Electrical muscle stimulation

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Policy contains: Functional electrical stimulation; neuromuscular electrical stimulation; physical rehabilitation

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Coverage policy

Electrical muscle stimulation (also referred to as neuromuscular electrical stimulation) is clinically proven and, therefore, may be medically necessary when used in accordance with U.S. Food and Drug Administration labeling instructions for each device for the following indications:

- Correcting foot drop of central neurological origin when an ankle-foot orthosis is not tolerated (Moll, 2017; National Institute for Health and Care Excellence, 2009; Prenton, 2016).
- Attenuating muscle disuse atrophy in immobilized lower limbs following a nonneurological injury or surgery with intact nerve supply (Conley, 2021; Hauger, 2018; Wylde, 2018).
- Correcting or preventing glenohumeral subluxation after an acute or subacute stroke (Lee, 2017; Winstein, 2016).
- Restoring upper limb function after an acute or subacute stroke or spinal cord injury with minimal volitional movement, combined with task-specific training (de Freitas, 2018; Fehlings, 2017; Mirkowski, 2019; Monte-Silva, 2019; National Institute for Health and Care Excellence, 2023).
- To enable independent ambulation using Parastep 1® for those with spinal cord injury who meet criteria including:

- Intact lower motor units from L1 down.
- Stability for weight bearing with balance/trunk control.
- Responsive muscles and sensation to stimulation
- Independent transfers and standing three plus minutes.
- Motivation/ability to use device long term.
- Sufficient finger function to operate device controls.
- 6 or more months post-injury/surgery.
- No hip/knee degeneration or osteoporotic fractures.

Limitations

All other uses of electrical muscle stimulation are not medically necessary, as the safety and effectiveness has not been established. These include, but are not limited to:

- Muscle disuse atrophy in members with spinal cord injury.
- Pain control.
- Non-medical uses (e.g., exercise).
- Oropharyngeal dysphagia (Almeida, 2020; Alamer, 2020; Diéguez-Pérez, 2020; López-Liria, 2020).
- Edema reduction (Burgess, 2019).
- Knee osteoarthritis in a non-surgical member (Novak, 2020).

Alternative covered services

- Occupational therapy.
- Physical therapy.
- Speech therapy.
- Specialist consultation.
- Hip-knee-ankle-foot orthoses.

Background

Electrical stimulation is one of many interventions employed to restore body movement critical for daily function and quality of life. Available in many forms, electrical stimulation facilitates changes in either bioelectrical or biochemical communication among cellular components to effect muscle action, pain modulation, and performance. Electrodes may be positioned transcutaneously, percutaneously, or subcutaneously. Small portable units with modifiable capabilities are the most popular, because they allow providers to set parameters and design custom programs that patients can use in the clinic or at home (Doucet, 2012).

Transcutaneous methods such as transcutaneous electrical nerve stimulation and interferential current work at lower frequencies (0.5 to 100 Hz) in the bioelectric range to alter pain signals that travel to the brain, thereby decreasing acute and chronic pain without any discernable muscle contraction. Other benefits may be improved circulation, lymphatic flow, swelling, and muscle function. Similarly, higher-frequency electrical stimulation is used to decrease pain, improve circulation, and speed wound healing (Doucet, 2012).

Electrical muscle stimulation, also referred to as neuromuscular electrical stimulation, typically delivers higher frequencies (20 – 50 Hz) to produce muscle tetany and contraction. It has two main purposes: 1) to treat muscle atrophy during temporary extremity immobilization; and 2) to pair the stimulation simultaneously or intermittently with a functional task in neurologically impaired individuals (commonly referred to as functional electrical stimulation). Electrical muscle stimulation was first applied clinically to correct foot drop in paraplegics and has become an integral part of modern rehabilitation programs (Doucet, 2012).

Electroceutical therapy, also referred to as bioelectric nerve block, uses even higher electrical frequencies (ranging from 1 to 20,000 Hz) to mimic the human bioelectric system. An example of this is the Hako-Med PRO ElecDT 2000. This device employs a proprietary concept called Horizontal® Therapy into its product, which the manufacturer claims can treat both bioelectrical and biochemical cellular communication components in one treatment session by holding the bioelectric intensity constant while changing the frequency. Due to safety concerns, it may only be prescribed and administered under the supervision of a health care provider experienced in this method of treatment.

