

CPT[®] CODING OF NEUROLOGIC PROCEDURES FOR 2017

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Introduction

This syllabus reviews the CPT[®] codes for neurologic procedures for 2017. CPT[®] codes are a set of codes, descriptions, and guidelines intended to describe procedures and services performed by physicians and other health care professionals or entities. Inclusion of a descriptor and associated code number in the CPT[®] Category I code set is based on whether the procedure or service is consistent with contemporary medical practice and is performed by many practitioners in clinical practice in multiple locations. Inclusion or exclusion of a procedure or service does not imply any health insurance coverage or reimbursement policy.

Over the last few years there have been major changes in codes for many neurologic procedures including EMG and nerve conduction studies, evoked potentials, intraoperative monitoring, chemodeneration, and autonomic function testing. The changes in reimbursement associated with these code changes are outside the scope of this syllabus. Please visit the American Academy of Neurology (AAN) website at <www.aan.com> for up to date information on coding, billing, and reimbursement for neurologic services and procedures, and on the Academy's advocacy efforts to get fair reimbursement for our specialty.

CPT[®] codes are updated yearly. For 2017 there are minor changes in some parenthetical notations for codes that are displayed out of numerical order.

Previous editions of this syllabus were quite comprehensive, listing in detail many procedures rarely used by most neurologists. This version focuses on the CPT[®] Category I procedure codes most commonly used by our specialty. The final sections discuss the creation and revision of neurologic CPT[®] codes, their links to reimbursement, and regulations regarding the physician supervision of diagnostic tests. Relevant print and Internet resources are listed at the end of this syllabus. CPT[®] Category II codes - supplemental tracking codes that can be used for performance measurement - and Category III codes - a set of temporary codes for emerging technology, services and procedures - are not included.

The listed CPT[®] codes and their definitions are derived from *Current Procedural Terminology: CPT[®] 2017* published by the American Medical Association (AMA) (*CPT[®] only © 2016 American Medical Association. All Rights Reserved.*). The author developed the comments on the codes in collaboration with AAN staff and members of the AAN Medical Economics and Management Committee.

Relationship Between Procedures and Evaluation and Management Services

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.

Who Can Use CPT[®] Codes?

When advanced practice nurses and physician assistants are working with physicians, they are considered as working in the exact same specialty and exact same subspecialties as the physician. A "physician or other qualified health care professional" is an individual who is qualified by education, training, licensure/regulation (when applicable) who performs a professional service within his/her scope of practice and independently reports that professional service. Throughout the CPT[®] code set the use of terms such as "physician," "qualified health care professional," or "individual" is not intended to indicate that other entities may not report the service. In selected instances, specific instructions may define a service as limited to professionals or limited to other entities (eg, hospital or home health agency).

CPT® Resequencing Initiative

In an effort to meet the growing demands for available numbers in CPT® code sets while adhering to the principles of health information technology, the AMA introduced a resequencing system to integrate new code concepts into existing code families regardless of the availability of sequential numbers. In other words, the numbers assigned to some CPT® codes will not necessarily fit into the numerical order of some code families.

Resequencing utilizes the content within the code descriptor to determine placement and offers flexibility for code assignment beyond the capability of the traditional numbering convention. The resequencing approach for code placement is based on the principal that codes are deleted and a new number is established when the meaning of the code changes, or when other editorial policies apply (eg, a code conversion from Category III to Category I). Deletions to display related codes together in printed materials are not acceptable criteria for renumbering.

Adherence to the traditional numbering convention that inherently forces deletion and renumbering would compromise the long-term maintenance and integrity of the CPT® codes. Resequencing allows related concepts to be placed in a numerical sequence regardless of the availability of numbers for sequential numerical placement, extending the existence of the current five-digit numbering scheme, improving the growth and flexibility of CPT® content, and the use of CPT® codes in electronic products.

The resequencing initiative applies to codes marked by the “#” symbol.

Results, Testing, Interpretation and Report

The Introduction at the beginning of the *CPT® 2017* manual defines the meaning of “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. Certain procedures or services described in the CPT® codebook involve a technical component (eg, tests), which produce “results” (eg, data, images, slides). For clinical use, some of these results require interpretation. Some CPT® descriptors specifically require interpretation and reporting to report that code.

