PriorityHealth

MEDICAL POLICY
No. 91468-R15

STIMULATION THERAPY AND DEVICES

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All stimulation devices require prior authorization by Priority Health.

Note: Electro-acupuncture not covered by this policy may be covered with a rider for some commercial plans.

I. BONE GROWTH STIMULATORS

Refer to InterQual® DME criteria. Both invasive and non-invasive bone growth stimulators must meet InterQual® criteria for Bone Growth Stimulators.

II. CHRONIC SKIN ULCERS

Electrical or electromagnetic stimulation of wounds and skin ulcers in a home setting is **not a covered benefit.**

III. DEEP BRAIN STIMULATION

Unilateral or bilateral deep brain stimulation is a covered benefit when **both** of the following criteria (A & B) are met:

A. *One* of the following:
   1. Stimulation of the thalamus in patients with disabling, medically unresponsive tremor due to essential tremor(ET) or Parkinson's disease(PD). Diagnosis of ET based on postural or kinetic tremors of hand(s) without other neurologic signs, or diagnosis of idiopathic PD based on the presence of at least two cardinal PD features, such as tremor, rigidity, bradykinesia, which is of a tremor-dominant form. OR
   2. Stimulation of the subthalamic nucleus (STN) or globus pallidus in patients with previously levodopa-responsive Parkinson's disease and symptoms such as rigidity, bradykinesia, dystonia or levodopa-induced dyskinesias. OR
   3. Stimulation of the STN or globus pallidus in patients seven years of age or above with disabling, medically unresponsive primary dystonias including generalized and/or segmental dystonia, hemidystonia and cervical dystonia (torticollis).

      AND

B. Disabling, medically unresponsive tremor or dystonia is defined as **both** of the following:
   1. Marked disabling tremor of at least level 3 or 4 on the Fahn-Tolosa-Marin Clinical Tremor Rating Scale (or equivalent scale) in the extremity intended for treatment causing significant limitation in daily activities
   2. Inadequate symptom control despite optimal medical management for at least 3 months before implant

Deep brain stimulation (both unilateral and bilateral) is considered investigational and not a covered benefit for other conditions, including but not limited to:

1. Tremor from other causes such as trauma, multiple sclerosis, degenerative disorders, metabolic disorders, infectious diseases, drug-induced movement disorders
2. Cluster headaches
3. Voice tremor
4. Psychiatric disorders, including obsessive-compulsive disorder
5. Significant brain damage, atrophy, cognitive impairment, dementia or depression, which would be worsened by or would interfere with the patient's ability to benefit from DBS.
6. Tourette's syndrome
7. Current psychosis, alcohol abuse or other drug abuse.
8. Structural lesions such as basal ganglionic stroke, tumor or vascular malformation as etiology of the movement disorder.
9. Previous movement disorder surgery within the affected basal ganglion.
10. Significant medical, surgical, neurologic or orthopedic co-morbidities contraindicating DBS surgery or stimulation.
11. Treatment of dystonia or any neurological movement disorders other than ET or PD as outlined in this policy.

Contraindications to deep brain stimulation include the following:

1. Patients who are not good surgical risks because of comorbid medical problems or because of the presence of a cardiac pacemaker
2. Patients who have medical conditions that require repeated MRI
3. Patients who have dementia that may interfere with the ability to cooperate
4. Patients who have had botulinum toxin injections within the last six months

IV. DIAPHRAGMATIC/PHRENIC PACING

Diaphragmatic/phrenic pacing is covered as DME to improve ventilatory function in stable, non-acute patients with spinal cord injury (SCI) when ALL of the following criteria are met:

- Patient has high quadriplegia at or above C-3, and
- There are viable phrenic nerves, and
- Patient's diaphragm and lung function are adequate.

V. DORSAL COLUMN/SPINAL CORD STIMULATORS (DCS/SCS)

Dorsal column/spinal cord stimulators (DCS/SCS) are covered when used for FDA approved indications as follows:

A. Non-malignant pain:

DCS/SCS (e.g. Senza SCS) is covered for managing chronic, intractable, non-malignant pain (see below for angina) in patients who meet ALL of the following criteria:

1. There is documented pathology, i.e., an objective basis for the pain complaint, and
2. Other more conservative methods of pain management have been tried and failed, and
3. Patient is not a candidate for further surgical intervention, and
4. Patient does not have any untreated drug addiction problems (per American Society of Addiction Medicine (ASAM) guidelines), and
5. Patient has obtained psychiatric clearance, and
6. Patient has predominantly neuropathic pain including radiculopathies, peripheral neuropathy, peripheral vascular disease, complex regional pain syndrome (CRPS), or failed back surgery syndrome with low back pain and significant radicular pain, and
7. Patient experienced significant pain reduction (50% or more) with a 2 day trial of percutaneous spinal stimulation.

B. Angina:

DCS is covered for the management of intractable angina in patients who are not surgical candidates and whose pain is unresponsive to all standard therapies when ALL of the following criteria are met:

1. Patient has angiographically documented significant coronary artery disease and is not a suitable candidate for revascularization procedures such as coronary artery bypass grafting (CABG) or percutaneous transluminal coronary angioplasty (PTCA), and
2. Patient's angina pectoris is New York Heart Association (NYHA) Functional Class III (patients are comfortable at rest; less than ordinary physical activity causes fatigue, palpitation, dyspnea, or anginal pain) or Class IV (symptoms of cardiac insufficiency or angina are present at rest; symptoms are increased with physical activity), and
3. Reversible ischemia is documented by symptom-limited treadmill exercise test, and
4. Patient has had optimal pharmacotherapy for at least one month. Optimal pharmacotherapy includes the maximal tolerated dosages of at least two of the following anti-anginal medications: long-acting nitrates, beta-adrenergic blockers, or calcium channel antagonists; and
5. Patient experiences significant pain reduction (50% or more) with a 2 day trial of percutaneous spinal stimulation.

Note: Criteria for exclusion from coverage of DCS in treating intractable angina pectoris include either of the following:

- Myocardial infarction or unstable angina in the previous 3 months, or
- Significant valve abnormalities as demonstrated by echocardiography.

Spinal cord stimulation **is not a covered benefit** for the following conditions:

- Post herpetic neuralgia
- Pain and spasticity related to spinal cord injuries
- Rectal pain
- Phantom limb pain
- Pain secondary to cancer
- Patient fails multidisciplinary screening as detailed above
- Axial pain exceeding radicular pain

VI. VAGAL NERVE STIMULATION

Vagal Nerve Stimulation is a covered benefit for seizure patients who remain refractory to optimal anti-epileptic medications and/or surgical intervention, or who have debilitating side effects from medications. The following also must be met:

1. For patients > 17 y.o.: Vagal nerve stimulation is covered for partial onset seizures only
2. Prior authorization by Priority Health

Vagal Nerve Stimulation for indications other than partial onset seizures (e.g. depression, autism, Alzheimer's, obesity, headache) has not been established as effective, is considered experimental and **not a covered benefit**.

Vagal Nerve Stimulation for Treatment Resistant Depression is **not a covered benefit**.

Vagal Blocking for Obesity Control (VBLOC) is **not a covered benefit**.

Non-invasive vagal nerve stimulation (e.g. GammaCore) for treatment of all headache types is **not a covered benefit.**

VII. NEUROSTIMULATION WITH NEUROPACE® RNS® (RESPONSIVE NEUROSTIMULATION) DEVICE

Neurostimulation with the FDA approved NeuroPace® RNS® device is a covered benefit for the treatment of seizures in adults with partial-onset seizures refractory to at least 2 antiepileptic medications.

VIII. FUNCTIONAL ELECTRICAL STIMULATION (FES)

FES (or NMES) may be a covered benefit for acute or post-acute upper extremity rehabilitation following a stroke when criteria are met. Refer to NMES (Section XIV) for criteria.

Functional Electrical Stimulation (FES) for all other diagnoses has not been proven efficacious and therefore is not a covered benefit.

IX. GALVANIC STIMULATORS

Galvanic stimulators have not been scientifically shown to be medically effective or necessary and are not a covered benefit.

X. HIGH-VOLTAGE PULSED ELECTROGALVANIC STIMULATORS

High-voltage pulsed electrogalvanic stimulators are covered as DME for patients with levator syndrome (proctalgia fugax, chronic anal pain syndrome) who meet ALL of the following criteria:

- No underlying disease has been revealed by anorectal exam or by manometry, radiology, or endoscopy, and a neurological cause for the pain cannot be detected, and
- Patient has failed prior conservative treatments, namely, high fiber diet, withdrawal of drugs that cause constipation (e.g., narcotics, calcium channel blockers) or diarrhea (e.g., quinidine, theophylline, antibiotics), perineal strengthening exercises, rectal massage, warm baths, and drug therapy (e.g., sedatives, muscle relaxants, and non-narcotic analgesics).
- More than three 60-minute sessions, administered over a 10-day period, are not considered medically necessary and are not covered. Electrogalvanic stimulators for home use are not covered because they have not been proven to be safe and effective for home use.

XI. INCONTINENCE STIMULATORS

1. URINARY INCONTINENCE STIMULATORS

A. External electrical muscle stimulators (e.g., Innova) are covered as DME for management of urinary incontinence when ALL of the following criteria are met:

- Patient is diagnosed with stress, urge, or mixed incontinence, and
- There is an average of 3 or more episodes of gross urinary incontinence per week, and
- There is no glycosuria or pyuria, and
- Patient has tried and failed pelvic floor exercises (Kegel exercises).
- Patient has failed maximal pharmacologic management.

B. InterStim Continence Control Therapy/Sacral Nerve Stimulation:

Sacral nerve stimulation involves both a temporary test stimulation to determine if an implantable stimulator would be effective and a permanent implantation in appropriate candidates. Both the test and the permanent implantation are covered.

Implantation of the InterStim (Medtronic Inc., Minneapolis, MN), a device for stimulation of the sacral nerve, is covered for the treatment of any of the following:

1. urinary urge incontinence,
2. urgency-frequency syndrome
3. urinary retention.

The following criteria apply:

- Patient must be refractory to conventional therapy (documented behavioral, pharmacologic and/or surgical corrective therapy) and be an appropriate surgical candidate such that implantation with anesthesia can occur.
- Patient must have had a successful test stimulation in order to support subsequent implantation. Before a patient is eligible for permanent implantation, he/she must demonstrate a 50% or greater improvement through test stimulation. Improvement is measured through voiding diaries. Adequate bladder capacity and normal urinary tract
- The device must be FDA approved and used according to FDA labeling
- Age16 years or older

Non-Covered: SNS is not a covered benefit in patients with, but not limited to, the following conditions:

- Patients with stress incontinence, urinary obstruction, and specific neurologic diseases (e.g., diabetes with peripheral nerve involvement) which are associated with secondary manifestations of the above three indications
- Neurogenic urinary retention
- Pregnancy
- Diabetes
- Interstitial cystitis
- Pelvic pain
- Fowler's syndrome
- Multiple sclerosis
- Patients with mechanical obstructions/strictures or cancer

C. Percutaneous Tibial Nerve Stimulation (PTNS)

Description:
Percutaneous tibial nerve stimulators are intended for use by patients with urinary urgency, urinary frequency, and urge incontinence. The stimulators deliver retrograde access to the sacral nerve through percutaneous stimulation of the tibial nerve.

Percutaneous tibial nerve stimulators are classified in the Food and Drug Administration (FDA) 510(k) database under the general Product Code NAM, which identifies them as nonimplanted, peripheral nerve stimulators for pelvic floor dysfunction, or nonimplanted, peripheral electrical continence devices. The FDA defines these devices as consisting of an electrode that is connected by an electrical cable to a battery-powered pulse source. The electrode is placed onto or inserted into the body at a peripheral location and is used to stimulate the nerves associated with pelvic floor function to maintain urinary continence. When necessary, the electrode may be removed by the user.

Treatments are commonly 30 minutes in length and are given for 12 consecutive weeks. Reportedly, the benefits of these treatments continue for long periods of time; however, maintenance treatments are usually needed and tailored to each specific patient.

Policy:

PTNS may be a covered benefit for the diagnosis of urinary incontinence or overactive bladder when **both** of the following are met:

1. Failure of medication , AND
2. Failure of pelvic floor exercises (e.g. Kegels, biofeedback)

Coverage is limited to 24 treatments in a year.

D. *Pelvic floor electrical or magnetic stimulation, including pudendal nerve stimulation*, has not been proven to be effective and is not a covered benefit for urinary incontinence.