Regulation

The U.S. Food and Drug Administration regulates neuromuscular electrical stimulators for clinical use either through the 510(k) process or the premarket approval process. Devices required to go through the more rigorous premarket approval process have additional issues of safety and efficacy. Several devices have been approved for a range of indications that often overlap with other transcutaneous methods (U.S. Food and Drug Administration, 2023a, 2023b):

- Stroke rehabilitation by muscle re-education.
- Relaxation of muscle spasm.
- Attenuation of disuse atrophy.
- Increasing local blood circulation.
- Muscle re-education for other conditions.
- Maintaining or increasing range of motion.
- Prevention of deep vein thrombosis following surgery.

Unlike neuromuscular electrical stimulators (product codes IPF, GZI, and MKD), approved uses for transcutaneous methods, such as interferential current therapy, typically include control of pain. As such, these devices are regulated as transcutaneous electrical nerve stimulators (product code LIH).

Findings

The evidence from several systematic reviews, meta-analyses, and guidelines suggests electrical muscle stimulation is safe and efficacious when used in accordance with established rehabilitation protocols requiring supervision or in unattended settings. The strongest evidence for neuromuscular electrical stimulation and functional electrical stimulation supports their use in stroke rehabilitation, particularly for improving swallowing function, upper extremity motor recovery, shoulder instability, and foot drop, as well as for strengthening muscles in participants recovering from knee surgery, receiving treatment for chronic kidney disease, or living with advanced diseases such as respiratory failure, heart failure, and cancer. Potential benefits are also seen for lower extremity rehabilitation after stroke, enhancing rehabilitation and gross motor function in cerebral palsy, postural control in spastic diplegia, respiratory function in spinal cord injury, and selected biologic responses in critically ill participants.

Professional Clinical Guidelines

Stroke rehabilitation

Neuromuscular electrical stimulation is reasonably recommended in several circumstances for stroke rehabilitation based on generally strong levels of evidence, according to joint guidelines issued by the American Heart Association/American Stroke Association (Winstein, 2016). It can be considered as an alternative to an ankle foot orthosis for treating foot drop, supported by strong Level B evidence. Neuromuscular electrical stimulation is also reasonably recommended for individuals in the first few months post-stroke who have minimal voluntary movement, in order to facilitate improvement, backed by strong Level A evidence. Managing increased

muscle tone temporarily with neuromuscular electrical stimulation as an adjunct to rehabilitation therapy is a reasonable option with moderate Level A evidence. Finally, neuromuscular electrical stimulation is reasonably recommended for treating shoulder instability, with the strongest Level A evidence (Winstein, 2016).

The National Institute for Health and Care Excellence has issued two guidelines related to electrical muscle stimulation. The first, issued in 2009, noted that evidence supports the safety and efficacy of the treatment for improving gait in participants with drop foot caused by upper motor neuron lesions from conditions like stroke, cerebral palsy, multiple sclerosis or spinal cord injury (National Institute for Health and Care Excellence, 2009). A supplemental guideline issued in 2023 notes that electrical stimulation is not recommended for routine use in the rehabilitation of the hand or arm after stroke. However, a trial of electrical stimulation therapy is suggested as part of a comprehensive rehabilitation program for individuals who exhibit evidence of muscle contraction post-stroke but cannot move their arm against resistance. The continuation of this therapy is advised if it leads to improvements in the person's strength and their ability to practice functional tasks, such as maintaining range of motion or enhancing grasp and release (National Institute for Health and Care Excellence, 2023).

Spinal cord injury

Guideline support is also present for functional electrical stimulation in acute and subacute cervical spinal cord injury, although the evidence base is limited. Fehlings (2017) reviewed two randomized controlled trials involving a total of 89 participants with acute and subacute cervical spinal cord injury. One study found that compared to occupational therapy alone, functional electrical stimulation combined with occupational therapy resulted in significantly greater improvements on the Functional Independence Measure Motor subscore (15.0 vs 4.1 points), Functional Independence Measure Self-Care subscore (20.1 vs 10 points), and Spinal Cord Independence Measure Self-Care subscore (10.2 vs 3.1 points). The other study found no significant differences between functional electrical stimulation, biofeedback, combined functional electrical stimulation/biofeedback, and conventional strengthening for recovering tenodesis grasp. Based on this low-quality evidence, the guideline suggests offering functional electrical stimulation to improve hand and upper extremity function in individuals with acute and subacute cervical spinal cord injury.

Orthopedic applications

Guideline support is not favorable for orthopedic pain indications. A guideline that reviewed one systematic review and two randomized controlled trials with 107 participants and determined neuromuscular electrical stimulation was "not appropriate" for treating knee osteoarthritis (McAlindon, 2014).