Coding by Time

The CPT code set contains many codes with a time basis for code selection. The following standards shall apply to time measurement, unless there are code or code-range-specific instructions in guidelines, parenthetical instructions, or code descriptors to the contrary. Time is the face-to-face time with the patient. Phrases such as “interpretation and report” in the code descriptor are not intended to indicate in all cases that report writing is part of the reported time. A unit of time is attained when the mid-point is passed. For example, an hour is attained when 31 minutes have elapsed (more than midway between zero and sixty minutes). A second hour is attained when a total of 91 minutes have elapsed. When codes are ranked in sequential typical times and the actual time is between two typical times, the code with the typical time closest to the actual time is used. See also the Evaluation and Management (E/M) Services Guidelines. When another service is performed concurrently with a time-based service, the time associated with the concurrent service should not be included in the time used for reporting the time-based service. Some services measured in units other than days extend across calendar dates. When this occurs a continuous service does not reset and create a first hour. However, any disruption in the service does create a new initial service. For example, if intravenous hydration (96360, 96361) is given from 11 PM to 2 AM, 96360 would be reported once and 96361 twice. For facility reporting on a single date of service or for continuous services that last beyond midnight (i.e., over a range of dates), report the total units of time provided continuously.

CPT® Codes for Neurologic Procedures and CPT® Code Modifiers

In general, this syllabus follows the subdivisions in the CPT® 2017 manual, but there are some modifications to group the codes in a more logical manner and some relevant codes from other sections are included when appropriate.

The Neurology and Neuromuscular Procedures section is divided into several subdivisions. The current section headings in the CPT® 2017 manual are listed below. Because of the resequencing initiative, some of the code number ranges overlap. Some codes in this syllabus are listed in other sections of the CPT® 2017 manual.

- **Sleep Medicine Testing**
Codes 95782-95811
- **Routine Electroencephalography (EEG)**
Codes 95812-95830
- **Muscle and Range of Motion Testing**
Codes 95831-95857
- **Electromyography**
Codes 95860-95887
- **Ischemic Muscle Testing and Guidance for Chemodenervation**
Codes 95873-95875
- **Nerve Conduction Tests**
Codes 95905-95913
- **Intraoperative Neurophysiology**
Codes 95940-95941
- **Autonomic Function Tests**
Codes 95921-95943
- **Evoked Potentials and Reflex Tests**
Codes 95925-95939
- **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 or other qualified health care professional. For interpretation only, use modifier 26. For EMG guidance, see 95873, 95874.

Codes 95812-95822, 95950-95953 and 95956 use recording time as a basis for code use. Recording time is when the recording is underway and data is being collected. Recording time excludes set up and take down time. Codes 95961-95962 use physician time or other qualified health care professional attendance time as a basis for code use.

(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 with the "+" symbol and they are listed in Appendix D of the CPT® codebook. Add-on codes in CPT® can be readily identified by specific descriptor nomenclature that includes phrases such as "each additional" or "(List separately in addition to primary procedure)."

The add-on code concept in CPT® applies only to add-on procedures or services performed by the same physician. Add-on codes describe additional intra-service work associated with the primary procedure.

Add-on codes are always performed in addition to the primary service or procedure and must never be reported as a stand-alone code. All add-on codes found in the CPT® codebook are exempt from the multiple procedure concept (see the modifier 51 definition in Appendix A of the CPT® codebook and in a subsequent section of this syllabus).

Sleep Medicine Testing

Sleep medicine services include procedures that evaluate adult and pediatric patients for a variety of sleep disorders. Sleep medicine testing services are diagnostic procedures using in-laboratory and portable technology to assess physiologic data and therapy.

All sleep services include recording, interpretation and report. The CPT® 2017 manual contains detailed definitions and instructions on how to use these codes properly. Some codes are out of numerical sequence.

95803	Actigraphy testing, recording, analysis, interpretation, and report (minimum of 72 hours to 14 consecutive days of recording)
95805	Multiple sleep latency or maintenance of wakefulness testing, recording analysis and interpretation of physiological measurements of sleep during multiple trials to assess sleepiness
95806	Sleep study, unattended, simultaneous recording of, heart rate, oxygen saturation, respiratory airflow, and respiratory effort (eg, thoracoabdominal movement)
#95800	Sleep study, unattended, simultaneous recording; heart rate, oxygen saturation, respiratory analysis (eg, by airflow or peripheral arterial tone), and sleep time
#95801	minimum of heart rate, oxygen saturation, and respiratory analysis (eg, by airflow or peripheral arterial tone)
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	age 6 years or older, sleep staging with 4 or more additional parameters of sleep, attended by a technologist
95811	age 6 years or older, 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
#95782	younger than 6 years, sleep staging with 4 or more additional parameters of sleep, attended by a technologist

#95783 younger than 6 years, 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

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
- 95829** Electrocorticogram at surgery (separate procedure)
- 95830** Insertion by physician or other qualified health care professional of sphenoidal electrodes for electroencephalographic (EEG) recording

Special EEG Tests

Codes 95950-95953 and 95956 are used per 24 hours of recording. For recording more than 12 hours, do not use modifier 52. For recording 12 hours or less, use modifier 52. Codes 95951 and 95956 are used for recordings in which interpretations can be made throughout the recording time, with interventions to alter or end the recording or to alter the patient care during the recordings as needed.

