in classifying each event to determine if it is a genuine embolic signal.

Embolic detection monitoring with intravenous injection of agitated saline is performed to identify right to left cardiac, pulmonary, and other extracardiac shunts potentially inherent in the following conditions: transient ischemic attack, stroke, deep vein thrombosis, pulmonary embolism, suspected intracardiac shunts (eg, patent foramen ovale and other atrial and ventricular septal defects) and suspected extracardiac shunts (ie, pulmonary arteriovenous malformations). Again this procedure requires the physician interpreter to utilize his knowledge base and skill to classify each event as consistent with a genuine microembolic signal.

CMS (via LCDs) requires that anyone billing for TCDs and duplex studies of the extracranial arteries be part of a certified laboratory. An example of a certifying organization is the Intersocietal Commission for the Accreditation of Vascular Laboratories (ICAVL) <http://www.icavl.org/>.
Neuroimaging Codes

Detailed discussion of the neuroimaging codes is beyond the scope of this syllabus. The major code families are listed here for completeness.

70010 - 70559  X-ray, CT and MRI imaging of structures in head and neck

72010 - 72295  X-ray, CT and MRI imaging of structures in spine and pelvis

76390  Magnetic resonance spectroscopy

78600 - 78699  Nuclear brain imaging (brain scans, PET scans, SPECT scans, CSF flow studies, shunt evaluation)

The Cardiovascular System / Surgery section has two codes for carotid artery stenting starting in 2005:

37215  Transcatheter placement of intravascular stent(s), cervical carotid artery, percutaneous; with distal embolic protection

37216  without distal embolic protection

A detailed discussion about the proper use of these stent codes follows their descriptors in the CPT® manual. Note that these codes do not cover transcatheter placement of extracranial vertebral or intrathoracic carotid artery stents.

Category III CPT® Codes

Category III codes are a set of temporary codes for emerging technology, services and procedures. Category III codes will allow data collection for these procedures. If a Category III code is available for a procedure, this code must be reported instead of a Category I "unlisted" code. Codes in this section may or may not eventually receive a Category I CPT® code. In either case, a given Category III code will be archived five years from its date of publication or revision in the CPT® codebook unless it is demonstrated that a temporary code is still needed. Services/procedures described by Category III codes which have been archived after five years, without conversion, may be reported using the Category I unlisted code.

New codes in this section are released semi-annually via the AMA/ CPT® Internet site, to expedite dissemination for reporting. The full set of temporary codes for emerging technology, services, and procedures are published annually in the CPT® book. Go to <http://www.ama-assn.org/go/cpt> for the most current listing.

Category III CPT® codes are not referred to the AMA/Specialty RUC (Relative Value Scale Update Committee) for evaluation because no relative value units are assigned. Payment for these services/procedures is based on the policies of payers and not on a yearly fee schedule.

Medicare does not cover Category III codes, so an Advance Beneficiary Notice (ABN) must be given to patients before the procedures are performed. An example of an ABN is published on the CMS Web site at: <http://www.cms.hhs.gov/BNI/Downloads/CMSR131G.pdf>

Currently there are several Category III codes of relevance to neurology, most notably codes for quantitative sensory testing and remote real-time interactive video-conferenced critical care services.

Cerebral Perfusion Analysis
Cerebral perfusion analysis using computed tomography with contrast administration, including post-processing of parametric maps with determination of cerebral blood flow, cerebral blood volume, and mean transit time

### Stenting

0042T  Cerebral perfusion analysis using computed tomography with contrast administration, including post-processing of parametric maps with determination of cerebral blood flow, cerebral blood volume, and mean transit time

+0076T  each additional vessel (List separately in addition to code for primary procedure)

### Quantitative Sensory Testing

0075T  Transcatheter placement of extracranial vertebral or intrathoracic carotid artery stent(s), including radiologic supervision and interpretation, percutaneous; initial vessel

0076T  each additional vessel (List separately in addition to code for primary procedure)

### Therapeutic Repetitive Transcranial Magnetic Stimulation

0160T  Therapeutic repetitive transcranial magnetic stimulation treatment planning

0161T  Therapeutic repetitive transcranial magnetic stimulation treatment delivery and management, per session

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About the Category III Quantitative Sensory Testing Codes

Quantitative sensory testing (QST) measures sensory impairment in the evaluation of endocrine and neurological disorders, by providing a quantitative value of the sensations of touch-pressure, vibration, cooling, warming, and pain. There are currently no conventional Category I CPT® codes for quantitative sensory testing. In 2006, five Category III codes were established to report quantitative sensory testing (QST). Each code describes the use of one of these stimuli to assess large-diameter fiber sensation or small nerve fiber sensation. Clinical examples of these procedures are given on pages 307-308 of CPT® Changes 2006: An Insider’s View. These new codes must be used for QST procedures instead of code 95999, which was used in previous years.

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Remote Real-time Interactive Videoconferenced Critical Care Services
Remote real-time interactive video-conferenced critical care is the direct delivery by a physician(s) of medical care for a critically ill or critically injured patient from an offsite location. Remote real-time interactive video-conferenced critical care is intended to supplement onsite critical care services at times when a critically ill or injured patient requires additional critical care resources than are available on-site. (For definitions of critical illness or injury and critical care services, see Critical Care Services section).