Systematic review

Muscle strengthening and muscle preservation

Systematic review evidence most consistently supports electrical muscle stimulation as an adjunct for muscle strengthening, preservation of muscle function, and rehabilitation support in populations limited by weakness, immobilization, or reduced exercise tolerance. Gatewood (2017) reviewed seven studies with over 300 participants and found neuromuscular electrical stimulation improved post-operative quadriceps strength and function after knee surgery. Conley (2021) identified optimal neuromuscular electrical stimulation parameters from eight randomized controlled trials with 559 participants. Valenzuela (2020) reviewed eight trials with 221 participants and found neuromuscular electrical stimulation during dialysis improved walk distance, cycling workload, and limb strength. A Cochrane review by Jones (2016) of 18 randomized controlled trials with 933 participants found neuromuscular electrical stimulation improved quadriceps strength and muscle mass in individuals with respiratory disease, heart failure, and cancer. In contrast, de Freitas (2018) analyzed five studies with 170 participants but found insufficient evidence that neuromuscular electrical stimulation was superior to other treatments for improving strength.

Spinal cord injury

Systematic reviews also suggest that electrical muscle stimulation may improve selected respiratory and functional outcomes in spinal cord injury. McCaughey (2016) reviewed 14 studies in 129 participants with spinal cord injury and found abdominal functional electrical stimulation acutely improved cough and chronically increased vital capacity and peak expiratory flow. Ho (2014) systematically reviewed functional electrical stimulation applications for various functions in participants with spinal cord injury. The largest clinical trial of an upper extremity functional electrical stimulation neuroprosthesis (the Freehand trial) included 28 participants, all of whom improved independence in at least one task. A second generation implanted functional electrical stimulation system (IST-12) has been implanted in 12 participants with spinal cord injury, with each demonstrating improvement in at least two activities. For lower extremity function, functional electrical stimulation neuroprosthesis recipients exhibited mean and median standing times of 10 and three minutes respectively, with some recipients in a Phase II trial standing over 20 minutes.

Cerebral palsy and spastic diplegia

In children with cerebral palsy, Moll (2017) conducted a systematic review assessing the effect of functional electrical stimulation on ankle dorsiflexors during walking. The review included 14 articles (11 studies) with a total of 127 participants aged five to 19 years with Gross Motor Function Classification System levels I to III receiving functional electrical stimulation. Only five articles (three studies) were of level I to III evidence. Ankle dorsiflexion angle was the most frequently investigated outcome. Adverse events included skin irritation, poor tolerance, and acceptation issues. The review found some evidence supporting functional electrical stimulation use in children with spastic cerebral palsy for improving ankle and gait biomechanics, but more high-quality research is needed. Dewar (2015) concluded level II evidence from two studies supported functional stimulation combined with rehabilitation for improving postural alignment in children with spastic diplegia, but called for more research.

Edema, pain, and specialty populations

Systematic reviews further suggest potential benefits of neuromuscular electrical stimulation for edema and selected specialty indications, although the evidence is limited and mixed. Burgess (2019) found six of seven studies totaling over 200 participants showed neuromuscular electrical stimulation effectively reduced edema in various conditions. Novak (2020) reviewed nine randomized controlled trials and recommended neuromuscular electrical stimulation combined with strengthening exercises for reducing pain in knee osteoarthritis. Almeida (2020) reviewed 11 studies with 382 participants and found while neuromuscular electrical stimulation showed some improvements in laryngeal function and vocal quality, heterogeneity in designs prevented determinations of overall effectiveness for treating dysphonia. López-Liria (2020) found two studies with 199 participants with Parkinson disease in which neuromuscular electrical stimulation did not significantly improve dysphagia compared to traditional therapy alone. Maltais noted neuromuscular electrical stimulation is emerging as a useful modality for muscle dysfunction in severe chronic obstructive pulmonary disease and exacerbations but did not quantify the evidence or make a formal recommendation. Wylde (2018) reviewed 17 randomized controlled trials with 2485 participants and found no interventions, including one neuromuscular electrical stimulation trial, reduced chronic pain beyond three months after total knee replacement.

