



MASSACHUSETTS

Blue Cross Blue Shield of Massachusetts is an Independent Licensee of the Blue Cross and Blue Shield Association

Medical Policy Interferential Current Stimulation

Table of Contents

- [Policy: Commercial](#)
- [Policy: Medicare](#)
- [Authorization Information](#)
- [Coding Information](#)
- [Description](#)
- [Policy History](#)
- [Information Pertaining to All Policies](#)
- [References](#)

Policy Number: 509

BCBSA Reference Number: 1.01.24 (For Plan internal use only)

NCD/LCD: NA

Related Policies

- Transcutaneous Electrical Nerve Stimulation #003
- Biofeedback as a Treatment of Fecal Incontinence or Constipation #308
- Percutaneous Electrical Nerve Stimulation and Percutaneous Neuromodulation Therapy #172

Policy

Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity Medicare HMO BlueSM and Medicare PPO BlueSM Members

Interferential current stimulation is considered [INVESTIGATIONAL](#).

Prior Authorization Information

Inpatient

- For services described in this policy, precertification/preauthorization **IS REQUIRED** for all products if the procedure is performed inpatient.

Outpatient

- For services described in this policy, see below for products where prior authorization **might be required** if the procedure is performed outpatient.

	Outpatient
Commercial Managed Care (HMO and POS)	This is not a covered service.
Commercial PPO and Indemnity	This is not a covered service.
Medicare HMO Blue SM	This is not a covered service.
Medicare PPO Blue SM	This is not a covered service.

CPT Codes / HCPCS Codes / ICD Codes

Inclusion or exclusion of a code 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 as it applies to an individual member.

Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.

The following codes are included below for informational purposes only; this is not an all-inclusive list.

The following HCPCS codes are considered investigational for Commercial Members: Managed Care (HMO and POS), PPO, Indemnity, Medicare HMO Blue and Medicare PPO Blue:

HCPCS codes:	Code Description
S8130	Interferential current stimulator, 2 channel
S8131	Interferential current stimulator, 4 channel

Description

Interferential current stimulation (IFS) is a type of electrical stimulation that has been investigated as a technique to reduce pain, improve function and range of motion, and treat gastrointestinal disorders.

IFS uses paired electrodes of 2 independent circuits carrying high-frequency and medium-frequency alternating currents. The superficial electrodes are aligned on the skin around the affected area. It is believed that IFS permeates the tissues more effectively and with less unwanted stimulation of cutaneous nerves, is more comfortable than transcutaneous electrical nerve stimulation. There are no standardized protocols for the use of IFS; IFS may vary by the frequency of stimulation, the pulse duration, treatment time, and electrode-placement technique.

Summary

Description

Interferential current stimulation (IFS) is a type of electrical stimulation used to reduce pain. The technique has been proposed to decrease pain and increase function in patients with osteoarthritis and to treat other conditions such as constipation, irritable bowel syndrome, dyspepsia, and spasticity.

Summary of Evidence

For individuals who have musculoskeletal conditions who receive IFS, the evidence includes randomized controlled trials (RCTs) and meta-analyses. Relevant outcomes are symptoms, functional outcomes, quality of life, medication use, and treatment-related morbidity. Placebo-controlled randomized trial(s) have found that IFS when used to treat musculoskeletal pain and impaired function(s), does not significantly improve outcomes; additionally, a meta-analysis of placebo-controlled trials did not find a significant benefit of IFS for decreasing pain or improving function. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals who have gastrointestinal disorders who receive IFS, the evidence includes RCTs. Relevant outcomes are symptoms, functional outcomes, quality of life, medication use, and treatment-related morbidity. IFS has been tested for a variety of gastrointestinal conditions, with a small number of trials completed for each condition. The results of the trials are mixed, with some reporting benefit and others not. This body of evidence is inconclusive on whether IFS is an efficacious treatment for gastrointestinal conditions. The evidence is insufficient to determine the effects of the technology on health outcomes.

For individuals who have poststroke spasticity who receive IFS, the evidence includes RCTs. Relevant outcomes are symptoms, functional outcomes, quality of life, and treatment-related morbidity. The RCTs had small sample sizes and very short follow-up (immediately posttreatment to 5 weeks). The evidence is insufficient to determine the effects of the technology on health outcomes.

