



**NEUROMUSCULAR ELECTRICAL
STIMULATION (NMES)
HS-048**



Harmony Behavioral Health, Inc.

Harmony Behavioral Health of Florida, Inc.

Harmony Health Plan of Illinois, Inc.

HealthEase of Florida, Inc.

*'Ohana Health Plan, a plan offered by
WellCare Health Insurance of Arizona, Inc.*

WellCare Health Insurance of Illinois, Inc.

WellCare Health Insurance of New York, Inc.

WellCare Health Plans of New Jersey, Inc.

WellCare of Florida, Inc.

WellCare of Connecticut, Inc.

WellCare of Georgia, Inc.

WellCare of Kentucky, Inc.

WellCare of Louisiana, Inc.

WellCare of New York, Inc.

WellCare of Ohio, Inc.

WellCare of Texas, Inc.

WellCare Prescription Insurance, Inc.

**Neuromuscular Electrical
Stimulation (NMES)**

Policy Number: HS-048

Original Effective Date: 9/18/2008

**Revised Date(s): 9/21/2009; 9/24/2010;
9/1/2011**

DISCLAIMER

The Clinical Coverage Guideline is intended to supplement certain standard WellCare benefit plans. The terms of a member's particular Benefit Plan, Evidence of Coverage, Certificate of Coverage, etc., may differ significantly from this Coverage Position. For example, a member's benefit plan may contain specific exclusions related to the topic addressed in this Clinical Coverage Guideline. When a conflict exists between the two documents, the Member's Benefit Plan always supersedes the information contained in the Clinical Coverage Guideline. Additionally, Clinical Coverage Guidelines relate exclusively to the administration of health benefit plans and are NOT recommendations for treatment, nor should they be used as treatment guidelines. The application of the Clinical Coverage Guideline is subject to the benefit determinations set forth by the Centers for Medicare and Medicaid Services (CMS) National and Local Coverage Determinations and state-specific Medicaid mandates, if any.

APPLICATION STATEMENT

The application of the Clinical Coverage Guideline is subject to the benefit determinations set forth by the Centers for Medicare and Medicaid Services (CMS) National and Local Coverage Determinations and state-specific Medicaid mandates, if any.

BACKGROUND

NMES involves the use of a device which transmits an electrical impulse to the skin over selected muscle groups by way of electrodes. There are two broad categories of NMES. One type of device stimulates the muscle when the patient is in a resting state to treat muscle atrophy. The second type is used to enhance functional activity of neurologically impaired patients.

NMES can be performed at low, medium, or high intensity to elicit mild, moderate, or strong muscle contractions. When used at very low intensity to stimulate barely perceptible contractions, this technique is referred to as threshold NMES or threshold electrical stimulation (TES). To avoid muscle strain, patients undergo high-intensity NMES for only 30 to 60 minutes per day; low-intensity and threshold NMES can be applied for much longer periods, such as all night while the patient is sleeping.

Regardless of the intensity of NMES, patients are encouraged to exercise the affected muscles voluntarily to maintain and improve their strength and function. For chronic disorders, this exercise may be in the form of regular participation in sports activities. For acute conditions, such as rehabilitation shortly after surgery or a stroke, patients must often undergo intensive physical and occupational therapy.

Electrical stimulation can also be used to activate muscles of the upper or lower limbs to produce functional movement patterns, such as standing and walking, in patients with paraplegia. This application of electrical stimulation is called functional electrical stimulation (FES).

The only settings where therapists with the sufficient skills to provide these services are employed are inpatient hospitals; outpatient hospitals; comprehensive outpatient rehabilitation facilities; and outpatient rehabilitation facilities. The physical therapy necessary to perform this training must be part of a one-on-one training program. Additional therapy after the purchase of the DME would be limited by our general policies detailing skilled physical therapy.

POSITION STATEMENT

Neuromuscular Electrical Stimulation (NMES; also known as Functional Electrical Stimulation [FES] when used for walking in SCI patients) **is considered medically necessary** for the following two indications IF the following criteria are met:

1. Treatment of muscle atrophy due to disuse when:
 - a. The nerve supply to the muscle is intact, including the brain, spinal cord and peripheral nerves; **AND**,
 - b. Other non-neurological reasons for disuse atrophy have been ruled out. (Examples of non-neurological reasons would be casting or splinting of a limb, contracture due to scarring of soft tissue as in burn lesions, and hip replacement surgery).