In order to report remote real-time interactive video-conferenced critical care, the physician(s) in the remote location must have real-time access to the patient’s medical record including progress notes, nursing notes, current medications, vital signs, clinical laboratory test results, other diagnostic test results, and radiographic images. The physician must have real-time capability to enter electronic orders; document the remote care services provided in the hospital medical record; videoconference with the on-site health care team in the patient room; assess patients in their individual rooms, using high fidelity audio and video capabilities, including clear observation of the patient, monitors, ventilators, and infusion pumps; and speak to patients and family members.

The review and/or interpretation of all diagnostic information is included in reporting remote real-time interactive video-conferenced critical care when performed during the critical period by the physician(s) providing remote real-time interactive video-conferenced critical care and should not be reported separately.

The remote real-time interactive video-conferenced critical care codes 0188T and 0189T are used to report the total duration of time spent by a physician providing remote real-time interactive video-conferenced critical care services to critically ill or critically injured patient, even if the time spent by the physician on that date is not continuous. For any given period of time spent providing remote real-time interactive video-conferenced critical care services, the physician must devote his or her full attention to the patient and, therefore, cannot provide services to any other patient during the same period of time.

Time spent with the individual patient should be recorded in the patient’s record. The time that can be reported as remote real-time interactive video-conferenced critical care is the time spent engaged in work directly related to the individual patient’s care. For example, time spent reviewing test results or imaging studies, discussing the critically ill patient’s care with other medical staff or documenting remote real-time interactive video-conferenced critical care services in the medical record would be reported as remote real-time interactive video-conferenced critical care, even though it does not occur at the bedside. Also, when the patient is unable or lacks capacity to participate in discussions, time spent from the remote site with family members or surrogate decision makers obtaining a medical history, reviewing the patient’s condition or prognosis, or discussing treatment or limitation(s) of treatment may be reported as remote real-time interactive video-conferenced critical care, provided that the conversation bears directly on the management of the patient.

Time spent in activities that occur away from the bedside when the physician does not have the real-time capabilities described above may not be reported as remote real-time capabilities described above may not be reported as remote real-time interactive video-conferenced critical care because the physician is not immediately available to the patient. Time spent in activities that do not directly contribute to the treatment of the patient may not be reported as remote real-time interactive video-conferenced critical care, even if they are performed in the remote site (e.g., participation in administrative meetings or telephone calls to discuss other patients). Only one physician may report either Critical Care Services (99291, 99292) or remote real-time interactive video-conferenced Critical Care for the same period of time. Do not report remote real-time interactive video-conferenced critical care if another physician reports Pediatric or Neonatal Critical Care or Intensive Care services (99468-99476).

Code 0188T is used to report the first 30-74 minutes of remote real-time interactive video-conferenced, critical care on a given date. It should be used only once per date even if the time spent by the physician is not continuous on that date. Remote real-time interactive video-conferenced, critical care of less than 30 minutes total duration on a given date should not be reported.

Code 0189T is used to report additional block(s) of time, of up to 30 minutes each, beyond the first 74 minutes (see table below).
The following examples illustrate the correct reporting of remote critical care services:

### Total Duration of Critical Care

<table>
<thead>
<tr>
<th>Total Duration of Critical Care</th>
<th>Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 30 minutes (less than ½ hour)</td>
<td>Do not report</td>
</tr>
<tr>
<td>30-74 minutes (1/2 hr. – 1 hr. 14 min.)</td>
<td>0188T X 1</td>
</tr>
<tr>
<td>75-104 minutes (1 hr. 15 min. – 1 hr. 44 min.)</td>
<td>0188T X 1 AND 0189T X 1</td>
</tr>
<tr>
<td>105-134 minutes (1 hr. 45 min. – 2 hr. 14 min.)</td>
<td>0188T X 1 AND 0189T X2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code 0188T</th>
<th>Remote real-time interactive video-conferenced critical care, evaluation and management of the critically ill or critically injured patient: first 30-74 minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>+0189T</td>
<td>each additional 30 minutes (List separately in addition to code for primary service)</td>
</tr>
</tbody>
</table>

(Use 0189T in conjunction with 0188T)

### About the Remote Real-time Interactive Videoconferenced Critical Care Services Codes

Over the past 10 years, critical care Evaluation and Management (E/M) services provided by means of remote real-time interactive videoconference technology have become more prevalent. Remote real-time interactive videoconferenced critical care is intended to supplement available onsite critical care services and is provided at the request of the patient’s attending physician. The existing critical care E/M codes (99291 and 99292) describe critical care services provided at the immediate bedside or elsewhere on the floor or unit. Codes 99291 and 99292 are not appropriate for reporting remote real-time interactive videoconferenced critical care. To reflect this new mode of providing critical care E/M services, Category III codes 0188T and 0189T, as well as new guidelines to report remote real-time interactive videoconferenced critical care services, have been established for 2009.

It is important to note that a physician may not report code 0188T of 0189T during the same period of time for which a physician reports Critical Care services (99291, 99292) or Pediatric or Neonatal Critical Care or Intensive Care services (99468-99480). For example, if a physician provides onsite critical care services from 10 a.m. to 12 p.m., another physician cannot report remote real-time interactive videoconferenced critical care services during the same period of time.

