

**MONOCHROMATIC PHOTOTHERAPY (ANODYNE
THERAPY/MIRE THERAPY/ LOW LEVEL LIGHT THERAPY)****Effective Date:** August 27, 2019**Review Dates:** 9/04, 9/05, 8/06, 6/07, 6/08, 6/09,
6/10, 6/11, 6/12, 6/13, 8/14, 8/15, 8/16, 8/17, 8/18,
8/19, 8/20, 8/21, 8/22, 8/23, 8/24**Date Of Origin:** September 21, 2004**Status:** Current**I. POLICY/CRITERIA**

Monochromatic Phototherapy (skin contact monochromatic infrared energy) or other types of low-level light therapy is considered investigational & experimental as a treatment technique for any indication, including but not limited to

1. Cutaneous ulcers
2. Diabetic neuropathy
3. Lymphedema
4. Peripheral neuropathy
5. Soft tissue pain and musculoskeletal conditions, such as temporomandibular disorders, tendonitis, capsulitis, knee pain and myofascial pain.

II. MEDICAL NECESSITY REVIEW

Prior authorization for certain drug, services, and procedures may or may not be required. In cases where prior authorization is required, providers will submit a request demonstrating that a drug, service, or procedure is medically necessary. For more information, please refer to the [Priority Health Provider Manual](#).

III. 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..*
- ❖ **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) and/or the Evidence of Coverage (EOC); 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. If there is a discrepancy or lack of guidance in the Michigan Medicaid Provider Manual, the Priority Health contract with Michigan Medicaid will govern. For Medical Supplies/DME/Prosthetics and Orthotics, please refer to the Michigan Medicaid Fee Schedule to verify coverage.*

IV. DESCRIPTION

Low-level infrared therapy uses a type of low-energy laser that uses light in the infrared spectrum. Monochromatic phototherapy or monochromatic infrared energy (MIRE) therapy is a noninvasive treatment technique that applies infrared light to the skin in order to stimulate blood flow, reducing inflammation, and/or promoting healing at the treatment site. MIRE therapy uses a flexible infrared-emitting pad placed over an affected area. The pad contains an array of infrared diodes which emit monochromatic infrared light at or around 890 nanometers.

The Anodyne Therapy System is a type of low-level infrared therapy or monochromatic phototherapy, developed by Integrated Systems Physiology Inc. of Aurora, CO, that has been promoted for augmenting wound healing, for reversing the symptoms of peripheral neuropathy in people with diabetes, and for treating lymphedema. The manufacturer states that the Anodyne Therapy System increases circulation and reduces pain by increasing the release of nitric oxide.

Several meta-analyses have examined the evidence supporting the use of low-level (cold) lasers, including low-level infrared lasers, for treatment of chronic non-healing wounds. These meta-analyses are unanimous in concluding that there is insufficient evidence to support low-level laser in the treatment of chronic venous ulcers or other chronic non-healing wounds.

There is no evidence that infrared light therapy or low-level light therapy is any more effective than other heat modalities in the symptomatic relief of musculoskeletal pain. There are no published studies of the effectiveness of low-level infrared therapy for treatment of diabetic peripheral neuropathy.

There is no evidence in the published peer-reviewed medical literature on the effectiveness of infrared therapy for the treatment of lymphedema.

Definitive patient selection criteria have not been established for treatment of diabetic neuropathy with monochromatic phototherapy and there is insufficient evidence to conclude that monochromatic phototherapy reduces the severity of diabetic neuropathy. The only available study using this technology for treatment of patients with diabetic neuropathy was uncontrolled, and therefore, although improvements in sensation were reported after treatment, the contribution of phototherapy to these positive outcomes cannot be determined.

V. CODING INFORMATION

ICD-10 Diagnosis:

None

CPT/HCPCS Codes:

Not Covered

0552T	Low-level laser therapy, dynamic photonic and dynamic thermokinetic energies, provided by a physician or other qualified health care professional
97026	Application of a modality to one or more areas; infrared
A4639	Replacement pad for infrared heating pad system, each
E0221	Infrared heating pad system
S8948	Application of a modality (requiring constant provider attendance) to one or more areas; low-level laser; each 15 minutes

VI. REFERENCES

- Boulton, A., et. al., Neuropathic Diabetic Foot Ulcers, New England Journal of Medicine, 351; 1, July 1, 2004: 48-55.
- Centers for Medicare and Medicaid Services. Infrared Therapy Devices. NCD 270.6. Available at <https://www.cms.gov/medicare-coverage-database/view/ncd.aspx?ncdid=315&ncdver=1&keyword=monochromatic%20infrared&keywordType=starts&areaId=all&docType=NCA,CAL,NC D,MEDCAC,TA,MCD,6,3,5,1,F,P&contractOption=all&sortBy=relevance&bc=1> (Accessed June 13, 2024).
- Harkless LB, DeLellis S, Carnegie DH, Burke TJ. Improved foot sensitivity and pain reduction in patients with peripheral neuropathy after treatment with monochromatic infrared photo energy--MIRE. J Diabetes Complications. 2006;20(2):81-87.
- Hayes, Inc. Monochromatic Infrared Energy Therapy for Treatment of Neuropathic Pain. Evidence Analysis Research Brief; April 10, 2023.
- Lavery LA, Murdoch DP, Williams J, Lavery DC. 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.
- 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
- 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.
- Lopes C, Trevisani VF, Melnik T. Efficacy and Safety of 308-nm Monochromatic Excimer Lamp Versus Other Phototherapy Devices for Vitiligo: A Systematic Review with Meta-Analysis. *Am J Clin Dermatol*. 2016 Feb;17(1):23-32.
- Rastogi A, Uppula P, Saikia U, Bhansali A. Effect of monochromatic infrared energy on quality of life and intraepidermal nerve fiber density in painful diabetic neuropathy: a randomized, sham control study. *Neurol India*. 2021;69(5):1331-1337.
- Robinson CC, Klahr PDS, Stein C, Falavigna M, Sbruzzi G, Plentz RD. Effects of monochromatic infrared phototherapy in patients with diabetic peripheral neuropathy: a systematic review and meta-analysis of randomized controlled trials. *Braz J Phys Ther*. 2017;21(4):233-243.

AMA CPT Copyright Statement:

All Current Procedure Terminology (CPT) codes, descriptions, and other data are copyrighted by the American Medical Association.

This document is for informational purposes only. It is not an authorization, certification, explanation of benefits, or contract. Receipt of benefits is subject to satisfaction of all terms and conditions of coverage. Eligibility and benefit coverage are determined in accordance with the terms of the member's plan in effect as of the date services are rendered. Priority Health's medical policies are developed with the assistance of medical professionals and are based upon a review of published and unpublished information including, but not limited to, current medical literature, guidelines published by public health and health research agencies, and community medical practices in the treatment and diagnosis of disease. Because medical practice, information, and technology are constantly changing, Priority Health reserves the right to review and update its medical policies at its discretion.

Priority Health's medical policies are intended to serve as a resource to the plan. They are not intended to limit the plan's ability to interpret plan language as deemed appropriate. Physicians and other providers are solely responsible for all aspects of medical care and treatment, including the type, quality, and levels of care and treatment they choose to provide.

The name "Priority Health" and the term "plan" mean Priority Health, Priority Health Managed Benefits, Inc., Priority Health Insurance Company and Priority Health Government Programs, Inc.