2. FECAL INCONTINENCE STIMULATORS

A. *Sacral nerve stimulation* is a covered benefit for fecal incontinence when *all* of the following are met:

1. Chronic fecal incontinence: 2 or more episodes per week on average and duration of greater than 6 months.
2. Failure of conservative therapy (e.g. dietary management, pharmacotherapy, strengthening exercises).
3. A successful percutaneous test stimulation in order to support subsequent permanent implantation. Before a patient is eligible for permanent implantation, he/she must demonstrate a 50% or greater improvement through test stimulation.

Device is FDA approved (e.g. Medtronic's InterStim) and used as labeled.

XII. GASTRIC STIMULATION

Gastric stimulation (gastric pacemaker) for the treatment of gastroparesis is covered as defined in the *Gastroparesis Testing and Treatment medical policy #91572*.

XIII. INTERFERENTIAL STIMULATORS

Interferential stimulators, including those combined with muscle stimulation (e.g. RS-4i), have not been scientifically shown to be medically effective or necessary and are not a covered benefit.

XIV. NEUROMUSCULAR ELECTRICAL STIMULATION (NMES)

Neuromuscular electrical stimulators (NMES) are covered as DME for either of the following (A or B):

A. Disuse atrophy where the nerve supply to the muscle is intact and the patient has ANY of the following non-neurological reasons for disuse atrophy:

- Previous casting or splinting of a limb, or
- Contractures due to burn scarring, or
- Recent hip replacement surgery (NMES is covered until physical therapy begins), or
- Previous major knee surgery (when there is failure to respond to physical therapy).

B. Acute or post-acute upper extremity rehabilitation following a stroke, with all of the following:

- NMES or FES (Functional Electrical Stimulation) is done in conjunction with conventional physical or occupational rehabilitation
- Therapy is restorative in nature
- Reasonable expectation for meaningful functional improvement within 90 days in ability to perform functional day-to-day activities

More than 2 hours of NMES per day is not considered medically necessary and is not covered.

Prior authorization by Priority Health is required. Compliance logs, if available, may be reviewed for continued authorization.

A form fitting conductive garment is **not a covered** benefit.

NMES is **not a covered benefit** for ANY of the following:

- Spinal cord injury

- Stroke (CVA), except for upper extremity rehabilitation following stroke as above
- Cerebral palsy
- Other upper motor neuron disorders
- For general muscle strengthening in healthy individuals
- For cardiac conditioning
- For the treatment of denervated muscles

XV. PERCUTANEOUS ELECTRICAL NERVE STIMULATION (PENS) AND PERCUTANEOUS NEUROMODULATION THERAPY (PNT)

PENS and PNT have not been proven to be effective and are **not a covered** benefit.

XVI. PERIPHERALLY IMPLANTED NERVE STIMULATORS

Peripherally implanted nerve stimulators are covered as DME for treatment of intractable neurogenic pain when ALL of the following criteria are met:

- Patient has chronic intractable pain, refractory to other methods of treatment (analgesics, physical therapy, local injection, surgery), and
- There is objective evidence of pathology (e.g., electromyography), and
- There is no psychological contraindication to peripheral nerve stimulation, and
- Patient is not addicted to drugs, and
- A two week trial of transcutaneous stimulation was successful (resulting in at least a 50% reduction in pain).

Peripheral nerve stimulation has been shown to be effective in treating neurogenic pain in the following conditions:

- Reflex sympathetic dystrophy
- Causalgia
- Plexus avulsion
- Operative trauma
- Entrapment neuropathies
- Injection injuries

Peripheral nerve stimulation has NOT been shown to be effective in treating post-herpetic neuralgia and is not covered for this indication.

XVII. Pulsed Electrical Stimulation for the treatment of osteoarthritis of the knee (e.g. BioniCare 1000®)

Coverage Decision:

Based on the available evidence in the peer-reviewed medical literature, Priority Health considers pulsed electrical stimulation for the treatment of osteoarthritis of the knee to be experimental and investigational because the short-term and long-term effectiveness of the treatment have not been established.

Evidence:

1. Zizic, et al. (1995) evaluated the safety and effectiveness of pulsed electrical stimulation for the treatment of osteoarthritis (OA) of the knee (n = 78). Patients were treated 6 hours per day for four weeks. The investigators reported that patients treated with the active devices showed significantly greater improvement than the placebo group for all primary efficacy variables in comparisons of mean change from baseline to the end of treatment. Improvement of greater or equal to 50% from baseline was shown in at least one primary efficacy variable in 50% of the active device group, in 2 variables in 32 %, and in all 3 variables in 24%. In the placebo group improvement of greater or equal to 50% occurred in 36% for one, 6% for 2, and 6% for 3 variables. Mean morning stiffness decreased 20 minutes in the active device group and increased 2 minutes in the placebo group ($p < 0.05$). No statistically significant differences were observed for tenderness, swelling, or walking time. The authors concluded that improvements in clinical measures for pain and function found in this study suggest that pulsed electrical stimulation is effective for treating OA of the knee. The investigators noted, however, that studies of the durability of results are warranted.

2. In 2002, the Cochrane Collaboration evaluated the published evidence on the effectiveness of pulsed electric stimulation for the treatment of osteoarthritis (OA). The study also assessed the most effective and efficient method of applying an electromagnetic field, through pulsed electromagnetic fields (PEMF) or electric stimulation, as well as the consideration of length of treatment, dosage, and the frequency of the applications.

   Only three studies with a total of 259 OA patients were eligible for inclusion in the review. Electrical stimulation therapy had a small to moderate effect on outcomes for knee OA, all statistically significant with clinical benefit ranging from 13-23% greater with active treatment than with placebo. Only 2 outcomes for cervical OA were significantly different with PEMF treatment and no clinical benefit can be reported with changes of 12% or less. The reviewers concluded that the current evidence suggests that electrical stimulation therapy may provide significant improvements for knee OA, but further studies are required to confirm whether the statistically significant results shown in these trials confer important and durable benefits.

3. Results of a four year study of the BioniCare device in 157 patients were presented as a poster presentation at the 2004 meeting of the American Academy of Orthopaedic Surgeons. Patients in this study had moderate to severe knee osteoarthritis and were considered candidates for total knee arthroplasty. The

poster presenters reported that patients using the BioniCare system avoided total knee arthroplasty over 50% of the time (p=0.0004) at one, two, three and four year follow-up when compared to a matching group of 101 patients. Study patients who avoided surgery also reported "significant improvements in pain scores (mean improvement 40%), function (mean improvement 38%), and physician global evaluation (mean 38%)." The manufacturer is seeking publication of the full results of this study. This study does not have a randomly assigned control group.

References:
1. Zizic TM, Hoffman KC, Holt PA, et al. The treatment of osteoarthritis of the knee with pulsed electrical stimulation. J Rheumatol. 1995;22(9):1757-1761.
2. Hulme J, Robinson V, DeBie R, et al. Electromagnetic fields for the treatment of osteoarthritis. Cochrane Database Syst Rev. 2002;(1):CD003523.
3. Mont MA, He DY, Jones LC et al. Abstract: The use of pulsed electrical stimulation (PES) to defer total knee arthroplasty (TKA) in patients with osteoarthritis (OA) of the knee. Presented at American Academy of Orthopaedic Surgeons annual meeting, March 2004

This policy is based on the review and recommendation of Priority Health's Technology Assessment Committee on March 4, 2005.

XVIII. SURFACE ELECTRICAL MUSCLE STIMULATION

Surface electrical muscle stimulation (direct or alternating current, not high voltage galvanic current) is covered as DME for the management of juvenile or adolescent idiopathic scoliosis when ALL of the following criteria are met:

- Patient has juvenile or adolescent idiopathic scoliosis that has not been surgically treated and the scoliosis is not currently being treated with bracing, and
- Spinal curvature is between 20 and 45 degrees (Cobb measurement based on radiographic studies), and
- Spinal curvature is highly progressive, with documented progression of curvature of 5 degrees or more within the past 12 months for curves between 20 and 30 degrees. (With these immature patients, curves of 30 degrees or more are presumed to be highly progressive.), and
- There is a minimum of 50% correction on forced lateral bending, and
- Patient has a minimum of 1 year of bone growth remaining, as judged by the physician.

Note: Since treatment may last from 6 to 18 months, purchase of the equipment may be covered if it is more economical than rental.

XIX. TRANSCUTANEOUS ELECTRICAL NERVE STIMULATOR (TENS)

A. Use of TENS for any diagnosis for a two month trial does not require prior authorization.
B. Authorization of TENS beyond the two month initial trial for any diagnosis (except those listed in C. below) requires documentation of at least *two* of the following:

- Increased physical activity
- Decreased pain
- Decreased use of analgesics

C. Use of TENS for the following diagnoses does not require authorization:
722.52 Degeneration of lumbar or lumbosacral intervertebral disc
724.2 Lumbago
724.5 Unspecified backache
724.6 Disorders of sacrum

D. The P-STIM™ device, an auricular TENS type unit, is a covered benefit for chronic pain, including chronic migraine headache.

XX. ELECTRIC TUMOR TREATMENT FIELDS (ETTF) DEVICES

Electric tumor treatment fields (ETTF) devices (e.g. NovoTTF) for the treatment of recurrent glioblastoma are covered when the following criteria are met: used as monotherapy for persons with histologically confirmed glioblastoma, after histologically or radiologically confirmed recurrence in the supratentorial region of the brain after receiving chemotherapy.

ETTF devices for all other indications are considered experimental and not covered.

XXI. NON-COVERED ELECTRICAL STIMULATION THERAPIES

The following electrical stimulation therapies are **not covered** because their effectiveness has not been established:

1. Cranial electrical stimulation (also known as electrosleep, electrotherapeutic sleep, cerebral electrotherapy, transcranial electrotherapy, transcerebral electrotherapy, craniofacial electrostimulation, and electric cerebral stimulation) for use in patients with headaches (e.g. Cefaly device), depression, chemical dependency, or alcoholism (e.g., using the Liss Body Stimulator to treat this indication)
2. Electric reflex salivary stimulation (Salitron System) to treat xerostomia (dry mouth) secondary to Sjogren's syndrome
3. Neuromuscular electrical stimulation for ANY of the following conditions:
   - Spinal cord injury
   - Stroke (CVA), except for upper extremity rehabilitation post stroke as noted in Section XII
   - Cerebral palsy
   - Other upper motor neuron disorders
   - For general muscle strengthening in healthy individuals
   - For cardiac conditioning
   - For the treatment of denervated muscles
4. Transurethral electrical stimulation for the management of neurogenic bladder dysfunction

5. High frequency pulsed electromagnetic fields (i.e., Diapulse and sofPulse device) for the treatment of wounds in the home setting or acute postoperative pain and edema
6. Interferential current therapy
7. Electrical stimulation for the treatment of Bell's palsy
8. Stellate ganglion blockade using TENS
9. Dorsal column stimulation for the management of chronic malignant pain
10. H-WAVE ® type stimulators for ANY of the following indications:
    - To reduce pain
    - To reduce edema
    - To accelerate healing
    - For treatment of chronic pain due to ischemia
11. Functional electrical stimulation for electrical stimulation of muscles in patients with spinal cord injuries and other neuromuscular conditions
12. Intramuscular stimulation (IMS) for the management of soft-tissue or neuropathic pain.
13. Galvanic stimulation therapy
14. Electrical stimulation for wound healing or skin ulcers in the home setting
15. Percutaneous Electrical Stimulation (PENS)
16. Percutaneous Neuromodulation Therapy (PNT)
17. Transcend® Implantable Gastric Stimulator for treatment of obesity
18. Synergy® Neurostimulator (Medtronic) for intractable migraine pain
19. Vagal nerve stimulators, both invasive and non-invasive, for all indications other than seizures as defined in Section VI. Non-covered indications include, but are not limited to depression, Alzheimer's disease, obesity, headache, obsessive-compulsive disorder, autism and ADHD.
20. Microcurrent, Electrical Nerve Stimulation (MENS), including Frequency-Specific Microcurrent (FSM). Also known as Bio-Electric Stimulation Therapy (BEST), By Kingfisher Healthcare.
21. Motor cortex stimulation for neuropathic facial pain.
22. Devices (e.g. NovoTTF-100A System, Novocure, Portsmouth, NH) to generate electric tumor treatment fields (ETTF) for the treatment of malignant tumors and all other indications, unless criteria in Section XX are met.
23. Transcranial magnetic stimulation (e.g. Cerena) for treatment of migraine headaches. (For use in depression see *Transcranial Magnetic Stimulation for Depression medical policy #91563).*
24. Carotid sinus/baroreceptor stimulators (e.g., the Barostim neo™ System, and the Rheos Baroreflex Hypertension Therapy System) for the treatment *of hypertension and for all other indications (e.g., heart failure).*
25. Vagal Blocking for Obesity Control (VBLOC, Maestro Rechargable System)
26. Calmare Pain Therapy (Calmare Therapeutics Inc.)
27. Hypoglossal neurostimulation for obstructive sleep apnea (e.g. Inspire II, aura6000 Targeted Hypoglossal Neurostimulation (THN) Sleep Therapy System). See Obstructive Sleep Apnea medical policy

XXII. BACKGROUND

The following are brief descriptions of various types of electrical stimulation:

Transcutaneous Electrical Nerve Stimulation (TENS) is characterized by biphasic current and selectable parameters such as pulse rate and pulse width. In theory, TENS stimulates sensory nerves to block pain signals; it also stimulates endorphin production to help normalize sympathetic function. Most TENS units produce current of 1 to 80 microampere (mA), 9 V (average), 2 to 1,000 Hz, with a pulse width of 250 to 400 microseconds (mS).

