Title: Implanted Peripheral Nerve Stimulator (PNS) for Pain Control

**Professional**
- Original Effective Date: July 1998
- Revision Date(s): May 15, 2007;
  - November 1, 2007;
  - January 26, 2010;
  - February 25, 2011;
  - January 1, 2012;
  - March 13, 2013;
  - February 10, 2015;
  - April 1, 2016;
  - October 1, 2016;
  - May 10, 2017;
  - May 9, 2018
- Current Effective Date: April 1, 2016

**Institutional**
- Original Effective Date: December 13, 2007
- Revision Date(s): February 25, 2010;
  - February 25, 2011;
  - January 1, 2012;
  - March 13, 2013;
  - February 10, 2015;
  - April 1, 2016;
  - October 1, 2016;
  - May 10, 2017;
  - May 9, 2018
- Current Effective Date: April 1, 2016

State and Federal mandates and health plan member contract language, including specific provisions/exclusions, take precedence over Medical Policy and must be considered first in determining eligibility for coverage. To verify a member's benefits, contact Blue Cross and Blue Shield of Kansas Customer Service.

The BCBSKS Medical Policies contained herein are for informational purposes and apply only to members who have health insurance through BCBSKS or who are covered by a self-insured group plan administered by BCBSKS. Medical Policy for FEP members is subject to FEP medical policy which may differ from BCBSKS Medical Policy.

The medical policies do not constitute medical advice or medical care. Treating health care providers are independent contractors and are neither employees nor agents of Blue Cross and Blue Shield of Kansas and are solely responsible for diagnosis, treatment and medical advice.

If your patient is covered under a different Blue Cross and Blue Shield plan, please refer to the Medical Policies of that plan.

**DESCRIPTION**
The peripheral nervous system includes pathways outside of the spinal cord, specifically various plexuses and peripheral nerves. Peripherally implanted nerve stimulation entails the placement of electrodes on a selected peripheral nerve. The stimulating electrode array is connected to an implanted pulse generator.
POLICY
A. Implanted peripheral nerve stimulators may be considered medically necessary when ALL of the following criteria are met:
1. Cause of pain isolated to a single nerve or in an area on a limb that can be stimulated by a proximal nerve, AND
2. Pain is refractory to reasonable alternative therapies such as physical therapy, analgesics, anticonvulsants, muscle relaxants, antidepressants, topical anesthetics, and nerve blocks, AND
3. Diagnosis was confirmed by nerve blocks, AND
4. Psychological evaluation prior to trial implantation has been performed and indicates no contraindications to implantation, AND
5. A successful trial with percutaneous leads is performed.

B. Implanted peripheral nerve stimulators are considered experimental / investigational for all other indications.

CODING
The following codes for treatment and procedures applicable to this policy are included below for informational purposes. Inclusion or exclusion of a procedure, diagnosis or device code(s) does not constitute or imply member coverage or provider reimbursement. Please refer to the member’s contract benefits in effect at the time of service to determine coverage or non-coverage of these services as it applies to an individual member.

CPT/HCPCS
64553 Percutaneous implantation of neurostimulator electrode array; cranial nerve
64555 Percutaneous implantation of neurostimulator electrode array; peripheral nerve (excludes sacral nerve)
64575 Incision for implantation of neurostimulator electrode array; peripheral nerve (excludes sacral nerve)
64585 Revision or removal of peripheral neurostimulator electrode array
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
L8680 Implantable neurostimulator electrode, each
L8681 Patient programmer (external) for use with implantable programmable neurostimulator pulse generator, replacement only
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, nonrechargeable, includes extension
L8687 Implantable neurostimulator pulse generator, dual array, rechargeable, includes extension
L8688  Implantable neurostimulator pulse generator, dual array, nonrechargeable, includes extension
L8689  External recharging system for battery (internal) for use with implantable neurostimulator, replacement only
L8695  External recharging system for battery (external) for use with implantable neurostimulator, replacement only