Code 0188T is used to report the first 30-74 minutes of services. Code 0189T is an add-on code and is used to report each additional 30 minutes of services. A parenthetical note was added following code 0189T instructing users to report this code in conjunction with code 0188T.

### Clinical Example (0188T)

A 66-year-old woman with suspected community-acquired pneumonia is intubated in the emergency department (ED) of a rural hospital. The patient is admitted to the intensive care unit and is initially evaluated by her family practitioner who contacts the offsite remote physician. They agree on a care plan that includes mechanical ventilation and empiric intravenous antibiotic therapy (to be adjusted based upon culture results) administered via subclavian catheter placed in the ED. During the night, the patient develops septic shock and acute respiratory distress syndrome. The offsite remote physician spends 50 minutes managing these problems.
**Clinical Example (0189T)**
A 66-year-old woman with suspected community-acquired pneumonia is intubated in the emergency department (ED) of a rural hospital. The patient is admitted to the intensive care unit and is initially evaluated by her family practitioner who contacts the offsite remote physician. They agree on a care plan that includes mechanical ventilation and empiric intravenous antibiotic therapy (to be adjusted based upon culture results) administered via subclavian catheter placed in the ED. During the night, the patient develops septic shock and acute respiratory distress syndrome. The offsite remote physician spends 90 minutes managing these problems.

**Description of Procedure (0188T, 0189T)**
After admission, a computer-based alert notifies the remote physician that the patient is hypotensive. The remote physician contacts the patient’s nurse, electronically writes and signs an order that is transmitted to the intensive care unit (ICU) and the patient is given additional fluid boluses and placed on intravenous norepinephrine to maintain an adequate blood pressure. In addition, the remote physician is in constant communication with the respiratory therapist and nurse increasing the positive end-expiratory pressure (PEEP) to 15 while having to maintain the FiO2 at 100%. The chest X ray, visualized by the remote physician, now compatible with adult respiratory distress syndrome (ARDS). The remote physician repeatedly reviews the patient’s data screens throughout the night to assess for clinical changes. The patients mottling, as seen by the remote physician, has slowly improved in response to 3 liters of saline ordered by the remote physician throughout the night. At 2 AM, six hours following the patient’s admission to the ICU, the laboratory reports microbiology for the patient’s sputum sample which shows gram negative bacilli. The remote physician enters an electronic order to change antibiotic therapy based on the laboratory results, local antibiotic sensitivity patterns and the established care plan with the attending physician.

At 6 AM the remote physician identifies that the patient’s blood pressure is improving; after a review of laboratory data, ventilator setting and direct visual assessment of the patient, the remote physician notes that the patient is adequately sedated, well perfused, and clearing the metabolic acidosis.

**Tremor Analysis**

<new>0199T  Physiologic recording of tremor using accelerometer(s) and/or gyroscope(s) (including frequency and amplitude), including interpretation and report

**About the New Tremor Analysis Code for 2010**

Code 0199T has been established to describe tremor recording using accelerometer(s) and gyroscope(s). Frequency and amplitude of the tremor are measured, which aids in determining the tremor’s etiology. For example, essential tremor has a frequency between 4 and 7 Hz and the amplitude varies. A cerebellar tremor has a frequency between 3 and 5 Hz.

Code 0199T describing tremor recording is reported one time, regardless of the number of gyroscopes and/or accelerometers used. Interpretation and report of the data are included and not reported separately.

**Clinical Example (0199T)**

A 70-year-old male presents with a history of tremor for the past 3 months. His mental status is intact, and he has no other motor symptoms. A full neurological history and exam are done to try to determine the probable cause; however, the cause of his tremor is still unclear. The patient requires a tremor analysis in order to ascertain the cause of the tremor and to establish a baseline by which the effectiveness of future interventions can be measured.

**Description of Procedure (0199T)**

Accelerometers and gyroscopes are placed by the clinician on the arm. The physician guides the patient through a series of simple tests known to elicit rest, postural, or action tremor that include resting, posture, and nose touching. Resting: The patient is instructed to rest with his hands in his lap for 20 seconds. Posture: The patient is
instructed to hold his arms straight out in front of him for 20 seconds. Nose touching: The patient is instructed to repeatedly extend his arm and touch his nose for 20 seconds.

The clinician ensures that the test results are adequate for interpretation and may ask for additional tasks based on the initial assessment. The clinician does not need to leave the room to interpret before deciding if more testing is needed. The recording device may be moved to another extremity and the series of tests may be repeated, if clinically appropriate. Data is then interpreted by the clinician for frequency, amplitude and rhythmicity. The data is then processed into reports for clinicians that describe motor symptom severity.

CPT® Code Modifiers

A modifier provides a means by which a practitioner can indicate that a service or procedure was altered by specific circumstances, but not changed in its definition or code. Modifiers can be reported by appending the two-digit modifier number to the service or procedure number that is usually reported.

The following CPT® code modifiers can be used with many of the CPT® codes discussed in this syllabus, under the proper circumstances.

24 Unrelated Evaluation and Management Service by the Same Physician During a Postoperative Period: The physician may need to indicate that an evaluation and management service was performed during a postoperative period for a reason(s) unrelated to the original procedure. This circumstance may be reported by adding modifier 24 to the appropriate level of E/M service.

This modifier may be used with the chemodenervation codes under the circumstances described in that section.