Neuromuscular Stimulation (NMS), Electrical Muscle Stimulation (EMS) is characterized by low voltage stimulation targeted to stimulate motor nerves to cause a muscle contraction. Contraction/relaxation of muscles has been used to treat a variety of musculoskeletal and vascular conditions. NMS/EMS differs from TENS in that it, through multiple channels, attempts to stimulate motor nerves and alternately causes contraction and relaxation of muscles, while TENS is designed to stimulate sensory nerve endings to help decrease pain.

Russian Muscle Stimulation, Burst-Modulated Alternating Current is similar to NMS/EMS in that it is designed to stimulate motor nerves. However, it is set at a frequency of 2,500 Hz, which, according to its proponents, allows for deeper muscle penetration and a more complete/stronger contraction of the muscle fibers.

Functional Electrical Stimulation (FES), also known as functional neuromuscular stimulation and EMG-triggered neuromuscular stimulation, attempts to replace stimuli from destroyed nerve pathways with computer-controlled sequential electrical stimulation of muscles to enable patients with spinal cord injury or stroke to function independently, or at least maintain healthy muscle tone and strength.

High Voltage Pulsed Galvanic Stimulation (HVPGS) is characterized by high voltage (300 to 500 V), short pulse duration (2 to 60 mS) stimulation and exhibit a monophasic twin peak waveform. Most HVPGS produce a high peak current intensity 2,000 to 2,500 mA. Because the interval between paired pulses generated by HVPGS make up as much as 99% of each second that the current flows, the total current (average) delivered to the tissue per second does not exceed 1.2 to 1.5 mA; thus HVPGS has been reported to be tolerated by most patients.

Microcurrent Electrical Nerve Stimulation (MENS) is a “TENS-like” unit for home use that uses small amounts of electrical current for pain and tissue healing. According to its proponents, MENS acts on the body's naturally occurring electrical impulses to decrease pain and facilitate the healing process. MENS employs microamperage instead of milliamperage to drive its current into the injured site. What appears to be a small driving force is compensated by the pulse width of the waveform (500,000 mS). MENS uses current between 1 and 1000 mA at a voltage of 10 to 60 V, and a frequency of 0.5 to 100

Hz. MENS differs from TENS in that it uses a significantly reduced electrical stimulation. TENS blocks pain, while MENS (in theory) acts on the naturally occurring electrical impulses to decrease pain by stimulating the healing process. There is no evidence in the peer-reviewed medical literature to support the efficacy of MENS.

Electro-Acuscope, Microamperage-TENS: According to the manufacturer, the Electro-Acuscope is a feedback-oriented, microcurrent stimulator designed to generate complex waveforms that automatically adjust to meet the need of injured tissue. It is also known as the microamperage-TENS (TENS usually utilizes milliamperage current). The Electro-Acuscope supposedly can monitor moment-to-moment bioelectric activity and feed back appropriate current pulses. This feature of the Electro-Acuscope allegedly distinguishes it from other MENS devices. The Electro-Acuscope can generate both direct and alternating currents. Frequency settings range from 0.5 to 320 Hz. A current of less than 500 mA is recommended by the manufacturer.

Interferential Stimulation (IF) is characterized by two alternating-current sine waves of differing frequencies that "work" together to produce an interferential current that is also known as a beat pulse or alternating modulation frequency. One of the two currents is usually held at 4,000 Hz, and the other can be held constant or varied over a range of 4,001 to 4,100 Hz. Interferential currents reportedly can stimulate sensory, motor, and pain fibers. Because of the frequency, the interferential wave meets low impedance when crossing the skin to enter the underlying tissue. This deep tissue penetration can be adjusted to stimulate parasympathetic nerve fibers for increased blood flow. According to proponents, interferential stimulation differs from TENS because it allows a deeper penetration of the tissue with more comfort (compliance) and increased circulation.

Electro-Acupuncture, Acupuncture-like TENS (AL-TENS), Intense TENS: Electro-acupuncture is characterized by applying stimulation to specific acupuncture or trigger points on the body in small electrical impulses through acupuncture needles or with hand-held cutaneous probes. The frequency of stimulation may vary from 1 to 1,000 Hz. Electro-acupuncture stimulation differs from TENS because TENS uses a higher voltage cutaneous stimulation.

Percutaneous Electrical Nerve Stimulation (PENS) combines advantages of both electro-acupuncture and TENS. Rather than using surface electrodes, PENS uses acupuncture-like needles as electrodes. These needles are placed in the soft tissues or muscles at dermatomal levels corresponding to local pathology (needles are usually inserted above and below and into the central area of pain). A 5-Hz frequency with a pulse width of 0.5 mS is usually used. If relief is not attained within 15 minutes, the frequency may be lowered to 1 Hz. According to PENS proponents, the main advantage of PENS over TENS is that it bypasses the local skin resistance and delivers electrical stimuli at the precisely desired level in close proximity to the nerve endings located in soft tissue, muscle, or periosteum of the involved dermatomes.

H-Wave Stimulation delivers electrical stimulation in the form of milliamperage. H-wave stimulation is intended to emulate the H waveform found in nerve signals (Hoffman

Reflex) and therefore enables greater and deeper penetration of a low frequency current, while using significantly less power than other machines. This allegedly makes H-Wave stimulation much safer, less painful and more effective than other forms of electrotherapy to date. The H-wave signal is a bipolar, exponential decaying waveform that overcomes the disadvantages of other electrotherapy machines. It allows the therapist to apply two treatments at the same time: (i) low frequency muscle stimulation and (ii) high frequency deep analgesic pain control (a "TENS" effect). Note: H-wave stimulation must be distinguished from the H-waves that are a component of EMG.

Galvanic stimulation is characterized by high voltage, pulsed stimulation and is used primarily for local edema reduction through muscle pumping and polarity effect. Edema is comprised of negatively charged plasma proteins, which leak into the interstitial space. The theory of galvanic stimulation is that by placing a negative electrode over the edematous site and a positive electrode at a distant site, the monophasic high voltage stimulus applies an electrical potential which disperses the negatively charged proteins away from the edematous site, thereby helping to reduce edema.

Gastric pacing was cleared by the FDA as a humanitarian use device. Thus, the manufacturer was not required to submit the level of evidence that would be required to support a premarket approval application (PMA). The data presented to the FDA documenting the "probable benefit" of gastric pacing (Gastric Electrical Stimulation (GES) System) was based on a multicenter double-blind cross-over study (FDA, 2000) which included 33 patients with intractable idiopathic or diabetic gastroparesis. In the initial phase of the study, all patients underwent implantation of the stimulator and were randomly assigned to stimulation ON or stimulation OFF for the first month, with cross-over to OFF and ON during the second month. The baseline vomiting frequency was 47 episodes per month, which significantly declined in both ON and OFF groups to 23 to 29 episodes, respectively. However, there were no significant differences in the number of vomiting episodes between the two groups, suggesting a placebo effect.

Electric tumor treatment fields (ETTF). Alternating electric fields, generated by insulated electrodes, have been reported to exhibit inhibitory effect on the growth rate of a variety of human and rodent tumor cell lines as well as malignant tumors in animals. Electric tumor treating fields (ETTF) are low-intensity (1 to 2 V/cm), intermediate-frequency (100 to 200 kHz), alternating electric fields employed for the treatment of malignant tumors. This novel treatment modality has shown promise in pilot clinical trials in patients with advanced stage solid tumors including glioblastoma (GBM).

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MEDICAL NECESSITY REVIEW:

☒ Required ☐ Not Required ☐ Not Applicable

APPLICATION TO PRODUCTS:

Coverage is subject to member's specific benefits. Group specific policy will supersede this policy when applicable.

- **HMO/EPO:** ***This policy applies to insured HMO/EPO plans.***
- **POS:** ***This policy applies to insured POS plans.***
- **PPO:** ***This policy applies to insured PPO plans. Consult individual plan documents as state mandated benefits may apply. If there is a conflict between this policy and a plan document, the provisions of the plan document will govern.***
- **PPO:** ***This policy applies to insured PPO plans.***
- **ASO:** ***For self-funded plans, consult individual plan documents. If there is a conflict between this policy and a self-funded plan document, the provisions of the plan document will govern.***
- **INDIVIDUAL:** ***For individual policies, consult the individual insurance policy. If there is a conflict between this medical policy and the individual insurance policy document, the provisions of the individual insurance policy will govern.***
- **MEDICARE:** ***Coverage is determined by the Centers for Medicare and Medicaid Services (CMS); if a coverage determination has not been adopted by CMS, this policy applies.***
- **MEDICAID/HEALTHY MICHIGAN PLAN:** ***For Medicaid/Healthy Michigan Plan members, this policy will apply. Coverage is based on medical necessity criteria being met and the appropriate code(s) from the coding section of this policy being included on the Michigan Medicaid Fee Schedule located at: http://www.michigan.gov/mdch/0,1607,7-132-2945_42542_42543_42546_42551-159815--,00.html. If there is a discrepancy between this policy and the Michigan Medicaid Provider Manual located at: http://www.michigan.gov/mdch/0,1607,7-132-2945_5100-87572--,00.html, the Michigan Medicaid Provider Manual will govern. For Medical***

Supplies/DME/Prosthetics and Orthotics, please refer to the Michigan Medicaid Fee Schedule to verify coverage.

- **MICHILD:** ***For MICHILD members, this policy will apply unless MICHILD certificate of coverage limits or extends coverage.***

CODING INFORMATION:

Diagnosis information may be truncated – verify codes using appropriate references.
(No Auth) = no prior authorization required

I. Bone Growth Stimulator

ICD-9 Codes:
(See InterQual® criteria)

CPT/HCPCS Codes:

E0747 Osteogenesis stimulator, electrical, noninvasive, other than spinal applications
E0748 Osteogenesis stimulator, electrical, noninvasive, spinal applications
E0749 Osteogenesis stimulator, electrical, surgically implanted
E0760 Osteogenesis stimulator, low intensity ultrasound, noninvasive

20974 Electrical stimulation to aid bone healing; noninvasive (nonoperative) ***(No Auth)***
20975 Electrical stimulation to aid bone healing; invasive (operative)
20979 Low intensity ultrasound stimulation to aid bone healing, noninvasive (nonoperative) ***(No Auth)***

II. Chronic Skin Ulcers - not covered for home

ICD-9 Codes that may apply *(for dates of service on or before September 30, 2015):*
707.00 - 707.09 Pressure ulcer,
707.10 - 707.19 Ulce of lower limb except pressure
707.8 - 707.9 Chronic ulcer of other specified sites - chronic ulcer of unspecified site

ICD-10 Codes that may apply (*for dates of service on or after October 1, 2015):*
I70.231 – I70.25 Atherosclerosis with ulcer, leg
L89.000 - L89.95 Pressure ulcer
L97.101 - L97.929 Nonpressure chronic ulcer
L98.411 – L98.499 Other Nonpressure ulcer

CPT/HCPCS Codes:

97014 ***(No Auth)*** Application of a modality to one or more areas; electrical stimulation (unattended)

