



**Subject:** Cold Laser Therapy\*

**Effective Date:** May 18, 2004

**Department(s):** Utilization Management

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**Policy:** Therapy with a low-energy (cold) laser (**HCPCS, S8948**) consisting of pure red or near-infrared light of a single wavelength (between 600-1000nm) and power from 5 to 500mW, with non-thermal effects is not reimbursable under Plans administered by QualCare, Inc.

**Objective:** To assure proper and consistent reimbursement and to limit reimbursement to interventions of proven efficacy.

**Procedure:** Requests for coverage of low energy or cold laser treatment for any condition will be denied as not medically necessary due to lack of evidence of efficacy in referenced literature and is thus deemed unproven. Additional terms used for this service are low-level laser therapy, low-level light therapy and infrared therapy.

#### References

Bekhet AH, Ragab B, Abushouk AI, Elgebaly A, Ali OI. Efficacy of low-level laser therapy in carpal tunnel syndrome management: a systematic review and meta-analysis. *Lasers Med Sci.* 2017;32(6):1439-1448(Aug)

Baxter GD, Liu L, Petrich S, Gisselman AS, Chapple C, Anders JJ, Tumilty S. Low level laser therapy (Photobiomodulation therapy) for breast cancer-related lymphedema: a systematic review. *BMC Cancer.* 2017;17(1):833(Dec)

Hayes Medical Technology Directory- Low level Laser therapy for Carpal Tunnel Syndrome, publication date January 14, 2016. Accessed at [hayesinc.com](http://hayesinc.com)

Chou R, Deyo R, Friedly J, Skelly A, Hashimoto R, Weimer M, et al. Noninvasive Treatments for Low Back Pain. Comparative Effectiveness Review No. 169. (Prepared by the Pacific Northwest Evidence-based Practice Center under Contract No. 290-2012-00014-I.) AHRQ Publication No. 16-EHC004-EF. Rockville, MD: Agency for Healthcare Research and Quality; February 2016. Accessed at <http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0086177/>

Gross AR, Dziengo S, Boers O, Goldsmith CH, Graham N, et al. Low Level Laser Therapy (LLLT) for Neck Pain: A Systematic Review and Meta-Regression. *Open Orthop J.* 2013 Sep 20;7:396-419.

Peters S, Page MJ, Coppieters MW, Ross M, Johnston V. Rehabilitation following carpal tunnel release. *Cochrane Database Syst Rev.* 2013 Jun 5;6:CD004158

Chung H, Dai T, Sharma SK, Huang Y, Carroll JD and Hamblin MR. The Nuts and Bolts of Low-level Laser (Light) Therapy. *Ann Biomed Eng*(2012);40(2):516-533(Feb)

Van Middelkoop M, Rubinstein SM, Kujipers T, Verhagen AP, Ostelo R, Koes BW and van Tulder MW. A systematic review on the effectiveness of physical and rehabilitation interventions for chronic non-specific low back pain. *Eur Spine J*(2011);20:19-39(Jul)

Bril V, England J, Franklin GM, Backjomja M, et al, Evidence-based guideline: Treatment of painful diabetic neuropathy: report of the American Academy of Neurology, the American Association of Neuromuscular and Electrodiagnostic Medicine, and the American Academy of Physical Medicine and Rehabilitation. *Neurology.*2011;76(20):1758-65(May)

Hashmi JT, Huang Y, Osami BZ, Sharma SK, et al. Role of Low-Level Laser Therapy in Neurorehabilitation. *PM R.*(2010);2(Suppl2):S292-S305(Dec)

Stemer AB, Huisa BN, Zivin JA. The Evolution of Transcranial Laser Therapy for Acute Ischemic Stroke, Including a Pooled Analysis of NEST-1 and NEST-2. *Curr Cardiol Rep*(2010);12(1):29-33(Jan)

Blue Cross and Blue Shield Association (BCBSA), Technology Evaluation Center (TEC). Low-level laser therapy for carpal tunnel syndrome and chronic neck pain. TEC Assessment Program. Chicago, IL: BCBSA; November 2010;25(4). Available at: [http://www.bcbs.com/blueresources/tec/vols/25/25\\_04.pdf](http://www.bcbs.com/blueresources/tec/vols/25/25_04.pdf). accessed January 10,2012.

