

09-E0000-44

Original Effective Date: 08/15/03

Reviewed: 10/27/22

Revised: 01/01/24

Subject: Infrared Energy Therapy and Low Level Laser Therapy

THIS MEDICAL COVERAGE GUIDELINE IS NOT AN AUTHORIZATION, CERTIFICATION, EXPLANATION OF BENEFITS, OR A GUARANTEE OF PAYMENT, NOR DOES IT SUBSTITUTE FOR OR CONSTITUTE MEDICAL ADVICE. ALL MEDICAL DECISIONS ARE SOLELY THE RESPONSIBILITY OF THE PATIENT AND PHYSICIAN. BENEFITS ARE DETERMINED BY THE GROUP CONTRACT, MEMBER BENEFIT BOOKLET, AND/OR INDIVIDUAL SUBSCRIBER CERTIFICATE IN EFFECT AT THE TIME SERVICES WERE RENDERED. THIS MEDICAL COVERAGE GUIDELINE APPLIES TO ALL LINES OF BUSINESS UNLESS OTHERWISE NOTED IN THE PROGRAM EXCEPTIONS SECTION.

Position Statement	Billing/Coding	Reimbursement	Program Exceptions	Definitions	Related Guidelines
Other	References	Updates			

DESCRIPTION:

Infrared Energy Therapy

Monochromatic infrared energy (MIRE™) is a therapy that uses pulsed infrared light at a wavelength of 880 nm through pads that contain an array of 60 superluminous infrared diodes. Use of skin contact MIRE has been proposed as a therapy for multiple conditions including cutaneous ulcers, diabetic neuropathy, and musculoskeletal and soft tissue injuries. 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. Several devices have received clearance for marketing from the U.S. Food and Drug Administration (FDA).

Low-level laser Therapy

Low-level laser therapy (LLLT), also called photobiomodulation, is the use of red-beam or near-infrared lasers with a wavelength between 600 and 1000 nm and power between 5 and 500 MW. By comparison, lasers used in surgery typically use 300 W. When applied to the skin, LLLT produces no sensation and does not burn the skin. Because of the low absorption by human skin, it is hypothesized that the laser light can penetrate deeply into the tissues where it has a photobiostimulative effect. The exact mechanism of its effect on tissue healing is unknown; hypotheses have included improved cellular repair and stimulation of the immune, lymphatic, and vascular systems. LLLT is being evaluated to treat a wide variety of conditions, including soft tissue injuries, myofascial pain, tendinopathies, nerve injuries, joint pain, and lymphedema.

POSITION STATEMENT:

Low-level laser therapy **meets the definition of medical necessity** for prevention of oral mucositis in members undergoing cancer treatment associated with increased risk of oral mucositis, including chemotherapy and/or radiotherapy, and/or hematopoietic stem cell transplantation.

Low-level laser therapy is considered **experimental or investigational** for all other indications including but not limited to:

- Adhesive capsulitis
- Bell palsy
- Carpal tunnel syndrome
- Fibromyalgia
- Heel pain (ie, Achilles tendinopathy, plantar fasciitis)
- Low back pain
- Lymphedema
- Neck pain
- Osteoarthritic knee pain
- Rheumatoid arthritis
- Subacromial impingement
- Temporomandibular joint pain
- Wound healing.

The evidence is insufficient to determine the effects of the technology on health outcomes.

Skin contact monochromatic infrared energy (MIRE) therapy is considered **experimental or investigational** for all indications including, but not limited to, treatment of cutaneous ulcers, diabetic neuropathy, and musculoskeletal conditions such as temporomandibular disorders, tendonitis, capsulitis and myofascial pain. The evidence is insufficient to determine the effects of the technology on health outcomes. (This includes the use of a home device.)

BILLING/CODING INFORMATION:

CPT Coding

97026	Application of a modality to 1 or more areas; infrared (Investigational)
97037	Application of a modality to 1 or more areas; low-level laser therapy (ie, nonthermal and non-ablative) for post-operative pain reduction (Investigational)
0552T	Low-level laser therapy, dynamic photonic and dynamic thermokinetic energies, provided by a physician or other qualified health care professional

HCPCS Coding

A4639	Replacement pad for infrared heating system, each (Investigational)
E0221	Infrared heating pad system (Investigational)

S8948	Application of a modality (requiring constant provider attendance) to one or more areas; low-level laser; each 15 minutes
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REIMBURSEMENT INFORMATION:

Refer to section entitled [POSITION STATEMENT](#).