2. Use for Walking in Member's with Spinal Cord Injury (SCI) when:
 - a. Member has completed a training program and exhibits understanding of proper use of the device; **AND**,
 - b. Member has intact lower motor units (L1 and below), including both muscle and peripheral nerve); **AND**,
 - c. Member exhibits muscle and joint stability for weight bearing at upper and lower extremities and can demonstrate balance and control to maintain an upright support posture independently; **AND**,
 - d. Member can demonstrate brisk muscle contraction to NMES and have sensory perception of electrical stimulation sufficient for muscle contraction; **AND**,
 - e. Member possesses high motivation, commitment and cognitive ability to use such devices for walking; **AND**,
 - f. Member can transfer independently and stand for at least 3 minutes; **AND**,
 - g. Member can demonstrate hand and finger function sufficient enough to manipulate controls; **AND**,

- h. Member is at least 6 months post recovery of spinal cord injury and restorative surgery; **AND**,
- i. Member does not have hip and knee degenerative disease and has no history of long bone fracture secondary to osteoporosis; **AND**,
- j. Member demonstrates willingness to use device long-term.

NMES/FES is contraindicated for members with SCI with ANY of the following:

- 1. Cardiac pacemakers; **OR**,
- 2. Severe scoliosis; **OR**,
- 3. Severe osteoporosis; **OR**,
- 4. Skin disease or cancer at area of stimulation; **OR**,
- 5. Irreversible contracture; **OR**,
- 6. Autonomic dysreflexia.

CODING

CPT Codes - No applicable codes

ICD-9-CM Procedure Codes - No applicable codes

Covered HCPCS Level II (DME) codes

A4558	Conductive gel or paste, for use with electrical device; (e.g., NMES) per oz.
A4595	Electrical stimulator supplies, 2 lead, per month, (e.g., NMES)
E0731	Form-fitting conductive garment for delivery of NMES (with conductive fibers separated from the skin by layers of fabric)
E0745	Functional Neuromuscular stimulator, electronic shock unit

Covered ICD-9-CM Diagnosis Codes

728.2	Muscular wasting and disuse atrophy, not elsewhere classified
907.2	Late effect of spinal cord injury
952.00 - 952.2	Spinal cord injury without evidence of spinal bone injury (cervical, thoracic, lumbar)

Non-Covered ICD-9-CM Diagnosis Codes

172.0 - 173.9	Malignant melanoma of skin and other malignant neoplasm of skin
337.3	Autonomic dysreflexia
680.0 - 709.9	Diseases of skin and subcutaneous tissue
709.2	Scar conditions and fibrosis of skin
718.40 - 718.49	Contracture of joint
727.81	Contracture of tendon
733.00 - 733.09	Osteoporosis
737.30 - 737.9	Kyphoscoliosis and scoliosis
V45.01	Cardiac device in situ, cardiac pacemaker

*Current Procedural Terminology (CPT) 2011 American Medical Association: Chicago, IL.®©

REFERENCES

Peer Reviewed

1. Hayes Directory. (2008, January 3). Neuromuscular electrical stimulation for muscle rehabilitation. Retrieved from <http://www.hayesinc.com>
2. Hayes Directory. (2003, May 23). Functional electrical stimulation for rehabilitation of paralyzed limbs. Retrieved from <http://www.hayesinc.com>

Government Agencies, Professional and Medical Organizations

1. Centers for Medicare and Medicaid Services. (2006). National coverage determination for neuromuscular electrical stimulation (NMES) (160.12). Retrieved from <http://www.cms.hhs.gov/mcd/search.asp>
2. Centers for Medicare and Medicaid Services. (2003). National coverage determination for treatment of motor function disorders with electric nerve stimulation (160.2). Retrieved from <http://www.cms.hhs.gov/mcd/search.asp>

HISTORY AND REVISIONS

Date	Action
12/1/2011	<ul style="list-style-type: none">• New template design approved by MPC.
9/1/2011	<ul style="list-style-type: none">• Approved by MPC.