

# *New England Clinical Thermography*

## **Patient Education Sheet**

### **Digital Infrared Thermal Imaging (Thermography)**

#### **Purpose of test:**

Help in determining cause of pain.  
Evaluate sensory-nerve irritation or significant soft-tissue injury.  
To define a previously diagnosed injury or condition.  
To identify an abnormal area for further diagnostic testing.  
For the early detection of lesions.  
To follow progress of healing and rehabilitation.  
To provide objective evidence.

#### **Frequently asked questions:**

*Where is test performed?*

NECT Clinic

*Who performs test?*

Clinical Thermographer or trained Imaging Technician

*Any risks or side effects?*

None. Procedure non-invasive.

*Cost of test?*

Varies with number of body regions, roughly \$150 to \$500

#### **Patient preparation:**

Do not have physical therapy or electromyography on the same day thermography is performed.

Activity - Do not smoke for 2 hours before the test; do not use lotions or liniments on day of test, stay out of strong sunlight day of test. Note, this includes no use of underarm deodorant/antiperspirant if this is part of the area to be imaged. If you must use, apply as little as possible and only directly in the armpit itself.

If we will be imaging the back or the head, then hair must be up off of the neck and away from the face area. Please pin up or headband in advance or a headband will be provided when you come for imaging.

Diet - No changes necessary.

Medicines - No changes necessary.

Disrobing - Remove all clothing and jewelry. Put on surgical gown. May vary with single region imaging where less disrobing is required.

## **THE TEST**

### **Sensory factors:**

You may be slightly uncomfortable for short periods when you assume the positions the technician requests. Examining rooms are frequently uncomfortably cool when you disrobe for the examination. Any apprehension about the sophisticated thermography equipment is soon dispelled; the procedure is totally non-invasive, the camera does not emit radiation of any kind.

**Equipment used:**

Thermal imaging camera; Computer

**Description of test:**

Patient time for test: 15-30 minutes.

You are given time for your skin temperature to equalize with the room temperature.

Thermograms are taken of the whole body, or just areas under investigation.

A lumbar assessment would typically include, low back, pelvis, and legs.

A cervical assessment would typically include, head and neck, upper trunk, and arms.

Neurological testing can include a "cold stress test", this just involves placing a hand or foot into a bowl of cool water, alternatively a cool gel pad can be applied to any part of the body. Cold stress tests must be requested by a doctor.

**POST TEST****Immediate post-test care:**

None required.

**Additional tests and studies:**

May be required to establish a precise diagnosis. These tests may include electromyography, myelography, or computerized tomograms, etc. NECT only provides infrared imaging so additional testing would be arranged with your physician.

**Time before test results available:**

Report from the interpreter is generally available in 2 business days. It is then mailed to the client or their doctor.

**TEST RESULTS****Test values:**

Test results are determined by studying the varying patterns and temperature differentials as recorded in the thermograms.

**Normal values:**

Diffuse heat patterns with good symmetry of left and right sides of the body.

**Abnormal values:**

Localized areas of hyperthermia, or hypothermia, asymmetry of the body with temperature differentials of more than 0.5 deg. C.

**Cold stress: Simple explanation**

Positive - no thermal change in the affected limb.

Negative - thermal change in the affected limb.

**Taking these drugs may affect test results:**

Anti-inflammatories; Beta blocks. Drugs are identified for the interpreter so they can take this into account.

**Other factors that may affect test results:**

Smoking before the test.

Any history of fractures, surgery or grossly asymmetrical varicose veins.

Skin reactions, allergies, or infections.