PROGRAM EXCEPTIONS:

Federal Employee Program (FEP): Follow FEP guidelines.

State Account Organization (SAO): Follow SAO guidelines.

Medicare Advantage products:

The following National Coverage Determinations (NCDs) were reviewed on the last guideline reviewed date: Infrared Therapy Devices (270.6) and Laser Procedures (140.5) located at cms.gov.

The following Durable Medical Equipment Regional Carrier (DMERC) Local Coverage Determination (LCD) was reviewed on the last guideline reviewed date: Infrared Heating Pad Systems (L33825) located at cgsmedicare.com.

DEFINITIONS:

No guideline specific definitions apply.

RELATED GUIDELINES:

[Physical Therapy \(PT\) and Occupational Therapy \(OT\), 01-97000-01](#)

OTHER:

None applicable.

REFERENCES:

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2. Centers for Medicare & Medicaid (CMS), National Coverage Determination (NCD) for Infrared Therapy Devices (270.6), accessed at cms.gov.
3. Centers for Medicare & Medicaid (CMS), National Coverage Determination (NCD) Laser Procedures (140.5), accessed at cms.gov.
4. CGS Administrators, LLC. Local Coverage Determination (LCD):Infrared Heating Pad Systems (L33825), accessed at cgsmedicare.com.
5. ClinicalTrials.gov. Additional Effects Of The Association Of The Photobiomodulation Therapy (904 Nm) With Exercise In Participants With Chronic Non-Specific Low Back Pain In The Long Term; accessed October 2022.

6. ClinicalTrials.gov. The Effect of Low-level Laser Versus High-intensity Laser Therapy in the Management of Adhesive Capsulitis: a Randomized Clinical Trial; accessed October 2022.
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17. Oberoi S, Zamperlini-Netto G, Beyene J, et al. Effect of prophylactic low level laser therapy on oral mucositis: a systematic review and meta-analysis. *PloS One*. 2014;9(9):e107418.
18. Peng J, Shi Y, et al. Low-level laser therapy in the prevention and treatment of oral mucositis: a systematic review and meta-analysis. *Oral Surg Oral Med Oral Pathol Oral Radiol*. Oct 2020; 130(4): 387-397. PMID:32624448.
19. Qaseem A, McLean RM, et al. Nonpharmacologic and Pharmacologic Management of Acute Pain From Non-Low Back, Musculoskeletal Injuries in Adults: A Clinical Guideline From the American College of Physicians and American Academy of Family Physicians. *Ann Intern Med*. Aug 18 2020. PMID: 32805126.
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COMMITTEE APPROVAL:

This Medical Coverage Guideline (MCG) was approved by the Florida Blue Medical Policy and Coverage Committee on 10/27/22.

GUIDELINE UPDATE INFORMATION:

08/15/03	New Medical Coverage Guideline.
08/15/04	Scheduled annual review; S8948 added; no change in investigational status.
08/15/05	Scheduled annual review; no change in investigational status.
09/15/06	Scheduled annual review; no change in investigational status.
07/15/07	Scheduled review; investigational status maintained, added CPT code 97026; reformatted guideline, references updated.
09/15/08	Annual review: position statements maintained, description section and references updated.
08/15/09	Annual review: position statements maintained, description section and references updated.
06/15/10	Annual review: position statements maintained and references updated.
11/15/11	Revision; added laser therapy position statement and update references.
05/11/14	Revision: Program Exceptions section updated.
05/15/17	Revision: Guideline title, description, position statements, coding, and references updated.
10/15/18	Review; position maintained; investigational position statement updated; coding and references updated.
07/01/19	Quarterly CPT/HCPCS update. Added code 0552T.
12/15/20	Review; Position statements maintained and references updated.
11/15/22	Review: Position statements maintained; coding and references updated.
12/15/23	Program exception and references updated.
01/01/24	Annual CPT/HCPCS coding update. Code 97037 added.