Codes 95961 and 95962 use physician or other qualified health care professional time as a basis for unit of service. Report code 95961 for the first hour of physician attendance. Use modifier 52 with code 95961 for 30 minutes or less. Report 95962 for each additional hour of attendance.

- 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, unattended
- 95954** Pharmacological or physical activation requiring physician or other qualified health care professional 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, attended by a technologist or nurse
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 attendance by a physician or other qualified health care professional
+95962	each additional hour of attendance by a physician or other qualified health care professional (List separately in addition to code for primary procedure)
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

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 **95953**.

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.

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.

Guidelines have been added to the Special EEG Tests section clarifying that codes 95950-95953 and 95956 are used per 24 hours of recording. For recording more than 12 hours, do not use modifier 52. For recording 12 hours or less, use modifier 52. Codes 95951 and 95956 are used for recordings in which interpretations can be made throughout the recording time, with interventions to alter or end the recording or to alter patient care during the recordings as needed.

The guidelines have also been revised to clarify that codes 95961 and 95962 use physician time as a basis for unit of service. Each hour of physician attendance should be reported. The first hour is reported with code 95961. If the physician is in attendance for 30 minutes or less, modifier 52 should be appended to code 95961. Code 95962 is reported for each additional hour of physician attendance.

Clinical Example (95953)

A 16-year-old woman with a history of absence seizures and rare generalized tonic-clonic seizures has had good control of her seizures for 3 years but may again be experiencing seizures. She seems absentminded at times, and the episodes occur daily according to the patient's mother. The patient denies there is a problem and says she is taking her medication without problems. She wants to begin driver's education. The mother says that symptoms are worse when she is active, out of bed at home. A 24-hour ambulatory digital EEG without video is ordered.

Description of Procedure (95953)

Supervised patient preparation and performance of the test by the technician. Review 24 hours of at least 16 channels of recorded data, review triggered alarm then patient/family logs, and assess the normal and abnormal findings. Evaluate and describe each seizure in terms of location, evolution, and duration. Interpret the data and provide clinical correlation of the findings based on the patient's history.

Clinical Example (95956)

A 65-year-old man experienced an unwitnessed lapse of consciousness. In recent weeks, his wife has noted lip smacking and arm posturing while he slept. Initial cardiac evaluation and routine awake EEG were normal. The attending requests a 24-hour EEG at the hospital outpatient sleep-EEG lab with continuous observation to evaluate the patient's exam during any further alterations of consciousness or accompanying any epileptiform events captured on EEG.

Description of Procedure (95956)

Supervised patient preparation and performance of the test by the technician. Review 24 hours of at least 16 channels (up to 32-40 channels including EEG, eye movement, EKG, EMG) of recorded data, and review trigger alarms and patient/family logs or nursing/technician's notes. Evaluate and describe each seizure in terms of location, evolution, and duration. Interpret the data and provide clinical correlation of the findings based on the patient's history.

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

A 2009 *CPT® Assistant* article (*CPT® Assistant* December 2009 / Volume 19 Issue 12) provided clarification on how to code for two specialized EEG services—CPT® codes 95956 and 95953—specifically when provided in a physician office or free-standing facility. The 2011 editorial changes in these codes should make it even easier to properly use them.

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 (eg, 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.

FAQs - Electroencephalography - Digital EEG Analysis (95957)

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, eg, epilepsy surgery programs. Note that the codes for "monitoring for identification and lateralization of cerebral seizure focus" already include epileptic spike analysis.

Continuous EEG Notes and Billing

You need at least two notes each day if the EEG reader and critical care attending are different people, one note each day if they are the same person, as long as the note has all needed elements. Bill using the day the recording starts. Intraservice time for a 24 hour video EEG is about 90 minutes so you can bill 16 per 24 hours.

Epilepsy Monitoring Unit Coding and Billing

A daily E/M note and a daily EEG report are required. They can be done by the same person or two different people. The EEG report must include start and stop times. You can choose arbitrary times based upon how your files are segmented by the EEG software. Some hospitals bill using a midnight to midnight charge for the

technical component. 95951 should be billed using the start time of the 24 hour clock, not the end time. Use 95951-52 for segments less than 12 hours. If there is just an hour or two at the end, use 95813, EEG greater than 1 hour.

