

Policy Name:	Quantitative Sensory Tests
Effective Date:	5/16/2022

Important Information – Please Read Before Using This Policy

These services may or may not be covered by all Medica plans. Coverage is subject to requirements in applicable federal or state laws. Please refer to the member’s plan document for other specific coverage information. If there is a difference between this general information and the member’s plan document, the member’s plan document will be used to determine coverage. With respect to Medicare, Medicaid, and other government programs, this policy will apply unless these programs require different coverage. Members may contact Medica Customer Service at the phone number listed on their member identification card to discuss their benefits more specifically. Providers with questions may call the Medica Provider Service Center toll-free at 1-800-458-5512.

Medica coverage policies are not medical advice. Members should consult with appropriate health care providers to obtain needed medical advice, care, and treatment.

Coverage Policy

Note: This policy is no longer scheduled for routine review of the scientific literature.

Quantitative sensory tests, including but not limited to sensory nerve conduction threshold tests, voltage actuated sensory nerve conduction threshold tests, current perception threshold tests or pressure-specified sensory tests are investigative and unproven and therefore **NOT COVERED**. There is insufficient reliable evidence in the form of high quality peer-reviewed medical literature to establish the efficacy or effects on health care outcomes.

Note: See also related Medica coverage policy: *Automated, Non-Invasive Nerve Conduction Velocity (NCV) Testing*.

Description

Quantitative sensory tests (QST) are proposed for the noninvasive assessment and quantification of sensory nerve function in patients with symptoms of, or the potential for, neurologic damage or disease. QST systems are employed to measure the intensity of stimuli needed to produce specific sensory perceptions. The common physical stimuli are touch, pressure, thermal (warm and cold), pain, and vibratory stimuli. In QST, the patient must be able to comprehend what is being asked by the test, and perceive and respond to sensory stimuli. QST systems are a psychophysical assessment of both central and peripheral nerve functions.

There are several types of QST: sensory nerve conduction threshold (sNCT) testing, voltage-activated sensory nerve conduction threshold (V-sNCT) test, current perception threshold (CPT) testing, and pressure-specified sensory testing.

1. sNCT testing uses electrical stimulation rather than touch alone to measure and quantify the amount of physical stimulation required for a patient to perceive sensory stimulation.
2. Voltage-actuated sensory nerve conduction threshold (V-sNCT) tests measure the voltage intensity entering the body that elicits a patient response. The V-sNCT is purported to detect preganglionic dorsal nerve root pathology earlier than competing nerve conduction testing methods.
3. In CPT testing, three different levels of electrical stimulation are applied to an area of the skin corresponding to the specific nerve being studied. CPT testing evaluates the function of the C, A-delta, and A-beta nerve fibers. The minimal amount of electrical stimulation needed to elicit a sensation is noted,

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based on patient responses. Generally, more electrical stimulation is needed in patients with greater amounts of nerve damage.

4. Pressure-specified sensory testing assesses the nerve function by quantifying the thresholds of pressure detected with light, static and moving touch.

Note: The sNCT or CPT tests are not to be confused with motor and sensory nerve conduction studies (NCS). In NCS, a skin electrode provides a neural stimulus (via an electric shock) and a more distally placed electrode records information from the resulting action potential (e.g., conduction velocity, onset latency and amplitude of response).

FDA Approval

The FDA lists multiple devices for nerve threshold measurement or evoked response. Examples include, but are not limited to:

1. Neurometer® (Neurotron, Inc. Baltimore, MN) granted FDA 510(k) clearance (K853608) June 1986.
2. Neural-Scan formerly known as Medi-Dx 7000™ (NDA formerly known as Neuro-Diagnostic Assoc., Laguna Beach, CA) granted FDA 510(k) clearance (K980966) May 1998.
3. NK Pressure-Specified Sensory Device, Model PSSD (NK Biotechnical engineering CO. Minneapolis, MN) granted FDA 510(k) clearance August 1994.

Prior Authorization

Prior authorization is not applicable. Claims for this service are subject to retrospective review and denial of coverage, as investigative services are not eligible for reimbursement.

Coding Considerations

Use the current applicable CPT/HCPCS code(s). The following codes are included below for informational purposes only, and are subject to change without notice. Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement.

CPT Codes

- **0106T** - Quantitative sensory testing, testing and interpretation per extremity; using touch pressure stimuli to assess large diameter sensation
- **0107T** - Quantitative sensory testing, testing and interpretation per extremity; using vibration stimuli to assess large diameter fiber sensation
- **0108T** - Quantitative sensory testing, testing and interpretation per extremity; using cooling stimuli to assess small nerve fiber sensation and hyperalgesia
- **0109T** - Quantitative sensory testing, testing and interpretation per extremity; using heat-pain stimuli to assess small nerve fiber sensation and hyperalgesia
- **0110T** - Quantitative sensory testing, testing and interpretation per extremity; using other stimuli to assess sensation
- **G0255** - Current perception threshold/sensory nerve conduction, test, (s-NCT) per limb, any nerve

Original Effective Date: 3/1/2007
Re-Review Date(s): 1/19/2010
1/15/2013
2/17/2016 – Clinical Review Reserve
2/20/2019
2/24/2020 – administrative update; format
2/16/2022