Meta-analysis

Post-stroke dysphagia and motor impairment

Meta-analytic evidence is strongest in stroke rehabilitation, particularly for dysphagia and upper extremity motor impairment. Alamer (2020) analyzed 11 randomized controlled trials with 784 participants and found moderate to high quality evidence that neuromuscular electrical stimulation combined with swallowing therapy was more effective than swallowing therapy alone for improving dysphagia post-stroke. Chiang (2019) compared different

stimulation techniques in 19 randomized controlled trials with 691 participants with stroke and found neuromuscular electrical stimulation significantly improved swallowing function versus placebo. Wang (2021) meta-analyzed 20 studies totaling 914 participants with stroke and found neuromuscular electrical stimulation groups had significantly better dysphagia outcomes than control groups. Xu (2026) identified 16 studies and found that swallowing treatment incorporating neuromuscular electrical stimulation was associated with significant improvement in the Functional Dysphagia Scale (MD = -7.23; 95% CI, -13.62 to -0.84) and Penetration Aspiration Scale (MD = -1.05; 95% CI, -1.50 to -0.60), although not in the Functional Oral Intake Scale (MD = 0.66; 95% CI, -0.31 to 1.62). For limb function, Yang (2019) reviewed 48 randomized controlled trials with 1712 participants with stroke and found neuromuscular electrical stimulation significantly improved arm function and strength compared to placebo. Monte-Silva (2019) meta-analyzed 26 randomized controlled trials with 782 participants and found a robust short-term effect of electromyography-triggered neuromuscular electrical stimulation on upper limb motor impairment, especially in chronic stroke. Halawani (2024) added moderate-quality evidence supporting upper extremity rehabilitation with contralaterally controlled functional electrical stimulation. In 16 randomized controlled trials (n = 570), contralaterally controlled functional electrical stimulation demonstrated significant advantages over conventional neuromuscular electrical stimulation for motor function (SMD = 0.41), manual dexterity (SMD = 0.48), activities of daily living (SMD = 0.44), active range of motion (SMD = 0.61), and muscle activation (SMD = 0.52), although it showed no significant benefits for lower extremity function or certain specialized upper extremity measures.

Dysphagia in acute and critical care

Broader neurostimulation meta-analytic evidence in acute and critical care also supports electrical stimulation-based dysphagia treatment, although these findings are not specific to neuromuscular electrical stimulation alone. Liu (2026) reviewed 44 studies involving 2198 participants across five neurostimulation therapies and found that, compared with traditional dysphagia therapy, usual care, or sham stimulation, neurostimulation therapies significantly improved swallowing function post-treatment (SMD = -0.74; 95% CI, -0.90 to -0.58), increased the rate of participants regaining the ability to take food orally (RR = 1.39; 95% CI, 1.12 to 1.74), improved swallowing function at one month (SMD = -1.28; 95% CI, -1.76 to -0.81) and two months (SMD = -2.24; 95% CI, -3.25 to -1.23), and reduced pneumonia incidence (RR = 0.62; 95% CI, 0.39 to 0.98). In the network meta-analysis, NMES + traditional dysphagia therapy (SMD = -1.69; 95% CI, -2.83 to -0.58) and NMES alone (SMD = -1.31; 95% CI, -2.61 to -0.02) were among the effective interventions for improving swallowing function, and NMES + traditional dysphagia therapy ranked among the most potentially effective approaches.

Stroke gait and shoulder outcomes

Meta-analyses also support functional electrical stimulation for gait and shoulder-related outcomes after stroke. Prenton (2016) synthesized seven randomized controlled trials with a total of 815 participants with stroke and found that functional electrical stimulation and ankle foot orthoses produced comparable improvements in walking speed, functional exercise capacity, timed up-and-go, and perceived mobility. The authors concluded that ankle foot orthoses have equally positive combined-orthotic effects as functional electrical stimulation on key walking measures for foot-drop caused by stroke. In a systematic review and meta-analysis, Lee JH (2017) examined 11 randomized controlled trials with a total of 432 participants (216 receiving functional electrical stimulation plus conventional therapy, 216 receiving conventional therapy alone) to assess the effectiveness of functional electrical stimulation for managing shoulder subluxation post-stroke. The studies included participants with acute stroke who were 2.0 ± 2.2 months (intervention) and 1.6 ± 1.7 months (control) post-stroke, and those with chronic stroke who were 9.4 ± 4.1 months (intervention) and 9.1 ± 3.9 months (control) post-stroke. More recently, Liu J (2026) conducted a network meta-analysis of 81 randomized controlled trials involving 6147 participants and 24 intervention strategies for lower limb functional rehabilitation after stroke. The analysis found that electromyography-triggered functional electrical stimulation combined with conventional functional electrical stimulation ranked highest for lower limb motor function (SUCRA = 89.0%), multi-channel functional electrical

stimulation ranked highest for balance ability (SUCRA = 85.6%), closed-loop neuromuscular electrical stimulation ranked highest for activities of daily living (SUCRA = 71.9%), and low-frequency electrical stimulation ranked higher than neuromuscular electrical stimulation for walking speed (SUCRA = 66.2% vs 35.6%). These findings suggest that different electrical stimulation modalities may confer domain-specific benefits in post-stroke lower extremity rehabilitation.