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)
- +95967** for evoked magnetic fields, each additional modality (eg, sensory, motor, language, or visual cortex localization) (List separately in addition to code for primary procedure)

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. 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.

Nerve Conduction Studies, Reflex and Late Response Testing

The following applies to nerve conduction tests (95907-95913): Codes 95907-95913 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 and mixed 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. Codes 95907-95913 describe one or more nerve conduction studies. For the purposes of coding, a single conduction study is defined as a sensory conduction test, a motor conduction test with or without an F wave test, or an H-reflex test. Each type of study (sensory, motor with or without F wave, H-reflex) for each nerve includes all orthodromic and antidromic impulses associated with that nerve and constitutes a distinct study when determining the number of studies in each grouping (eg, 1-2 or 3-4 nerve conduction studies). Each type of nerve conduction study is counted only once when multiple sites on the same nerve are stimulated or recorded. The numbers of these separate tests should be added to determine which code to use. For a list of nerves, see Appendix J (Appendix A in this syllabus). Use 95885-95887 in conjunction with 95907-95913 when performing electromyography with nerve conduction studies.

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

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
95907	Nerve conduction studies; 1-2 studies
95908	3-4 studies
95909	5-6 studies
95910	7-8 studies
95911	9-10 studies
95912	11-12 studies
95913	13 or more studies
95933	Orbicularis oculi (blink) reflex, by electrodiagnostic testing
51792	Stimulus evoked response (eg, measurement of bulbocavernosus reflex latency time)

About Code 95905

Code 95905 was 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

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 electrodiagnostic data from each nerve tested and assesses it in the context of comparison to normal values and the patient's history and physical examination.

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.

Use 95870 or 95885 when four or fewer muscles are tested in an extremity. Use 95860-95864 or 95886 when five or more muscles are tested in an extremity.

Use EMG codes (95860-95864 and 95867-95870) when no nerve conduction studies (95907-96913) are performed on that day. Use 95885, 95886, and 95887 for EMG services when nerve conduction studies (95907-95913) are performed in conjunction with EMG on the same day.

Report either 95885 or 95886 once per extremity. Codes 95885 and 95886 can be reported together up to a combined total of four units of service per patient when all four extremities are tested.

Report 95887 once per anatomic site (i.e., cervical paraspinal muscle[s], thoracic paraspinal muscle[s], lumbar paraspinal muscle[s], chest wall muscle[s], and abdominal wall muscle[s]). Use 95887 for a unilateral study of cranial nerve innervated muscles (excluding extra-ocular and larynx); when performed bilaterally, 95887 may be reported twice.

Use 95887 when a study of the cervical paraspinal muscle[s], or the lumbar paraspinal muscle[s] is performed with no corresponding limb study (95885 or 95886) on the same day.

(For needle electromyography of anal or urethral sphincter, use 51785)

(For non-needle electromyography of anal or urethral sphincter, use 51784)

(For needle electromyography of larynx, use 95865)

(For needle electromyography of hemidiaphragm, use 95866)

(For needle electromyography of extra-ocular muscles, use 92265))

95860	Needle electromyography; one extremity with or without related paraspinal areas
95861	two extremities with or without related paraspinal areas
95863	three extremities with or without related paraspinal areas
95864	four extremities with or without related paraspinal areas
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 1 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)
#+95885	Needle electromyography, each extremity, with related paraspinal areas, when performed, done with nerve conduction amplitude and latency/velocity study; limited (List separately in addition to code for primary procedure)
#+95886	complete, five or more muscles studied, innervated by three or more nerves or four or more spinal levels (List separately in addition to code for primary procedure)
#+95887	Needle electromyography, non-extremity (cranial nerve supplied or axial) muscle(s) done with nerve conduction amplitude and latency/velocity study (List separately in addition to code for primary procedure)
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, 1 or more extraocular muscles, 1 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.

Neuromuscular Junction Testing

95857	Cholinesterase inhibitor challenge test for myasthenia gravis
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
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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
#95938	in upper and lower limbs
95927	in the trunk or head
95928	Central motor evoked potential study (transcranial motor stimulation); upper limbs
95929	lower limbs
#95939	in upper and 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 limbs, while 95929 should be reported for studies on the lower limbs. Also, the parenthetical notes following code

95920 were revised to include new codes 95928 and 95929 as part of the list of procedure codes that 95920 may be reported in conjunction with, when intraoperative testing is performed.

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

Codes 95940, 95941 describe ongoing neurophysiologic monitoring, testing, and data interpretation distinct from performance of specific type(s) of baseline neurophysiologic study(s) performed during surgical procedures. When the service is performed by the surgeon or anesthesiologist, the professional services are included in the surgeon's or anesthesiologist's primary service code(s) for the procedure and are not reported separately. Do not report these codes for automated monitoring devices that do not require continuous attendance by a professional qualified to interpret the testing and monitoring.

