



### **REPORT**

EMI Inc.

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Patient: XXXX
Date of Birth: XXXX
Patient ID: XXXX

**Referring Practitioner:** XXX

Reported By: XXXX

Scan Date: XXXX Report Ref: XXXX

Report Type: Full Body +

Breast

Thermographer: XXXX

## All normal protocols were observed

### HISTORY AND SUBJECTIVE COMPLAINTS:

Breast- this 56 yr old female has good breast health with no reported symptoms. Family hx includes maternal aunt.

Hx- this female is in good general health.

Past hx- fractured skull and neck from bad fall age 4, broken nose age 6

#### THERMOGRAPHIC INTERPRETATION:

#### **HEAD AND NECK:**

Frontal thermal activity as appreciated on the lateral images appears to be muscular.

Increase towards the right side of the mouth is consistent with underlying dental inflammation.

Hyperthermia adjacent to the left jaw angle is a nonspecific finding but may correspond to the parotid gland.

Subtle increase is present at the lower anterior neck towards the right as appreciated on the detailed image. This may have thyroid gland implications and laboratory assessment is recommended.

Increase at the posterolateral neck towards the left appears to be muscular. Specific intensity at the posterior neck is consistent with mid/upper cervical level joint inflammation. The remote history of trauma is noted and may have relevance.

There are no thermal findings to indicate sinus, TMJ or carotid artery dysfunction.

#### **BREAST:**

Some asymmetry is seen in the breasts. Distinct markings are present medially and laterally on the right with a linear marking projecting towards the lateral aspect. The left breast is notable for specific intensity



oriented superior and lateral to the nipple. Lower intensity markings are oriented inferior and medial to this. Findings on the respective sides appear to have a fibrocystic basis but should be closely monitored in light of the positive family history for breast cancer.

Incidental note is made of hyperthermia towards the left axilla compatible with lymphatic congestion involving this side.

This study is suitable to be archived and compared with a repeat study in three months to establish a baseline, prior to annual testing.

There are no asymmetries present at the anterior or posterior torso that indicate an increased risk for cardiac dysfunction.

No finding is evident likewise with regards to the lungs.

#### BACK:

Hyperthermia at the central upper back appears to be myofascial in nature.

Increase at the lower rib level towards the right is consistent with costochondral inflammation.

A more extensive increase is present at the mid back level bilaterally more so towards the right. This may correspond to renal and/ or adrenal dysfunction and laboratory assessment is recommended.

Hyperthermia at the lower lumbosacral spine appears consistent with joint inflammation. This may manifest clinically as symptoms of low back pain.

#### ABDOMEN:

Hyperthermia at the lower sternum is compatible with lower esophageal irritation.

Increase is noted at the right upper quadrant and may relate to focal hepatic inflammation versus gallbladder dysfunction. Further assessment is recommended in the presence of associated symptoms.

A distinct marking at the level of the umbilicus towards the right may correspond to the ileocecal valve.

The pelvic region is thermographically unremarkable.

## UPPER EXTREMITIES:

Hyperthermia is noted towards the left brachial plexus.

Distinct intensity at the posterior shoulder right side is consistent with underlying joint dysfunction.

Findings in the extremities proper are unremarkable as far as the images provided.

#### LOWER EXTREMITIES:

Some increase is present at the lateral hip regions bilaterally more so towards the left and may correspond to underlying joint dysfunction. Decrease in the expected patellar coolness noted on the right has similar clinical implications with regards to the right knee joint.

#### DISCUSSION:

The thermal findings in both breasts should be considered to be at some risk for developing pathology pending the establishment of a stable baseline.

Fibrocystic changes often present without definitive breast symptoms.

Thyroid function testing is recommended in light of lower anterior neck findings. Laboratory assessment of renal and adrenal function is recommended in light of mid back level findings.



Right upper quadrant abdominal sonography may be indicated for further assessment of the thermal findings.