25 Significant, Separately Identifiable Evaluation and Management Service by the Same Physician on the Same Day of the Procedure or Other Service: It may be necessary to indicate that on the day a procedure or service identified by a CPT® code was performed, the patient’s condition required a significant, separately identifiable E/M service above and beyond the other service provided or beyond the usual preoperative and postoperative care associated with the procedure that was performed. A significant, separately identifiable E/M service is defined or substantiated by documentation that satisfies the relevant criteria for the respective E/M service to be reported (see Evaluation and Management Services Guidelines for instructions on determining level of E/M service). The E/M service may be prompted by the symptom or condition for which the procedure and/or service was provided. As such, different diagnoses are not required for reporting of the E/M services on the same date. This circumstance may be reported by adding modifier 25 to the appropriate level of E/M service. Note: This modifier is not used to report an E/M service that resulted in a decision to perform surgery. See modifier 57. For significant, separately identifiable non-E/M services, see modifier 59.

A classic example of the use of modifier 25 is performance of a lumbar puncture and E/M service on the same date. Modifier 25 is appended to the E/M code to indicate that both a significant E/M service and a procedure were performed on a given date. Some carriers may require that modifier 25 be appended to E/M services that are provided on the same date as neurodiagnostic procedures, although “Principles of CPT® Coding, Fifth Edition” states that this is not required (page 474). No statement is made one way or the other in the Sixth Edition of this book.

26 Professional Component: Certain procedures are a combination of a physician component and a technical component. When the physician component is reported separately, the service may be identified by adding modifier 26 to the usual procedure number.

Current Procedural Terminology: CPT® 2010 states: “The EEG, autonomic function, evoked potential, reflex tests, EMG, NCV, and MEG services (95812-95829 and 95860-95967) include recording, interpretation by a physician, and report. For interpretation only, use modifier 26. For EMG guidance, see 95873, 95874.”
The manual also states: “The sleep services (95805-95811) include recording, interpretation and report. For interpretation only, use modifier 26.”

Comment: For interpretation and report only (for example, when a hospital owns the EMG equipment and pays the technician’s salary), add modifier 26 to the code for the neurodiagnostic procedure. Physicians can’t directly bill for the technical component of a procedure even when they use their own equipment in the hospital. The DRG system, by law, covers the technical component of Medicare services for inpatients. Thus, for Medicare, the physician must bill the institution by a separate agreement if they are to receive reimbursement for the technical component for these studies. This rule does not apply to other payers unless they track the Medicare policy.

50 Bilateral Procedure: Unless otherwise identified in the listings, bilateral procedures that are performed at the same operative session should be identified by adding modifier 50 to the appropriate five digit code.

51 Multiple Procedures: When multiple procedures, other than E/M services, Physical Medicine and Rehabilitation services or provision of supplies (e.g., vaccines), are performed at the same session by the same provider, the primary procedure or service may be reported as listed. The additional procedure(s) or service(s) may be identified by appending modifier 51 to the additional procedure or service code(s).

Note: This modifier should not be appended to designated “add-on” codes (see Appendix D).

Modifier 51 should not be appended to report an E/M service and a procedure performed on the same patient on the same date (modifier 25 appended to the E/M code serves this purpose).

Modifier 51 should not be used with any of the nerve conduction codes. These codes are already defined on a “per nerve basis.” CPT® 2010 specifically flags these codes as exempt from modifier 51.

52 Reduced Services: Under certain circumstances a service or procedure is partially reduced or eliminated at the physician's discretion. Under these circumstances the service provided can be identified by its usual procedure number and the addition of modifier 52, signifying that the service is reduced. This provides a means of reporting reduced services without disturbing the identification of the basic service.

Note: For hospital outpatient reporting of a previously scheduled procedure/service that is partially reduced or cancelled as a result of extenuating circumstances or those that threaten the well-being of the patient prior to or after administration of anesthesia, see modifiers 73 and 74 (see modifiers approved for ASC hospital outpatient use).

53 Discontinued Procedure: Under certain circumstances, the physician may elect to terminate a surgical or diagnostic procedure. Due to extenuating circumstances or those that threaten the well being of the patient, it may be necessary to indicate that a surgical or diagnostic procedure was started but discontinued. This circumstance may be reported by adding modifier 53 to the code reported by the physician for the discontinued procedure. Note: This modifier is not used to report the elective cancellation of a procedure prior to the patient's anesthesia induction and/or surgical preparation in the operating suite. For outpatient hospital/ambulatory surgery center (ASC) reporting of a previously scheduled procedure/service that is partially reduced or cancelled as a result of extenuating circumstances or those that threaten the well being of the patient prior to or after administration of anesthesia, see modifiers 73 and 74 (see modifiers approved for ASC hospital outpatient use).

This modifier is not be confused with modifier 52, which is used to describe a procedure that was partially reduced at the physician’s discretion.

57 Decision for Surgery: An evaluation and management service that resulted in the initial decision to perform the surgery may be identified by adding modifier 57 to the appropriate level of E/M service.

This modifier may be used with the chemodenervation codes under the circumstances described in that section.