The CPT® 2017 manual contains detailed definitions and instructions on how to use these codes properly. The codes are out of numerical sequence.

#+95940 Continuous intraoperative neurophysiology monitoring in the operating room, one on one monitoring requiring personal attendance, each 15 minutes (List separately in addition to code for primary procedure)

(Use 95940 in conjunction with the study performed, 92585, 95822, 95860-95870, 95907-95913, 95925, 95926, 96927, 95928, 95929, 95930-95937, 95938, 95939)

#+95941 Continuous intraoperative neurophysiology monitoring, from outside the operating room (remote or nearby) or for monitoring of more than one case while in the operating room, per hour (List separately in addition to code for primary procedure)

(Use 95941 in conjunction with the study performed, 92585, 95822, 95860-95870, 95907-95913, 95925, 95926, 96927, 95928, 95929, 95930-95937, 95938, 95939)

99360 Standby service, requiring prolonged attendance, each 30 minutes (eg, operative standby, standby for frozen section, for caesarian/high risk delivery, for monitoring EEG)

Autonomic Function Tests

The purpose of autonomic nervous system function testing is to determine the presence of autonomic dysfunction, the site of autonomic dysfunction, and the various autonomic subsystems that may be disordered.

The CPT® 2017 manual contains detailed definitions and instructions on how to use these codes properly. Some codes are out of numerical sequence.

- 93660** Evaluation of cardiovascular function with tilt table evaluation, with continuous ECG monitoring and intermittent blood pressure monitoring, with or without pharmacological intervention
- 95921** Testing of autonomic nervous system function; cardiovagal innervation (parasympathetic function), including 2 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 5 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
- 95924** combined parasympathetic and sympathetic adrenergic function testing with at least 5 minutes of passive tilt
- #95943** Simultaneous, independent quantitative measures of both parasympathetic function and sympathetic function, based on time-frequency analysis of heart rate variability concurrent with time-frequency analysis of continuous respiratory activity, with mean heart rate and blood pressure measures, during rest, paced (deep) breathing, Valsalva maneuvers, and head-up postural change

Neurostimulators, Analysis-Programming

The CPT® 2017 manual contains detailed definitions and instructions on how to use these codes properly. Some codes are out of numerical sequence.

(For 95974 and 95978, use modifier 52 if less than 31 minutes in duration)

- 95970** Electronic analysis of implanted neurostimulator pulse generator system (eg, 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 (i.e., cranial nerve, peripheral nerve, sacral nerve, neuromuscular) neurostimulator pulse generator/transmitter, without reprogramming
- 95971** simple spinal cord, or peripheral (i.e., peripheral nerve, sacral nerve, neuromuscular) neurostimulator pulse generator/transmitter, with intraoperative or subsequent programming
- 95972** complex spinal cord, or peripheral (i.e., peripheral nerve, sacral nerve, neuromuscular) (except cranial nerve) neurostimulator pulse generator/transmitter, with intraoperative or subsequent programming

(95973 has been deleted)

- 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)

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; first hour

+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 (eg, 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

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 (i.e., 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.

96000 Comprehensive computer-based motion analysis by video-taping and 3-D kinematics;

96001 with dynamic plantar pressure measurements during walking

96002 Dynamic surface electromyography, during walking or other functional activities; 1-12 muscles

96003 Dynamic fine wire electromyography, during walking or other functional studies, 1 muscle

(Do not report 96002, 96003 in conjunction with 95860-95864, 95869-95872)

96004 Review and interpretation by physician or other qualified health care professional 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

Functional Brain Mapping

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 other qualified health care professional (i.e., 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 (eg, surgical excision) or focal treatment (eg, 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.

Central Nervous System Assessments/Tests (eg, 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. A minimum of 31 minutes must be provided to report any per hour code. Services 96101, 96116, 96118 and 96125 report time as face-to-face time with the patient and the time spent interpreting and preparing the 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, eg, 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 screening (eg, developmental milestone survey, speech and language delay screen), with scoring and documentation, per standardized instrument

96111 Developmental testing, (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 (eg, 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 (eg, 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)

96127 Brief emotional/behavioral assessment (eg, depression inventory, attention-deficit/hyperactivity disorder [ADHD] scale), with scoring and documentation, per standardized instrument

(For developmental screening, use 96110)

Lumbar Puncture (Diagnostic and Therapeutic)

