

SUBJECT: QUANTITATIVE SENSORY TESTING

EFFECTIVE DATE: 10/18/01

REVISED DATE: 09/19/02

ARCHIVED DATE: 08/21/03

EDITED DATE: 11/10/05, 11/16/06, 11/15/07, 11/20/08, 10/29/09, 10/28/10, 09/15/11, 09/20/12, 09/19/13, 09/18/14

POLICY NUMBER: 2.01.34

PAGE: 1 OF: 3

CATEGORY: Technology Assessment

- *If the member's subscriber contract excludes coverage for a specific service it is not covered under that contract. In such cases, medical policy criteria are not applied.*
- *Medical policies apply to commercial and Medicaid products only when a contract benefit for the specific service exists.*
- *Medical policies only apply to Medicare products when a contract benefit exists and where there are no National or Local Medicare coverage decisions for the specific service.*

POLICY STATEMENT:

Based upon our criteria and assessment of the peer-reviewed literature, quantitative sensory testing has not been medically proven to be effective and is considered **investigational** for all indications.

Refer to *Corporate Medical Policy # 11.01.03 regarding Experimental and Investigational Services.*

POLICY GUIDELINES:

The Federal Employees Health Benefit Program (FEHBP/FEP) requires that procedures, devices or laboratory tests approved by the U.S. Food and Drug Administration (FDA) may not be considered investigational and thus, these procedures, devices, or laboratory tests may be assessed only on the basis of their medical necessity.

DESCRIPTION:

Electromyographic nerve conduction tests are diagnostic studies designed to evaluate the function of large myelinated nerve fibers (e.g., the motor nerves) and thus do not evaluate the function of smaller myelinated and unmyelinated sensory nerves which may show pathologic changes before the involvement of the motor nerves.

Quantitative sensory testing (QST) is not a nerve conduction study and is not electromyography. It is proposed as a non-invasive technique for assessing nerve damage by measuring the pressure threshold felt in the skin. QST was developed to measure sensory stimuli, thermal stimuli or vibratory stimuli. Current perception threshold (CPT) testing and pressure-specified sensory device (PSSD) testing are two methods of QST.

By testing an area of the skin that corresponds to a specific nerve, the extent of nerve damage can be determined by the amount of pressure needed for a person to feel the touch of the testing device. Each area is tested several times and pressure threshold measurements are stored in a computer. The test is pain-free and uses no electrical stimulation, just touch.

Another distinction between a nerve conduction test and quantitative sensory testing is that the former is performed in a laboratory setting, while QST is performed in an office setting.

QST has been investigated for a broad range of clinical applications, including detection of carpal tunnel syndrome, detection of tarsal tunnel syndrome, detection of diabetic neuropathy, detection of fasciitis, evaluation of incomplete spinal cord injury, lumbar radiculopathy, neurotoxicity testing and quantification of hypoesthetic and hyperesthetic conditions.

The CASE IV Computer Aided Sensory Evaluator, Neurometer® CPT, Medi-Dx 7000, Vibration Perception Threshold (VPT) meter, and the NK Pressure Specified Sensory Device are examples of QST devices approved by the Food and Drug Administration (FDA) for use in the U.S.

RATIONALE:

Neurotron received U.S. Food and Drug Administration (FDA) clearance in 1986 to market the electrodiagnostic sensory nerve conduction threshold neurometer for the evaluation of sensory nerve disease and injuries.

SUBJECT: QUANTITATIVE SENSORY TESTING POLICY NUMBER: 2.01.34 CATEGORY: Technology Assessment	EFFECTIVE DATE: 10/18/01 REVISED DATE: 09/19/02 ARCHIVED DATE: 08/21/03 EDITED DATE: 11/10/05, 11/16/06, 11/15/07, 11/20/08, 10/29/09, 10/28/10, 09/15/11, 09/20/12, 09/19/13, 09/18/14 PAGE: 2 OF: 3
---	--

Although quantitative sensory testing was developed as an alternative to traditional electrodiagnostic testing, published studies have not provided evidence to validate its efficacy and its clinical role.

CODES: Number Description

Eligibility for reimbursement is based upon the benefits set forth in the member's subscriber contract.

CODES MAY NOT BE COVERED UNDER ALL CIRCUMSTANCES. PLEASE READ THE POLICY AND GUIDELINES STATEMENTS CAREFULLY.

Codes may not be all inclusive as the AMA and CMS code updates may occur more frequently than policy updates.

All codes are considered investigational.

