Medical Policy
Transcutaneous Electrical Nerve Stimulation

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Policy Number: 003
BCBSA Reference Number: 1.01.09 (For Plan internal use only)

Related Policies
- Interferential Stimulation for Treatment of Pain, #509
- Temporomandibular Joint Dysfunction, #035
- Percutaneous Electrical Nerve Stimulation or Percutaneous Neuromodulation Therapy, #172

Policy
Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity

A trial of transcutaneous electrical nerve stimulation (TENS) of at least 30 days may be considered MEDICALLY NECESSARY to establish efficacy for the management of refractory chronic pain (e.g., chronic musculoskeletal or neuropathic pain) that causes significant disruption of function when the following conditions have been met:
- The pain is unresponsive to at least 3 months of conservative medical therapy, AND
- The trial is monitored by a physician.

Refractory chronic pain is defined in this policy as pain that causes significant disruption of function and has not responded to at least 3 months of conservative therapy, including nonsteroidal anti-inflammatory medications, ice, rest, and/or physical therapy.

Documentation for the trial should include:
- Initial assessment/evaluation of the nature, duration, and perceived intensity of pain;
- The types and duration of prior treatments;
- Treatment plan including ongoing medications and proposed use of TENS unit, including the frequency and duration of treatment.

Clinical summary of the trial to determine efficacy should include:
- Perceived intensity of pain with and without TENS (e.g., 2 point or 30% improvement in visual analog scale [VAS]),
- Ongoing medication requirements for pain relief (if any),
- Other modalities (if any) in use for pain control, and
- Actual use of TENS on a daily basis (frequency and duration of application).
Continued use of TENS may be considered **MEDICALLY NECESSARY** for treatment of refractory chronic pain (e.g., chronic musculoskeletal or neuropathic pain) that causes significant disruption of function when the following conditions have been met:
- Efficacy has been demonstrated in an initial therapeutic trial; AND
- Compliance has been demonstrated in the therapeutic trial with the device used on a regular basis (e.g., daily or near daily use) throughout the trial period.

**Note:** A TENS billed as a purchased unit (modifier NU) must meet above criteria for continued use.

TENS is **INVESTIGATIONAL** for the management of acute pain (e.g., postoperative or during labor and delivery).

TENS is considered **INVESTIGATIONAL** for the management of essential tremor.

TENS is considered **INVESTIGATIONAL** for the management of attention deficit hyperactivity disorder.

The use of TENS for any other condition, including but not limited to the treatment of dementia and prevention of migraine headaches, is **INVESTIGATIONAL**.

**Prior Authorization Information**

**Inpatient**
- For services described in this policy, precertification/preauthorization **IS REQUIRED** for all products if the procedure is performed **inpatient**.

**Outpatient**
- For services described in this policy, see below for products where prior authorization **might be required** if the procedure is performed **outpatient**.

<table>
<thead>
<tr>
<th></th>
<th>Outpatient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial Managed Care (HMO and POS)</td>
<td>Prior authorization is not required.</td>
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<tr>
<td>Commercial PPO and Indemnity</td>
<td>Prior authorization is not required.</td>
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**CPT Codes / HCPCS Codes / ICD Codes**

Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member’s contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.

Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.

The above medical necessity criteria **MUST** be met for the following codes to be covered for Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity:

**HCPCS Codes**

<table>
<thead>
<tr>
<th>HCPCS codes:</th>
<th>Code Description</th>
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<tbody>
<tr>
<td>A4595</td>
<td>Electrical stimulator supplies, 2 lead, per month, (e.g., TENS, NMES)</td>
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<tr>
<td>A4630</td>
<td>Replacement batteries, medically necessary, transcutaneous electrical stimulator, owned by patient</td>
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<tr>
<td>E0720</td>
<td>Transcutaneous electrical nerve stimulator (TENS) device, two lead, localized stimulation</td>
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<tr>
<td>E0730</td>
<td>Transcutaneous electrical nerve stimulation (TENS) device, four or more leads, for multiple nerve stimulation</td>
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<tr>
<td>E0731</td>
<td>Form-fitting conductive garment for delivery of TENS or NMES (with conductive fibers separated from the patient's skin by layers of fabric</td>
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</table>
The following CPT code is considered investigational for Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity.

### CPT Codes

<table>
<thead>
<tr>
<th>CPT codes:</th>
<th>Code Description</th>
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<tr>
<td>0278T</td>
<td>Transcutaneous electrical modulation pain reprocessing (eg, scrambler therapy), each treatment session (includes placement of electrodes)</td>
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</table>

**Description**

Transcutaneous electrical nerve stimulation (TENS) has been used to treat chronic intractable pain, postsurgical pain, and pain associated with active or post trauma injury unresponsive to other standard pain therapies. It has been proposed that TENS may provide pain relief through the release of endorphins in addition to potential blockade of local pain pathways. TENS has also been used to treat dementia by altering neurotransmitter activity and increasing brain activity that is thought to reduce neural degeneration and stimulate regenerative processes.