62270 Spinal puncture, lumbar, diagnostic

62272 Spinal puncture, therapeutic, for drainage of cerebrospinal fluid (by needle or catheter)

62273 Injection, lumbar epidural, of blood or clot patch

(For injection of diagnostic or therapeutic substance(s), see 62320, 62321, 62322, 62323, 62324, 62325, 62326, 62327)

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 (eg, Chemical, Thermal, Electrical or Radiofrequency), Chemodenervation

Codes 64600-64681 include the injection of other therapeutic agents (eg, corticosteroids). Do not report diagnostic/therapeutic injections separately. Do not report a code labeled as destruction when using therapies that are not destructive of the target nerve (eg, pulsed radiofrequency), use 64999. For codes labeled as chemodenervation, the supply of the chemodenervation agent is reported separately.

Chemodenervation Injections

64611 Chemodenervation of parotid and submandibular salivary glands, bilateral

(Report 64611 with modifier 52 if fewer than four salivary glands are injected)

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

(For bilateral procedure, report 64612 with modifier 50)

64615 muscle(s) innervated by facial, trigeminal, cervical spinal and accessory nerves, bilateral (eg, for chronic migraine)

(Report 64615 only once per session)

64616 neck muscle(s), excluding muscles of the larynx, unilateral (eg, for cervical dystonia, spasmodic torticollis)

(For bilateral procedure, report 64616 with modifier 50)

64617 larynx, unilateral, percutaneous (eg, for spasmodic dysphonia), includes guidance by needle electromyography when performed

(For bilateral procedure, report 64616 with modifier 50)

(Do not report 64617 in conjunction with 95873, 95874)

Report 64642, 64643, 64644, 64645 once per extremity. Codes 64642, 64643, 64644, 64645 can be reported together up to a combined total of four units of service per patient when all four extremities are injected. Report only one base code (64642 or 64644) per session. Report one or more units of additional extremity code(s) (64643 or 64645) for each additional extremity injected.

Report 64646 or 64647 for chemodenervation of muscles of the trunk.

Trunk muscles include the erector spinae and paraspinal muscles, rectus abdominus and obliques. All other somatic muscles are extremity muscles, head muscles, or neck muscles.

(For chemodenervation guided by needle electromyography or muscle electrical stimulation, see 95873, 95874. Do not report more than one guidance code for each corresponding chemodenervation or trunk code)

(Do not report modifier 50 in conjunction with 64642, 64643, 64644, 64645, 64646, 64647)

64642 Chemodenervation of one extremity, 1-4 muscle(s)

+64643 each additional extremity, 1-4 muscle(s) (List separately in addition to code for primary procedure)

(Use 64643 in conjunction with 64642, 64644)

64644 Chemodenervation of one extremity, 5 or more muscle(s)

+64645 each additional extremity, 5 or more muscle(s) (List separately in addition to code for primary procedure)

(Use 64645 in conjunction with 64644)

64646 Chemodenervation trunk muscle(s), 1-5 muscle(s)

64647 6 or more muscles

(Report either 64646 or 64647 only once per session)

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)

67345 Chemodenervation of extraocular muscle

46505 Chemodenervation of internal anal sphincter

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)

(Do not report 95873 in conjunction with 64617, 95860-95870, 95874)

+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, 64615, 64616, 64642, 64643, 64644, 65645, 64646, 64647)

(Do not report more than one guidance code for each corresponding chemodenervation code)

(Do not report 95874 in conjunction with 64617, 95860-95870, 95873)

The Global Period for Chemodenervation Procedures

There is a 10-day global period for some 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.

To determine if a chemodenervation procedure has a 10-day global period, look it up via the *Physician Fee Schedule Search*, available at:

< <https://www.cms.gov/apps/physician-fee-schedule/search/search-criteria.aspx>>

Vestibular Evaluation

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

(Do not report 92540 in conjunction with 92541, 92542, 92544, or 92545)

About the Vestibular Evaluation Code

The code, established in 2010, 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 a 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) (eg, Epley maneuver, Semont maneuver), per day

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

About the Canalith Repositioning Code

Code 95992 was established 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.

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

Muscle Biopsy

20200 Biopsy, muscle; superficial

20205 deep

20206 Biopsy, muscle, percutaneous needle

(If imaging guidance is performed, see 76942, 77002, 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.

Cerebrovascular Arterial Studies

Vascular studies include patient care required to perform the studies, supervision of the studies and interpretation of study results with copies for patient records of hard copy output with analysis of all data, including bidirectional flow or imaging when provided.

The use of a simple hand-held or other Doppler device that does not produce hard copy output, or that produces a record that does not permit analysis of bidirectional vascular flow, is considered to be part of the physical examination of the vascular system and is not separately reported.

