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## Subject: Transcutaneous Electric Nerve Stimulation (TENS)

THIS MEDICAL COVERAGE GUIDELINE IS NOT AN AUTHORIZATION, CERTIFICATION, EXPLANATION OF BENEFITS, OR A GUARANTEE OF PAYMENT, NOR DOES IT SUBSTITUTE FOR OR CONSTITUTE MEDICAL ADVICE. ALL MEDICAL DECISIONS ARE SOLELY THE RESPONSIBILITY OF THE PATIENT AND PHYSICIAN. BENEFITS ARE DETERMINED BY THE GROUP CONTRACT, MEMBER BENEFIT BOOKLET, AND/OR INDIVIDUAL SUBSCRIBER CERTIFICATE IN EFFECT AT THE TIME SERVICES WERE RENDERED. THIS MEDICAL COVERAGE GUIDELINE APPLIES TO ALL LINES OF BUSINESS UNLESS OTHERWISE NOTED IN THE PROGRAM EXCEPTIONS SECTION.

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### DESCRIPTION:

TENS devices consist of an electrical pulse generator, usually battery-operated, connected by wire to 2 or more electrodes, which are applied to the surface of the skin at the site of the pain. Since 1977, a large number of devices have received marketing clearance through the U.S. Food and Drug Administration (FDA) 510(k) process. Marketing clearance via the 510(k) process does not require data regarding clinical efficacy; these devices are considered substantially equivalent to predicate devices marketed in interstate commerce prior to May 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified and do not require approval of a premarket approval application (PMA).

The BioniCare Bio-1000™ stimulator is a device that has received U.S. Food and Drug Administration (FDA) 510(k) marketing clearances to deliver pulsed electrical stimulation for the treatment of osteoarthritis of the knee and rheumatoid arthritis of the hand. The FDA gave the BioniCare Bio-1000™ clearance after finding it to be substantially equivalent to transcutaneous electrical nerve stimulation devices. The BioniCare system consists of an electronic stimulator device with electrical leads that are placed over the affected area and held in place with a lightweight, flexible wrap and Velcro fasteners. The battery-powered device delivers small pulsed electrical currents of 0.0 to 12.0 volt output. It is recommended that the device be worn for at least 6 hours per day and patients are reported to often wear the device while sleeping. The BioniCare system is contraindicated in patients with demand-type pacemakers and may interfere with other electronic devices.

The ReBuilder® stimulator is a device that has received U.S. Food and Drug Administration (FDA) 510(k) marketing clearance as a prescription device for the following uses: relaxation of muscle spasms, prevention or retardation of disuse atrophy, increasing local blood circulation, muscle reeducation, immediate post-surgical stimulation of calf muscles to prevent venous thrombosis, maintaining or increasing range of motion, symptomatic relief of chronic intractable pain, and post-traumatic and post-surgical pain relief. The FDA found the ReBuilder® to be substantially equivalent to transcutaneous

electrical nerve stimulation (TENS) devices. The ReBuilder® system consists of an electrical stimulator with lead wires that may be used with conductive garments (gloves, socks or a sleeve), and/or a footbath. The conductive garments are moistened with water and an electrolyte solution. If the footbath is used, the electrolyte solution is added to the water. The ReBuilder® features analysis of waveforms through its internal microprocessor.

**Interferential stimulation (IFS)** is a type of electrical stimulation. It is believed that IFS permeates the tissues more effectively and thus is more comfortable than transcutaneous electrical nerve stimulation (TENS). Interferential stimulation has been investigated as a technique to reduce pain, improve range of motion, or promote local healing following various tissue injuries.

Interferential stimulation (IFS) uses paired electrodes of 2 independent circuits carrying high-frequency (4,000 Hz) and medium-frequency (150 Hz) alternating currents. The superficial electrodes are aligned on the skin around the affected area. It is believed that IFS permeates the tissues more effectively and, with less unwanted stimulation of cutaneous nerves, is more comfortable than transcutaneous electrical stimulation (TENS). There are no standardized protocols for the use of interferential therapy; the therapy may vary according to the frequency of stimulation, the pulse duration, treatment time, and electrode-placement technique.

