



PROVIDER POLICIES & PROCEDURES

NEUROMUSCULAR ELECTRICAL STIMULATION (NMES) DEVICES

The primary purpose of this document is to assist providers enrolled in the Connecticut Medical Assistance Program (CMAP Providers) with the information needed to support a medical necessity determination for neuromuscular electrical stimulation (NMES) devices. By clarifying the information needed for prior authorization of services, HUSKY Health hopes to facilitate timely review of requests so that individuals obtain the medically necessary care they need as quickly as possible.

Neuromuscular electrical stimulation involves the use of a device that transmits electrical impulses through electrodes that are placed directly on the skin over a targeted muscle group causing those muscles to contract. NMES is used to strengthen muscles, prevent muscle atrophy, and aid in functional movement. Types of NMES include functional electrical stimulation (FES) and NMES devices used to treat muscle atrophy.

FES

Functional electrical stimulation (FES) uses NMES that turns muscle contractions into functional movement and is frequently utilized as part of a comprehensive rehabilitation program. Requests for FES are reviewed using the HUSKY Health [Functional Electrical Stimulation policy](#).

CLINICAL GUIDELINE

Coverage guidelines for a NMES device will be made in accordance with the DSS definition of Medical Necessity. The following criteria are guidelines *only*. Coverage determinations are based on an assessment of the individual and his or her unique clinical needs. If the guidelines conflict with the definition of Medical Necessity, the definition of Medical Necessity shall prevail. The guidelines are as follows:

HCPCS Code E0745

(e.g., The RS-4i® Plus Sequential Stimulator with Intersperse®, Mediliev™ touch)

The use of an NMES device for the treatment of disuse atrophy may be considered medically necessary when:

- A. Nerve supply to the muscle is intact, including brain, spinal cord, and peripheral nerves; and
- B. Disuse muscle atrophy is a result of a non-neurologic etiology including but not limited to;
 - After the removal of cast or splint
 - Contracture caused by scarring of soft tissue (e.g. burn lesion)
 - Post- hip replacement prior to rehabilitation training; and
- C. The individual possesses no known contraindications (as described by the manufacturer) for the use of the device.

Contraindications

- Cardiac pacemaker or implanted defibrillator
- Any implanted metallic or electric device

Please note that authorization is based on medical necessity at the time the authorization is issued and is not a guarantee of payment. Payment is based on the individual having active coverage, benefits and policies in effect at the time of service.

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- Suspected or diagnosed epilepsy
- Confirmed pregnancy
- Any suspected serious heart conditions, disease, or disorders
- Skin disease or cancers at the area of stimulation

The use of an NMES device is considered **investigational and therefore not medically necessary** for all other indications as there is insufficient evidence in peer-reviewed, published medical literature supporting safety and clinical efficacy.

HCPCS Code E0744

(e.g., Scolitron, SCOL-2 stimulator)

The use of an NMES device for the treatment of scoliosis is considered **investigational and therefore not medically necessary** as there is insufficient evidence in peer-reviewed, published medical literature supporting safety and clinical efficacy.

NOTE: EPSDT Special Provision

Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) is a federal Medicaid requirement that requires the Connecticut Medical Assistance Program (CMAP) to cover services, products, or procedures for Medicaid enrollees under 21 years of age where the service or good is medically necessary health care to correct or ameliorate a defect, physical or mental illness, or a condition identified through a screening examination. The applicable definition of medical necessity is set forth in Conn. Gen. Stat. Section 17b-259b (2011) [ref. CMAP Provider Bulletin PB 2011-36].

PROCEDURE

Requests for coverage of an NMES device will be reviewed in accordance with procedures in place for reviewing requests for durable medical equipment. Coverage determinations will be based upon a review of requested and/or submitted case-specific information. If approved, an NMES device will be authorized as outlined in the DME [Rent to Purchase Policy](#).

The following information is needed to review requests for an NMES device:

1. Fully completed authorization request via web portal;
2. A signed prescription, written within the past three months, from the treating physician, physician assistant (PA), or advanced practice registered nurse (APRN) enrolled in the Connecticut Medical Assistance Program (CMAP); and
3. Documentation from the ordering provider, written within the past three months, that supports the medical necessity of the requested item as described in the *Clinical Guidelines* section of this policy.

EFFECTIVE DATE

This Clinical Guideline is effective for prior authorization requests for a NMES device for individuals covered under the HUSKY A, B, C, and D programs on or after August 1, 2025.

LIMITATIONS

N/A

CODES:

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Code	Description
E0744	Neuromuscular stimulator for scoliosis
E0745	Neuromuscular stimulator electronic shock unit