#### FOLLOW-UP:

Suggest clinical correlation of thermal findings with patients history and symptoms and standard follow-up breast imaging in three months before continuing with annual comparative studies.

Clinical Impression with Thermography Breast Imaging-Reporting and Data System (T BI-RADS)

Left Breast: At Some Risk Right Breast: At Some Risk

#### **BREAST T BI-RADS CLASSIFICATION KEY:**

Within normal Limits (Normal)

This indicates a normal thermal profile with no thermal findings consistent with risk for disease or other developing pathology. Normal thermal contours, statistical analysis and differentials are recorded. Annual comparative follow-up is recommended after a stable baseline has been established.

At Low Risk (Non Suspicious)

This indicates low grade thermal activity which is not suspicious for serious pathology. Thermal findings may be associated with benign changes such as glandular hyperplasia, fibrocystic tissue and the development of cysts and fibroadenomas. Annual comparative follow-up is recommended after a stable baseline has been established but more frequent follow-up may be clinically indicated. This does not rule out existing non-active or encapsulated tumors.

At Some risk (Equivocal)

These findings indicate thermal activity likely to represent benign changes such as inflammation, acute cysts or fibroadenoma, infection, or even normal personal variant. Clinical correlation is indicated with any associated history or symptoms. Other objective means of evaluating the breasts may be justified.

### At Increased Risk (Abnormal)

This represents a significant risk for existing or developing malignant breast disease. Benign pathology or personal variant cannot be ruled out but is less likely. Clinical correlation is justified and objective evaluation and additional testing is indicated. A follow-up thermal study in 3 months should be part of a comprehensive testing panel.

## At high Risk (Suspicious)

This represents a high risk of confirming malignant breast disease. Benign processes or personal variant are very unlikely. Urgent clinical correlation is indicated with a comprehensive panel of testing and evaluation with all possible alacrity. A follow-up thermal study in 3 months should be a part of this evaluation.

## Previously Confirmed Malignancy

This represents a current diagnosis of malignant pathology in the patients history. Thermography will not show any cancers from a structural or pathological perspective. It will show positive physiological findings in 83% of malignancy (specificity), leaving 17% of cancers that present as thermographically silent due to the type of pathology, long term cancer which the body has accommodated or encapsulation and age of patient. The utility for including thermography as an adjunctive screening test in previously confirmed malignancy is for the establishment of a baseline and detection of any physiological change over time, correlation with other tests and the monitoring of response to treatment. Breast thermography screening is an adjunctive test to mammography, ultrasound and MRI and is a specialized physiological test designed to detect angiogenesis, hyperthermia from nitric oxide, estrogen dominance, lymph abnormality and inflammatory processes including inflammatory breast disease, all of which cannot be detected with structural tests. Follow-up and interval screening of less than 12 months should be determined by patients healthcare professional as considered appropriate.



## **PROCEDURE:**

This patient was examined with digital infrared thermal imaging to identify thermal findings which may suggest abnormal physiology.

Thermography is a physiologic test, which demonstrates thermal patterns in skin temperature that may be normal or which may indicate disease or other abnormality. If abnormal heat patterns are identified relating to a specific region of interest or function, clinical correlation and further investigation may be necessary to assist your health care provider in diagnosis and treatment.

Thermal imaging is an adjunctive test, which contributes to the process of differential diagnosis, and is not independently diagnostic of pathology.

Breast thermography is a way of monitoring breast health over time. Every woman has a unique thermal pattern that should not change over time, like a fingerprint. The purpose of the two initial breast studies (usually obtained three months apart) is to establish the baseline pattern for each patient to which all future thermograms are compared to monitor stability. With continued breast health, the thermograms remain identical to the initial study. Changes may be identified on follow up studies that could represent physiological differences within the breast that warrant further investigation.

The ability to interpret the first breast study is limited since there are no previous images for comparison.

This exam is an adjunctive diagnostic procedure and all interpretive findings must be clinically correlated. DITI is not a substitute for mammography.