Ay S, Dogan SK, Evcik D. Is low level laser therapy effective in acute or chronic low back pain? *Clin Rheumatol.* 2010; 29(8):905-910 ( Aug)

Bal A, Eksioğlu E, Gurcay E, et al. Low-level laser therapy in subacromial impingement syndrome. *Photomed Laser Surg.* 2009;27(1):31-36 (Feb)

Dincer U, Cakar E, Kiralp MZ, et al. The Effectiveness of conservative Treatments of Carpal Tunnel Syndrome: Splinting, Ultrasound, and Low-Level Laser Therapies. *Photomed Laser Surg.* 2009 Jan 26 [Epub ahead of print]

Chang WD, Wu JH, Jiang JA, *et al.* Carpal tunnel syndrome treated with a diode laser : A controlled treatment of the transverse carpal ligament. *Photomed Laser Surg* 2008;26(6):551-557 (Dec)

Yeldan I, Cetin E, Ozdincler AR. The effectiveness of low-level laser therapy on shoulder function in subacromial impingement syndrome. *Disabil Rehabil* 2008 Nov 21:1-6 [Epub ahead of print]

Andres BM, Murrell GA. Treatment of tendinopathy: what works, what does not, and what is on the horizon. *Clin Orthop Relat Res.* 2008;466(7):1539-1554 (Jul)

Shooshtari SM, Badiee V, Taghizadeh SH, *et al.* The effects of low level laser in clinical outcome and neurophysiological results of carpal tunnel syndrome. *Electromyogr Clin Neurophysiol* 2008;48(5):229-231 (Jun-Jul)

Bjordal JM, Lopes-Martins RA, Joensen J, *et al.* A systematic review with procedural assessments and meta-analysis of low level laser therapy in lateral elbow tendinopathy (tennis elbow). *BMC Musculoskelet Disord.* 2008;9:75 (May 29)

Stergioulas A, Stergioula M, Aarskog R, *et al.* Effects of low-level laser therapy and eccentric exercises in the treatment of recreational athletes with chronic Achilles tendinopathy. *Am J Sports Med* 2008;36(5):881-887 (May)

Hayes, Inc. Hayes Medical Technology Directory. *Low Level Light Therapy for Temporomandibular Joint Pain.* Lansdale, PA:Hayes, Inc.; May 12, 2008

Hayes, Inc. Hayes Medical Technology Directory. *Low Level Light Therapy for Peripheral Neuropathy.* Lansdale, PA:Hayes, Inc.; April 13, 2008

Hayes, Inc. Hayes Medical Technology Directory. *Low Level Light Therapy for Soft Tissue Pain.* Lansdale, PA:Hayes, Inc.; April 28, 2008

Unlu Z, Tasci S, Tarhan S, *et al.* Comparison of 3 physical therapy modalities for acute pain in lumbar disc herniation measured by clinical evaluation and magnetic resonance imaging. *J Manipulative Physiol Ther.* 2008;31(3):191-198 (Mar)

Hayes, Inc. Hayes Medical Technology Directory. *Low Level Light Therapy for Joint Pain.* Lansdale, PA:Hayes, Inc.; March 12, 2008

Oken O, Kahraman Y, Ayhan F, *et al.* The short-term efficacy of laser, brace, and ultrasound treatment in lateral epicondylitis: a prospective, randomized, controlled trial. *J Hand Ther* 2008;21(1):63-67 (Jan)

Yousefi-Nooraie R, Schonstein E, Heidari K, *et al.* Low level laser therapy for nonspecific low-back pain. *Cochrane Database Syst Rev* Jan 1, 2008(2):CD005107

