Medical Coverage Policy
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Electrostimulation Therapy

Definition

Transcutaneous electrical nerve stimulation (TENS) involves the direct stimulation of nerves by short-duration, small-amplitude electrical pulses designed to provide nonpharmacological relief of acute pain arising from labor and childbirth, primary dysmenorrhea, and various other medical conditions

Percutaneus electrical nerve stimulation (PENS) is a conservative, minimally invasive treatment for pain in which needles connected through a cable to an external power source are inserted into the skin. Needle placement is near the area of pain and are percutaneous instead of cutaneous, as in transcutaneous electrical nerve stimulation (TENS). PENS electrodes are not permanently implanted as in spinal cord stimulation. The mechanism of action of PENS is theorized to modulate the hypersensitivity of nerves from which the persistent pain arises, potentially involving endogenous opioid-like substances. This procedure is different from acupuncture with electrical stimulation. Acupuncture involves the placement of needles along different meridians based on theories of an energy field. PENS involves placement of electrical needles near the site of pain to decrease the sensation of pain carried by nerves innervating the area.

Microcurrent electrical therapy (MET) is a form of electrical stimulation therapy. MET uses current in the microampere range, typically low frequencies, and low-resistance electrodes (probes or self-adhesive electrodes). Probe placement is typically on either side of the affected area. These include alpha-stim and biowave devices. Studies with devices included lateral epicondylitis (tennis elbow), low back pain (LBP), Achilles tendinopathy, temporomandibular joint (TMJ) disorders (adults and adolescents), and bruxism (teeth grinding). Alpha Stim studies include anxiety, insomnia, depression, and pain.

Neuromuscular Electrical Stimulation (NMES) uses a device that sends electrical impulses to nerves. This input causes muscles to contract. The electrical stimulation can increase strength and range of motion, and offset the effects of disuse. It is often used to “re-train” or “re-educate” a muscle to function and to build strength after a surgery or period of disuse.

NMES devices contain a power supply (general rechargeable batteries), a signal generator, a control circuit, a modulating circuit and output circuit, and electrodes. Electrodes may be superficial, percutaneous, or implanted. Functional electrical stimulation is artificial electrical stimulation of muscles to produce movements such as standing, walking, and grasping. NMES is used to facilitate voluntary motor control and temporarily reduce spasticity in patients suffering from spinal cord injury, cerebral palsy, or other upper motor neuron disorders. NMES units are considered class II devices.

Policy Statement

Disclaimer: This policy is applicable to TRICARE Prime & Select beneficiaries, and may not apply to Active Duty Service Members (ADSM) under SHCP or TPR in accordance with TOM Chapter 17, Section 3. Please review TOM Chapter 17, Section 3, Paragraph 2.0 onwards, regarding SHCP coverage and any TRICARE specific exclusions included in this coverage policy to accurately determine the benefit for ADSMs

I. Transcutaneous Electrical Nerve Stimulation (TENS) may be covered for the following conditions:
   1. Post-operative or post-injury pain only in the first 30 days after surgery or injury
   2. Chronic pain (persists or recurs for at least 3 months) unresponsive to conventional treatment
   3. Dysmenorrhea unresponsive to pain medication and/or hormonal treatment

II. Neuromuscular Electrical Stimulation (NMES) may be covered for FDA approved devices for the following conditions:
   1. For prevention and/or treatment of disuse atrophy , where nerve supply to the muscle is intact, due to a condition including, but not limited to the following:
      a. Recent hip surgery until the patient begins physical therapy, or
      b. Prolonged (greater than 12 weeks) casting or splinting of a joint, or
      c. Contractures as a result of scarring of soft tissue from burns, or
      d. Major knee surgery with failure to respond to physical therapy
   2. For spinal cord injury and other motor neuron disorders (such as cerebral palsy) where nerve supply to the muscle is intact; or
   3. For idiopathic scoliosis in pediatric and adolescent patients.