Duplex scan (eg, 93880, 93882) describes an ultrasonic scanning procedure for characterizing the pattern and direction of blood flow in arteries or veins with the production of real-time images integrating B-mode two-dimensional vascular structure, Doppler spectral analysis, and color flow Doppler imaging.

Physiologic studies Noninvasive physiologic studies are performed using equipment separate and distinct from the duplex ultrasound imager. Codes 93922, 93923, and 93924 describe the evaluation of non-imaging

physiologic recordings of pressures with Doppler analysis of bi-directional blood flow, plethysmography, and/or oxygen tension measurements appropriate for the anatomic area studied.

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.

Code 93895 includes the acquisition and storage of images of the common carotid arteries, carotid bulbs, and internal carotid arteries bilaterally with quantification of intima media thickness (common carotid artery mean and maximal values) and determination of presence of atherosclerotic plaque. When any of these elements are not obtained, use 0126T.

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

93895 Quantitative carotid intima media thickness and carotid atheroma evaluation, bilateral

(Do not report 93890 in conjunction with 93880, 93882, 0126T)

(Do not report 93895-93893 in conjunction with 93888)

About the Transcranial Doppler Codes

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.

Embolus 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 (i.e., 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 Accreditation Commission <<http://intersocietal.org/vascular/>>.

Neuroimaging and Neurointerventional Codes

Detailed discussion of the neuroimaging and neurointerventional codes is beyond the scope of this syllabus.

CPT® Code Modifiers

A modifier provides the means to report or indicate that a service or procedure that has been performed has been altered by some specific circumstance but not changed in its definition or code. Modifiers also enable health care professionals to effectively respond to payment policy requirements established by other entities.

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 or Other Qualified Health Care Professional During a Postoperative Period:** The physician or other qualified health care professional 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.

- 25 Significant, Separately Identifiable Evaluation and Management Service by the Same Physician or Other Qualified Health Care Professional 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.

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

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 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 (eg, vaccines), are performed at the same session by the same individual, 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).

52 Reduced Services: Under certain circumstances a service or procedure is partially reduced or eliminated at the discretion of the physician or other qualified health care professional. 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 or other qualified health care professional 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 individual 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.

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. See also page 684, Level II HCPCS/National Modifiers listing.

New coding requirements instituted in 2015 related to modifier 59 could impact your reimbursement.

Change Request (CR) 8863 notifies Medicare Administrative Contractors (MACs) and providers that the Centers for Medicare & Medicaid Services (CMS) is establishing four new HCPCS modifiers to define subsets of the -59 modifier, a modifier used to define a “Distinct Procedural Service.”

The Medicare National Correct Coding Initiative (NCCI) has Procedure to Procedure (PTP) edits to prevent unbundling of services, and the consequent overpayment to physicians and outpatient facilities. The underlying principle is that the second code defines a subset of the work of the first code. Reporting the codes separately is inappropriate. Separate reporting would trigger a separate payment and would constitute double billing.

CR8863 discusses changes to HCPCS modifier -59, a modifier which is used to define a “Distinct Procedural Service.” Modifier -59 indicates that a code represents a service that is separate and distinct from another service with which it would usually be considered to be bundled.

The -59 modifier is the most widely used HCPCS modifier. Modifier -59 can be broadly applied. Some providers incorrectly consider it to be the “modifier to use to bypass (NCCI).” This modifier is associated with considerable abuse and high levels of manual audit activity; leading to reviews, appeals and even civil fraud and abuse cases.

The primary issue associated with the -59 modifier is that it is defined for use in a wide variety of circumstances, such as to identify:

- Different encounters;
- Different anatomic sites; and
- Distinct services.

The -59 modifier is

- Infrequently (and usually correctly) used to identify a separate encounter;
- Less commonly (and less correctly) used to define a separate anatomic site; and
- More commonly (and frequently incorrectly) used to define a distinct service.

The -59 modifier often overrides the edit in the exact circumstance for which CMS created it in the first place. CMS believes that more precise coding options coupled with increased education and selective editing is needed to reduce the errors associated with this overpayment.

CR8863 provides that CMS is establishing the following four new HCPCS modifiers (referred to collectively as -X{EPSU} modifiers) to define specific subsets of the -59 modifier:

- XE Separate Encounter, A Service That Is Distinct Because It Occurred During A Separate Encounter,
- XS Separate Structure, A Service That Is Distinct Because It Was Performed On A Separate Organ/Structure,
- XP Separate Practitioner, A Service That Is Distinct Because It Was Performed By A Different Practitioner, and
- XU Unusual Non-Overlapping Service, The Use Of A Service That Is Distinct Because It Does Not Overlap Usual Components Of The Main Service.