Medicare only --
G0281 Electrical stimulation, (unattended), to one or more areas, for chronic Stage III and Stage IV pressure ulcers, arterial ulcers, diabetic ulcers, and venous stasis ulcers not demonstrating measurable signs of healing after 30 days of conventional care, as part of a therapy plan of care ***(No Auth)***
G0329 Electromagnetic therapy, to one or more areas for chronic Stage III and Stage IV pressure ulcers, arterial ulcers, diabetic ulcers and venous stasis ulcers not

demonstrating measurable signs of healing after 30 days of conventional care as part of a therapy plan of care ***(No Auth)***

Not Covered

G0282 Electrical stimulation, (unattended), to one or more areas, for wound care other than described in G0281

G0295 Electromagnetic therapy, to one or more areas, for wound care other than described In G0329 or for other uses

E0769 Electrical stimulation or electromagnetic wound treatment device, not otherwise classified

III. Deep Brain Stimulation

ICD-9 Codes that may support medical necessity *(for dates of service on or before September 30, 2015):*

332.0 - 332.1	Parkinson's disease
333.1	Essential and other specified forms of tremor
333.6	Genetic torsion dystonia
333.79	Other acquired torsion dystonia
333.83	Spasmodic torticollis
333.89	Other torsion dystonia

ICD-10 Codes that may support medical necessity (*for dates of service on or after October 1, 2015):*

G20	Parkinson's disease
G210 – G21.9	Secondary parkinsonism
G23.0 – G23.9	Other degenerative diseases of basal ganglia
G24.019 – G24.9	Drug induced dystonia
G25.0	Essential tremor
G25.1	Drug-induced tremor
G25.2	Other specified forms of tremor
G90.3	Multi-system degeneration of the autonomic nervous system

CPT/HCPCS Codes:

61863 Twist drill, burr hole, craniotomy, or craniectomy with stereotactic implantation of neurostimulator electrode array in subcortical site (eg, thalamus, globus pallidus, subthalamic nucleus, periventricular, periaqueductal gray), without use of intraoperative microelectrode recording; first array

61864 Twist drill, burr hole, craniotomy, or craniectomy with stereotactic implantation of neurostimulator electrode array in subcortical site (eg, thalamus, globus pallidus, subthalamic nucleus, periventricular, periaqueductal gray), without use of intraoperative microelectrode recording; each additional array (List separately in addition to primary procedure)

61867 Twist drill, burr hole, craniotomy, or craniectomy with stereotactic implantation of neurostimulator electrode array in subcortical site (eg, thalamus, globus pallidus, subthalamic nucleus, periventricular, periaqueductal gray), with use of intraoperative microelectrode recording; first array

61868 Twist drill, burr hole, craniotomy, or craniectomy with stereotactic implantation of neurostimulator electrode array in subcortical site (eg, thalamus, globus pallidus, subthalamic nucleus, periventricular, periaqueductal

gray), with use of intraoperative microelectrode recording; each additional array (List separately in addition to primary procedure)
61880 Revision or removal of intracranial neurostimulator electrodes ***(No Auth)***
61885 Insertion or replacement of cranial neurostimulator pulse generator or receiver, direct or inductive coupling; with connection to a single electrode array
61886 Insertion or replacement of cranial neurostimulator pulse generator or receiver, direct or inductive coupling; with connection to two or more electrode arrays
61888 Revision or removal of cranial neurostimulator pulse generator or receiver ***(No Auth)***

95961 Functional cortical and subcortical mapping by stimulation and/or recording of electrodes on brain surface, or of depth electrodes, to provoke seizures or identify vital brain structures; initial hour of physician attendance ***(No Auth)***
95962 Functional cortical and subcortical mapping by stimulation and/or recording of electrodes on brain surface, or of depth electrodes, to provoke seizures or identify vital brain structures; each additional hour of physician attendance (List separately in addition to code for primary procedure) ***(No Auth)***
95978 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, battery status, electrode selectability and polarity, impedance and patient compliance measurements), complex deep brain neurostimulator pulse generator/transmitter, with initial or subsequent programming; first hour
95979 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, battery status, electrode selectability and polarity, impedance and patient compliance measurements), complex deep brain neurostimulator pulse generator/transmitter, with initial or subsequent programming; each additional 30 minutes after first hour (List separately in addition to code for primary procedure)

C1767 Generator, neurostimulator (implantable), nonrechargeable
C1787 Patient programmer, neurostimulator
C1883 Adapter/ extension, pacing lead or neurostimulator lead
C1897 Lead, neurostimulator test kit (implantable)

L8679 Implantable neurostimulator, pulse generator, any type
L8681 Patient programmer (external) for use with implantable programmable neurostimulator pulse generator
L8686 Implantable neurostimulator pulse generator, single array, non-rechargeable, includes extension
L8688 Implantable neurostimulator pulse generator, dual array, non-rechargeable, includes extension
L8689 External recharging system for battery (internal) for use with implantable neurostimulator

IV. Diaphragmatic/Phrenic Pacing

ICD-9 Codes that may apply *(for dates of service on or before September 30, 2015):*
344.01 Quadriplegia and quadriparesis, C1-C4, complete
344.02 Quadriplegia and quadriparesis, C1-C4, incomplete
V46.11 Dependence on respirator, status

ICD-10 Codes that may apply (*for dates of service on or after October 1, 2015):*

G82.51 Quadriplegia, C1-C4 complete
G82.52 Quadriplegia, C1-C4 incomplete
Z99.11 Dependence on respirator [ventilator] status

CPT/HCPCS Codes:

64590 Insertion or replacement of peripheral or gastric neurostimulator pulse generator or receiver, direct or inductive coupling
64595 Revision or removal of peripheral or gastric neurostimulator pulse generator or receiver ***(No Auth)***

L8680 Implantable neurostimulator electrode, each
L8681 Patient programmer (external) for use with implantable programmable neurostimulator pulse generator
L8683 Radiofrequency transmitter (external) for use with implantable neurostimulator radiofrequency receiver
L8686 Implantable neurostimulator pulse generator, single array, non-rechargeable, includes extension
L8688 Implantable neurostimulator pulse generator, dual array, non-rechargeable, includes extension
L8689 External recharging system for battery (internal) for use with implantable neurostimulator
L8696 Antenna (external) for use with implantable diaphragmatic/phrenic nerve stimulation device, replacement, each

V. Dorsal column/spinal cord stimulators (DCS/SCS)

ICD-9 Codes that may apply *(for dates of service on or before September 30, 2015):*

338.0 Central pain syndrome
338.28 Other chronic postoperative pain
338.29 Other chronic pain
338.4 Chronic pain syndrome
353.1 Lumbosacral plexus lesions
353.9 Unspecified nerve root and plexus disorder
354.4 Causalgia of upper limb
354.9 Mononeuritis of upper limb, unspecified
355.71 Causalgia of lower limb
355.8 Mononeuritis of lower limb, unspecified

413.0 Angina decubitus
413.1 Prinzmetal angina
413.9 Other and unspecified angina pectoris
722.10 Lumbar intervertebral disc without myelopathy
722.52 Degeneration lumbar or lumbosacral intervertebral disc
722.82 Postlaminectomy syndrome, thoracic region
722.83 Postlaminectomy syndrome, lumbar region
723.4 Brachial neuritis or radiculitis NOS
724.4 Thoracic or lumbosacral neuritis or radiculitis, unspecified
724.5 Backache, unspecified
998.9 Unspecified complication of procedure, not elsewhere classified

ICD-10 Codes that may apply (*for dates of service on or after October 1, 2015):*

G54.1	Lumbosacral plexus disorders
G54.9	Nerve root and plexus disorder, unspecified
G56.40 – G56.42	Causalgia of upper limb
G56.80 – G76.92	Mononeuropathies of upper limb
G57.70 – G57.92	Mononeuropathies of lower limb
G58.0 – G58.9	Other mononeuropathies
G89.0	Central pain syndrome
G89.28	Other chronic postprocedural pain
G89.29	Other chronic pain
G89.4	Chronic pain syndrome
R52	Pain, unspecified
I20.1 – 120.9	Angina pectoris
I25.111 - I25.119	Atherosclerotic heart disease with angina pectoris
I25.701 – I25.799	Atherosclerosis of autologous vein coronary artery bypass graft(s) with angina pectoris
M50.10 – M50.13	Cervical disc disorder with radiculopathy
M51.14 – M51.17	Intervertebral disc disorder with radiculopathy
M51.26 – M51.27	Other intervertebral disc displacement, lumbar region
M51.36 - M51.37	Other intervertebral disc degeneration, lumbosacral region
M54.10 – M54.18	Radiculopathy
M54.5	Low back pain
M54.89	Other dorsalgia
M54.9	Dorsalgia, unspecified
M96.1	Postlaminectomy syndrome, not elsewhere classified
M96.1	Postlaminectomy syndrome, not elsewhere classified
T81.9xxs	Unspecified complication of procedure, sequela

CPT/HCPCS Codes:

63650	Percutaneous implantation of neurostimulator electrode array, epidural
63655	Laminectomy for implantation of neurostimulator electrodes, plate/paddle, epidural
63661	Removal of spinal neurostimulator electrode percutaneous array(s), including fluoroscopy, when performed ***(No Auth)***
63662	Removal of spinal neurostimulator electrode plate/paddle(s) placed via laminotomy or laminectomy, including fluoroscopy, when performed ***(No Auth)***
63663	Revision including replacement, when performed, of spinal neurostimulator electrode percutaneous array(s), including fluoroscopy, when performed ***(No Auth)***
63664	Revision including replacement, when performed, of spinal neurostimulator electrode plate/paddle(s) placed via laminotomy or laminectomy, including fluoroscopy, when performed ***(No Auth)***
63685	Insertion or replacement of spinal neurostimulator pulse generator or receiver, direct or inductive coupling

63688	Revision or removal of implanted spinal neurostimulator pulse generator or receiver ***(No Auth)***
95970	Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); simple or complex brain, spinal cord, or peripheral (ie, cranial nerve, peripheral nerve, autonomic nerve, neuromuscular) neurostimulator pulse generator/transmitter, without reprogramming
95971	Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); simple spinal cord, or peripheral (ie, peripheral nerve, autonomic nerve, neuromuscular) neurostimulator pulse generator/transmitter, with intraoperative or subsequent programming
95972	Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); complex spinal cord, or peripheral (except cranial nerve) neurostimulator pulse generator/transmitter, with intraoperative or subsequent programming, first hour
95973	Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); complex spinal cord, or peripheral (except cranial nerve) neurostimulator pulse generator/transmitter, with intraoperative or subsequent programming, each additional 30 minutes after first hour (List separately in addition to code for primary procedure)
C1767	Generator, neurostimulator (implantable), nonrechargeable
C1778	Lead, neurostimulator (implantable)
C1787	Patient programmer, neurostimulator
C1816	Receiver and/or transmitter, neurostimulator (implantable)
C1820	Generator, neurostimulator (implantable), with rechargeable battery and charging system
C1883	Adapter/ extension, pacing lead or neurostimulator lead
C1897	Lead, neurostimulator test kit (implantable)
L8680	Implantable neurostimulator electrode, each
L8681	Patient programmer (external) for use with implantable programmable neurostimulator pulse generator
L8682	Implantable neurostimulator radiofrequency receiver
L8683	Radiofrequency transmitter (external) for use with implantable neurostimulator radiofrequency receiver
L8685	Implantable neurostimulator pulse generator, single array, rechargeable, includes extension
L8686	Implantable neurostimulator pulse generator, single array, non-rechargeable, includes extension
L8687	Implantable neurostimulator pulse generator, dual array, rechargeable, includes extension

L8688 Implantable neurostimulator pulse generator, dual array, non-rechargeable, includes extension
L8689 External recharging system for battery (internal) for use with implantable neurostimulator

VI. Electrical Stimulation of Seizures/Vagal Nerve Stimulation

ICD-9 Codes that may support medical necessity *(for dates of service on or before September 30, 2015):*

345.41 Localization-related (focal) (partial) epilepsy and epileptic syndromes with complex partial seizures, with intractable epilepsy
345.51 Partial intractable epilepsy without impairment of consciousness

ICD-10 Codes that may support medical necessity (*for dates of service on or after October 1, 2015):*

G40.211 Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, intractable, with status epilepticus
G40.219 Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, intractable, without status epilepticus
G40.011 Localization-related (focal) (partial) idiopathic epilepsy and epileptic syndromes with seizures of localized onset, intractable, with status epilepticus
G40.019 Localization-related (focal) (partial) idiopathic epilepsy and epileptic syndromes with seizures of localized onset, intractable, without status epilepticus
G40.111 Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, intractable, with status epilepticus
G40.119 Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, intractable, without status epilepticus