Muscle strengthening and rehabilitation in other populations

Outside stroke, meta-analyses support neuromuscular electrical stimulation as a strengthening and rehabilitation adjunct in several populations. Schardong (2020) meta-analyzed 10 studies with 242 participants receiving hemodialysis and found neuromuscular electrical stimulation significantly improved quadriceps strength, upper limb strength, and functional capacity. Chen (2023) meta-analyzed 14 randomized controlled trials with 421 children with cerebral palsy and found neuromuscular electrical stimulation significantly improved walking speed and gross motor scores compared to conventional therapy alone. In a more specific pediatric cerebral palsy population, Yang FA (2025) meta-analyzed five randomized controlled trials involving 131 children and found that neuromuscular electrical stimulation after botulinum toxin injection improved functional performance outcomes compared with botulinum toxin injection alone (SMD = 0.57; 95% CI, 0.22 to 0.92), although it did not significantly improve spasticity outcomes (SMD = 0.28; 95% CI, -0.21 to 0.76). In a larger review examining conventional neuromuscular electrical stimulation applications, Alqurashi (2023) analyzed 38 randomized controlled trials (n = 1,452) of hospitalized adults receiving lower-limb neuromuscular electrical stimulation, documenting modest but statistically significant improvements in muscle strength (SMD = 0.33), walking performance (SMD = 0.48), and muscle size (SMD = 0.66), with smaller functional mobility gains (SMD = 0.31) and non-significant effects on quality of life measures. Adverse effects were minimal (reported in 9% of participants), supporting neuromuscular electrical stimulation as a generally safe adjunctive rehabilitation intervention for participants with medical instability, though optimal stimulation parameters and long-term functional benefits require further investigation through high-quality multicenter trials.

Orthopedic pain applications

Meta-analytic findings in orthopedic pain populations are mixed and do not clearly support routine use. Zheng (2025) meta-analyzed nine randomized controlled trials encompassing 337 participants with patellofemoral pain and found that, compared with exercise therapy alone, neuromuscular electrical stimulation combined with exercise therapy significantly reduced pain intensity (MD = -0.37; 95% CI, -0.64 to -0.10), improved knee function (MD = 4.76; 95% CI, 2.08 to 6.84), and increased quadriceps muscle strength (SMD = 0.55; 95% CI, 0.24 to 0.87), but did not significantly improve the VMO/VL ratio (SMD = 0.8; 95% CI, -0.33 to 1.93). Subgroup analyses suggested that when treatment duration was four weeks or less, significant reductions in pain intensity and improvements in quadriceps strength were not observed. By contrast, da Silva (2026) reviewed eight trials with 354 participants with knee osteoarthritis and found that neuromuscular electrical stimulation plus exercise did not reduce pain immediately post-intervention compared with exercise alone (SMD = -0.90; 95% CI, -1.84 to 0.03), although small benefits were observed at 8 to 12 weeks for pain (SMD = -1.30; 95% CI, -1.87 to -0.73) and Timed Up and Go performance (SMD = -0.67; 95% CI, -0.98 to -0.35). No differences were found for WOMAC total or quadriceps strength, and certainty of evidence was very low. Zayed (2020) meta-analyzed six randomized controlled trials with 718 critically ill participants and found no significant effect of neuromuscular electrical stimulation on intensive care unit outcomes. Martimbianco (2017) found very low quality evidence from up to four trials with 118 participants that neuromuscular electrical stimulation plus exercise slightly reduced patellofemoral pain compared to exercise alone. These findings suggest that benefit is more consistent for targeted motor recovery and strengthening outcomes than for broader chronic pain endpoints.

Other evidence

Clinical rationale and general applications

In an immobilized extremity, neuromuscular electrical stimulation can control edema, increase local blood circulation, maintain muscle tone, or delay the development of disuse atrophy (Doucet, 2012). It has been proposed as treatment for muscle atrophy in conditions such as cerebral palsy, congestive heart failure, progressive neuromuscular diseases, chronic obstructive pulmonary disease, and upper extremity hemiplegia. In these populations, the rationale for use is to enhance the effects of rehabilitation or provide an alternative for individuals with muscle weakness who have difficulty engaging with traditional rehabilitation services.