59 Distinct Procedural Service: Under certain circumstances, it may be necessary to indicate that a procedure or service was distinct or independent from other non-E/M services performed on the same day. Modifier 59 is used to identify procedures/services, other than E/M services, that are not normally
reported together, but are appropriate under the circumstances. Documentation must support a different session, different procedure or surgery, different site or organ system, separate incision/excision, separate lesion, or separate injury (or area of injury in extensive injuries) not ordinarily encountered or performed on the same day by the same individual. However, when another already established modifier is appropriate it should be used rather than modifier 59. Only if no more descriptive modifier is available, and the use of modifier 59 best explains the circumstances, should modifier 59 be used. **Note:** Modifier 59 should not be appended to an E/M service. To report a separate and distinct E/M service with a non-E/M service performed on the same date, see modifier 25.

99 **Multiple Modifiers:** Under certain circumstances two or more modifiers may be necessary to completely delineate a service. In such situations modifier 99 should be added to the basic procedure, and other applicable modifiers may be listed as part of the description of the service.

**HCPCS Level II Modifiers**

HCPCS Level II modifiers can be used in addition to the modifiers discussed above in certain circumstances. There are HCPCS modifiers for procedures performed on the left or right sides of the body:

- **LT** Left side (used to identify procedures performed on the left side of the body)
- **RT** Right side (used to identify procedures performed on the right side of the body)

Can these modifiers be used with neurodiagnostic procedures? Probably not. To differentiate between separate and distinct EMG and nerve conduction studies, modifier 59 (Distinct Procedural Service) is the correct choice. RT and LT are not appropriate for any of the evoked potential codes since these are all inherently bilateral.

**The “Global Period” Pre-2004 and Now**

Before 2004, many, but not all, surgical codes had a “global period” defined for them. All evaluation and management (E/M) services provided during that global period (from some time before the procedure to some time after the procedure) were bundled together with the CPT® code(s) for the surgical procedure. This was not true for all surgical codes, however. The CPT® codes for some procedures used by neurologists that were listed in the surgical sections of Current Procedural Terminology: CPT® 2003 and earlier editions did not have a global period attached to them. That meant that other services provided to the same patient the same date as the procedure could officially be billed separately. Examples of “surgical” codes exempted from the global period were the lumbar puncture codes. Prior to 2004, codes in the surgical sections exempt from the global period concept were annotated as: “*= Service Includes Surgical Procedure Only.” These were the so-called “starred procedures.” Additionally, the global period did not officially, at least, apply to the CPT® codes listed in the Neurology and Neuromuscular Procedures section.

The “starred designation” was deleted in CPT® 2004 and this changed how one properly bills for certain CPT® code combinations. It turned out that the Centers for Medicare & Medicaid Services (CMS - formerly HCFA) did not follow CPT® guidelines concerning formerly “starred” procedures such as 62270 (Spinal puncture, lumbar, diagnostic). CPT® guidelines stated that these procedures included no pre- or post-operative services, but CMS claimed that all services included, at a minimum, the preoperative services required to perform the procedure. CMS even assigned a global period of 10 days to many so-called starred procedures, meaning that the procedures included post-service care as well.

The AMA decided to simplify the CPT® coding language for 2004 by reducing everything to basic definitions. Consequently, if one performs a minor procedure (typically defined as one with 0 or 10 global days) on the same day as an office visit, the payer will include any E/M services in the procedure code unless the documentation shows that these E/M services were significant and separately identifiable from those specifically related to the performance of the procedure. In this case, one would add modifier 25 to the E/M code (see above). This now holds true for both Medicare and private payers, whereas, formerly, one needed to append modifier 25 for Medicare payers only. Some carriers even require modifier 25 to be used for E/M services provided to the same
patient on the same date as those procedures described by the CPT® codes listed in the Neurology and Neuromuscular Procedures section, even though those procedures never had a global period assigned to them. For EMG and nerve conduction studies, Principles of CPT® Coding, Fifth Edition states: “An E/M service may be performed on the same day, and in that case, it does not require the use of modifier 25.” (page 474). The latest edition of this book, the Sixth, does not contain this phrase.

**National Correct Coding Initiative (NCCI) Edits**

CMS contracts with a consultant to periodically review the CPT® codes and decide which ones can’t be submitted together. They consider that some codes are part of other codes and therefore that it would not be justified to submit these codes together. Notifications of NCCI Edits come out periodically and can greatly affect how the codes are used in clinical practice. National medical organizations, such as the AAN, regularly comment on new NCCI edits and request revisions to these edits if they feel that they do not accurately reflect how medical procedures are performed.

**Physician Supervision of Diagnostic Testing**

CMS (HCFA at that time) has stated that some degree of physician supervision is required for every diagnostic test payable under the physician fee schedule with few exceptions. These rules were published in a Program Memorandum to Carriers on April 19, 2001, and became effective July 1, 2001. The Memorandum can be accessed via the Web at: <http://www.cms.hhs.gov/Transmittals/downloads/B0128.pdf>.

Note that these regulations apply to outpatient testing only.

**CMS Clarifies Instructions on Date and Place of Service Coding**

The text of these instructions can be downloaded at these locations (official policy, two different summaries):

**Date of Service**

As of July 1, 2010, Medicare contractors will consider and providers must remember that the appropriate DOS for the professional component (PC) is the actual calendar date that the interpretation was performed even though this may be different from the date of the technical component of the service.

Example: If the test or technical component (TC) was performed on April 30th and the interpretation was read on May 2nd, the actual calendar date or DOS for the performance of the test is April 30th and the actual calendar date or DOS for the interpretation or reading of the test is May 2nd.