CPT/HCPCS Codes:

61885 Insertion or replacement of cranial neurostimulator pulse generator or receiver, direct or inductive coupling; with connection to a single electrode array
61886 Insertion or replacement of cranial neurostimulator pulse generator or receiver, direct or inductive coupling; with connection to two or more electrode arrays
61888 Revision or removal of cranial neurostimulator pulse generator or receiver
64553 Percutaneous implantation of neurostimulator electrodes; cranial nerve
64568 Incision for implantation of cranial nerve (eg, vagus nerve) neurostimulator electrode array and pulse generator
64570 Removal of cranial nerve (eg, vagus nerve) neurostimulator electrode array and pulse generator
64585 Revision or removal of peripheral neurostimulator electrodes

95974 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient

compliance measurements); complex cranial nerve neurostimulator pulse generator/transmitter, with intraoperative or subsequent programming, with or without nerve interface testing, first hour

95975 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); complex cranial nerve neurostimulator pulse generator/transmitter, with intraoperative or subsequent programming, each additional 30 minutes after first hour (List separately in addition to code for primary procedure)

C1767 Generator, neurostimulator (implantable), nonrechargeable
C1778 Lead, neurostimulator (implantable)
C1816 Receiver and/or transmitter, neurostimulator (implantable)
C1883 Adapter/ extension, pacing lead or neurostimulator lead

L8679 Implantable neurostimulator, pulse generator, any type
L8680 Implantable neurostimulator electrode, each
L8681 Patient programmer (external) for use with implantable programmable neurostimulator pulse generator
L8685 Implantable neurostimulator pulse generator, single array, rechargeable, includes extension
L8686 Implantable neurostimulator pulse generator, single array, non-rechargeable, includes extension
L8687 Implantable neurostimulator pulse generator, dual array, rechargeable, includes extension
L8688 Implantable neurostimulator pulse generator, dual array, non-rechargeable, includes extension
L8689 External recharging system for implanted neurostimulator, replacement only

Not covered:

0312T Vagus nerve blocking therapy (morbid obesity); laparoscopic implantation of neurostimulator electrode array, anterior and posterior vagal trunks adjacent to esophagogastric junction (EGJ), with implantation of pulse generator, includes programming
0313T Vagus nerve blocking therapy (morbid obesity); laparoscopic revision or replacement of vagal trunk neurostimulator electrode array, including connection to existing pulse generator
0314T Vagus nerve blocking therapy (morbid obesity); laparoscopic removal of vagal trunk neurostimulator electrode array and pulse generator
0315T Vagus nerve blocking therapy (morbid obesity); removal of pulse generator
0316T Vagus nerve blocking therapy (morbid obesity); replacement of pulse generator
0317T Vagus nerve blocking therapy (morbid obesity); neurostimulator pulse generator electronic analysis, includes reprogramming when performed

VII. Neurostimulation With Neuropace® Rns® (Responsive Neurostimulation) Device

ICD-9 Codes that may support medical necessity *(for dates of service on or before September 30, 2015):*

345.41	Localization-related (focal) (partial) epilepsy and epileptic syndromes with complex partial seizures, with intractable epilepsy
345.51	Partial intractable epilepsy without impairment of consciousness

ICD-10 Codes that may support medical necessity (*for dates of service on or after October 1, 2015):*

G40.211	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, intractable, with status epilepticus
G40.219	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, intractable, without status epilepticus
G40.011	Localization-related (focal) (partial) idiopathic epilepsy and epileptic syndromes with seizures of localized onset, intractable, with status epilepticus
G40.019	Localization-related (focal) (partial) idiopathic epilepsy and epileptic syndromes with seizures of localized onset, intractable, without status epilepticus
G40.111	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, intractable, with status epilepticus
G40.119	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, intractable, without status epilepticus

CPT/HCPCS Codes:

61850	Twist drill or burr hole(s) for implantation of neurostimulator electrodes, cortical
61860	Craniectomy or craniotomy for implantation of neurostimulator electrodes, cerebral, cortical
61863	Twist drill, burr hole, craniotomy, or craniectomy with stereotactic implantation of neurostimulator electrode array ….without use of intraoperative microelectrode recording; first array
61864	Twist drill, burr hole, craniotomy, or craniectomy with stereotactic implantation of neurostimulator electrode array..... without use of intraoperative microelectrode recording; each additional array (List separately...)
61880	Revision or removal of intracranial neurostimulator electrodes
61885	Insertion or replacement of cranial neurostimulator pulse generator or receiver, direct or inductive coupling; with connection to a single electrode array
61886	Insertion or replacement of cranial neurostimulator pulse generator or receiver, direct or inductive coupling; with connection to two or more electrode arrays
61888	Revision or removal of cranial neurostimulator pulse generator or receiver
95970	Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); simple or complex brain, spinal cord, or peripheral

(ie, cranial nerve, peripheral nerve, autonomic nerve, neuromuscular) neurostimulator pulse generator/transmitter, without reprogramming

95971 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); simple spinal cord, or peripheral (ie, peripheral nerve, autonomic nerve, neuromuscular) neurostimulator pulse generator/transmitter, with intraoperative or subsequent programming

95978 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, battery status, electrode selectability and polarity, impedance and patient compliance measurements), complex deep brain neurostimulator pulse generator/transmitter, with initial or subsequent programming; first hour

95979 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, battery status, electrode selectability and polarity, impedance and patient compliance measurements), complex deep brain neurostimulator pulse generator/transmitter, with initial or subsequent programming; each additional 30 minutes after first hour (List separately in addition to code for primary procedure)

C1767 Generator, neurostimulator (implantable), nonrechargeable

L8686 Implantable neurostimulator pulse generator, single array, non-rechargeable, includes extension

L8688 Implantable neurostimulator pulse generator, dual array, non-rechargeable, includes extension

VIII. Functional Electrical Stimulation (FES)

ICD-9 Codes that may apply *(for dates of service on or before September 30, 2015):*

438.20 – 438.22	Hemiplegia/hemiparesis
438.20	Hemiplegia affecting unspecified side due to cerebrovascular disease
438.21	Hemiplegia affecting dominant side due to cerebrovascular disease
438.22	Hemiplegia affecting nondominant side due to cerebrovascular disease
438.30 – 438.32	Monoplegia of upper limb

ICD-10 Codes that may apply *(for dates of service on or after October 1, 2015):*

I69.031 - I69.039	Monoplegia of upper limb
I69.131 - I69.139	Monoplegia of upper limb following nontraumatic intracerebral hemorrhage
I69.231 - I69.239	Monoplegia of upper limb following other nontraumatic intracranial hemorrhage
I69.331 - I69.339	Monoplegia of upper limb following cerebral infarction
I69.831 - I69.839	Monoplegia of upper limb following other cerebrovascular disease
I69.931 - I69.939	Monoplegia of upper limb following unspecified cerebrovascular disease

CPT/HCPCS Codes:

64550 Application of surface (transcutaneous) neurostimulator ***(No Auth)***
64555 Percutaneous implantation of neurostimulator electrodes; peripheral nerve (excludes sacral nerve)
64565 Percutaneous implantation of neurostimulator electrodes; neuromuscular
64580 Incision for implantation of neurostimulator electrodes; neuromuscular
64585 Revision or removal of peripheral neurostimulator electrodes ***(No Auth)***

A4558 Conductive gel or paste, for use with electrical device (e.g., TENS, NMES), per oz ***(No Auth)***
A4595 Electrical stimulator supplies, 2 lead, per month, (e.g. TENS, NMES) ***(No Auth)***

E0731 Form-fitting conductive garment for delivery of TENS or NMES (with conductive fibers separated from the patient's skin by layers of fabric) *(Covered for Medicare, Medicaid ONLY)*
E0745 Neuromuscular stimulator, electronic shock unit
E0764 Functional neuromuscular stimulator, transcutaneous stimulation of muscles 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

IX. Galvanic Stimulators

Not Covered:

E0745 Neuromuscular stimulator, electronic shock unit
E0769 Electrical stimulation or electromagnetic wound treatment device, not otherwise classified

X. High Voltage Pulsed Electrogalvanic stimulators (HVPC)

ICD-9 Codes that may apply **(***for dates of service on or before September 30, 2015):*

564.6 Anal spasm
569.42 Anal or rectal pain

ICD-10 Codes that may apply (*for dates of service on or after October 1, 2015):*

K59.4 Anal spasm
K62.89 Other specified diseases of anus and rectum

CPT/HCPCS Codes:

97014 Application of a modality to one or more areas; electrical stimulation (unattended) ***(No Auth)***
97032 Application of a modality to one or more areas; electrical stimulation (manual), each 15 minutes ***(No Auth)***

E0745 Neuromuscular stimulator, electronic shock unit
E0769 Electrical stimulation or electromagnetic wound treatment device, not otherwise classified

XI. Incontinence Stimulators

1. Urinary Incontinence

A. Electrical Muscle Stimulators (*Pelvic floor stimulator, e.g. Innova ™)*

ICD-9 Codes that may apply *(for dates of service on or before September 30, 2015):*

625.6	Stress incontinence, female
788.30	Urinary incontinence, unspecified
788.31	Urge incontinence
788.33	Mixed incontinence, (male) (female)

ICD-10 Codes that may apply *(for dates of service on or after October 1, 2015):*

N39.3	Stress incontinence (female) (male)
R32	Unspecified urinary incontinence
N39.41	Urge incontinence
N39.46	Mixed incontinence

CPT/HCPCS Codes:

64550 Application of surface (transcutaneous) neurostimulator (***No Auth)***

97014 Application of a modality to one or more areas; electrical stimulation (unattended) (***No Auth)***

97032 Application of a modality to one or more areas; electrical stimulation (manual), each 15 minutes (***No Auth)***

G0283 Electrical stimulation (unattended), to one or more areas for indication(s) other than wound care, as part of a therapy plan of care *(Medicare only)*

E0740 Incontinence treatment system, pelvic floor stimulator, monitor, sensor and/or trainer

B. Sacral Nerve Stimulator

ICD-9 Codes that may apply *(for dates of service on or before September 30, 2015):*

625.6	Stress incontinence, female
596.55	Detrusor sphincter dyssynergia
788.20 – 788.29	Retention of urine, unspecified
788.31	Urge incontinence
788.33	Mixed incontinence, (male) (female
788.41	Urinary frequency

ICD-10 Codes that may apply (*for dates of service on or after October 1, 2015):*

N36.44	Muscular disorders of urethra
N39.3	Stress incontinence (female) (male)
N39.41	Urge incontinence
N39.46	Mixed incontinence
R33.0 – R33.9	Retention of urine
R39.14	Feeling of incomplete bladder emptying

CPT/HCPCS Codes:

64561 Percutaneous implantation of neurostimulator electrodes; sacral nerve. (transforaminal placement).

64581	Incision for implantation of neurostimulator electrodes; sacral nerve; (transforaminal placement).
64585	Revision or removal of peripheral neurostimulator electrodes ***(No Auth)***
64590	Incision and subcutaneous placement of peripheral neurostimulator pulse generator or receiver, direct or inductive coupling
64595	***(No Auth)*** Revision or removal of peripheral neurostimulator pulse generator or receiver
95970	Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); simple or complex brain, spinal cord, or peripheral (ie, cranial nerve, peripheral nerve, autonomic nerve, neuromuscular) neurostimulator pulse generator/transmitter, without reprogramming
95971	Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); simple spinal cord, or peripheral (ie, peripheral nerve, autonomic nerve, neuromuscular) neurostimulator pulse generator/transmitter, with intraoperative or
A4290	Sacral nerve stimulation test lead, each ***(No Auth)***
E0745	Neuromuscular stimulator, electronic shock unit
C1767	Generator, neurostimulator (implantable), nonrechargeable
C1778	Lead, neurostimulator (implantable)
C1816	Receiver and/or transmitter, neurostimulator (implantable)
C1820	Generator, neurostimulator (implantable), with rechargeable battery and charging system
C1883	Adapter/ extension, pacing lead or neurostimulator lead
C1897	Lead, neurostimulator test kit (implantable)
L8680	Implantable neurostimulator electrode, each
L8681	Patient programmer (external) for use with implantable programmable neurostimulator pulse generator
L8682	Implantable neurostimulator radiofrequency receiver
L8683	Radiofrequency transmitter (external) for use with implantable neurostimulator radiofrequency receiver
L8684	Radiofrequency transmitter (external) for use with implantable sacral root neurostimulator receiver for bowel and bladder management, replacement
L8685	Implantable neurostimulator pulse generator, single array, rechargeable, includes extension
L8686	Implantable neurostimulator pulse generator, single array, non-rechargeable, includes extension
L8687	Implantable neurostimulator pulse generator, dual array, rechargeable, includes extension

L8688 Implantable neurostimulator pulse generator, dual array, non-rechargeable, includes extension
L8689 External recharging system for battery (internal) for use with implantable neurostimulator

C. Percutaneous Tibial Nerve Stimulation (PTNS)
This procedure covered for these diagnoses when criteria listed above is met.