ICD-10 Diagnoses
G56.41  Causalgia of right upper limb
G56.42  Causalgia of left upper limb
G56.43  Causalgia of bilateral upper limbs
G57.71  Causalgia of right lower limb
G57.72  Causalgia of left lower limb
G57.73  Causalgia of bilateral lower limbs
G89.21  Chronic pain due to trauma
G89.4  Chronic pain syndrome
G90.50  Complex regional pain syndrome I, unspecified
G90.511 Complex regional pain syndrome I of right upper limb
G90.512 Complex regional pain syndrome I of left upper limb
G90.513 Complex regional pain syndrome I of upper limb, bilateral
G90.521 Complex regional pain syndrome I of right lower limb
G90.522 Complex regional pain syndrome I of left lower limb
G90.523 Complex regional pain syndrome I of lower limb, bilateral
G90.59  Complex regional pain syndrome I of other specified site
M53.1  Cervicobrachial syndrome
M54.10  Radiculopathy, site unspecified
M54.18  Radiculopathy, sacral and sacrococcygeal region
M79.2  Neuralgia and neuritis, unspecified
R51  Headache

REVISIONS

<table>
<thead>
<tr>
<th>Effective Date</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>11-01-2007</td>
<td>• Description added.</td>
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<tr>
<td></td>
<td>• Policy liberalized to allow additional indications for Implanted Peripheral Nerve Stimulators.</td>
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<tr>
<td></td>
<td>• Under item I, Conditions that may cause intractable pain, the following were deleted: Reflex sympathetic dystrophy and Causalgia&quot; and replaced with the more current terminology and broadened application of: &quot;Complex Regional Pain Syndrome, Type I and II&quot; to include the definition of Complex Regional Pain Syndrome.</td>
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<td>• Under item II, general criteria were revised to provide clarification as follows:</td>
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<td>➢ To item A. added: &quot;by significant, function limiting pain in a peripheral nerve distribution&quot;</td>
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<td>➢ To item B. added &quot;or in an area on a limb that can be stimulated by a proximal nerve&quot;</td>
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<td>➢ To item C. added &quot;such as physical therapy, analgesics, anticonvulsants, muscle relaxants, antidepressants, topical anesthetics, and nerve blocks&quot;</td>
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<td>➢ Added item F. &quot;A successful trial with percutaneous leads is performed&quot;</td>
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<td>➢ Added item G. &quot;Surgical decompression is not indicated&quot;</td>
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<td>➢ Added item H. &quot;Diagnosis was confirmed by nerve blocks&quot;</td>
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</tbody>
</table>
Deleted "No nerve abnormalities demonstrable"

- Policy section revised to delete the following:
  - "Conditions generally NOT responsive to PNS:
    a. Sciatica
    b. Pain associated with failed low back surgery
    c. Cancer pain
    d. Idiopathic Pain
    e. Pain due to nerve root injury"
- References were updated.

