

<b>POLICY TITLE</b>	<b>SKIN CONTACT MONOCHROMATIC INFRARED ENERGY FOR THE TREATMENT OF CUTANEOUS ULCERS, DIABETIC NEUROPATHY, AND OTHER MISCELLANEOUS MUSCULOSKELETAL CONDITIONS</b>
<b>POLICY NUMBER</b>	<b>MP-1.094</b>

Original Issue Date (Created):	<b>6/14/2004</b>
Most Recent Review Date (Revised):	<b>6/11/2019</b>
<b>Effective Date:</b>	<b>10/1/2020</b>

[POLICY RATIONALE](#)  
[DISCLAIMER](#)  
[POLICY HISTORY](#)

[PRODUCT VARIATIONS](#)  
[DEFINITIONS](#)  
[CODING INFORMATION](#)

[DESCRIPTION/BACKGROUND](#)  
[BENEFIT VARIATIONS](#)  
[REFERENCES](#)

**I. POLICY**

Skin contact monochromatic infrared energy is considered **investigational** as a technique to treat cutaneous ulcers, diabetic neuropathy, and musculoskeletal conditions, including but not limited to temporomandibular disorders, tendonitis, capsulitis, and myofascial pain. There is insufficient evidence to support a conclusion concerning the health outcomes or benefits associated with this procedure.

*Cross-reference:*  
**MP-1.097** Low Level Laser Therapy

**II. PRODUCT VARIATIONS**

[TOP](#)

This policy is only applicable to certain programs and products administered by Capital BlueCross please see additional information below, and subject to benefit variations as discussed in Section VI below.

**FEP PPO** - Refer to FEP Benefit Brochure for information on Treatment Therapies:  
<https://www.fepblue.org/benefit-plans/benefit-plans-brochures-and-forms>

**Note\***-The Federal Employee Program (FEP) Service Benefit Plan does not have a medical policy related to these services.

**III. DESCRIPTION/BACKGROUND**

[TOP](#)

Monochromatic infrared energy treatment (MIRE™) is a therapy that uses infrared light therapy through contact with the skin for potential use in multiple conditions including cutaneous ulcers, diabetic neuropathy, and musculoskeletal and soft tissue injuries.

Monochromatic infrared energy (MIRE) refers to light at a wavelength of 880 nm. MIRE can be delivered through pads containing an array of 60 superluminous infrared diodes emitting pulsed near-infrared irradiation. The pads can be placed on the skin, and the infrared energy is delivered in a homogeneous manner in a session lasting from 30 to 45 minutes.

<b>POLICY TITLE</b>	<b>SKIN CONTACT MONOCHROMATIC INFRARED ENERGY FOR THE TREATMENT OF CUTANEOUS ULCERS, DIABETIC NEUROPATHY, AND OTHER MISCELLANEOUS MUSCULOSKELETAL CONDITIONS</b>
<b>POLICY NUMBER</b>	<b>MP-1.094</b>

MIRE devices have been investigated as a treatment of multiple conditions including cutaneous ulcers, diabetic neuropathy, musculoskeletal and soft tissue injuries, including temporomandibular disorders, tendonitis, capsulitis, and myofascial pain. MIRE devices are also being developed for the treatment of baldness and snoring. The proposed mechanism of action is not known, although some sort of photobiostimulation has been proposed, as well as increased circulation related to an increase in plasma of the potent vasodilator nitric oxide.

**IV. RATIONALE**

[TOP](#)

**Summary of Evidence**

The available literature regarding skin contact monochromatic infrared energy (MIRE) as a technique to treat various cutaneous conditions consists of small controlled trials and observational studies. MIRE has also been investigated for knee osteoarthritis. The current evidence from the studies with the strongest methodology, i.e., sham-controlled trials with a between-group design, shows no improvement in outcomes for patients treated with MIRE. This evidence does not support the efficacy of this technology. Well designed, prospective, randomized controlled trials with larger subject numbers are needed to determine with certainty whether MIRE is an effective treatment for cutaneous conditions. As a result, this technology is considered investigational.

**V. DEFINITIONS**

[TOP](#)

**PHOTOBIOSTIMULATION** refers to a process associated with low-level laser therapy, which activates enzymatic processes in the cells, which increase cellular metabolism.

**VI. BENEFIT VARIATIONS**

[TOP](#)

The existence of this medical policy does not mean that this service is a covered benefit under the member's health benefit plan. Benefit determinations should be based in all cases on the applicable health benefit plan language. Medical policies do not constitute a description of benefits. A member's health benefit plan governs which services are covered, which are excluded, which are subject to benefit limits and which require preauthorization. There are different benefit plan designs in each product administered by Capital BlueCross. Members and providers should consult the member's health benefit plan for information or contact Capital BlueCross for benefit information.