**Microcurrent therapy (MCT) [microcurrent electrical nerve stimulation (MENS)]** delivers significantly reduced electrical stimulation compared to TENS, using current between 1 and 1,000 microA. It is most commonly delivered with hand-held probes or self-adhesive electrodes that bracket the treated area. While TENS blocks pain, MCT acts on the naturally occurring electrical impulses to decrease pain by stimulating the healing process. Examples of this type of device include, but are not be limited to, Accutron, Algonix, Alpha-Stim 100, Electro-Lyoscope 85P, Electro-Myopulse 75L, KFH Energy, MENS 2000-D, MICROCURRENT and Myopulse 75C.

## **POSITION STATEMENT:**

### **Transcutaneous electrical nerve stimulators (TENS)**

Transcutaneous electrical nerve stimulator (TENS) **meets the definition for medical necessity** for the following indications:

- Acute post-operative pain
- Chronic, intractable pain where other treatment modalities have been tried and failed.

### **Conductive Garments**

A conductive garment (E0731) used with a TENS unit **meets the definition of medical necessity** when the conductive garment is FDA approved, prescribed by a physician, and when one or more of the following conditions exist:

- The patient has a large area or multiple sites to be stimulated and the stimulation would have to be delivered so frequently that pain cannot be managed by using conventional electrodes, adhesive tapes and lead wires;
- The patient's chronic intractable pain is located in areas that are inaccessible with the use of conventional electrodes;
- The patient has a medical condition (i.e., skin condition) that prevents the use of conventional electrodes;
- The patient requires electrical stimulation beneath a cast

- The patient has a medical need for rehabilitation strengthening following an injury where the nerve supply to the muscle is intact.

TENS is considered **experimental or investigational**, as there is insufficient clinical evidence to support the use of TENS for the following indications:

- Pain relief for labor and vaginal delivery
- Management of nausea and vomiting of pregnancy
- Management of postoperative-induced or chemotherapy-induced nausea and vomiting
- Abdominal pain
- Pelvic pain
- Acute and chronic headache

There is insufficient scientific evidence to permit conclusions regarding the effects of TENS in the treatment of the above indications, on health outcomes.

Electrical stimulation (e.g. Bionicare) is considered **experimental or investigational**, as there is insufficient clinical evidence to support the use of electrical stimulation for the treatment of osteoarthritis or rheumatoid arthritis. There is insufficient evidence to indicate the use of electrical/electromagnetic stimulation for the treatment of arthritis will result in improvements in health outcomes.

The ReBuilder® system **does not meet the definition of medical necessity**, as there is insufficient published clinical evidence that demonstrates this device is more effective than standard TENS devices.

### **Interferential stimulation (IFS)**

Interferential current stimulation is considered **experimental or investigational** for treatment of pain. The available scientific evidence remains insufficient to permit conclusions concerning the effect of this technology on net health outcomes.

### **Microcurrent electrical nerve stimulation (MENS)**

Microcurrent electrical nerve stimulation (e.g., Accutron, Algonix, Alpha-Stim 100, Electro-Lyoscope 85P, Electro-Myopulse 75L, KFH Energy, MENS 2000-D, Myopulse 75C) is considered **experimental or investigational** for treatment of pain. Data in published medical literature are inadequate to permit scientific conclusions on long-term and net health outcomes.

## **BILLING/CODING INFORMATION:**

There are no specific CPT codes describing interferential current stimulation. Code 97014 could be used.

