

CPT Code Selection Guide

for Neurodiagnostic Procedures

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Coding for neurodiagnostic procedures is described below. This document is based on traditional CMS coding and is meant to be a guideline. Third-party payors may apply edits to meet their own criteria. Therefore, it is important to contact the respective third-party payor to confirm coding policies and criteria. These are generally posted on Internet-only Manuals, CMS program issuances, and operating instructions, policies, and procedures used by providers, contractors, and survey agencies to administer CMS programs. Internet-only Manuals are also a good source of Medicare and Medicaid information for the general public.

CODING ROUTINE EEG PROCEDURES

CPT CODE	PROCEDURE DESCRIPTION	CODING COMMENTS	HINTS
95816	EEG including awake and drowsy; 20-40 minutes	Includes HV and photic stimulation if appropriate	This is also called a routine EEG. It does not include any sleep recorded, which is essentially stage N2–N3 and REM sleep. The MD will often describe the findings as “wake with spontaneous drowsiness.” Verify duration of time to represent the code.
95819	EEG including awake and sleep; 20-40 minutes	Includes HV and photic stimulation if appropriate	This is also called a routine EEG. It does include recording of sleep, which is essentially stage N2 sleep. The MD will often describe the findings as “wake with spontaneous sleep.” Verify duration of time to represent the code.
95822	EEG recording in coma or sleep only; 20-40 minutes	Note it states only sleep or only in a coma state.	Use time to determine the correct code.
95812	EEG extended monitoring; 41-60 minutes	Includes HV and photic stimulation if appropriate; includes awake, drowsy, and sleep if recorded	Verify on EEG the duration of the recording to ensure at least 41 minutes are recorded and does not exceed 60 minutes; this does not include procedure set-up and removal of the electrodes.
95813	EEG extended monitoring; 61 -119 minutes	Includes HV and photic stimulation if appropriate and includes awake, drowsy and sleep if recorded.	Verify on EEG the duration of the recording to more than 60 minutes are recorded; this does not include procedure set-up and removal electrodes. Use LTM CPT codes if study exceeds 119 minutes.
95824	EEG recording for cerebral death only	Note it states recording for only cerebral death	This code is verified by review of the order and the clinical interpretation of the procedure.

95829	Electrocorticography at surgery (separate procedure)
95830	Insertion by MD/other qualified health care professional of sphenoidal electrodes for EEG recording

CODING LTM EEG PROCEDURES

CPT Code	Procedure Description	Coding Comments	Hints
95700	8 channel minimum long-term EEG setup by an EEG technologist*	Includes EEG hookup, maintenance and disconnect.	Can only be billed once per LTM recording period. Bill this code on the first day of multi-day studies along with a LTM monitoring code (95705 – 95716).
95705	EEG alone, unmonitored 2-to-12-hour recording	No video, EEG reviewed > 2 hours or 13 patients per 1 tech monitoring ratio	
95706	EEG alone, intermittent monitoring 2-to-12-hour recording	No video, EEG reviewed every 2 hours or 5 to 12 patients per 1 tech monitoring ratio	
95707	EEG alone, continuous monitoring 2-to-12-hour recording	No video, EEG live monitored, 1-4 patients per 1 tech monitoring ratio	
95708	EEG alone, unmonitored 12-to-26-hour recording	No video, EEG reviewed > 2 hours or 13 patients per 1 tech monitoring ratio	
95709	EEG alone, intermittent monitoring 12-to-26-hour recording	No video, EEG reviewed every 2 hours or 5 to 12 patients per 1 tech live monitoring ratio	
95710	EEG alone, continuous monitoring 12-to-26-hour recording	No video, EEG live monitored, 1-4 patients per 1 tech monitoring ratio	
95711	EEG w/ video, unmonitored 2-to-12-hour recording	EEG reviewed > 2 hours or 13 patients per 1 tech monitoring ratio	
95712	EEG w/ video, intermittent monitoring 2-to-12-hour recording	EEG reviewed every 2 hours or 5 to 12 patients per 1 tech live monitoring ratio	
95713	EEG w/ video, continuous monitoring	EEG live monitored,	

	2-to-12-hour recording	1-4 patients per 1 tech monitoring ratio
95714	EEG w/ video, unmonitored 12-to-26-hour recording	EEG reviewed > 2 hours or 13 patients per 1 tech monitoring ratio
95715	EEG w/ video, intermittent monitoring 12-to-26-hour recording	EEG reviewed every 2 hours or 5 to 12 patients per 1 tech live monitoring ratio
95716	EEG w/ video, continuous monitoring 12-to-26-hour recording	EEG live monitored, 1-4 patients per 1 tech monitoring ratio

** EEG technologist is defined as an individual who is qualified by education, training, licensure/certification/regulation (when applicable) in seizure recognition. An EEG technologist performs EEG setup, takedown when performed, patient education, technical description, maintenance, and seizure recognition when within his or her scope of practice and is allowed by law, regulation, and facility policy (when applicable). Long-term EEG applications that are performed by personnel who do not meet these qualifications should use code 95999.*

2- to 12-hour definition: A complete EEG service that lasts only 2–12 hours; **OR** the final 2–12-hour increment of an EEG service that extends beyond 26 hours. 2- to 12-hour codes can only be billed once per recording period.