**VII. DISCLAIMER**

[TOP](#)

*Capital BlueCross's medical policies are developed to assist in administering a member's benefits, do not constitute medical advice and are subject to change. Treating providers are solely responsible for medical advice and treatment of members. Members should discuss any medical policy related to their coverage or condition with their provider and consult their benefit information to determine if the service is covered. If there is a discrepancy between this medical policy and a member's benefit information, the benefit information will govern. If a provider or a member has a question concerning the application of this medical policy to a specific member's plan of benefits, please contact Capital BlueCross' Provider Services or Member Services. Capital BlueCross considers*

<b>POLICY TITLE</b>	<b>SKIN CONTACT MONOCHROMATIC INFRARED ENERGY FOR THE TREATMENT OF CUTANEOUS ULCERS, DIABETIC NEUROPATHY, AND OTHER MISCELLANEOUS MUSCULOSKELETAL CONDITIONS</b>
<b>POLICY NUMBER</b>	<b>MP-1.094</b>

*the information contained in this medical policy to be proprietary and it may only be disseminated as permitted by law.*

**VIII. CODING INFORMATION**

[TOP](#)

**Note:** This list of codes may not be all-inclusive, and codes are subject to change at any time. The identification of a code in this section does not denote coverage as coverage is determined by the terms of member benefit information. In addition, not all covered services are eligible for separate reimbursement.

**Investigational; therefore, not covered;**

<b>CPT Codes®</b>							
97026							

Current Procedural Terminology (CPT) copyrighted by American Medical Association. All Rights Reserved.

<b>HCPCS Code</b>	<b>Description</b>
A4639	Replacement pad for infrared heating pad system, each
E0221	Infrared heating pad system

**IX. REFERENCES**

[TOP](#)

1. Li H, Nyland J, Shelton T. Effectiveness of the anodyne therapy system in treating diabetic peripheral neuropathy: a systematic review. *Physical Therapy Reviews*. 2008;13(6):395-404.
2. Ites KI, Anderson EJ, Cahill ML, et al. Balance interventions for diabetic peripheral neuropathy: a systematic review. *J Geriatr Phys Ther*. 2011;34(3):109-116.
3. Lavery LA, Murdoch DP, Williams J, et al. Does anodyne light therapy improve peripheral neuropathy in diabetes? A double-blind, sham-controlled, randomized trial to evaluate monochromatic infrared photoenergy. *Diabetes Care*. 2008;31(2):316-321.
4. Clift JK, Kasser RJ, Newton TS, et al. The effect of monochromatic infrared energy on sensation in patients with diabetic peripheral neuropathy: a double-blind, placebo-controlled study. *Diabetes Care*. 2005;28(12):2896-2900.
5. Nawfar SA, Yacob NB. Effects of monochromatic infrared energy therapy on diabetic feet with peripheral sensory neuropathy: a randomised controlled trial. *Singapore Med J*. Sep 2011;52(9):669-672. PMID 21947144
6. Franzen-Korzendorfer H, Blackinton M, Rone-Adams S, et al. The effect of monochromatic infrared energy on transcutaneous oxygen measurements and protective sensation: results of a controlled, double-blind, randomized clinical study. *Ostomy Wound Manage*. 2008;54(6):16-31.
7. Leonard DR, Farooqi MH, Myers S. Restoration of sensation, reduced pain and improved balance in subjects with diabetic peripheral neuropathy: a double-blind, randomized, placebo-controlled study with monochromatic near-infrared treatment. *Diabetes Care*. 2004;27(1):168-172.

<b>POLICY TITLE</b>	<b>SKIN CONTACT MONOCHROMATIC INFRARED ENERGY FOR THE TREATMENT OF CUTANEOUS ULCERS, DIABETIC NEUROPATHY, AND OTHER MISCELLANEOUS MUSCULOSKELETAL CONDITIONS</b>
<b>POLICY NUMBER</b>	<b>MP-1.094</b>