CMS will continue to recognize the -59 modifier, but notes that Current Procedural Terminology (CPT) instructions state that the -59 modifier should not be used when a more descriptive modifier is available. While CMS will continue to recognize the -59 modifier in many instances, it may selectively require a more specific - X{EPSU} modifier for billing certain codes at high risk for incorrect billing. For example, a particular NCCI PTP code pair may be identified as payable only with the -XE separate encounter modifier but not the -59 or other -X{EPSU} modifiers. The -X{EPSU} modifiers are more selective versions of the -59 modifier so it would be incorrect to include both modifiers on the same line.

The combination of alternative specific modifiers with a general less specific modifier creates additional discrimination in both reporting and editing. As a default, at this time CMS will initially accept either a -59

modifier or a more selective - X{EPSU} modifier as correct coding, although the rapid migration of providers to the more selective modifiers is encouraged.

However, please note that these modifiers are valid even before national edits are in place. MACs are not prohibited from requiring the use of selective modifiers in lieu of the general -59 modifier, when necessitated by local program integrity and compliance needs. In addition, other insurers will use these new modifiers in certain cases. Please check with each insurer about how to use modifier 59 and these new subsets of modifier 59 before submitting your claims.

- 99 Multiple Modifiers:** Under certain circumstances 2 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.

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.gov/Regulations-and-Guidance/Guidance/Transmittals/downloads/B0128.pdf>>.

Note that these regulations apply to outpatient testing only.

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 discussed

6. RUC transmits its recommendations to CMS (Centers for Medicare & Medicaid Services)
7. Final RVUs and annual conversion factor updates are decided by CMS and Congress, respectively
8. Societies can contest CMS valuations of services and procedures by requesting they be reconsidered in a Refinement Panel

Print Resources

The CPT[®] “bible,” is *Current Procedural Terminology: CPT[®] 2017*, 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.

CPT[®] Changes 2017: 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[®] 2017*.

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

Principles of CPT[®] Coding, ninth edition. Updated and revised by the AMA in 2016, this resource is a comprehensive training and education textbook that provides in-depth information about CPT[®] coding.

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 CPT[®].

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/>>

Many of the AMA's print resources are now available in online form.

American Psychological Association Practice Organization

<<http://www.apapracticecentral.org/>>

Federal Register on the World Wide Web

<<http://www.gpo.gov/fdsys/>>

Centers for Medicare & Medicaid Services

<<http://www.cms.gov/>>

Healthcare Common Procedure Coding System (HCPCS)

< <https://www.cms.gov/Medicare/Coding/MedHCPCSGenInfo/index.html>>

All HCPCS codes can be downloaded from this site.

National Correct Coding Initiative Edits

< <https://www.cms.gov/Medicare/Coding/NationalCorrectCodInitEd/index.html>>
The latest Correct Coding Initiative Edits can be found on this Web site.

Acknowledgment

I thank Mary McDermott, William Henderson, Bryan Soronson, and David Evans, my neurologist colleagues, and AAN staff for very helpful reviews of versions of this syllabus.

Syllabus Revision Date

This syllabus is changed as needed to reflect new coding developments. This is the February 13, 2017 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 codes 95907-95913. Each nerve constitutes one unit of service. This list is published as *Appendix J of Current Procedural Terminology: CPT® 2017*.

Motor Nerves Assigned to Codes 95907-95913

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 intermedialis
 - 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 digiti 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)

Sensory and Mixed Nerves Assigned to Codes 95907-95913

- 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® 2017 as the second part of Appendix J.

	Limbs Studied by Needle EMG (95860-95864, 95867-95870, 95885-95887)	Nerve Conduction Studies (Total nerves studied, 95907-95913)	Neuromuscular Junction Testing (Repetitive Stimulation, 95937)
Carpal tunnel (unilateral)	1	7	
Carpal tunnel (bilateral)	2	10	
Radiculopathy	2	7	
Mononeuropathy	1	8	
Polyneuropathy/ mononeuropathy multiplex	3	10	
Myopathy	2	4	2
Motor neuronopathy (eg, ALS)	4	6	2
Plexopathy	2	12	
Neuromuscular junction	2	4	3
Tarsal tunnel syndrome (unilateral)	1	8	
Tarsal tunnel syndrome (bilateral)	2	11	
Weakness, Fatigue, Cramps, or Twitching (focal)	2	7	2
Weakness, fatigue, cramps, or twitching (general)	4	8	2
Pain, numbness, or tingling (unilateral)	1	9	
Pain, numbness, or tingling (bilateral)	2	12	