ICD-9 Codes that support medical necessity *(for dates of service on or before September 30, 2015):*

625.6	Stress incontinence, female
596.51	Hypertonicity of bladder
788.30	Urinary incontinence, unspecified
788.31	Urge incontinence
788.33	Mixed incontinence, (male) (female)
788.39	Other urinary incontinence
788.41	Urinary frequency
788.63	Urgency of urination

ICD-10 Codes that support medical necessity (*for dates of service on or after October 1, 2015):*

N32.81	Overactive bladder
N39.3	Stress incontinence (female) (male)
N39.41	Urge incontinence
N39.46	Mixed incontinence
N39.498	Other specified urinary incontinence
R32	Unspecified urinary incontinence
R35.0	Frequency of micturition
R39.15	Urgency of urination

CPT/HCPCS Codes:
64566 Posterior tibial neurostimulation, percutaneous needle electrode, single treatment, includes programming

D. Pelvic Floor – electrical or magnetic (pudendal nerve)
Not Covered
CPT/HCPCS Codes:
64550 Application of surface (transcutaneous) neurostimulator (***No Auth)***
97032 Application of a modality to one or more areas; electrical stimulation (manual), each 15 minutes (***No Auth)***
G0283 Electrical stimulation (unattended), to one or more areas for indication(s) other than wound care, as part of a therapy plan of care

E0740 Incontinence treatment system, pelvic floor stimulator, monitor, sensor and/or trainer

2. Fecal Incontinence Stimulators
ICD-9 Codes that support medical necessity *(for dates of service on or before September 30, 2015):*
787.60 Full incontinence of feces

787.63 Fecal urgency

ICD-10 Codes that may apply (*for dates of service on or after October 1, 2015):*
R15.2 Fecal urgency
R15.9 Full incontinence of feces

CPT/HCPCS Codes:

64561 Percutaneous implantation of neurostimulator electrodes; sacral nerve (transforaminal placement)
64581 Incision for implantation of neurostimulator electrodes; sacral nerve; (transforaminal placement).
64585 (**No Auth**) Revision or removal of peripheral neurostimulator electrodes
64590 Incision and subcutaneous placement of peripheral neurostimulator pulse generator or receiver, direct or inductive coupling
64595 (**No Auth**) Revision or removal of peripheral neurostimulator pulse generator or receiver

95970 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); simple or complex brain, spinal cord, or peripheral (ie, cranial nerve, peripheral nerve, autonomic nerve, neuromuscular) neurostimulator pulse generator/transmitter, without reprogramming
95971 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); simple spinal cord, or peripheral (ie, peripheral nerve, autonomic nerve, neuromuscular) neurostimulator pulse generator/transmitter, with intraoperative or subsequent programming
95972 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); complex spinal cord, or peripheral (except cranial nerve) neurostimulator pulse generator/transmitter, with intraoperative or subsequent programming, first hour

A4290 **(No Auth)** Sacral nerve stimulation test lead, each
E0745 Neuromuscular stimulator, electronic shock unit
C1767 Generator, neurostimulator (implantable), nonrechargeable
C1778 Lead, neurostimulator (implantable)
C1816 Receiver and/or transmitter, neurostimulator (implantable)
C1820 Generator, neurostimulator (implantable), with rechargeable battery and charging system
C1883 Adapter/ extension, pacing lead or neurostimulator lead
C1897 Lead, neurostimulator test kit (implantable)

L8680	Implantable neurostimulator electrode, each
L8681	Patient programmer (external) for use with implantable programmable neurostimulator pulse generator
L8682	Implantable neurostimulator radiofrequency receiver
L8683	Radiofrequency transmitter (external) for use with implantable neurostimulator radiofrequency receiver
L8684	Radiofrequency transmitter (external) for use with implantable sacral root neurostimulator receiver for bowel and bladder management, replacement
L8685	Implantable neurostimulator pulse generator, single array, rechargeable, includes extension
L8686	Implantable neurostimulator pulse generator, single array, non-rechargeable, includes extension
L8687	Implantable neurostimulator pulse generator, dual array, rechargeable, includes extension
L8688	Implantable neurostimulator pulse generator, dual array, non-rechargeable, includes extension
L8689	External recharging system for battery (internal) for use with implantable neurostimulator

XII. Gastric Stimulators

ICD-9 Codes that support medical necessity ***(****for dates of service on or before September 30, 2015):*

536.2	Persistent vomiting
536.3	Gastroparesis
536.9	Unspecified functional disorder of stomach
787.01 – 787.03	Nausea and with vomiting
249.60 – 249.61	Secondary diabetes mellitus with neurological manifestations
250.60 – 250.63	Diabetes with neurological manifestations

ICD-10 Codes that may apply *(for dates of service on or after October 1, 2015)*:

E08.40	Diabetes mellitus due to underlying condition with diabetic neuropathy, unspecified
E08.43	Diabetes mellitus due to underlying condition with diabetic autonomic (poly)neuropathy
E08.49	Diabetes mellitus due to underlying condition with other diabetic neurological complication
E09.40	Drug or chemical induced diabetes mellitus with neurological complications with diabetic neuropathy, unspecified
E09.43	Drug or chemical induced diabetes mellitus with neurological complications with diabetic autonomic (poly)neuropathy
E09.49	Drug or chemical induced diabetes mellitus with neurological complications with other diabetic neurological complication
E10.40	Type 1 diabetes mellitus with diabetic neuropathy, unspecified
E10.43	Type 1 diabetes mellitus with diabetic autonomic (poly)neuropathy
E10.49	Type 1 diabetes mellitus with other diabetic neurological complication
E11.40	Type 2 diabetes mellitus with diabetic neuropathy, unspecified

E11.43	Type 2 diabetes mellitus with diabetic autonomic (poly)neuropathy
E11.49	Type 2 diabetes mellitus with other diabetic neurological complication
E13.43	Other specified diabetes mellitus with diabetic autonomic (poly)neuropathy
E13.49	Other specified diabetes mellitus with other diabetic neurological complication
K31.84	Gastroparesis
K31.89	Other diseases of stomach and duodenum
R11.0 – R11.2	Nausea and vomiting

CPT/HCPCS Codes:

43647	Laparoscopy, surgical; implantation or replacement of gastric neurostimulator electrodes, antrum
43648	Laparoscopy, surgical; revision or removal of gastric neurostimulator electrodes, antrum ***(No Auth)***
43881	Implantation or replacement of gastric neurostimulator electrodes, antrum, open
43882	Revision or removal of gastric neurostimulator electrodes, antrum, open ***(No Auth)***
64590	Insertion or replacement of peripheral or gastric neurostimulator pulse generator or receiver, direct or inductive coupling
64595	Revision or removal of peripheral or gastric neurostimulator pulse generator or receiver ***(No Auth)***
95980	Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance, and patient measurements) gastric ***(No Auth)***
95981	Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance, and patient measurements) gastric ***(No Auth)***
95982	Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance, and patient measurements) gastric ***(No Auth)***
L8680	Implantable neurostimulator electrode, each
L8681	Patient programmer (external) for use with implantable programmable neurostimulator pulse generator
L8682	Implantable neurostimulator radiofrequency receiver
L8683	Radiofrequency transmitter (external) for use with implantable neurostimulator radiofrequency receiver
L8684	Radiofrequency transmitter (external) for use with implantable sacral root neurostimulator receiver for bowel and bladder management, replacement
L8685	Implantable neurostimulator pulse generator, single array, rechargeable, includes extension

L8686 Implantable neurostimulator pulse generator, single array, non-rechargeable, includes extension
L8687 Implantable neurostimulator pulse generator, dual array, rechargeable, includes extension
L8688 Implantable neurostimulator pulse generator, dual array, non-rechargeable, includes extension
L8689 External recharging system for battery (internal) for use with implantable neurostimulator

XIII. Interferential Stimulators

Not Covered:

E0769 Electrical stimulation or electromagnetic wound treatment device, not otherwise classified
S8130 Interferential current stimulator, 2 channel
S8131 Interferential current stimulator, 4 channel

XIV. Neuromuscular Electrical Stimulation

ICD-9 Codes that may apply *(for dates of service on or before September 30, 2015):*
728.2 Muscular wasting and disuse atrophy, not elsewhere classified

ICD-10 Codes that may apply *(for dates of service on or after October 1, 2015):*
M62.50 – M62.59 Muscular wasting and disuse atrophy, not elsewhere classified

CPT/HCPCS Codes:

64550 ***(No Auth)*** Application of surface (transcutaneous) neurostimulator
64565 Percutaneous implantation of neurostimulator electrodes; neuromuscular
64580 Incision for implantation of neurostimulator electrodes; neuromuscular

97014 Application of a modality to one or more areas; electrical stimulation (unattended) ***(No Auth)***
97032 ***(No Auth)*** Application of a modality to one or more areas; electrical stimulation (manual), each 15 minutes ***(No Auth)***
97116 ***(No Auth)*** Therapeutic procedure, one or more areas, each 15 minutes; gait training (includes stair climbing) ***(No Auth)***

A4595 Electrical stimulator supplies, 2 lead, per month, (e.g. TENS, NMES)
E0731 Form-fitting conductive garment for delivery of TENS or NMES (with conductive fibers separated from the patient's skin by layers of fabric) *(Covered for Medicare, Medicaid ONLY)*

E0745 Neuromuscular stimulator, electronic shock unit
E0764 Functional neuromuscular stimulator, transcutaneous stimulation of muscles of ambulation with computer control, used for walking by spinal cord injured, entire system, after completion of training program

XV. Percutaneous Electrical Nerve Stimulation (PENS) and Percutaneous Neuromodulation Therapy (PNT)

Not Covered:

0282T Percutaneous or open implantation of neurostimulator electrode array(s), subcutaneous (peripheral subcutaneous field stimulation), including imaging

guidance, when performed, cervical, thoracic or lumbar; for trial, including removal at the conclusion of trial period

0283T Percutaneous or open implantation of neurostimulator electrode array(s), subcutaneous (peripheral subcutaneous field stimulation), including imaging guidance, when performed, cervical, thoracic or lumbar; permanent, with implantation of a pulse generator

0284T Revision or removal of pulse generator or electrodes, including imaging guidance, when performed, including addition of new electrodes, when performed

0285T Electronic analysis of implanted peripheral subcutaneous field stimulation pulse generator, with reprogramming when performed

97813 Acupuncture, 1 or more needles; with electrical stimulation, initial 15 minutes of personal one-on-one contact with the patient

97814 Acupuncture, 1 or more needles; with electrical stimulation, each additional 15 minutes of personal one-on-one contact with the patient, with re-insertion of needle(s) (List separately in addition to code for primary procedure)

64999 Unlisted procedure, nervous system *(Explanatory notes must accompany claims billed with unlisted codes.)*

XVI. Peripherally Implanted Nerve Stimulator

ICD-9 Codes that may apply *(for dates of service on or before September 30, 2015):*

337.1	Peripheral autonomic neuropathy in disorders classified elsewhere
337.20 – 337.29	Reflex sympathetic dystrophy
338.0	Central pain syndrome
338.21 – 338.29	Chronic pain
338.4	Chronic pain syndrome
353.8	Other nerve root and plexus disorders
353.9	Unspecified nerve root and plexus disorder
354.4	Causalgia of upper limb
354.5	Mononeuritis multiplex
354.8	Other mononeuritis of upper limb
355.71 – 355.9	Mononeuritis of lower limb
724.2	Lumbago
724.5	Backache, unspecified
724.9	Other unspecified back disorders

ICD-10 Codes that may apply (*for dates of service on or after October 1, 2015):*

E08.41	Diabetes mellitus due to underlying condition with diabetic mononeuropathy
E09.41	Drug or chemical induced diabetes mellitus with neurological complications with diabetic mononeuropathy
E10.41	Type 1 diabetes mellitus with diabetic mononeuropathy
E11.41	Type 2 diabetes mellitus with diabetic mononeuropathy
E13.41	Other specified diabetes mellitus with diabetic mononeuropathy
G54.8	Other nerve root and plexus disorders
G54.9	Nerve root and plexus disorder, unspecified
G55	Nerve root and plexus compressions in diseases classified elsewhere