12- to 26-hour definition: A completed EEG service that lasts only 12–26 hours; **OR** for multiday studies – billed once per 24-hour period

Unmonitored definition: EEG is reviewed by an EEG technologist* retrospectively or a real-time review that occurs at more than 2-hour intervals. Unmonitored also applies if the technologist is monitoring more than 12 patients. If the criteria for intermittent or continuous monitoring are not met (more than a 12:1 patient to tech ratio or EEG is not reviewed at least every 2 hours), then the study is considered an unmonitored study.

Intermittent monitoring definition: Requires an EEG technologist* to perform and document real-time review of data at least every two hours during the entire recording period to ensure the integrity and quality of the recording (i.e. EEG, VEEG if utilizing video), identify the need for maintenance, and, as needed, alert the physician or other qualified health care professional of critical issues. A single EEG technologist may monitor a maximum of 12 patients concurrently. The monitoring can be done on-site or remotely. If the number of intermittently monitored patients exceeds 12, then all of the studies are reported as unmonitored.

Continuous monitoring definition: Requires all elements of intermittent monitoring. Additionally, the EEG technologist* performs and documents real-time monitoring of the EEG data and video (if performed) during the entire recording period. The EEG technologist identifies when events occur and alerts, as needed, the physician or other qualified healthcare professional of critical issues. A single EEG technologist may monitor a maximum of four patients concurrently (4:1 patient to tech ratio). The monitoring can be done on-site or remotely. If the number of concurrently monitored patients exceeds four, then all the studies are reported as either unmonitored or intermittent studies. **If there is a break in the real-time monitoring of the EEG recording, the study is intermittent.**

CODING SPECIAL EEG TESTS

CPT Code	Procedure Description	Coding Comments	Hints
95954	Pharmacological or physical activation requiring a MD or other qualified health care provider attendance during EEG recording of activation phase (e.g. thiopental activation test)		
95955	EEG during non-intracranial surgery (carotid)		
95957	Digital analysis of EEG for epileptiform waveform analysis	The analysis is completed by the recording device and rather than by a technologist or MD	The interpretation needs to include a statement that clearly states the waveform analysis was completed by the recording device with specialized software to complete the analysis.
95958	Wada activation including EEG monitoring		
95961	Brain mapping - Functional cortical/subcortical mapping with stimulation and/or by electrodes on the brain surface or depth electrodes to provoke seizures or vital brain structures, initial hour of attendance by MD or qualified health care provider.		
95962	Brain mapping additional hours. Bill each additional hour in attendance by MD or other qualified health care provider	This code is not used to report wait time for the mapping to begin.	This is an add on code to be used with 95961 and requires documentation of start time and end time for the provider in attendance. Virtual attendance is excluded with this code.
95965	Magnetoencephalogram (MEG) recording and analysis for spontaneous brain magnetic activity epileptic brain cortex- localization.		If EEG is done with MEG, use codes 95812 or 95813 depending on recording time.
95966	Magnetoencephalography (MEG), recording and analysis; for evoked magnetic fields, single modality (e.g., sensory, motor, language, or visual cortex localization)	Includes recording and analysis of spontaneous brain magnetic activity	
95967	Magnetoencephalography (MEG), recording and analysis; evoked magnetic fields each additional modality.	Add on code	This is an add on code to use with 95966 for each additional modality that is clinically indicated for use