In the lower extremities, functional electrical (muscle) stimulation has been used to perform stationary exercise and assist with standing and walking. For persons with upper extremity paralysis caused by injury or disease of the central nervous system, it has been used to improve hand function and range of motion and correct or prevent glenohumeral subluxation in stroke. Devices used to augment stationary exercise are considered exercise equipment and not necessarily for medical use.

Critical illness, biologic response, and safety

Additional evidence in critical illness suggests that neuromuscular electrical stimulation may have measurable biologic effects even when functional outcomes remain heterogeneous. Santos (2026) reviewed 10 randomized controlled trials of critically ill adults and found a significant acute increase in interleukin-10 levels (SMD = 0.60; 95% CI, 0.11 to 1.08) and a delayed reduction in serum C-reactive protein levels (SMD = -0.74; 95% CI, -1.09 to -0.40) following neuromuscular electrical stimulation. These findings suggest that neuromuscular electrical stimulation can modulate systemic inflammation in mechanically ventilated critically ill adults and support its safety during active phases of critical illness, although they do not by themselves establish superior long-term functional outcomes.

Adverse events and limitations

Across the reviewed studies, no serious adverse events related to neuromuscular electrical stimulation were reported. However, several reviews noted limitations in the current evidence base, including small sample sizes, heterogeneous designs and outcome measures, lack of long-term follow-up, and overall low quality of many included studies. Daum (2026) systematically reviewed 44 studies involving 2553 participants in intensive care settings and identified 50 different neuromuscular electrical stimulation protocols, with substantial variability in waveforms, pulse duration, frequencies, intensities, and reporting transparency. This degree of heterogeneity likely contributes to inconsistent outcomes across intensive care studies and limits direct clinical translation. Newberry (2017) concluded evidence was insufficient to evaluate neuromuscular electrical stimulation effectiveness, largely due to poor quality and heterogeneous study design.

In 2026, we incorporated newly identified systematic reviews and meta-analyses on post-stroke dysphagia, dysphagia in acute and critical care, lower extremity stroke rehabilitation, cerebral palsy, biologic effects in critically ill participants, intensive care unit protocol heterogeneity, patellofemoral pain, and knee osteoarthritis (da Silva, 2026; Daum, 2026; Liu, 2026; Liu J, 2026; Santos, 2026; Xu, 2026; Yang FA, 2025; Zheng, 2025).

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On April 5, 2026, we searched PubMed and the databases of the Cochrane Library, the U.K. National Health Services Centre for Reviews and Dissemination, the Agency for Healthcare Research and Quality, and the Centers for Medicare & Medicaid Services. Search terms were “Electric Stimulation Therapy/therapeutic use” (MeSH), “Electric Stimulation Therapy/therapy” (MeSH), and “electrical stimulation.” We included the best available evidence according to established evidence hierarchies (typically systematic reviews, meta-analyses, and full economic analyses, where available) and professional guidelines based on such evidence and clinical expertise.

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Policy updates

4/2018: initial review date and clinical policy effective date: 6/2018

5/2019: Policy references updated. Consolidated CCP.1027 into this policy. Policy ID changed.

5/2020: Policy references updated.

5/2021: Policy references updated.

5/2022: Policy references updated.

5/2023: Policy references updated.

5/2024: Policy references updated.

5/2025: Policy references updated.

5/2026: Policy references updated.

Related codes

Below are the most commonly submitted codes for the service(s)/item(s) subject to this policy CCP.1377 This is not an exhaustive list of codes. Providers are expected to consult the appropriate coding manuals and bill accordingly.

Code	Code description
97014	Application of a modality to 1 or more areas; electrical stimulation (unattended)
97032	Application of a modality to 1 or more areas; electrical stimulation (manual), each 15 minutes
G0283	Electrical stimulation (unattended), to one or more areas for indication(s) other than wound care, as part of a therapy plan of care
E0745	Neuromuscular stimulator, electronic shock unit
E0764	Functional neuromuscular stimulation, transcutaneous stimulation of sequential muscle groups of ambulation with computer control, used for walking by spinal cord injured, entire system, after completion of training program
E0770	Functional electrical stimulator, transcutaneous stimulation of nerve and/or muscle groups, any type, complete system, not otherwise specified