G56.40 - G56.42	Causalgia of upper limb
G56.80 - G56.82	Other specified mononeuropathies
G57.70 - G57.72	Causalgia of lower limb
G57.80 - G57.82	Other specified mononeuropathies
G57.90 - G57.92	Unspecified mononeuropathy of lower limb
G58.0	Intercostal neuropathy
G58.7	Mononeuritis multiplex
G58.8	Other specified mononeuropathies
G58.9	Mononeuropathy, unspecified
G59	Mononeuropathy in diseases classified elsewhere
G89.0	Central pain syndrome
G89.21	Chronic pain due to trauma
G89.22	Chronic post-thoracotomy pain
G89.28	Other chronic postprocedural pain
G89.29	Other chronic pain
G89.4	Chronic pain syndrome
G90.50 - G90.59	Complex regional pain syndrome I
M43.8x9	Other specified deforming dorsopathies, site unspecified
M53.80	Other specified dorsopathies, site unspecified
M53.84	Other specified dorsopathies, thoracic region
M53.85	Other specified dorsopathies, thoracolumbar region
M53.9	Dorsopathy, unspecified
M54.5	Low back pain
M54.89	Other dorsalgia
M54.9	Dorsalgia, unspecified

CPT/HCPCS Codes:

63650	Percutaneous implantation of neurostimulator electrode array, epidural
63655	Laminectomy for implantation of neurostimulator electrodes, plate/paddle, epidural
63685	Insertion or replacement of spinal neurostimulator pulse generator or receiver, direct or inductive coupling
63661	Removal of spinal neurostimulator electrode percutaneous array(s), including fluoroscopy, when performed ***(No Auth)***
63662	Removal of spinal neurostimulator electrode plate/paddle(s) placed via laminotomy or laminectomy, including fluoroscopy, when performed ***(No Auth)***
63663	Revision including replacement, when performed, of spinal neurostimulator electrode percutaneous array(s), including fluoroscopy, when performed ***(No Auth)***
63664	Revision including replacement, when performed, of spinal neurostimulator electrode plate/paddle(s) placed via laminotomy or laminectomy, including fluoroscopy, when performed ***(No Auth)***
64565	Percutaneous implantation of neurostimulator electrodes; neuromuscular
64575	Incision for implantation of neurostimulator electrodes; peripheral nerve (excludes sacral nerve)
64590	Insertion or replacement of peripheral or gastric neurostimulator pulse generator or receiver, direct or inductive coupling

95970	Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); simple or complex brain, spinal cord, or peripheral (ie, cranial nerve, peripheral nerve, autonomic nerve, neuromuscular) neurostimulator pulse generator/transmitter, without reprogramming
95971	Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); simple spinal cord, or peripheral (ie, peripheral nerve, autonomic nerve, neuromuscular) neurostimulator pulse generator/transmitter, with intraoperative or subsequent programming
95972	Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); complex spinal cord, or peripheral (except cranial nerve) neurostimulator pulse generator/transmitter, with intraoperative or subsequent programming, first hour
95973	Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient compliance measurements); complex spinal cord, or peripheral (except cranial nerve) neurostimulator pulse generator/transmitter, with intraoperative or subsequent programming, each additional 30 minutes after first hour (List separately in addition to code for primary procedure)
C1767	Generator, neurostimulator (implantable), nonrechargeable
C1778	Lead, neurostimulator (implantable)
C1816	Receiver and/or transmitter, neurostimulator (implantable)
C1820	Generator, neurostimulator (implantable), with rechargeable battery and charging system
C1883	Adapter/ extension, pacing lead or neurostimulator lead
C1897	Lead, neurostimulator test kit (implantable)
L8680	Implantable neurostimulator electrode, each
L8681	Patient programmer (external) for use with implantable programmable neurostimulator pulse generator
L8682	Implantable neurostimulator radiofrequency receiver
L8683	Radiofrequency transmitter (external) for use with implantable neurostimulator radiofrequency receiver
L8685	Implantable neurostimulator pulse generator, single array, rechargeable, includes extension
L8686	Implantable neurostimulator pulse generator, single array, non-rechargeable, includes extension
L8687	Implantable neurostimulator pulse generator, dual array, rechargeable, includes extension
L8688	Implantable neurostimulator pulse generator, dual array, non-rechargeable, includes extension
L8689	External recharging system for battery (internal) for use with implantable neurostimulator

L8695 External recharging system for battery (external) for use with implantable neurostimulator, replacement only

XVII. Pulsed Electrical Stimulation for treatment of osteoarthritis of the knee (BioniCare®)

Not Covered:

E0762 Transcutaneous electrical joint stimulation device system, includes all accessories

XVIII. Surface Electrical Muscle Stimulation

ICD-9 Codes that may apply **(***for dates of service on or before September 30, 2015):*

737.30 Scoliosis [and kyphoscoliosis], idiopathic
737.32 Progressive infantile idiopathic scoliosis
737.39 Kyphoscoliosis and scoliosis, other
737.43 Scoliosis
737.8 Other curvatures of spine
737.9 Unspecified curvature of spine

ICD-10 Codes that may apply (*for dates of service on or after October 1, 2015):*

M41.00 – M41.9 Scoliosis

CPT/HCPCS Codes:

E0744 Neuromuscular stimulator for scoliosis

XIX. Transcutaneous Electrical Stimulator (TENS)

ICD-9 Codes that may apply **(***for dates of service on or before September 30, 2014):*

- ***No prior auth required for this indication***

No prior auth for first 2 months trial for any indication.

Prior auth required for Medicare for all indications from 1st months rental

053.13	Postherpetic polyneuropathy
053.19	Herpes zoster; with other nervous system complications Other
250.60 – 250.63	Diabetes with neurological manifestations, type II or unspecified type
337.1	Peripheral autonomic neuropathy in disorders classified elsewhere
337.20 – 337.9	Reflex sympathetic dystrophy
338.0	Central pain syndrome
338.21 – 338.29	Chronic pain
338.4	Chronic pain syndrome
353.8	Other nerve root and plexus disorders
357.2	Polyneuropathy in diabetes
355.71 – 355.9	Other mononeuritis of lower limb
722.52◆	Degeneration of lumbar or lumbosacral intervertebral disc
724.2◆	Lumbago
724.5◆	Backache, unspecified
724.6◆	Disorders of sacrum
724.9	Other unspecified back disorders

ICD-10 Codes that may apply *(for dates of service on or after October 1, 2014):*

B02.0 Zoster encephalitis

B02.23	Postherpetic polyneuropathy
B02.29	Other postherpetic nervous system involvement
E08.40 – E08.42	Diabetes mellitus due to underlying condition with neurological complications
E09.40 – E09.42	Drug or chemical induced diabetes mellitus with neurological complications
E10.40 – E10.49	Type 1 diabetes mellitus with neurological complications
E10.610	Type 1 diabetes mellitus with diabetic neuropathic arthropathy
E10.65	Type 1 diabetes mellitus with hyperglycemia
E11.40 - E11.49	Type 2 diabetes mellitus with neurological complication
E11.610	Type 2 diabetes mellitus with diabetic neuropathic arthropathy
E11.65	Type 2 diabetes mellitus with hyperglycemia
E13.40	Other specified diabetes mellitus with diabetic neuropathy, unspecified
E13.41 - E13.49	Other specified diabetes mellitus with neurological complication
G54.8	Other nerve root and plexus disorders
G55	Nerve root and plexus compressions in diseases classified elsewhere
G57.70 - G57.72	Causalgia of lower limb
G57.80 - G57.82	Other specified mononeuropathies of left lower limb
G57.90 - G57.92	Unspecified mononeuropathy of lower limb
G58.8	Other specified mononeuropathies
G58.9	Mononeuropathy, unspecified
G59	Mononeuropathy in diseases classified elsewhere
G89.0	Central pain syndrome
G89.21 – G89.29	Chronic pain
G89.4	Chronic pain syndrome
G90.50 - G90.59	Complex regional pain syndrome I
G99.0	Autonomic neuropathy in diseases classified elsewhere
M43.20 - M43.28	Fusion of spine
M43.8x9	Other specified deforming dorsopathies, site unspecified
M51.36◆	Other intervertebral disc degeneration, lumbar region
M51.37◆	Other intervertebral disc degeneration, lumbosacral region
M53.2x7◆	Spinal instabilities, lumbosacral region
M53.2x8◆	Spinal instabilities, sacral and sacrococcygeal region
M53.3◆	Sacrococcygeal disorders, not elsewhere classified
M53.80	Other specified dorsopathies, site unspecified
M53.84	Other specified dorsopathies, thoracic region
M53.85	Other specified dorsopathies, thoracolumbar region
M53.86◆	Other specified dorsopathies, lumbar region
M53.87◆	Other specified dorsopathies, lumbosacral region
M53.88◆	Other specified dorsopathies, sacral and sacrococcygeal region
M53.9	Dorsopathy, unspecified
M54.5◆	Low back pain
M54.89◆	Other dorsalgia
M54.9◆	Dorsalgia, unspecified

CPT/HCPCS Codes:

64550 Application of surface (transcutaneous) neurostimulator

97014 Application of a modality to one or more areas; electrical stimulation (unattended) ***(No Auth)***
G0283 Electrical stimulation (unattended), to one or more areas for indication(s) other than wound care, as part of a therapy plan of care *(Medicare only)*

A4595 Electrical stimulator supplies, 2 lead, per month, (e.g. TENS, NMES)
E0720 Transcutaneous electrical nerve stimulation (TENS) device, two lead, localized stimulation
E0730 Transcutaneous electrical nerve stimulation (TENS) 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 fabric)*(Covered for Medicare, Medicaid ONLY)*

Not covered
0278T Transcutaneous electrical modulation pain reprocessing (eg, scrambler therapy), each treatment session (includes placement of electrodes)

P-STIM
ICD-9 Codes that may apply (for dates of service on or before September 30, 2015):

338.0	Central pain syndrome
338.21 – 338.29	Chronic pain
338.4	Chronic pain syndrome
346.00 – 346.93	Migraines

ICD-10 Codes that may apply (for dates of service on or after October 1, 2015):

G43.001 – G43.919	Migraines
G89.0	Central pain syndrome
G89.21 – G89.4	Chronic pain

CPT/HCPCS Codes:
S8930 Electrical stimulation of auricular acupuncture points; each 15 minutes of personal one-on-one contact with patient ***(No Auth)*** *Not covered for Medicare or Medicaid*

XX. Electric Tumor Treatment Fields (ETTF) Devices
ICD-9 Codes that may apply *(for dates of service on or before September 30, 2014):*

191.0 – 191.8	Malignant neoplasm of other parts of brain

ICD-10 Codes that may apply *(for dates of service on or after October 1, 2014):*

C71.0-C71.9	Malignant neoplasm of brain

CPT/HCPCS Codes:
E0766 Electrical stimulation device used for cancer treatment, includes all accessories, any type
A4555 Electrode/transducer for use with electrical stimulation device used for cancer treatment, replacement only

XXI. Non-Covered Electrical Stimulation Therapies

1. Cranial electrical stimulation

   CPT/HCPCS Codes:

   95999 Unlisted neurological or neuromuscular diagnostic procedure *(Explanatory notes must accompany claims billed with unlisted codes.)*
   E1399 Durable medical equipment, miscellaneous *(Explanatory notes must accompany claims billed with unlisted codes.)*
   95999 Unlisted neurological or neuromuscular diagnostic procedure (*Explanatory notes must accompany claims billed with unlisted codes.)*

2. Electric reflex salivary stimulation

   CPT/HCPCS Codes:

   E0755 Electronic salivary reflex stimulator (intraoral/noninvasive)

3. Neuromuscular electrical stimulation for ANY of the following conditions:
   a. Spinal cord injury
   b. Stroke (CVA)
   c. Cerebral palsy
   d. Other upper motor neuron disorders
   e. For general muscle strengthening in healthy individuals
   f. For cardiac conditioning
   g. For the treatment of denervated muscles

   For codes see section XII

4. Transurethral electrical stimulation for the management of neurogenic bladder dysfunction

   CPT/HCPCS Codes:

   A4595 Electrical stimulator supplies, 2 lead, per month, (e.g. TENS, NMES)
   E0745 Neuromuscular stimulator, electronic shock unit
   53899 Unlisted procedure, urinary system

