

## **Nerve Conduction Studies (Codes 95907-95913)**

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Nerve conduction studies (NCSs) are used to assess peripheral nerve function. These procedures are performed to aid in the diagnosis of diseases and injuries of the peripheral nervous system. There are generally four types of NCSs:

- Sensory
- Motor with F-wave
- Motor without F-wave
- H-reflex

Sensory nerve conduction study recordings must be made from electrodes placed directly over the specific nerve to be tested. Motor nerve conduction study recordings must be made from electrodes placed directly over the motor point of the specific muscle to be tested. Waveforms must be reviewed on site in real time, and the technique (stimulus site[s], active and reference recording site[s], 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 describe 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.

H-reflex studies involve both the sensory and motor nerves. They assess sensory and motor nerve function and their connections in the spinal cord. An impulse, generated at the stimulating electrode, travels up the axons of sensory nerves to the spinal cord, where it crosses synapses and activates motor neurons. The impulse then travels down the motor nerves to the neuromuscular junction, and then to the muscle. H-reflex studies usually involve the assessment of the tibial sensory and motor nerve fibers, and the gastrocnemius-soleus muscle complex.

The parameters set in real time for nerve conduction studies include conduction velocity, latency, amplitude, and configuration. NCS results can also assess the degree of demyelination and axon loss in the segments of the nerve studied. This portion of the electrodiagnostic medicine evaluation is typically a noninvasive procedure performed by a



physician, a qualified health care professional alone, or a technologist under direct supervision by a physician. This article will provide an overview of the code set changes in the Nerve Conduction Tests subsection of the CPT 2013 codebook.

### **New Codes**

For CPT 2013, nerve conduction study codes 95900, 95903, and 95904 were deleted and seven new codes were created (95907-95913). The codes describe one or more nerve conduction studies performed, rather than having each nerve as the unit of service. These changes were made in an effort to address the overlap in the pre-test and post-test work involved in the procedures. The guidelines preceding the new codes (95907-95913) for nerve conduction tests were revised, and offer specific instructions for reporting these procedures.

**9**5907

Nerve conduction studies; 1-2 studies

**9**5908

3-4 studies

**9**5909

5-6 studies

**9**5910

7-8 studies

**9**95911

9-10 studies

**9**5912

11-12 studies

**9**95913

13 or more studies



### **Guidelines**

The section for nerve conduction tests was restructured with new codes (95907-95913) to further describe the reporting based on the number of studies performed. The new guidelines define a single conduction study as follows:

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. (CPT 2013, p 535)

### **How to Code**

Table 1 (also in Appendix J of the CPT codebook) shows the types of studies and maximum number of studies that can be reported for various clinical conditions. Code selection is made based on the number of studies per-formed. In some cases, fewer studies will be performed than the maximum number listed in the table, depending on the individual patient's clinical presentation. The numbers of these separate nerve conduction studies and H-reflex tests should be added to determine which code to use. For example, four motor NCSs plus three sensory NCSs plus one H-reflex equals a sum of eight tests. Eight NCS tests are billed with code 95910. The information in the table applies to typical cases, but not all cases.

## **Coding Tip**

A nerve conduction study is counted only once when multiple sites on the same nerve are stimulated or recorded. Motor, sensory, mixed motor/sensory, or H-reflex tests are each counted per nerve tested.

#### Table 1. Number of Studies for Sensory, Motor, and Mixed Nerves Assigned to Codes 95907-95913

Type of Study/Maximum Number	er of Studies		
Indication	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	

Source: American Medical Association. CPT 2013 Professional Edition. Appendix J. Chicago, IL; 2012: p654.

Preconfigured electrode array nerve conduction testing (reported with 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) is customized to a specific anatomic site. This procedure is reported once per limb studied, regardless of the number of nerves tested in a limb. Code 95905 would be reported for each limb. It would not be appropriate to report code 95905 in addition to codes 95885, 95886, or 95907-95913.

Codes 95934 and 95936 for H-reflex tests were deleted for 2013. A parenthetical note in the Electromyography subsection directs users to report the new codes (95907-95913) for H-reflex testing.

# **Coding Tip**

Codes 95907-95913 may be reported in conjunction with codes 95885, 95886, and 95887 for electro-myography (EMG) studies performed the same day as nerve conduction testing. Codes 95885 and 95886 are appropriately reported with up to a combined total of four units of service when all four limbs are tested.



## **Frequently Asked Questions**

**Question:** What is the appropriate code to report for the following procedure, in which a patient with typical pe-ripheral neuropathy with numbness of both feet, who underwent the following NCSs:

unilateral radial sensory nerve,

unilateral sural sensory nerve,

unilateral peroneal motor nerve recording from extensor digitorum brevis with F-wave, and

unilateral tibial motor nerve with F-wave?

Answer: It would be appropriate to report code 95908, as four NCSs were performed. Each motor nerve with F-wave study is considered a single NCS.

**Question:** What is the appropriate code to report for the following procedure in which a patient with typical pe-ripheral neuropathy with numbness of both feet, who underwent needle EMG of abductor hallucis, tibialis anterior, and medial gastrocnemius in one lower limb and the following NCSs:

unilateral radial sensory nerve,

unilateral sural sensory nerve,

unilateral peroneal motor nerve recording from extensor digitorum brevis with F-wave, and

unilateral tibial motor nerve with F-wave?

**Answer:** Report code 95908 in addition to the EMG studies, as four NCSs were performed. For the EMG studies, there were three muscles tested, therefore, report add-on code 95885 for limited EMG studies less than five mus-cles. If five or more muscles were tested, report code 95886 for complete limb.

**Question:** What is the appropriate code to report for the following in which a typical L5 radiculopathy patient with shooting pain radiating down the leg to the big toe, who underwent the following NCS:

unilateral sural sensory nerve,

unilateral peroneal motor nerve recording from extensor digitorum brevis (EDB) with F-wave, and

unitateral tibial motor nerve with F-wave?

**Answer:** Report code 95908, as three NCSs were performed.

**Question:** If everything in the procedure as mentioned in the previous question was performed, in addition to bilateral superficial peroneal sensory nerve conduction studies and needle EMG in one leg of the tibialis anterior, medial gastrocnemius, vastus lateralis, gluteus medius, and gluteus minimus muscles, how would this be coded?

**Answer:** Five nerves were tested. Report code 95909 (for the now five to six NCSs), in addition to code 95886 (for the EMG). To clarify, if the tibialis posterior muscle was also tested, this would not change the EMG-code selection, as this still constitutes five or more muscles in one limb.

Question: How would you report a typical carpal tunnel syndrome patient with nocturnal right hand numbness, in conjunction with needle EMG of the right deltoid, triceps, extensor



digitorum communis, flexor carpi radialis, ab-ductor pollicis brevis, and first dorsal interossei, and the following NCSs: bilateral median nerve motor nerve without F-wave, two point stimulation, unilateral ulnar motor nerve without F-wave, two point stimulation, bilateral median nerve sensory, unilateral ulnar nerve sensory, unilateral median nerve midpalmar mixed, and

unilateral ulnar nerve midpalmar mixed.

Answer: Report code 95910 for eight NCSs performed, and code 95886 for complete limb EMG.

Question: How would H-reflex to the right and left gastric nerves be reported?

Answer: If done in isolation, two separate nerves would be tested, and code 95907 would be reported for the two NCSs. (If only an H-reflex on one side was tested, code 95907

would still be reported.)