DEFINITIONS

1. **HUSKY A:** Connecticut children and their parents or a relative caregiver; and pregnant women may qualify for HUSKY A (also known as Medicaid). Income limits apply.
2. **HUSKY B:** Uninsured children under the age of 19 in higher income households may be eligible for HUSKY B (also known as the Children's Health Insurance Program) depending on their family income level. Family cost-sharing may apply.
3. **HUSKY C:** Connecticut residents who are age 65 or older or residents who are ages 18-64 and who are blind, or have another disability, may qualify for Medicaid coverage under HUSKY C (this includes Medicaid for Employees with Disabilities (MED-Connect), if working). Income and asset limits apply.
4. **HUSKY D:** Connecticut residents who are ages 19-64 without dependent children and who: (1) do not qualify for HUSKY A; (2) do not receive Medicare; and (3) are not pregnant, may qualify for HUSKY D (also known as Medicaid for the Lowest-Income populations).
5. **HUSKY Health Program:** The HUSKY A, HUSKY B, HUSKY C, HUSKY D and HUSKY Limited Benefit programs, collectively.
6. **HUSKY Limited Benefit Program or HUSKY, LBP:** Connecticut's implementation of limited health insurance coverage under Medicaid for individuals with tuberculosis or for family planning purposes and such coverage is substantially less than the full Medicaid coverage.
7. **Medically Necessary or Medical Necessity:** (as defined in Connecticut General Statutes § 17b-259b) Those health services required to prevent, identify, diagnose, treat, rehabilitate or ameliorate an individual's medical condition, including mental illness, or its effects, in order to attain or maintain the individual's achievable health and independent functioning provided such services are: (1) Consistent with generally accepted standards of medical practice that are defined as standards that are based on (A) credible scientific evidence published in peer-reviewed medical literature that is generally recognized by the relevant medical community, (B) recommendations of a physician-specialty society, (C) the views of physicians practicing in relevant clinical areas, and (D) any other relevant factors; (2) clinically appropriate in terms of type, frequency, timing, site, extent and duration and considered effective for the individual's illness, injury or disease; (3) not primarily for the convenience of the individual, the individual's health care provider or other health care providers; (4) not more costly than an alternative service or sequence of services at least as likely to produce equivalent therapeutic or diagnostic results as to the diagnosis or treatment of the individual's illness, injury or disease; and (5) based on an assessment of the individual and his or her medical condition. prescription.
8. **Prior authorization:** A process for approving covered services prior to the delivery of the service or initiation of the plan of care based on a determination by CHNCT as to whether the requested service is medically necessary.

ADDITIONAL RESOURCES AND REFERENCES:

- Bertrand SL, Drvaric DM, Lange N, et al. Electrical stimulation for idiopathic scoliosis. *Clin Orthop Relat Res.* 1992;(276):176-181.
- Bistolfi A, Zanollo J, Ferracini R, et al. Evaluation of the Effectiveness of Neuromuscular Electrical Stimulation After Total Knee Arthroplasty: A Meta-Analysis. *Am J Phys Med Rehabil.* 2018;97(2):123-130. doi:10.1097/PHM.0000000000000847
- Castellano JJ, Rojas AM, Karia R, Hunter T, Slover J, Moroz A. A Randomized, Double-Blind,

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- Placebo-Controlled Study of Neuromuscular Electrical Stimulation (NMES) use for Recovery after Elective Total Hip Replacement Surgery. *Bull Hosp Jt Dis* (2013). 2016;74(4):275-281.
- Centers for Medicare and Medicaid Services (CMS). National Coverage Determination (NCD) Neuromuscular Electrical Stimulation (NMES) (160.12); accessed at cms.gov.
 - Curtin, M., Lowery, M.M. Musculoskeletal modelling of muscle activation and applied external forces for the correction of scoliosis. *J NeuroEngineering Rehabil* 11, 52 (2014). <https://doi.org/10.1186/1743-0003-11-52>
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 - Knutson JS, Fu MJ, Sheffler LR, Chae J. Neuromuscular Electrical Stimulation for Motor Restoration in Hemiplegia. *Phys Med Rehabil Clin N Am*. 2015;26(4):729-745. doi:10.1016/j.pmr.2015.06.002
 - Kowalski IM, Palko T, Pasniczek R, Szarek J. Characteristics of lateral electrical surface stimulation (LESS) and its effect of the degree of spinal deformity in idiopathic scoliosis. *Pol J Med Phys Eng*. 2009;12(2):55-64. Doi:10.2478/v10013-009-0006-8
 - Negrini, S., Donzelli, S., Aulisa, A.G. *et al*. 2016 SOSORT guidelines: orthopaedic and rehabilitation treatment of idiopathic scoliosis during growth. *Scoliosis* **13**, 3 (2018). <https://doi.org/10.1186/s13013-017-0145-8>
 - Nussbaum EL, Houghton P, Anthony J, Rennie S, Shay BL, Hoens AM. Neuromuscular Electrical Stimulation for Treatment of Muscle Impairment: Critical Review and Recommendations for Clinical Practice. *Physiother Can*. 2017;69(5):1-76. doi:10.3138/ptc.2015-88
 - Petterson SC, Mizner RL, Stevens JE, et al. Improved function from progressive strengthening interventions after total knee arthroplasty: a randomized clinical trial with an imbedded prospective cohort. *Arthritis Rheum*. 2009;61(2):174-183. doi:10.1002/art.24167
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 - Snyder-Mackler L, Delitto A, Bailey SL, Stralka SW. Strength of the quadriceps femoris muscle and functional recovery after reconstruction of the anterior cruciate ligament. A prospective, randomized clinical trial of electrical stimulation. *J Bone Joint Surg Am*. 1995;77(8):1166-1173. doi:10.2106/00004623-199508000-00004
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 - UpToDate. Adolescent idiopathic scoliosis: Management and prognosis. Scherl SA MD, Halsey BP MD. Topic last updated November 27, 2024. Literature review current through February 2025.
 - Winstein CJ, Stein J, Arena R, et al. Guidelines for Adult Stroke Rehabilitation and Recovery: A Guideline for Healthcare Professionals From the American Heart Association/American Stroke Association [published correction appears in *Stroke*. 2017 Feb;48(2):e78. doi:

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10.1161/STR.0000000000000120.] [published correction appears in *Stroke*. 2017 Dec;48(12):e369. doi: 10.1161/STR.0000000000000156.]. *Stroke*. 2016;47(6):e98-e169. doi:10.1161/STR.0000000000000098

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PUBLICATION HISTORY

Status	Date	Action Taken
Original Publication	May 2025	Approved at the May 28, 2025 CHNCT Medical Reviewer meeting. Approved by the CHNCT Clinical Quality Subcommittee on June 16, 2025. Approved by DSS on July 9, 2025.

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