### **PROTOCOLS:**

The thermographer certifies that this exam was conducted under standard and clinically acceptable protocols.

#### **PATIENT HISTORY:**

The interpretation represents objective descriptions of thermal patterns.



Clinical significance of such patterns is interpreted in relation to and limited by the patient data and history provided.

#### **REPORTING:**

Results are reported by certified thermologists. Results are determined by studying the varying patterns and temperature differentials as recorded in the thermal images.

#### **NORMAL FINDINGS:**

Normal findings are diffuse thermal patterns with good symmetry between similar regions on both sides of the body. Comparative imaging may identify specific asymmetries that have remained stable and unchanged over time and therefore regarded as normal.

#### **ABNORMAL FINDINGS:**

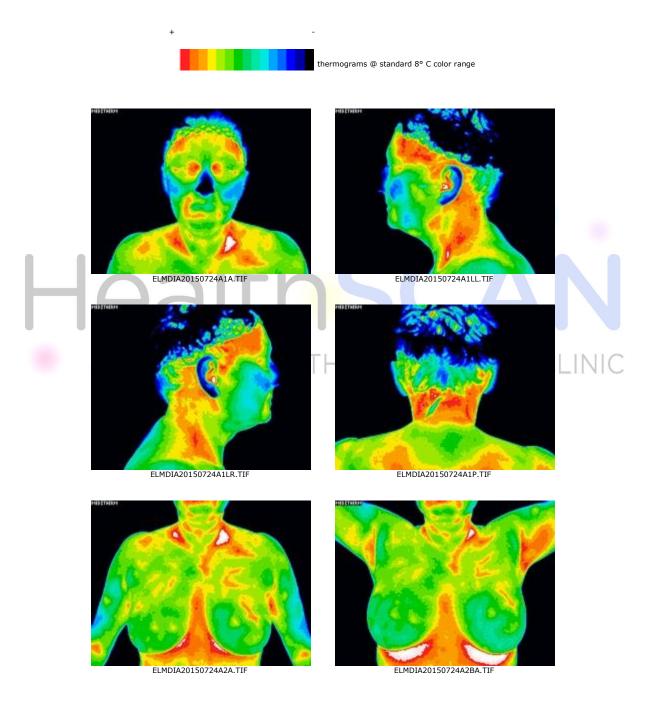
Abnormal findings may be localized areas of hyperthermia or hypothermia, or thermal asymmetry between similar regions on both sides of the body with temperature differentials of more than 1° C. There may be vascular patterns that suggest pathology. Comparative imaging may identify specific changes or new asymmetries that warrant further investigation.

The referring health care provider should contact the EMI administrator with any questions relating to this interpretive report.

This Report is intended for use by trained health providers to assist in evaluation, diagnosis, and treatment. It is not intended for use by individuals for self-evaluation or self-diagnosis. This Report does not provide a diagnosis of illness, disease or other condition.

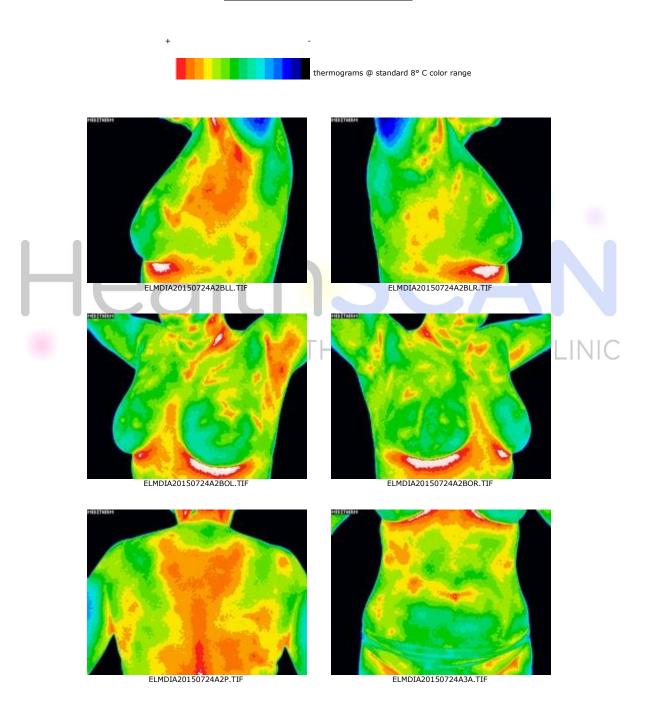
Clinical Thermology is a screening procedure subject to both false negative and false positive results. It is most reliable when a stable baseline is obtained followed by regular repetitive screening for changes. Results must be interpreted in the context of historic and current clinical information.