### **HCPSC Coding:**

A4556	Electrodes (e.g., apnea monitor), per pair
A4557	Lead wires (e.g., apnea monitor), per pair
A4558	Conductive gel or paste, for use with electrical device (e.g., TENS, NMES), per oz
A4595	Transcutaneous electrical nerve stimulation (TENS) device supplies, 2 lead, per month
A4630	Replacement batteries, medically necessary, transcutaneous electrical stimulator, owned

	by patient
E0720	Transcutaneous electrical nerve stimulator (TENS) device, two lead, localized stimulation
E0730	Transcutaneous electrical nerve stimulation (TENS) device, four or more leads, for multiple nerve stimulation
E0731	Form fitting conductive garment for delivery of TENS
E0762	Transcutaneous electrical joint stimulation device system, includes all accessories <b>(investigational)</b>
E0765	FDA-approved nerve stimulator, with replacement batteries, for treatment of nausea and vomiting <b>(investigational)</b>
S8130	Interferential current stimulator, 2-channel <b>(investigational)</b>
S8131	Interferential current stimulator, 4-channel <b>(investigational)</b>

## **REIMBURSEMENT INFORMATION:**

### **Supplies for Rented TENS Units**

The reimbursement for supplies used with a rented TENS unit is included in the rental allowance and includes the following:

- Electrodes (any type) (A4556)
- Conductive past or gel (if needed, depends on the type of electrode used) (A4558)
- Tape or other adhesive (if needed) (A4364)
- Adhesive removal, skin preparation materials (A4455)
- Batteries (9 volt or AA, single use or rechargeable) (A4630)
- Battery charger (if rechargeable batteries are used).

### **Supplies for Purchased TENS Units**

If the TENS unit (E0720 or E0730) is purchased, the initial allowance includes lead wires and one month's supply of electrodes, conductive paste or gel (if needed), and batteries.

A separate allowance is made for medically necessary replacement supplies used with a purchased TENS unit. Reimbursement for TENS supplies is limited to one unit of A4595 per month for a 2-lead TENS and two units of A4595 per month for a 4-lead TENS.

Replacement of electrodes (A4556) is limited to four (4) units per month.

Replacement of damaged lead wires (A4557) is rarely medically necessary more frequently than every 12 months; therefore, reimbursement for code A4557 is limited to one (1) unit per 12-month period.

Replacement of the battery (A4630) is limited to one (1) unit per month.

### **Reimbursement for A4595 includes the following:**

- Electrodes (any type) (A4556)
- Conductive past or gel (if needed, depends on the type of electrode used) (A4558)
- Tape or other adhesive (if needed) (A4364)
- Adhesive removal, skin preparation materials (A4455)

- Batteries (9 volt or AA, single use or rechargeable) (A4630)
- Battery charger (if rechargeable batteries are used).

**Other Supplies**

No separate or additional reimbursement is made for the following supply items:

- Adapters (i.e., snap, banana, alligator, tab, button, clip)
- Belt clips
- Adhesive remover
- Additional connection cable for lead wires
- Carrying pouches or covers.

Services in excess of these limitations require documentation of medical necessity (e.g. a new condition or injury: an extended interruption in treatment).

**LOINC Codes:**

The following information may be required documentation to support medical necessity: physician history and physical, physician progress notes, treatment plan, and radiology reports (if applicable).

Documentation Table	LOINC Codes	LOINC Time Frame Modifier Code	LOINC Time Frame Modifier Codes Narrative
Physician history and physical	28626-0	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Attending physician visit note	18733-6	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim.
Treatment plan	18776-5	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim.
Radiology report	18726-0	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim

**PROGRAM EXCEPTIONS:**

**Federal Employee Program (FEP):** Follow FEP guidelines.

**State Account Organization (SAO):** Follow SAO guidelines.

**Medicare Advantage Products:**

The following National Coverage Determinations (NCDs) located at [www.cms.gov](http://www.cms.gov) were reviewed on the last guideline reviewed date:

- Transcutaneous Electrical Nerve Stimulation (TENS) for Acute Post-Operative Pain (10.2)