Percutaneous electrical nerve stimulation (see policy #172) is similar to TENS but uses microneedles that penetrate the skin instead of surface electrodes. Interferential stimulation (see policy #509) uses a modulated waveform for deeper tissue stimulation, and the stimulation is believed to improve blood flow to the affected area.

**Summary**

Transcutaneous electrical nerve stimulation (TENS) describes the application of electrical stimulation to the surface of the skin. In addition to more traditional settings such as a physician’s office or an outpatient clinic, TENS can be self-administered in a patient’s home.

**Summary of Evidence**

For individuals who have chronic pain (eg, musculoskeletal, neuropathic, and mixed pain conditions) who receive TENS, the evidence includes numerous randomized controlled trials (RCTs) and systematic reviews. Relevant outcomes are symptoms, functional outcomes, quality of life (QOL), and medication use. The overall strength of the evidence is weak. The best evidence exists for the treatment of chronic, intractable pain. Available evidence indicates that TENS can improve chronic intractable pain in some individuals, and there is support for its use in clinical guidelines by specialty societies. To best direct TENS toward individuals who will benefit, a short-term trial of TENS is appropriate, with continuation only in individuals who show an initial improvement. The evidence is sufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have acute pain (eg, surgical, musculoskeletal, labor, and mixed pain conditions) who receive TENS, the evidence includes RCTs and systematic reviews. Relevant outcomes are symptoms, functional outcomes, QOL, and medication use. Overall, evidence for the use of TENS from high-quality trials remains inconclusive for most indications. A systematic review of TENS for acute and chronic pain found some evidence that TENS reduces pain intensity over and above that seen with placebo and other control groups in patients with acute pain, but small-sized trials contributed to imprecision in magnitude estimates. Systematic reviews have found that TENS may help reduce pain in patients with postoperative pain (post-caesarean and total knee arthroplasty), dysmenorrhea, and pain associated with labor and delivery. For low back pain, systematic reviews have found insufficient evidence to support or refute the use of TENS. Randomized controlled trials have reported mixed results in the efficacy of TENS across various acute pain conditions. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have essential tremor who receive TENS, the evidence includes a nonrandomized study. Relevant outcomes are symptoms, functional outcomes, QOL, and medication use. Results from the nonrandomized study suggest that TENS therapy is effective and safe for individuals with essential tremor. However, the trial was limited by its open-label, single-arm design, lack of defined standards for what constitutes a clinically meaningful improvement in stated endpoints, and exclusion of individuals who
exited the study early from the pre-specified primary and secondary endpoint analyses. Further studies comparing TENS to standard of care therapy for essential tremor are needed. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have attention deficit hyperactivity disorder (ADHD) who receive TENS, the evidence includes one RCT. Relevant outcomes are symptoms, functional outcomes, QOL, and medication use. Results of the RCT concluded that TENS is an effective and safe treatment option for pediatric individuals with ADHD. However, the study included a small patient sample and was of short duration. Further studies comparing TENS to standard of care therapy for ADHD are needed. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

**Policy History**

<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
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<tbody>
<tr>
<td>1/2023</td>
<td>Annual policy review. Description, summary, and references updated. Policy statement unchanged.</td>
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<tr>
<td>1/2021</td>
<td>Annual policy review. Description, summary, and references updated. Policy statements unchanged.</td>
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<tr>
<td>1/2021</td>
<td>Medicare information removed. See MP #132 Medicare Advantage Management for local coverage determination and national coverage determination reference.</td>
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<tr>
<td>1/2018</td>
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<tr>
<td>1/2018</td>
<td>Clarified coding information.</td>
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<tr>
<td>8/2016</td>
<td>Clarified coding information.</td>
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<tr>
<td>12/2015</td>
<td>Annual policy review. New references added.</td>
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<tr>
<td>12/2015</td>
<td>Added coding language.</td>
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<tr>
<td>5/2014</td>
<td>Updated Coding section with ICD10 procedure and diagnosis codes. Effective 10/2015.</td>
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<tr>
<td>12/2013</td>
<td>Medically necessary indications clarified.</td>
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<td>10/2013</td>
<td>Annual policy review. New references added</td>
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<td>2/2010</td>
<td>Annual policy review. Changes to policy statements.</td>
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<td>7/2009</td>
<td>Annual policy review. Changes to policy statements.</td>
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**Information Pertaining to All Blue Cross Blue Shield Medical Policies**

Click on any of the following terms to access the relevant information:

- [Medical Policy Terms of Use](#)
- [Managed Care Guidelines](#)
References


52. Magis D, Sava S, d'Elia TS, et al. Safety and patients' satisfaction of transcutaneous supraorbital neurostimulation (tSNS) with the Cefaly(R) device in headache treatment: a survey of 2,313 headache sufferers in the general population. J Headache Pain. Dec 01 2013; 14: 95. PMID 24289825


86. Chesterton LS, Lewis AM, Sim J, et al. Transcutaneous electrical nerve stimulation as adjunct to primary care management for tennis elbow: pragmatic randomised controlled trial (TATE trial). BMJ. Sep 02 2013; 347: f5160. PMID 23999980