CODING EVOKED POTENTIALS AND REFLEX TESTING

CPT Code	Procedure Description	Coding Comments	Hints
95925	SSEP Upper Limbs - Short latency SEP, stimulation of any/all peripheral nerves or skin sites i from CNS in upper limbs	Do not report with 95926	
95926	SSEP in lower limbs	Do not report with 95925	
95938	SSEP in both upper and lower limbs	Do not report with 95925 or 95926	
95927	SSEP recording trunk and head bilaterally		Report with a modifier 52 (reduced services) when recording is done unilaterally
95928	Central motor SSEP (transcranial motor stimulation - TMS) upper limbs	Do not report with 95929	
95929	Central motor SSEP (transcranial motor stimulation - TMS) lower limbs	Do not report with 95928	
95939	Central motor SSEP in both upper and lower limbs	Do not report with 95928 or 95929	
95930	VEP with checkerboard or flash testing; CNS except glaucoma with interpretation and report	Note: includes interpretation and report * if VEP is performed to test for glaucoma, use 0464T, which is a new For screening of visual acuity using automated VEP, use 0333T.	If the facility performs the testing and a separate MD is interpreting the procedure, two modifiers are used on the billing claim: the facility attaches a TC modifier to 95930 and the interpreting MD attaches a 26 modifier to the 95930. If the procedure is recorded in a facility where the doctor owns the equipment to record the procedure AND interprets the recording EACH 24 hours, then the claim is submitted as a global charge, meaning it does not use any modifiers. If the procedure is recording in a facility and the interpreting doctor is employed by the MD, it is necessary to confirm with the Revenue Integrity Team how to submit a charge as they may still use a modifier depending on the financial relationship of the employed MD.
95937	Neuromuscular junction testing (repetitive stimulation paired stimuli) each nerve, any 1 method		Document in report each and all nerve tested

CODING NERVE CONDUCTION TESTS

A single conduction study is defined as a single sensory conduction test, motor conduction test with or without F-wave OR an H-reflex test. The testing of each nerve includes orthodromic and antidromic testing and is considered a distinct study when determining the number of studies in each grouping.

Each nerve conduction study is counted only once when multiple sites on the same nerve are stimulated or recorded. The number of separate tests should be added to determine which code to use from Appendix J in the AMA coding manual.

The preconfigured electrode array is defined as: stimulating, recording and ground electrodes individually placed with the design individual to the patient's unique anatomy. Motor nerve conduction studies require the placement of stimulating electrode directly over the motor point of the specific muscle being tested.

Sensory nerve conduction studies require the placement of the stimulating electrode directly over the nerve being tested. Needle EMG procedures include the interpretation of both visible and audible electrical signals recorded from the muscle(s) studied with a needle.

CPT CODE	PROCEDURE DESCRIPTION	CODING COMMENTS	HINTS
95905	Motor and/or sensory nerve conduction using preconfigured electrode arrays, amplitude and latency/velocity study, each limb, includes F-wave stimulation when performed; with interpretation and report	Note: the code is for EACH limb rather than each muscle or nerve tested. Waveforms must be reviewed on site in real time with the reports must be prepared on site to include comparisons to normal values.	Report 95905 only once for each limb studied.
95907	NCV, 1-2 studies		
95908	NCV, 3-4 studies		
95909	NCV, 5-6 studies		
95910	NCV, 7-8 studies		
95911	NCV, 9-10 studies		
95912	NCV, 11-12 studies		
95913	NCV, 13 or more studies		

CPT CODE	PROCEDURE DESCRIPTION	CODING COMMENTS	HINTS
95860	Needle EMG, 1 extremity; with or without related paraspinal area	5 muscles or more	
95861	Needle EMG, 2 extremities with or without related paraspinal areas	5 muscles or more	
95863	Needle EMG, 3 extremities with or without related paraspinal areas	5 muscles or more	
95864	Needle EMG, 4 extremities with or without related paraspinal areas	5 muscles or more	
95865	Needle EMG Larynx (includes bilateral testing)	If testing is unilateral use a 50 modifier	
95866	Needle EMG Hemidiaphragm		
95867	Needle EMG Cranial nerve supplied muscles (unilateral)		
95868	Needle EMG Cranial nerve supplies muscles, bilateral		
95869	Needle EMG Thoracic paraspinal muscles (excluding T1 or T12)		
95870	Needle EMG Limited muscles in 1 extremity or non-limb (axial) muscles (unilateral or bilateral) other than thoracic paraspinal, cranial nerve supplied muscles or sphincters.	To report a complete study of extremities, see 95860-95864.	Use 95870 or 95885 when 4 or fewer muscles are tested in an extremity
95872	Needle EMG using single fiber electrode with quantitative measures, any/all sites of each muscle tested		
95885	Needle EMG, each extremity, with paraspinal areas, when done with NCV, amplitude and latency/velocity study, limited.	This is an add on code used in addition to the code for primary procedure	Use 95870 or 95885 when 4 or fewer muscles are tested in an extremity

95886	Needle EMG complete, five or more muscles studied, innervated by 3 or 4 nerves or 4 or more spinal levels.	This is an add on code used in addition to the code for primary procedure	Use 95860 – 95864 or 95886 when 5 or more muscles are tested in an extremity.
95887	Needle EMG, non-extremity (cranial nerve supplied, or axial) muscle(s) done with NCV, amplitude and latency/velocity study.	This is an add on code used in addition to the code for primary procedure	Do not report with 95907 – 95913 or 95867-95870

Visit our website for more CPT code resources at <https://www.aset.org/cpt-coding-resource-center-and-beyond/>