Note: Special rules apply for the DOS of the TC of clinical laboratory and pathology specimens and are contained in 42 Code of federal Regulations 414.510.

**Place of Service**

CMS provided additional clarification on how physicians should code the place of service when providing interpretations of diagnostic tests. This policy took effect January 4, 2010. Coding of the place of service is important because Medicare payment amounts vary depending on whether a service is furnished in the physician's office or in a hospital or other facility setting.

If a physician interprets a diagnostic test (for example, an EEG) in his or her office, the place of service is "office" (code 11) even if the test is for a hospitalized patient. In other words, it is where the physician is physically located when he/she performs the interpretation—not where the patient is. Similarly, if the physician interprets a test in the hospital outpatient department, the claim should be coded as HOPD (Code 22).
For teleradiology services (e.g., interpretation of x-rays, EKGs or EEGs) remotely with no face-to-face encounter with the patient, the interpretation would be read in the place of service.

Sometimes the line between office and hospital sites of service is less than obvious. For example, if the physician has an office in the hospital (or hospital-based clinic) it may not always be clear whether the service takes place in the office or in the hospital. The basic principle is that if the "office" is space rented by the physician or his/her practice from the hospital (and not just space the hospital lets the physician use), the place of service should be "office."

Some physicians perform services for ambulatory surgical centers (ASCs). If a physician performs a service in an ASC, the place of service code is 24 for ASC and not the "office" code unless the physician has an office at the same physical location as the ASC and the service was actually performed in the office suite portion of the facility.

If a physician interprets a test in the physician's home, the physician must assess whether the home location meets the definition of office. The Medicare guidance does not provide a definition of "office" but rather instructs providers to seek guidance from the Medicare contractor. However, if the home location is not reflected in the physician's Medicare enrollment information, then it may not qualify as an "office" for purposes of the place of service, in which case it should be coded as "other" (code 99). At the same time, use of the "other" code could create problems under the Stark law if the physician is relying on the in-office ancillary services exception, which requires, among other things, that the service be performed in medical office space that meets the Stark law's "same building" test.

**Additional Information on CPT® Codes for Neurologic Procedures**

Post-CPT® code modifications alter how payers process claims:
1. Reimbursement and coding issues are separate!
2. Bundling of codes (NCCI Edits – National Correct Coding Initiatives Edits)
3. Limits on diagnoses used with codes
4. Quotas on numbers of codes/diagnosis
5. Limits on rate of repetition of codes
6. Carriers can use/define codes differently
7. Proprietary, carrier-specific codes or interpretation of code definitions

It is worth repeating: reimbursement and coding issues are separate! No fee schedules, basic unit values, relative value guides, conversion factors or scales or components thereof are included in CPT®.

**Revising CPT® Codes and RVUs for Neurologic Procedures**

There is a yearly cycle that determines the next year’s CPT® codes and their reimbursement values.
1. Specialty societies refine old CPT® code definitions and develop new codes
2. New codes or code revisions are presented to the CPT® Editorial Panel, which either accepts, modifies, or rejects the submissions
3. New or substantially revised CPT® codes go to the RUC (Relative Value Scale Update Committee) to be assigned physician work RVUs (Relative Value Units)
4. Established RVUs are regularly reviewed
5. Practice expense RVUs are assigned by PERC (Practice Expense Review Committee)
6. RUC and PERC transmit their recommendations to CMS (Centers for Medicare & Medicaid Services)
7. Final RVUs and annual conversion factor updates are decided by CMS and Congress, respectively

**Print Resources**

The CPT® "bible," is *Current Procedural Terminology: CPT® 2010*, of course. The AMA publishes several editions. Consider acquiring the CPT® Professional edition. In addition to the features of the standard CPT® manual, this edition includes color keys, illustrations, cross references to the CPT® Assistant newsletter (see below), and pre-installed thumb-notch tabs. Electronic packages are also available.

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CPT® Changes 2010: An Insider’s View. Written by the CPT® coding staff, this book provides the official AMA interpretations and explanations for each CPT® code and guideline change in CPT® 2010.

The CPT® Assistant, a monthly newsletter published by the AMA, is an excellent source of information on CPT® issues.

Principles of CPT® Coding, Sixth Edition. Updated and revised by the AMA, this best-selling resource is a comprehensive training and education textbook that provides the most in-depth review available of the entire CPT® codebook. Expanded images, chapters and content provide a broader explanation of the CPT code set and include:

- New - Appendix describing how to code from an operative report
- New - Ancillary educator material including individual chapter slide presentations, whole book review slide presentations, chapter presentation notes, three levels of question-and-answer banks for tests and quizzes found throughout the book.
- New - Two new subsections of medicine that pertain to cardiovascular device monitoring and end-stage renal disease services
- Expanded and revised chapter sections - provide enhanced coding guidelines and instructions for spinal and cranial stereotactic radiosurgery codes in the nervous system subsection, in addition to E/M revisions on newborn care services, delivery/birth room attendance, resuscitation services and more
- Numerous revisions to medicine section offers in-depth discussion regarding hydration therapeutics, prophylactic, diagnostic injections and infusions, and chemotherapy administration

Coding with Modifiers: A Guide to Correct CPT® and HCPCS Modifier Usage. Written by the CPT® coding staff to ensure modifier understanding, this fully updated second edition expands on the instruction given in the prior edition and provides more tools to aid instructors. Coding with Modifiers contains updated CMS, third party payer, and AMA modifier guidelines to assist in coding accurately and avoiding payment delays.