8. DeLellis SL, Carnegie DH, Burke TJ. Improved sensitivity in patients with peripheral neuropathy: effects of monochromatic infrared photo energy. *J Am Podiatr Med Assoc.* 2005;95(2):143-147.
9. Powell MW, Carnegie DE, Burke TJ. Reversal of diabetic peripheral neuropathy and new wound incidence: the role of MIRE. *Adv Skin Wound Care.* 2004;17(6):295-300.
10. Prendergast JJ, Miranda G, Sanchez M. Improvement of sensory impairment in patients with peripheral neuropathy. *Endocr Pract.* 2004;10(1):24-30.
11. Thomasson T. Effects of skin-contact monochromatic infrared irradiation on tendonitis, capsulitis, and myofascial pain. *J Neurol Orthop Med Surg* 1996; 16:242-245.
12. Kochman AB, Carnegie DH, Burke TJ. Symptomatic reversal of peripheral neuropathy in patients with diabetes. *J Am Podiatr Med Assoc.* 2002;92(3):125-130.
13. Horwitz LR, Burke TJ, Carnegie D. Augmentation of wound healing using monochromatic infrared energy. *Exploration of a new technology for wound management. Adv Wound Care.* 1999; 12(1):35-40.
14. Hsieh RL, Lo MT, Lee WC, et al. Therapeutic effects of short-term monochromatic infrared energy therapy on patients with knee osteoarthritis: a double-blind, randomized, placebo-controlled study. *J Orthop Sports Phys Ther.* 2012; 42(11):947-956. PMID 22960644
15. Association for the Advancement of Wound Care. Association for the Advancement of Wound Care Guideline of Pressure Ulcer Guidelines.; [https://aawconline.memberclicks.net/index.php?option=com\\_content&view=article&id=58:guidelines&catid=20:site-content](https://aawconline.memberclicks.net/index.php?option=com_content&view=article&id=58:guidelines&catid=20:site-content). Accessed June 19, 2020.
16. Blue Cross Blue Shield Association Medical Policy Reference Manual. 1.01.22 Skin Contact Monochromatic Infrared Energy as a Technique to Treat Cutaneous Ulcers, Diabetic Neuropathy, and Miscellaneous Musculoskeletal Conditions. Archived 12:2014.

**X. POLICY HISTORY**

[TOP](#)

<b>MP 1.094</b>	<b>CAC 10/28/03</b>
	<b>CAC 11/30/04</b>
	<b>CAC 11/29/05</b>
	<b>CAC 11/28/06</b>
	<b>CAC 11/27/07</b>
	<b>CAC 11/25/08</b>
	<b>CAC 11/24/09 Consensus review.</b> Remains investigational, references updated
	<b>CAC 5/25/10 Adopted BCBSA Criteria</b>
	<b>CAC 4/26/11 Consensus.</b>
	<b>CAC 6/26/12 Consensus.</b> Policy statement remains the same, references updated. Added FEP variation to reference FEP Medical Policy Manual MP-

<b>POLICY TITLE</b>	<b>SKIN CONTACT MONOCHROMATIC INFRARED ENERGY FOR THE TREATMENT OF CUTANEOUS ULCERS, DIABETIC NEUROPATHY, AND OTHER MISCELLANEOUS MUSCULOSKELETAL CONDITIONS</b>
<b>POLICY NUMBER</b>	<b>MP-1.094</b>

	1.01.22 Skin Contact Monochromatic Infrared Energy as a Technique to treat Cutaneous Ulcers, Diabetic Neuropathy, and Miscellaneous Musculoskeletal Conditions.
	<b>7/26/13 Administrative update.</b> Coding review complete
	<b>CAC 9/24/13 Consensus.</b> No changes to policy statement. Added rationale section. References updated.
	<b>CAC 9/30/14 Consensus.</b> No change to policy statements. Rationale and reference sections updated.
	<b>CAC 9/29/15 Consensus review.</b> No change to the policy statement. References and rationale updated. Coding Reviewed
	<b>CAC 9/27/16 Consensus review.</b> No change to the policy statement. FEP variation revised as the FEP policy was archived. Variations reformatted. Coding reviewed.
	<b>CAC 11/28/17 Consensus review.</b> Rationale and Reference sections updated. Coding reviewed.
	<b>8/13/18 Consensus review.</b> No change to policy statements. Rationale condensed. References updated.
	<b>6/11/19 Consensus review.</b> No change to policy statements. Rationale and references reviewed.
	<b>6/19/2020 Consensus review.</b> Policy statement unchanged. Product variation, benefit variation, and disclaimer updated. Coding and references reviewed.

[Top](#)

*Health care benefit programs issued or administered by Capital BlueCross and/or its subsidiaries, Capital Advantage Insurance Company®, Capital Advantage Assurance Company® and Keystone Health Plan® Central. Independent licensees of the BlueCross BlueShield Association. Communications issued by Capital BlueCross in its capacity as administrator of programs and provider relations for all companies*