Policy History

Date	Action
8/2020	Annual policy review. Description, summary, and references updated. Policy statements unchanged.
8/2019	Annual policy review. Description, summary, and references updated. Policy statements unchanged.
9/2018	Clarified coding information.
7/2018	Annual policy review. Description, summary, and references updated. Policy statements unchanged.
10/2017	Annual policy review. New references added.
7/2016	Annual policy review. New references added.
2/2015	Annual policy review. New references added.
3/2014	Annual policy review. New references added.
11/2011-4/2012	Medical policy ICD 10 remediation: Formatting, editing and coding updates. No changes to policy statements.
6/2011	Reviewed - Medical Policy Group – Orthopedics, Rehabilitation and Rheumatology. No changes to policy statements.
2/2/2011	Medical Policy 509 created.

Information Pertaining to All Blue Cross Blue Shield Medical Policies

Click on any of the following terms to access the relevant information:

[Medical Policy Terms of Use](#)

[Managed Care Guidelines](#)

[Indemnity/PPO Guidelines](#)

[Clinical Exception Process](#)

[Medical Technology Assessment Guidelines](#)

References

1. Zeng C, Li H, Yang T, et al. Electrical stimulation for pain relief in knee osteoarthritis: systematic review and network meta-analysis. *Osteoarthritis Cartilage*. Feb 2015;23(2):189-202. PMID 25497083
2. Ferreira RM, Torres RT, Duarte JA, et al. Non-Pharmacological and Non-Surgical Interventions for Knee Osteoarthritis: A Systematic Review and Meta-Analysis. *Acta Reumatol Port*. Jul 29 2019; 44(3): 173-217. PMID 31356585
3. National Institute for Health and Care Excellence (NICE). Low back pain and sciatica in over 16s: assessment and management [NG59]. 2016; <https://www.nice.org.uk/guidance/ng59>. Accessed April 21, 2020.
4. Fuentes JP, Armijo Olivo S, Magee DJ, et al. Effectiveness of interferential current therapy in the management of musculoskeletal pain: a systematic review and meta-analysis. *Phys Ther*. Sep 2010;90(9):1219-1238. PMID 20651012
5. Defrin R, Ariel E, Peretz C. Segmental noxious versus innocuous electrical stimulation for chronic pain relief and the effect of fading sensation during treatment. *Pain*. May 2005;115(1-2):152-160. PMID 15836978
6. Taylor K, Newton RA, Personius WJ, et al. Effects of interferential current stimulation for treatment of subjects with recurrent jaw pain. *Phys Ther*. Mar 1987;67(3):346-350. PMID 3493493
7. Atamaz FC, Durmaz B, Baydar M, et al. Comparison of the efficacy of transcutaneous electrical nerve stimulation, interferential currents, and shortwave diathermy in knee osteoarthritis: a double-blind, randomized, controlled, multicenter study. *Arch Phys Med Rehabil*. May 2012;93(5):748-756. PMID 22459699