<u>CPT:</u>	0106T Quantitative sensory testing (QST), testing and interpretation per extremity, using touch pressure stimuli to assess large diameter sensation 0107T Quantitative sensory testing (QST), testing and interpretation per extremity, using vibration to assess large diameter fiber sensation 0108T Quantitative sensory testing (QST), testing and interpretation per extremity, using cooling stimuli to assess small nerve fiber sensation and hyperalgesia 0109T Quantitative sensory testing (QST), testing and interpretation per extremity, using heat-pain stimuli to assess small nerve fiber sensation and hyperalgesia 0110T Quantitative sensory testing (QST), testing and interpretation per extremity, using other stimuli to assess sensation
--------------------	---

Copyright © 2014 American Medical Association, Chicago, IL

<u>HCPCS:</u>	G0255 Current perception threshold/sensory nerve conduction threshold test (sNCT), per limb, any nerve
----------------------	---

ICD9: Multiple diagnosis codes

ICD10: Multiple diagnosis codes

REFERENCES:

American Diabetes Association. Preventive foot care in people with diabetes. Clinical Practice Recommendations. 2001;24(Suppl 1).

Bartlett G, et al. Normal distributions of thermal and vibration sensory thresholds. Muscle Nerve 1998 Mar 21(3):367-74.

BlueCross BlueShield Association. Quantitative sensory testing. Medical Policy Reference Manual Policy #2.01.39. 2013 Oct 10.

Dyck PJ, et al. Quantitative sensation testing in epidemiological and therapeutic studies of peripheral neuropathy. Muscle Nerve 1999 Jun 22(6):659-62.

Freeman R, et al. Quantitative sensory testing cannot differentiate simulated sensory loss from sensory neuropathy. Neurology 2003 Feb 11;60(3):465-70.

Hayes KC, et al. Clinical and electrophysiologic correlates of quantitative sensory testing in patients with incomplete spinal cord injury. Arch Phys Med Rehabil 2002 Nov;83(11):1612-9.

Lerner TH, et al. Quantitative sensory nerve conduction threshold (sNCT) evaluation of the trigeminal nerve at the mental foramen area. J Prosthet Dent 2000 Jul;84(1):103-7.

SUBJECT: QUANTITATIVE SENSORY TESTING POLICY NUMBER: 2.01.34 CATEGORY: Technology Assessment	EFFECTIVE DATE: 10/18/01 REVISED DATE: 09/19/02 ARCHIVED DATE: 08/21/03 EDITED DATE: 11/10/05, 11/16/06, 11/15/07, 11/20/08, 10/29/09, 10/28/10, 09/15/11, 09/20/12, 09/19/13, 09/18/14 PAGE: 3 OF: 3
---	--

Lundstrom R. Neurological diagnosis- aspects of quantitative sensory testing methodology in relation to hand-arm vibration syndrome. Int Arch Occup Environ Health 2002 Jan;75(11-2):68-77.

Magda P, et al. Quantitative sensory testing: high sensitivity in small fiber neuropathy with normal NCS/EMG. J Peripher Nerv Syst 2002 Dec;7(4):225-8.

Malik RA, et al. Sural nerve fibre pathology in diabetic patients with mild neuropathy: relationship to pain, quantitative sensory testing and peripheral nerve electrophysiology. Acta Neuropathol (Berl) 2001 Apr;101(4):67-74.

Menkes DL, et al. Current perception threshold: an adjunctive test for detection of acquired demyelinating polyneuropathies. Electromyogr Clin Neurophysiol 2000 Jun;40(4):205-10.

National Guideline Clearinghouse. Massachusetts guidelines for adult diabetes care. 1999 Jun.

Periquet MI, et al. Painful sensory neuropathy; prospective evaluation using skin biopsy. Neurol 1999 Nov 10;53(8):1614-5.

Shy ME, et al. Quantitative sensory testing: Report of the Therapeutics and Technology Assessment Subcommittee of the American Academy of Neurology. Neurol 2003;60:898-904.

KEY WORDS:

Current perception threshold testing, Quantitative sensory test, QST, Sensory nerve conduction threshold test.

CMS COVERAGE FOR MEDICARE PRODUCT MEMBERS

There is currently a National Coverage Determination (NCD) for Sensory Nerve Conduction Threshold Tests. Please refer to the following NCD website for Medicare Members:

<http://www.cms.gov/medicare-coverage-database/details/ncd-details.aspx?NCDID=270&ncdver=2&CoverageSelection=Both&ArticleType=All&PolicyType=Final&s>New+York++Upstate&CptHcpcsCode=36514&bc=gAAAAABAAAAAA&>