

Chapter 8

Section 5.2

Neuromuscular Electrical Stimulation (NMES) Devices

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1.0 DESCRIPTION

Neuromuscular Electrical Stimulation (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.

2.0 POLICY

2.1 When used in a program approved by the attending physician, NMES may be cost-shared for the following indications:

2.1.1 For prevention and/or treatment of disuse atrophy, **where nerve supply to the muscle is intact, due to a condition such as:**

- Recent hip surgery until the patient begins Physical Therapy (PT), or
- Prolonged (greater than 12 weeks) casting or splinting of a joint, or
- Contractures as a result of scarring of soft tissue from burns.

2.1.2 For spinal cord injury and other motor neuron disorders (such as cerebral palsy) **where nerve supply to the muscle is intact;** or

2.1.3 For idiopathic scoliosis in pediatric and adolescent patients.

2.2 The device is approved by the U.S. Food and Drug Administration (FDA) for commercial marketing for a specific application and must be medically necessary for the treatment of the condition for which the device is intended to be used.

2.3 NMES devices approved by FDA (e.g., Parastep I System, Respond II, etc.) may be cost-shared on an inpatient or outpatient basis.

2.4 For other conditions, the medical necessity of the equipment is required.

3.0 EXCLUSIONS

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.

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