- Evcik D, Kavuncu V, Cakir T. *et al.* Laser therapy in the treatment of carpal tunnel syndrome : A randomized controlled trial. *Photomed Laser Surg* 2007;25(1):34-39 (Feb)
- Yurtkuran M, Alp A, Konur S, *et al.* Laser acupuncture in knee osteoarthritis: A double-blind, randomized controlled study. *Photomed Laser Surg* 2007;25(1):14-20 (Feb)
- California Technology Assessment Forum (CTAF). Low-energy laser therapy for the treatment of carpal tunnel syndrome. Technology Assessment. San Francisco, CA: CTAF; Feb 15, 2006. Available at: <http://ctaf.org/ass/viewfull.ctaf?id=65198186097>. Accessed 10/21/06.
- Kaviani A, Fateh M, Nooraie RY, *et al.* Low-level laser therapy in management of postmastectomy lymphedema. *Lasers Med Sci* 2006;21(2):90-94 (Jul)
- Vlassov VV, MacLenose HG. Low level laser therapy for treating tuberculosis. *Cochrane Database Syst Rev* 2006(2): CD003490 (Jan)
- Kopera D, Kokol R, Berger C, *et al.* Does the use of low-level laser influence wound healing in chronic venous leg ulcers ? *J Wound Care* 2005;14(8):391-394 (Sep)
- Stasinopoulos DI, Johnson MI. Effectiveness of low-level laser therapy for lateral elbow tendinopathy. *Photomed Laser Surg* 2005;23(4):425-430 (Aug)
- Chow RE, Barnsley L. Systematic review of the literature of low-level laser therapy (LLLT) in the management of neck pain. *Lasers Surg Med* 2005;37(1):46-52 (Jul)
- Genot MT, Klastersky J. Low-level laser for prevention and therapy of oral Mucositis induced by chemotherapy or radiotherapy. *Curr Opin Oncol* 2005;17(3):236-240 (May)
- Brousseau L, Robinson V, Wells G, *et al.* Low level laser therapy (Classes I, II and III) for treating rheumatoid arthritis. *Cochrane Database Syst Rev* 2005(4): CD002049 (Jan)
- Low level laser therapy in primary Raynaud's phenomenon—results of a placebo controlled, double-blind intervention study. *J Rheumatol* 2004;31(12):2408-2412 (Dec)
- Maher CG. Effective physical treatment for chronic low back pain. *Orthop Clin N Am* 2004;35(1):57-64 (Jan)
- Viera AJ. Management of carpal tunnel syndrome. *Am Fam Physician* 2003;63:265-272 (Jul 15)
- O'Connor D, Marshall S, Massy-Westropp N. Non-surgical treatment (other than steroid injection) for carpal tunnel syndrome. *Cochrane Database Syst Rev* 2003(1):CD003219 (Jan 1)
- Hakgüder A, Birtane M, Gürcan S, *et al.* Efficacy of low level laser therapy in myofascial pain syndrome: an algometric and thermographic evaluation. *Lasers Surg Med* 2003;33(5):339-343 (Jan)

Lucas C, van Gemert MJ, De Haan RJ. Efficacy of low-level laser therapy in the management of stage III decubitus ulcers : a prospective, observer-blinded multicentre randomised clinical trial. *Lasers Med Sci* 2003;18(2):72-77 (Jan)

Naeser MA. Carpal tunnel syndrome pain treated with low-level laser and microamperes transcutaneous electric nerve stimulation: A controlled study. *Arch Phys Med Rehabil* 2002;83(7):978-988 (Jul)

CMS. Medicare Medical Policy Bulletin. Z-24E: Miscellaneous Services. April 1, 2002. <http://www.hgsa.com/professionals/policy/z24e.html>. Accessed 5/3/04

Gerritsen AA. Conservative treatment options for carpal tunnel syndrome: a systematic review of randomised controlled trials. *J Neurol* 2002;249(3):272-80 (Mar)

Weintraub MI. Noninvasive laser neurolysis in carpal tunnel syndrome. *Muscle Nerve* 1997;20:1029-1031 (Aug)

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\*Consistent with Summary Plan Description (SPD). When there is discordance between this policy and the SPD, the provisions of the SPD prevail.