5. High frequency pulsed electromagnetic fields (i.e., Diapulse and sofPulse device) for the treatment of wounds in the home setting or acute postoperative pain and edema

   CPT/HCPCS Codes:

   97014 Application of a modality to one or more areas; electrical stimulation (unattended)
   97032 Application of a modality to one or more areas; electrical stimulation (manual), each 15 minutes
   G0295 Electromagnetic therapy, to one or more areas, for wound care other than described In G0329 or for other uses
   E0761 Nonthermal pulsed high frequency radiowaves, high peak power electromagnetic energy treatment device

6. Interferential current therapy
   For codes see section XI.

7. Electrical stimulation for the treatment of Bell's palsy
   ICD-9 Codes- not covered *(for dates of service on or before September 30, 2015):*
   351.0 Bell's palsy

   ICD-10 Codes – not covered (*for dates of service on or after October 1, 2015):*
   G51.0 Bell's palsy

   CPT/HCPCS Codes:
   97032 Application of a modality to one or more areas; electrical stimulation (manual), each 15 minutes

8. Stellate ganglion blockade using TENS

   CPT/HCPCS Codes:
   64550 Application of surface (transcutaneous) neurostimulator
   97014 Application of a modality to one or more areas; electrical stimulation (unattended)
   G0283 Electrical stimulation (unattended), to one or more areas for indication(s) other than wound care, as part of a therapy plan of care

   A4595 Electrical stimulator supplies, 2 lead, per month, (e.g. TENS, NMES)
   E0720 Transcutaneous electrical nerve stimulation (TENS) device, two lead, localized stimulation
   E0730 Transcutaneous electrical nerve stimulation (TENS) 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 fabric) *(Covered for Medicare, Medicaid ONLY)*

9. Dorsal column stimulation for the management of chronic malignant pain
   See section V.
   For codes see section V.

10. H-WAVE ® type stimulators for ANY of the following indications:
    a. To reduce pain
    b. To reduce edema
    c. To accelerate healing
    d. For treatment of chronic pain due to ischemia

    CPT/HCPCS Codes:
    97014 Application of a modality to one or more areas; electrical stimulation (unattended)

    E0745 Neuromuscular stimulator, electronic shock unit

11. Functional electrical stimulation for electrical stimulation of muscles in patients with spinal cord injuries and other neuromuscular conditions

    CPT/HCPCS Codes:
    For codes see section VII.

12. Intramuscular stimulation (IMS) for the management of soft-tissue or neuropathic pain.

CPT/HCPCS Codes:

97032 Application of a modality to one or more areas; electrical stimulation (manual), each 15 minutes
97813 Acupuncture, 1 or more needles; with electrical stimulation, initial 15 minutes of personal one-on-one contact with the patient
97814 Acupuncture, 1 or more needles; with electrical stimulation, each additional 15 minutes of personal one-on-one contact with the patient, with re-insertion of needle(s) (List separately in addition to code for primary procedure)
95999 Unlisted neurological or neuromuscular diagnostic procedure *(Explanatory notes must accompany claims billed with unlisted codes.)*

A4595 Electrical stimulator supplies, 2 lead, per month, (e.g. TENS, NMES)
E0745 Neuromuscular stimulator, electronic shock unit

13. Galvanic stimulation therapy
For codes, see section VIII.

14. Electrical stimulation for wound healing or skin ulcers in the home setting
For codes, see section II.

15. Percutaneous Electrical Stimulation (PENS)
For codes, see section XIII

16. Percutaneous Neuromodulation Therapy (PNT)
For codes, see section XIII

17. Transcend® Implantable Gastric Stimulator for treatment of obesity

CPT/HCPCS Codes:

43647 Laparoscopy, surgical; implantation or replacement of gastric neurostimulator electrodes, antrum
43648 Laparoscopy, surgical; revision or removal of gastric neurostimulator electrodes, antrum
43881 Implantation or replacement of gastric neurostimulator electrodes, antrum, open
43882 Revision or removal of gastric neurostimulator electrodes, antrum, open

95980 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient measurements) gastric neurostimulator pulse generator/transmitter; intraoperative, with programming
95981 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and

patient measurements) gastric neurostimulator pulse generator/transmitter; subsequent, without reprogramming
95982 Electronic analysis of implanted neurostimulator pulse generator system (eg, rate, pulse amplitude and duration, configuration of wave form, battery status, electrode selectability, output modulation, cycling, impedance and patient measurements) gastric neurostimulator pulse generator/transmitter; subsequent, with reprogramming

L8679 Implantable neurostimulator, pulse generator, any type
L8680 Implantable neurostimulator electrode, each
L8682 Implantable neurostimulator radiofrequency receiver
L8683 Radiofrequency transmitter (external) for use with implantable neurostimulator radiofrequency receiver
L8689 External recharging system for battery (internal) for use with implantable neurostimulator

18. Synergy® Neurostimulator (Medtronic) for intractable migraine pain (Occipital nerve stimulation)

CPT/HCPCS Codes:
61885 Insertion or replacement of cranial neurostimulator pulse generator or receiver, direct or inductive coupling; with connection to a single electrode array
61886 Insertion or replacement of cranial neurostimulator pulse generator or receiver, direct or inductive coupling; with connection to two or more electrode arrays
64553 Percutaneous implantation of neurostimulator electrodes; cranial nerve
64555 Percutaneous implantation of neurostimulator electrodes; peripheral nerve (excludes sacral nerve)
64568 Incision for implantation of cranial nerve (eg, vagus nerve) neurostimulator electrode array and pulse generator
64569 Revision or replacement of cranial nerve (eg, vagus nerve) neurostimulator electrode array, including connection to existing pulse generator
64575 Incision for implantation of neurostimulator electrodes; peripheral nerve (excludes sacral nerve)
64590 Insertion or replacement of peripheral or gastric neurostimulator pulse generator or receiver, direct or inductive coupling

L8679 Implantable neurostimulator, pulse generator, any type
L8680 Implantable neurostimulator electrode, each
L8681 Patient programmer (external) for use with implantable programmable neurostimulator pulse generator
L8682 Implantable neurostimulator radiofrequency receiver
L8683 Radiofrequency transmitter (external) for use with implantable neurostimulator radiofrequency receiver
L8684 Radiofrequency transmitter (external) for use with implantable sacral root neurostimulator receiver for bowel and bladder management, replacement
L8685 Implantable neurostimulator pulse generator, single array, rechargeable, includes extension

L8686 Implantable neurostimulator pulse generator, single array, non-rechargeable, includes extension
L8687 Implantable neurostimulator pulse generator, dual array, rechargeable, includes extension
L8688 Implantable neurostimulator pulse generator, dual array, non-rechargeable, includes extension
L8689 External recharging system for battery (internal) for use with implantable neurostimulator

19. Vagal nerve stimulators for other indications. See Section VI.

20. Microcurrent electrical nerve stimulation (MENS), including frequency-specific microcurrent (FSM).

CPT/HCPCS Codes:
64550 Application of surface (transcutaneous) neurostimulator

E0720 Transcutaneous electrical nerve stimulation (TENS) device, two lead, localized stimulation
E0730 Transcutaneous electrical nerve stimulation (TENS) 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 fabric) *(Covered for Medicare, Medicaid ONLY)*

21. Motor cortex stimulation for neuropathic facial pain

CPT/HCPCS Codes:
61850 Twist drill or burr hole(s) for implantation of neurostimulator electrodes, cortical
61860 Craniectomy or craniotomy for implantation of neurostimulator electrodes, cerebral, cortical
61885 Insertion or replacement of cranial neurostimulator pulse generator or receiver, direct or inductive coupling; with connection to a single electrode array
61886 Insertion or replacement of cranial neurostimulator pulse generator or receiver, direct or inductive coupling; with connection to two or more electrode arrays
L8680 Implantable neurostimulator electrode, each
L8681 Patient programmer (external) for use with implantable programmable neurostimulator pulse generator
L8682 Implantable neurostimulator radiofrequency receiver
L8685 Implantable neurostimulator pulse generator, single array, rechargeable, includes extension
L8686 Implantable neurostimulator pulse generator, single array, non-rechargeable, includes extension
L8687 Implantable neurostimulator pulse generator, dual array, rechargeable, includes extension
L8688 Implantable neurostimulator pulse generator, dual array, non-rechargeable, includes extension

L8689 External recharging system for battery (internal) for use with implantable neurostimulator
L8695 External recharging system for battery (external) for use with implantable neurostimulator, replacement only
C1767 Generator, neurostimulator (implantable), nonrechargeable
C1778 Lead, neurostimulator (implantable)
C1787 Patient programmer, neurostimulator
C1816 Receiver and/or transmitter, neurostimulator (implantable)
C1820 Generator, neurostimulator (implantable), with rechargeable battery and charging system

22. Devices (e.g. NovoTTF-100A System, Novocure, Portsmouth, NH) to generate electric tumor treatment fields (ETTF) for the treatment of malignant tumors and all other indications, unless criteria in Section XX are met. *(See Section XX)*

23. Transcranial magnetic stimulation (e.g. Cerena) for treatment of migraine headaches. (For use in depression see *Transcranial Magnetic Stimulation for Depression medical policy #91563).*

24. Carotid sinus/baroreceptor stimulators (e.g., the Barostim neo™ System, and the Rheos Baroreflex Hypertension Therapy System) for the treatment *of hypertension and for all other indications (e.g., heart failure).*
    0266T Implantation or replacement of carotid sinus baroreflex activation device; total system (includes generator placement, unilateral or bilateral lead placement, intra-operative interrogation, programming, and repositioning, when performed)
    0267T Implantation or replacement of carotid sinus baroreflex activation device; lead only, unilateral (includes intra-operative interrogation, programming, and repositioning, when performed)
    0268T Implantation or replacement of carotid sinus baroreflex activation device; pulse generator only (includes intra-operative interrogation, programming, and repositioning, when performed)
    0269T Revision or removal of carotid sinus baroreflex activation device; total system (includes generator placement, unilateral or bilateral lead placement, intra-operative interrogation, programming, and repositioning, when performed)
    0270T Revision or removal of carotid sinus baroreflex activation device; lead only, unilateral (includes intra-operative interrogation, programming, and repositioning, when performed)
    0271T Revision or removal of carotid sinus baroreflex activation device; pulse generator only (includes intra-operative interrogation, programming, and repositioning, when performed)
    0272T Interrogation device evaluation (in person), carotid sinus baroreflex activation system, including telemetric iterative communication with the implantable device to monitor device diagnostics and programmed therapy values, with interpretation and report (eg, battery status, lead impedance, pulse amplitude, pulse width, therapy frequency, pathway mode, burst mode, therapy start/stop times each day);
    0273T Interrogation device evaluation (in person), carotid sinus baroreflex activation system, including telemetric iterative communication with the

implantable device to monitor device diagnostics and programmed therapy values, with interpretation and report (eg, battery status, lead impedance, pulse amplitude, pulse width, therapy frequency, pathway mode, burst mode, therapy start/stop times each day); with programming

25. Vagal Blocking for Obesity Control (VBLOC, Maestro Rechargable System)\
    0312T Vagus nerve blocking therapy (morbid obesity); laparoscopic implantation of neurostimulator electrode array, anterior and posterior vagal trunks adjacent to esophagogastric junction (EGJ), with implantation of pulse generator, includes programming
    0313T Vagus nerve blocking therapy (morbid obesity); laparoscopic revision or replacement of vagal trunk neurostimulator electrode array, including connection to existing pulse generator
    0314T Vagus nerve blocking therapy (morbid obesity); laparoscopic removal of vagal trunk neurostimulator electrode array and pulse generator
    0315T Vagus nerve blocking therapy (morbid obesity); removal of pulse generator
    0316T Vagus nerve blocking therapy (morbid obesity); replacement of pulse generator
    0317T Vagus nerve blocking therapy (morbid obesity); neurostimulator pulse generator electronic analysis, includes reprogramming when performed

26. Calmare Pain Therapy (Calmare Therapeutics Inc.)
    0278T Transcutaneous electrical modulation pain reprocessing (eg, scrambler therapy), each treatment session (includes placement of electrodes)

27. Hypoglossal neurostimulation for obstructive sleep apnea (e.g. Inspire II, aura6000 Targeted Hypoglossal Neurostimulation (THN) Sleep Therapy System).
    64999 Unlisted procedure, nervous system *(Explanatory notes must accompany claims billed with unlisted codes.)*