Limitations of coverage

I. TENS is not covered for the treatment of acute, subacute, and chronic low back pain per TRICARE policy manual.

II. PENS is not covered for the treatment of low back pain as there is inconclusive evidence of clinical efficacy (Hayes D2 rating)

III. MET is not covered for the treatment of musculoskeletal pain or post-operative pain as there is inconclusive evidence of clinical efficacy (Hayes D2 rating)

IV. NMES is not covered for the following conditions per TRICARE policy:
   a. Patients with spinal cord injuries who also have epilepsy, cognitive limitations that affect the operation of the device, osteoporosis, cardiac pacemakers.
   b. Disuse atrophy of denervated muscles
   c. Exercise program for healthy individuals
   d. Implantable devices for scoliosis

TRICARE Policy Statements

TPM Chapter 4 section 20.1, 3.0 Exclusions, 3.20

3.20 Transcutaneous Electrical Nerve Stimulation (TENS) for the treatment of acute, subacute, and chronic low back pain (LBP) is excluded from coverage. (effective June 1, 2020)

TPM Chapter 4 section 6.1, 5.0 Exclusion, 5.15

5.15 Transcutaneous Electrical Nerve Stimulation (TENS) for the treatment of acute, subacute, and chronic low back pain (LBP) is excluded from coverage.

TPM Chapter 7 section 18.2, 4.0 Exclusions, 4.17

4.17 Effective June 1, 2020, Transcutaneous Electrical Nerve Stimulation (TENS) for the treatment of acute, subacute, and chronic low back pain (LBP) is excluded from coverage. Physical therapy visits where the sole treatment provided is TENS for LBP are not eligible for cost-sharing. Separate charges for TENS therapy provided during the course of an otherwise-covered physical therapy visit are not eligible for cost-sharing. TENS units for home use, prescribed during the course of physical therapy, for the treatment of LBP, are not covered.

TPM Chapter 8 section 5.2, 3.0 Exclusions, 3.1-3.4

3.1 Neuromuscular stimulators used by spinal cord-injured patients who have epilepsy, cognitive deficiencies, osteoporosis, spasticity or other conditions that could interfere with its safe use are excluded.

3.2 Claims for neuromuscular stimulators used on denervated muscle should be denied as unproven medical treatment or procedure.

3.3 Claims for neuromuscular stimulators used as part of an exercise program of healthy individuals (i.e., athletes) cannot be considered for cost-sharing as this is not medically necessary service and supply required in the diagnosis and treatment of an illness or injury.

3.4 The treatment of scoliosis with implanted electrical muscle stimulation is considered unproven and is not a covered benefit.

3.5 Functional Electrical Stimulation (FES) for the treatment of foot drop in Multiple Sclerosis (MS) and post stroke patients is considered unproven.

3.6 FES for the treatment of non-traumatic spinal cord injury from Transverse Myelitis (TM) in children and adolescents is considered unproven.

Coding Information

E0720	Transcutaneous electrical nerve stimulation device, two-lead, localized stimulation
E0730	Transcutaneous electrical nerve stimulation device, four or more leads, for multiple nerve stimulation
E0731	Form-fitting conductive garment for delivery of TENS or NMES (with conductive fibers separated from the patient's skin by layers of the fabric)
E0745	Neuromuscular stimulator, electronic shock unit
E0770	Functional electrical stimulator, transcutaneous stimulation of nerve and/or muscle groups, any type, complete system, not otherwise specified

References

1. TRICARE Policy Manual Chapter 4, 7, and Chapter 8 TRICARE Manuals - Manual Information (health.mil)
2. Centers for Medicare and Medicaid Services. National Coverage Determination (NCD) 160.12 Neuromuscular Electrical Stimulation. Effective Date 10/01/2006
3. Centers for Medicare and Medicaid Services. National Coverage Determination (NCD) 10.2 Transcutaneous Electrical Nerve Stimulation for Acute Post-operative Pain. Effective Date 06/08/2012
4. Centers for Medicare and Medicaid Services. National Coverage Determination (NCD) 160.27 Transcutaneous Electrical Nerve Stimulation for Chronic Low Back Pain. Effective Date 06/08/2012
5. MCG Health. Electrical Nerve Stimulation, Transcutaneous (TENS). Ambulatory Care. 27^{h} edition. ACG: A-0241 (AC). Last reviewed: 09/21/2023
6. Uptodate Inc. Subacute and Chronic Low Back Pain: Non-pharmacologic and Pharmacologic Treatment. Last updated 07/18/2023
7. Uptodate Inc. Management of knee osteoarthritis. Last updated 07/20/2023

Revision History

February 2024:

- Removed limitation of coverage for osteoarthritis of the knee based on AAOS recommendations
- Updated TRICARE policy exclusions to include additional points
- Updated references

May 2023:

- Updated references

Approved by:

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Chief Medical Officer

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