8. Gundog M, Atamaz F, Kanyilmaz S, et al. Interferential current therapy in patients with knee osteoarthritis: comparison of the effectiveness of different amplitude-modulated frequencies. *Am J Phys Med Rehabil.* Feb 2012;91(2):107-113. PMID 22019968
9. Kadi MR, Hegguler S, Atamaz FC, et al. Is interferential current effective in the management of pain, range of motion, and edema following total knee arthroplasty surgery? A randomized double-blind controlled trial. *Clin Rehabil.* Jun 2019; 33(6): 1027-1034. PMID 30764635
10. Koca I, Boyaci A, Tutoglu A, et al. Assessment of the effectiveness of interferential current therapy and TENS in the management of carpal tunnel syndrome: a randomized controlled study. *Rheumatol Int.* Dec 2014;34(12):1639-1645. PMID 24728028
11. Lara-Palomo IC, Aguilar-Ferrandiz ME, Mataran-Penarrocha GA, et al. Short-term effects of interferential current electro-massage in adults with chronic non-specific low back pain: a randomized controlled trial. *Clin Rehabil.* May 2013;27(5):439-449. PMID 23035006
12. Facci LM, Nowotny JP, Tormem F, et al. Effects of transcutaneous electrical nerve stimulation (TENS) and interferential currents (IFC) in patients with nonspecific chronic low back pain: randomized clinical trial. *Sao Paulo Med J.* 2011;129(4):206-216. PMID 21971895
13. Albornoz-Cabello M, Maya-Martin J, Dominguez-Maldonado G, et al. Effect of interferential current therapy on pain perception and disability level in subjects with chronic low back pain: a randomized controlled trial. *Clin Rehabil.* Feb 2017;31(2):242-249. PMID 26975312
14. Dissanayaka TD, Pallegama RW, Suraweera HJ, et al. Comparison of the effectiveness of transcutaneous electrical nerve stimulation and interferential therapy on the upper trapezius in myofascial pain syndrome: a randomized controlled study. *Am J Phys Med Rehabil.* Sep 2016;95(9):663-672. PMID 26945216
15. Albornoz-Cabello M, Perez-Marmol JM, Barrios Quinta CJ, et al. Effect of adding interferential current stimulation to exercise on outcomes in primary care patients with chronic neck pain: a randomized controlled trial. *Clin Rehabil.* Sep 2019; 33(9): 1458-1467. PMID 31007047
16. Iacona R, Ramage L, Malakounides G. Current State of Neuromodulation for Constipation and Fecal Incontinence in Children: A Systematic Review. *Eur J Pediatr Surg.* Dec 2019; 29(6): 495-503. PMID 30650450
17. Kajbafzadeh AM, Sharifi-Rad L, Nejat F, et al. Transcutaneous interferential electrical stimulation for management of neurogenic bowel dysfunction in children with myelomeningocele. *Int J Colorectal Dis.* Apr 2012;27(4):453-458. PMID 22065105
18. Clarke MC, Chase JW, Gibb S, et al. Improvement of quality of life in children with slow transit constipation after treatment with transcutaneous electrical stimulation. *J Pediatr Surg.* Jun 2009;44(6):1268-1272; discussion 1272. PMID 19524752
19. Moore JS, Gibson PR, Burgell RE. Randomised clinical trial: transabdominal interferential electrical stimulation vs sham stimulation in women with functional constipation. *Aliment Pharmacol Ther.* Apr 2020; 51(8): 760-769. PMID 32128859
20. Coban S, Akbal E, Koklu S, et al. Clinical trial: transcutaneous interferential electrical stimulation in individuals with irritable bowel syndrome - a prospective double-blind randomized study. *Digestion.* Aug 2012;86(2):86-93. PMID 22846190
21. Koklu S, Koklu G, Ozguclu E, et al. Clinical trial: interferential electric stimulation in functional dyspepsia patients - a prospective randomized study. *Aliment Pharmacol Ther.* May 2010;31(9):961-968. PMID 20136803
22. Suh HR, Han HC, Cho HY. Immediate therapeutic effect of interferential current therapy on spasticity, balance, and gait function in chronic stroke patients: a randomized control trial. *Clin Rehabil.* Sep 2014;28(9):885-891. PMID 24607801
23. Eslamian F, Farhoudi M, Jahanjoo F, et al. Electrical interferential current stimulation versus electrical acupuncture in management of hemiplegic shoulder pain and disability following ischemic stroke-a randomized clinical trial. *Arch Physiother.* 2020; 10: 2. PMID 31938571
24. Chou R, Atlas SJ, Stanos SP, et al. Nonsurgical interventional therapies for low back pain: a review of the evidence for an American Pain Society clinical practice guideline. *Spine (Phila Pa 1976).* May 1 2009;34(10):1078-1093. PMID 19363456
25. Qaseem A, Wilt TJ, McLean RM, et al. Noninvasive Treatments for Acute, Subacute, and Chronic Low Back Pain: A Clinical Practice Guideline From the American College of Physicians. *Ann Intern Med.* Apr 04 2017; 166(7): 514-530. PMID 28192789

26. American College of Occupational and Environmental Medicine (ACOEM). Shoulder disorders. In: Hegmann KT, ed. Occupational medicine practice guidelines. Evaluation and management of common health problems and functional recovery in workers. 3rd ed. Elk Grove Village, IL: ACOEM; 2011:1-297.
27. American College of Occupational and Environmental Medicine (ACOEM). Low Back Disorders. In: Hegmann KT, ed. Occupational medicine practice guidelines: evaluation and management of common health problems and functional recovery in workers. Westminster, CO: Reed Group; 2016:1-844.
28. American College of Occupational and Environmental Medicine (ACOEM). Knee Disorders. In: Hegmann KT, ed. Occupational medicine practice guidelines. Evaluation and management of common health problems and functional recovery in workers. 3rd ed. Elk Grove Village, IL: ACOEM; 2011:1-503.