



Electronic Medical Interpretation

Patient name: [REDACTED]

Scan date: [REDACTED]

Date of birth: [REDACTED]

Report ref: [REDACTED]

Patient ID: [REDACTED]

Report type: Full Body + Breast

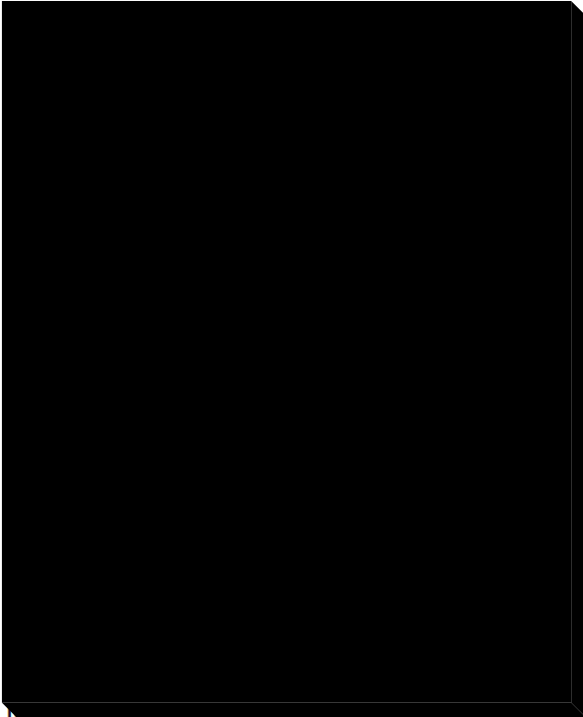
Referring practitioner: [REDACTED]

Thermographer: Laura Widney

Reported & electronically signed by: Husamettin Kucuk MD

All normal protocols were observed

**HISTORY AND SUBJECTIVE COMPLAINTS**



Notes:

**THERMOGRAPHIC INTERPRETATION:**

**HEAD AND NECK:**

**Sinus areas:**

The hyperthermia over the frontal and ethmoidal sinuses bilaterally suggests a low grade of inflammation.

**Nose/paranasal areas:**

No significant thermal findings are noted.

**Ears:**

No significant thermal findings are noted.

**TMJ areas:**

The hyperthermia on both preauricular regions may correspond to myofascial and/or TMJ-related dysfunction.

**Dental area:**

The perioral hyperthermia (more prominent on the right side of the mouth) with associated lymphatic drainage patterns (R>L) into the submandibular region and anterior neck appear to be related to dental or periodontal inflammation.

**Muscular/joint-related/skin-related findings:**

There are areas of hyperthermia over the frontalis region, posterior/lateral cervical neck musculature and behind both ears, which appear to be myofascial.

#### BREAST:

There are some thermal asymmetries seen in the breasts. There are mild hyperthermic vascular-appearing patterns in the four quadrants of both breasts, some of which partly encircle hypothermic areas (mostly in the upper parts). This finding, a hypothermic area partly or fully encircled by hyperthermic patterns, may indicate increased tissue density or some degree of cystic changes. Findings overall appear to be consistent with benign (fibrocystic?) changes and/or the surgery; however, they should be considered at some risk for developing pathology until a stable baseline is established.

The diffuse hyperthermia in the axillary regions may represent lymph congestion and/or myofascial dysfunction.

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

The overall contours of the breasts are consistent with implants. There are no obvious thermal findings to suggest implant leakage/rupture, though thermography is not the optimal way to evaluate this. If more definitive evaluation of implant integrity is desired, MRI evaluation would be needed, as a negative thermogram does not exclude the possibility of implant abnormalities.

#### BACK:

##### Muscular/Myofascial findings:

The irregular areas of hyperthermia on the back muscles (more prominent on the trapezius, rhomboid/infraspinatus, levator scapulae regions bilaterally, L>R, and paraspinal musculature) appear to be myofascial.

##### Joint-related/Neurological findings:

The midline hyperthermia involving the low thoracic and lumbosacral regions of the spine may represent some degree of degenerative spinal changes.

##### Cardiac/Pulmonary findings:

No significant thermal findings are noted.

##### Renal/adrenal areas:

No significant thermal findings are noted.

##### Autoimmune/autonomic findings:

No significant thermal findings are noted.

#### ABDOMEN:

##### Liver/Gallbladder area:

No significant thermal findings are noted.

##### Duodenum/Pancreas area:

No significant thermal findings are noted.

##### Stomach/Esophagus area:

No significant thermal findings are noted.

##### Spleen area:

No significant thermal findings are noted.

##### Bowel/Genitourinary areas:

The band-like thermal patterns on the upper and lower abdomen appear to be related to the patient's body contours. However, bowel dysfunction and/or genitourinary inflammation cannot be ruled out.

#### LOWER EXTREMITIES:

##### Muscular/Joint-related findings:

There are areas of hyperthermia over the thighs and legs (more prominent on the anterolateral parts of the lower legs), which may relate to myofascial dysfunction and/or muscular tension.

The loss of normal patella coolness (L>R) may indicate degenerative changes in both knees.

##### Autonomic/Neurological/Vascular/Peripheral Circulation findings:

The vascular markings, noted on the posteromedial parts of the thighs, popliteal regions and anterolateral/medial parts of the lower legs, appear to be consistent with underlying superficial varicosities.

The thermal asymmetry between the anterolateral parts of the thighs (right side is hypothermic) may indicate lumbosacral radiculopathy.

#### DISCUSSION:

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

Any lumps and any changes should be clinically evaluated regardless of thermal findings.

Thermography is a physiological test, and it is possible that thermal findings, which may be described as "subclinical," do not correlate with the current situation. These findings may be related to possible future problems and should be monitored, or may just be related to personal varieties.

#### FOLLOW-UP:

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

### Clinical Impression with Thermology Classification Grading System

**Left Breast:** At Some Risk

**Right Breast:** At Some Risk

#### BREAST THERMOLOGY 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.