Coding columns in professional publications such as AAN News and Neurology Coding Alert are also useful sources of coding information.

Internet Resources

American Academy of Neurology
<http://www.aan.com/>

The American Academy of Neurology (AAN) provides useful coding tools to help neurologists more accurately code both ICD-9-CM and CPT®. The online version of the ICD-9-CM and CPT® database is now available free for Academy members.

Several other Web-based resources are available to help with CPT® and related coding questions.

American Academy of Physical Medicine & Rehabilitation
<http://www.aapmr.org/>

American Association of Neuromuscular & Electrodiagnostic Medicine
<http://www.aanem.org/>

American Medical Association
<http://www.ama-assn.org/>

American Psychological Association Practice Organization
<http://www.apapracticecentral.org/>

Federal Register on the World Wide Web
<http://www.gpoaccess.gov/nara/index.html>

Centers for Medicare & Medicaid Services (formerly HCFA)
Healthcare Common Procedure Coding System (HCPCS)
<http://www.cms.hhs.gov/MedHCPCSGenInfo/>
All HCPCS codes can be downloaded from this site.

National Correct Coding Initiative Edits
<http://www.cms.hhs.gov/NationalCorrectCodInitEd/>
The latest Correct Coding Initiative Edits can be found on this Web site.

Acknowledgment

I thank Mary H. McDermott MBA, CPC; Director, Billing Quality Assurance, Clinical Practice Association at Johns Hopkins University for her very helpful review of previous versions of this syllabus.

Syllabus Revision Date

This syllabus is reviewed on a regular basis and is changed as needed to reflect new coding developments. This is the January 31, 2010 edition.
Appendix A.
Electrodiagnostic Medicine Listing of Sensory, Motor, and Mixed Nerves

This summary assigns each sensory, motor, and mixed nerve with its appropriate nerve conduction study code in order to enhance accurate reporting of 95900, 95903, and 95904. Each nerve constitutes one unit of service. This list is published as Appendix J of Current Procedural Terminology: CPT® 2010.

Codes 95900 and 95903 involve the following motor nerves:
I. Upper extremity/cervical plexus/brachial plexus motor nerves
   A. Axillary motor nerve to the deltoid
   B. Long thoracic motor nerve to the serratus anterior
   C. Median nerve
      1. Median motor nerve to the abductor pollicis brevis
      2. Median motor nerve, anterior interosseous branch, to the flexor pollicis longus
      3. Median motor nerve, anterior interosseous branch, to the pronator quadratus
      4. Median motor nerve to the first lumbrical
      5. Median motor nerve to the second lumbrical
   D. Musculocutaneous motor nerve to the biceps brachii
   E. Radial nerve
      1. Radial motor nerve to the extensor carpi ulnaris
      2. Radial motor nerve to the extensor digitorum communis
      3. Radial motor nerve to the extensor indicis proprius
      4. Radial motor nerve to the brachioradialis
   F. Suprascapular nerve
      1. Suprascapular motor nerve to the supraspinatus
      2. Suprascapular motor nerve to the infraspinatus
   G. Thoracodorsal motor nerve to the latissimus dorsi
   H. Ulnar nerve
      1. Ulnar motor nerve to the abductor digiti minimi
      2. Ulnar motor nerve to the palmar interosseous
      3. Ulnar motor nerve to the first dorsal interosseous
      4. Ulnar motor nerve to the flexor carpi ulnaris
   I. Other

II. Lower extremity motor nerves
   A. Femoral motor nerve to the quadriceps
      1. Femoral motor nerve to vastus medialis
      2. Femoral motor nerve to vastus lateralis
      3. Femoral motor nerve to vastus intermedius
      4. Femoral motor nerve to rectus femoris
   B. Ilioinguinal motor nerve
   C. Peroneal (fibular) nerve
      1. Peroneal motor nerve to the extensor digitorum brevis
      2. Peroneal motor nerve to the peroneus brevis
      3. Peroneal motor nerve to the peroneus longus
      4. Peroneal motor nerve to the tibialis anterior
   D. Plantar motor nerve
   E. Sciatic nerve
   F. Tibial nerve
      1. Tibial motor nerve, inferior calcaneal branch, to the abductor digiti minimi
      2. Tibial motor nerve, medial plantar branch, to the abductor hallucis
      3. Tibial motor nerve, lateral plantar branch, to the flexor digitum minimi brevis
   G. Other

III. Cranial nerves and trunk
   A. Cranial nerve VII (facial motor nerve)
      1. Facial nerve to the frontalis
2. Facial nerve to the nasalis
3. Facial nerve to the orbicularis oculi
4. Facial nerve to the orbicularis oris
B. Cranial nerve XI (spinal accessory motor nerve)
C. Cranial nerve XII (hypoglossal motor nerve)
D. Intercostal motor nerve
E. Phrenic motor nerve to the diaphragm
F. Recurrent laryngeal nerve
G. Other