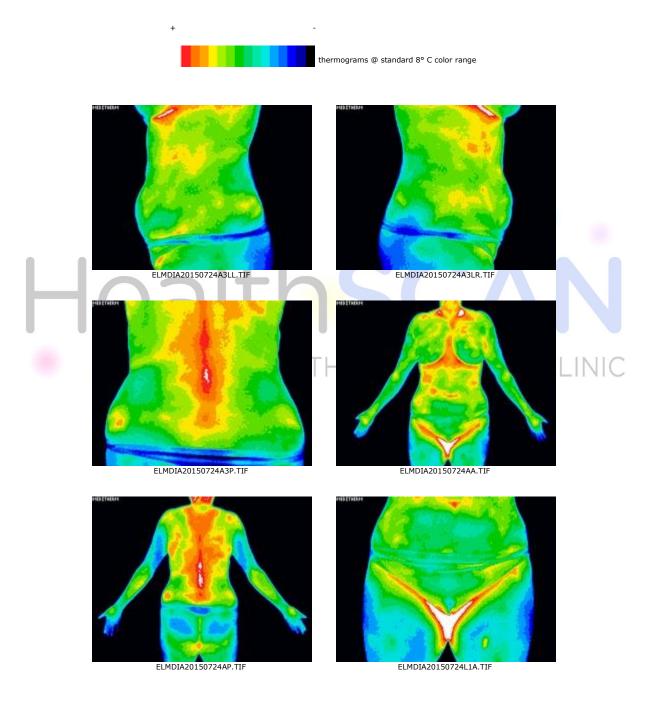


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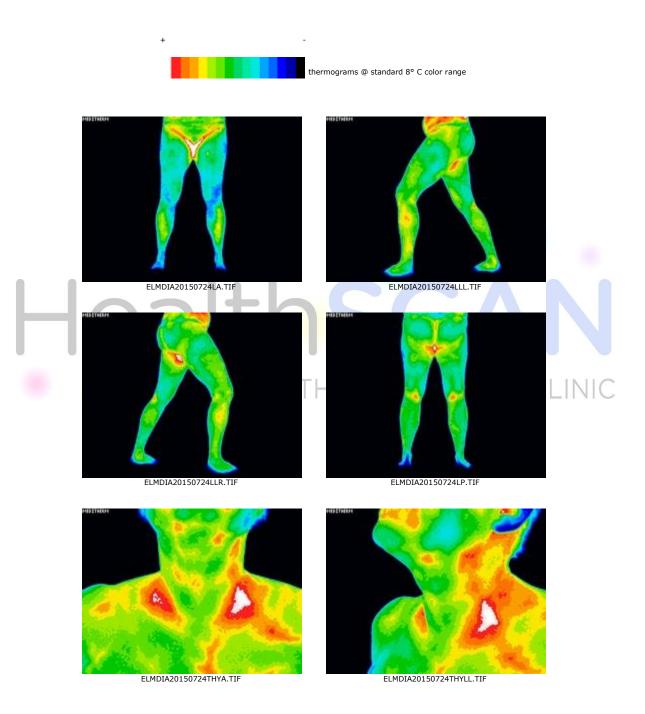












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