<table>
<thead>
<tr>
<th>Date</th>
<th>Policy Section</th>
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<tbody>
<tr>
<td>01-26-2010</td>
<td>In Policy Section:</td>
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<tr>
<td></td>
<td>• Added clarification wording to II. E. &quot;...prior to the procedure and...&quot; so the sentence reflected, &quot;Psychological evaluation obtained prior to the procedure and by someone familiar with the pain process.&quot;</td>
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<tr>
<td>02-25-2011</td>
<td>In Coding Section:</td>
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<tr>
<td></td>
<td>• Removed CPT code 64573, 63685</td>
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<tr>
<td>01-01-2012</td>
<td>In Coding section:</td>
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<td></td>
<td>• Revised CPT nomenclature for the following codes: 64553, 64555, 64575, 64585</td>
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<td>03-13-2013</td>
<td>In Policy section:</td>
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<td>• Revised policy language from:</td>
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<td>&quot;I. Implanted peripheral nerve stimulators may be medically necessary for the following conditions when they cause intractable pain (positive findings must be present):</td>
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<td>A. Direct or indirect nerve trauma.</td>
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<td>B. Complex Regional Pain Syndrome, Type I and II.</td>
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<td>(Complex Regional Pain Syndrome [CRPS] is a chronic pain condition that is believed to be the result of dysfunction in the central or peripheral nervous systems. Typical features include dramatic changes in the color and temperature of the skin over the affected limb or body part, accompanied by intense burning pain, skin sensitivity, sweating, and swelling. CRPS Type I is frequently triggered by tissue injury; the term describes all patients with the above symptoms, but no underlying nerve injury. Patients with CRPS Type II experience the same symptoms, but their cases are clearly associated with a nerve injury.)</td>
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<td>II. The following general criteria may be used as a guide for review:</td>
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<td>A. Pathology for the pain complaint demonstrated by significant, function limiting pain in a peripheral nerve distribution.</td>
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<td>B. Cause of pain isolated to a single nerve or in an area on a limb that can be stimulated by a proximal nerve.</td>
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<td>C. Have exhausted reasonable alternative therapies such as physical therapy, analgesics, anticonvulsants, muscle relaxants, antidepressants, topical anesthetics, and nerve blocks.</td>
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<td>D. No serious drug habituation problems detected.</td>
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<td>E. Psychological evaluation obtained prior to the procedure and by someone familiar with the pain process.</td>
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<td>F. A successful trial with percutaneous leads is performed.</td>
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<td>G. Surgical decompression is not indicated.</td>
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<td>H. Diagnosis was confirmed by nerve blocks.&quot;</td>
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<tr>
<td>03-13-2013</td>
<td>In Coding section:</td>
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<tr>
<td></td>
<td>• Removed CPT code 61885</td>
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<tr>
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<td>• Removed diagnosis code: 723.1, 724.2</td>
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</tbody>
</table>
- Added ICD-10 diagnoses: G90.50, G90.59, G90.511, G90.512, G90.513, G90.519, G90.521, G90.522, G90.523, G90.529, G90.59, G56.40, G56.41, G56.42, G57.70, G57.71, G57.72, G89.21, G89.4, M53.1, M54.10, M54.18, M79.2, R51

Updated Reference section.

02-10-2015 Description section updated

In Policy Section:
- In Item D removed "obtained prior to the procedure" and added "prior to trial implantation has been performed and indicates no contraindications to implantation." to read "Psychological evaluation prior to trial implantation has been performed and indicates no contraindications to implantation."

Other References updated.

04-01-2016 In Policy section:
- Added Item B, "Percutaneous tibial nerve stimulators are considered experimental / investigational for all other indications."

Updated References section.

10-01-2016 In Coding section:
- Added ICD-10 codes effective 10-01-2016: G56.43, G57.73
- Removed ICD-10 codes: G56.40, G57.70, G90.519, G90.529

05-10-2017 Policy reviewed; no changes made.

05-09-2018 In Policy section:
- In Item A, added "ALL of" to read, "Implanted peripheral nerve stimulators may be considered medically necessary when ALL of the following criteria are met:"  
- In Item A 1, added "AND" to read, "Cause of pain isolated to a single nerve or in an area on a limb that can be stimulated by a proximal nerve, AND"
- In Item A 2, added "AND" to read, "Pain is refractory to reasonable alternative therapies such as physical therapy, analgesics, anticonvulsants, muscle relaxants, antidepressants, topical anesthetics, and nerve blocks, AND,"  
- In Item A 3, added "AND" to read, "Diagnosis was confirmed by nerve blocks, AND"  
- In Item A 4, added "AND" to read, "Psychological evaluation prior to trial implantation has been performed and indicates no contraindications to implantation, AND"

In Coding section:
- Removed ICD-9 codes.

Remainder of policy reviewed; no changes made.

REFERENCES

Other References
1. Blue Cross and Blue Shield of Kansas Anesthesiology Liaison Committee, May 15, 2007; May 2010; May 2014; May 2015.
2. Blue Cross and Blue Shield Medical Advisory Committee (MAC), August 2, 2007.
3. Blue Cross and Blue Shield of Kansas Anesthesiology Liaison Committee CB, November 2014.