- Treatment of Motor Function Disorders with Electric Nerve Stimulation (160.2)
- Electrical Nerve Stimulators (160.7)
- Assessing Patient's Suitability for Electrical Nerve Stimulation Therapy (160.7.1)
- Supplies Used in the Delivery of Transcutaneous Electrical Nerve Stimulation (TENS) Neuromuscular Electrical Stimulation (NMES) (160.13)
- Transcutaneous Electrical Nerve Stimulators (TENS) (280.13)

The following Durable Medical Equipment Regional Carrier (DMERC) Local Coverage Determination (LCD) located at [www.cgsmedicare.com](http://www.cgsmedicare.com) was reviewed on the last guideline reviewed date:

- Transcutaneous Electrical Nerve Stimulators (TENS) (L33802)
- Transcutaneous Electrical Joint Stimulation Devices (TEJSD) (L34821)

### **DEFINITIONS:**

**TENS (transcutaneous electric nerve stimulation):** a small battery powered electronic device used for the treatment of pain. An electrode attaches to the skin near the painful area and sends a signal to the brain that competes with "pain signals" from the painful area, resulting in less perception of pain by the brain. These devices do not treat the cause of the pain, but decreases the brain's sensation of the pain.

**PENS (percutaneous electric nerve stimulation):** similar to TENS except that instead of electrodes attached to the skin, a needle is inserted into the site of pain.

### **RELATED GUIDELINES:**

**[Temporomandibular Joint \(TMJ\) Dysfunction; Diagnosis and Treatment, 02-20000-12](#)**  
**[Percutaneous Electrical Nerve Stimulation \(PENS\), 02-61000-03](#)**

### **OTHER:**

None applicable.

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17. Centers for Medicare and Medicaid Services (CMS) Manual System, Pub. 100-3, Medicare National Coverage, Chapter 1, Part 2, Section 160.7.1 Assessing Patient's Suitability for Electrical Nerve Stimulation Therapy, (06/19/06). (Accessed 01/09/12).
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### **COMMITTEE APPROVAL:**

This Medical Coverage Guideline (MCG) was approved by the Florida Blue Medical Policy & Coverage Committee on 07/25/19.

## **GUIDELINE UPDATE INFORMATION:**

09/15/02	Medical Coverage Guideline Reformatted and Revised.
01/01/03	HCPCS coding update.
08/15/03	HCPCS coding update consisting of the addition of code E0765.
11/15/03	Review and revision of guideline consisting of updated references.
01/01/04	Annual HCPCS coding update.
09/15/04	Unscheduled review and revision of guideline; consisting of updated references, and various formatting changes; information on Bionicare device added.
03/15/05	Revision of guideline; consisting of addition of EMSI IF-5000.
01/01/06	Annual HCPCS update consisting of the addition of E0762 and the revision of A4630.
08/15/06	Scheduled review and revision of guideline consisting of updated references.
01/01/07	HCPCS coding update consisting of the revision of A4558, E0720 and E0730.
07/15/07	Annual review, current coverage and limitations maintained, reformatted guideline, references updated.
07/15/08	Review and revision of guideline consisting of updated references.
06/15/09	Scheduled review; no change in position statement. Update references.
01/01/10	Annual HCPCS coding update: remove reference to HCPCS code A4365.
04/15/10	Annual review; no change in position statement. Update references.
05/15/10	Review with revision to position statement to add nausea and vomiting of pregnancy as an experimental or investigational use for electric stimulation. References updated.
09/15/11	Revision; formatting changes.
02/15/12	Annual review; added coverage statement for interferential stimulation (E/I). Updated description section, CPT coding section, HCPCS coding section, reimbursement information and references.
11/15/12	Revision; revised reimbursement section regarding code 64550.
05/15/13	Revision; revised description section and position statement. Updated references.
09/15/15	Revision; updated Reimbursement Information section.
01/01/18	Annual CPT/HCPCS coding update: added 64550.
01/01/19	Annual CPT/HCPCS coding update. Deleted 64550.

08/15/19	Scheduled review. Revised description and program exceptions. Added coverage statement (E/I) for microcurrent electrical nerve stimulation. Updated references.
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