# **Medical Coverage Policy**



# Thermography

Device/Equip	ment 🗌 Drug 🗌	Medical 🗌 Surgery	Test Other
Effective Date:	9/3/2010	Policy Last Updated:	6/4/2013

### Prospective review is recommended/required. Please check the member agreement for preauthorization guidelines.

### Prospective review is not required.

#### **Description:**

Thermography is a noninvasive imaging technique that is intended to measure temperature distribution in organs and tissues. The visual display of this temperature information is known as a thermogram. Thermography has been proposed to use with a variety of conditions as a diagnostic tool, for treatment planning and to evaluate the effects of treatment.

Thermography involves the use of an infrared scanning device and can include various types of telethermographic infrared detector images and heat-sensitive cholesteric liquid crystal systems. Infrared radiation from the skin or organ tissue reveals temperature variations by producing brightly colored patterns on a liquid crystal display. Interpretation of the color patterns is thought to assist in the diagnosis of many disorders such as complex regional pain syndrome ([CRPS], previously known as reflex sympathetic dystrophy), breast cancer, Raynaud's phenomenon, digital artery vasospasm in hand-arm vibration syndrome, peripheral nerve damage following trauma, impaired spermatogenesis in infertile men, degree of burns, deep vein thrombosis, gastric cancer, tear-film layer stability in dry-eye syndrome, Frey's syndrome, headaches, low-back pain, and vertebral subluxation.

Thermography may also assist in treatment planning and procedure guidance such as identifying restricted areas of perfusion in coronary artery bypass grafting, identifying unstable atherosclerotic plaque, assessing response to methylprednisone in rheumatoid arthritis, and locating high undescended testicles.

No published studies have demonstrated how the results of thermography can be used to enhance patient management and/or improve patient health outcomes. There is insufficient evidence to support the use of thermography, a noninvasive infrared scanning device, for screening, diagnosis, treatment planning or treatment monitoring. Studies are lacking that thermography can accurately diagnose any condition or improve the accuracy of another diagnostic tool. Moreover, there are no published studies evaluating whether use of thermography in patient management, such as to select a treatment or determine treatment effectiveness, improves health outcomes. Thus, thermography is considered not medically necessary as there is no proven efficacy.

Medical Criteria: None

#### Policy: All Products:

The use of all forms of thermography is considered not medically necessary as there is is insufficient peer-reviewed scientific literature that demonstrates that the procedure/service is effective.

#### Coverage:

Benefits may vary between groups/contracts. Please refer to the Evidence of Coverage or Subscriber Agreement for applicable "Services Not Medically Necessary" benefit.

#### Coding: All Products:

There is no specific code for Thermography therefore, Thermography services should be reported using the following unlisted code and are considered not medically necessary: **93799** 

## Also Known As:

None

#### Related Topics: None

#### Published:

Provider Update, Aug 2013 Provider Update, Aug 2012 Provider Update, Dec 2011 Provider Update, Mar 2011 Provider Update, Sep 2009 Provider Update, Jul 2008

#### **References:**

- 1. Fitzgerald A, Berentson-Shaw J. Thermography as a screening and diagnostic tool: a systematic review. N Z Med J 2012; 125(1351):80-91.
- 2. Arora N, Martins D, Ruggerio D et al. Effectiveness of a noninvasive digital infrared thermal imaging system in the detection of breast cancer. Am J Surg 2008; 196(4):523-6.
- 3. American College of Obstetricians and Gynecologists (ACOG). Breast cancer screening. Washington (DC): American College of Obstetricians and Gynecologists (ACOG); 2003. 12 p. (ACOG practice bulletin; no. 42). The currency of the guideline was reaffirmed in 2006.
- 4. Krumova EK, Frettlöh J, Klauenberg S et al. Long-term skin temperature measurements a practical diagnostic tool in complex regional pain syndrome. Pain 2008; 140(1):8-22.
- 5. Schurmann M, Zaspel J, Lohr P et al. Imaging in early posttraumatic complex regional pain syndrome: a comparison of diagnostic methods. Clin J Pain 2007; 23(5):449-57.
- 6. Han SS, Jung CH, Lee SC et al. Does skin temperature difference as measured by infrared thermography within 6 months of acute herpes zoster infection correlate with pain level? Skin Res Tech 2010; 16(2):198-201.
- 7. Park J, Jang WS, Park KY et al. Thermography as a predictor of postherpetic neuralgia in acute herpes zoster patients: a preliminary study. Skin Res Technol 2012; 18(1):88-93.
- 8. Romano CL, Logoluso N, Dell'Oro F et al. Telethermographic findings after uncomplicated and septic total knee replacement. Knee 2011 [Epub before print].

- 9. Nakagami G, Sanada H, lizaka S et al. Predicting delayed pressure ulcer healing using thermography: a prospective cohort study. J Wound Care 2010; 19(11):465-72.
- Wu CL, Yu KL, Chuang HY et al. The application of infrared thermography in the assessment of patients with coccygodynia before and after manual therapy combined with diathermy. J Manipulative Physiol Ther 2009; 32(4):287-93.
- 11. American College of Radiology. ACR Appropriateness Criteria for Myelopathy. 2011. Available online at: www.guideline.gov.
- 12. Council on Chiropractic Practice. Clinical Practice Guideline. Vertebral Subluxation in Chiropractic Practice. Third Edition, 2008. Available online at: http://www.ccp-guidelines.org/guideline-2008.pdf . Last accessed April 2012.
- 13. Work Loss Data Institute. Neck and upper back (acute & chronic). 2011. Available online at: www.guideline.gov.
- 14. Work Loss Data Institute. Pain (chronic). 2011. Available online at: www.guideline.gov .

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