IV. Nerve roots
A. Cervical nerve root stimulation
   1. Cervical level 5 (C5)
   2. Cervical level 6 (C6)
   3. Cervical level 7 (C7)
   4. Cervical level 8 (C8)
B. Thoracic nerve root stimulation
   1. Thoracic level 1 (T1)
   2. Thoracic level 2 (T2)
   3. Thoracic level 3 (T3)
   4. Thoracic level 4 (T4)
   5. Thoracic level 5 (T5)
   6. Thoracic level 6 (T6)
   7. Thoracic level 7 (T7)
   8. Thoracic level 8 (T8)
   9. Thoracic level 9 (T9)
  10. Thoracic level 10 (T10)
  11. Thoracic level 11 (T11)
  12. Thoracic level 12 (T12)
C. Lumbar nerve root stimulation
   1. Lumbar level 1 (L1)
   2. Lumbar level 2 (L2)
   3. Lumbar level 3 (L3)
   4. Lumbar level 4 (L4)
   5. Lumbar level 5 (L5)
D. Sacral nerve root stimulation
   1. Sacral level 1 (S1)
   2. Sacral level 2 (S2)
   3. Sacral level 3 (S3)
   4. Sacral level 4 (S4)

Code 95904 involves the following sensory and mixed nerves:
I. Upper extremity sensory and mixed nerves
   A. Lateral antebrachial cutaneous sensory nerve
   B. Medial antebrachial cutaneous sensory nerve
   C. Medial brachial cutaneous sensory nerve
   D. Median nerve
      1. Median sensory nerve to the first digit
      2. Median sensory nerve to the second digit
      3. Median sensory nerve to the third digit
      4. Median sensory nerve to the fourth digit
      5. Median palmar cutaneous sensory nerve
      6. Median palmar mixed nerve
   E. Posterior antebrachial cutaneous sensory nerve
   F. Radial sensory nerve
      1. Radial sensory nerve to the base of the thumb
      2. Radial sensory nerve to digit 1
G. Ulnar nerve
   1. Ulnar dorsal cutaneous sensory nerve
   2. Ulnar sensory nerve to the fourth digit
   3. Ulnar sensory nerve to the fifth digit
   4. Ulnar palmar mixed nerve
H. Intercostal sensory nerve
I. Other

II. Lower extremity sensory and mixed nerves
   A. Lateral femoral cutaneous sensory nerve
   B. Medial calcaneal sensory nerve
   C. Medial femoral cutaneous sensory nerve
   D. Peroneal nerve
      1. Deep peroneal sensory nerve
      2. Superficial peroneal sensory nerve, medial dorsal cutaneous branch
      3. Superficial peroneal sensory nerve, intermediate dorsal cutaneous branch
   E. Posterior femoral cutaneous sensory nerve
   F. Saphenous nerve
      1. Saphenous sensory nerve (distal technique)
      2. Saphenous sensory nerve (proximal technique)
   G. Sural nerve
      1. Sural sensory nerve, lateral dorsal cutaneous branch
      2. Sural sensory nerve
   H. Tibial sensory nerve (digital nerve to toe 1)
   I. Tibial sensory nerve (medial plantar nerve)
   J. Tibial sensory nerve (lateral plantar nerve)
   K. Other

III. Head and trunk sensory nerves
   A. Dorsal nerve of the penis
   B. Greater auricular nerve
   C. Ophthalmic branch of the trigeminal nerve
   D. Pudendal sensory nerve
   E. Suprascapular sensory nerves
   F. Other
Appendix B.
Type of Study/Maximum Number of Electrodiagnostic Tests Necessary in 90% of Cases

The following table provides a reasonable maximum number of studies performed per diagnostic category necessary for a physician to arrive at a diagnosis in 90% of patients with that final diagnosis. The numbers in each column represent the number of studies recommended. The appropriate number of studies to be performed is based upon the physician's discretion. This table is published in the AMA's CPT® 2010 as Appendix J.

<table>
<thead>
<tr>
<th>Indication</th>
<th>Needle EMG, (95860-95864 95867-95870)</th>
<th>Nerve Conduction Studies (95900, 95903, 95904)</th>
<th>Other EMG Studies (95934, 95936, 95937)</th>
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<tr>
<td></td>
<td></td>
<td>Motor NCS With and/or Without F wave</td>
<td>Sensory NCS</td>
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<tr>
<td>Carpal tunnel (unilateral)</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Carpal tunnel (bilateral)</td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Radiculopathy</td>
<td>2</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Mononeuropathy</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Polyneuropathy/mononeuropathy multiplex</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Myopathy</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Motor neuronopathy (e.g., ALS)</td>
<td>4</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Plexopathy</td>
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<td>4</td>
<td>6</td>
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<tr>
<td>Neuromuscular junction</td>
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<td>2</td>
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<tr>
<td>Tarsal tunnel syndrome (unilateral)</td>
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<td>1</td>
<td>4</td>
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<tr>
<td>Tarsal tunnel syndrome (bilateral)</td>
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<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Weakness, Fatigue, Cramps, or Twitching (focal)</td>
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<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Weakness, fatigue, cramps, or twitching (general)</td>
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<td>4</td>
</tr>
<tr>
<td>Pain, numbness, or tingling (unilateral)</td>
<td></td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Pain, numbness, or tingling (bilateral)</td>
<td></td>
<td>2</td>
<td>4</td>
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