

# **What Medical Thermography Identified In The Past Year At Our Small Imaging Center**

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## **Abstract**

Digital Medical Thermal Imaging has been around for several decades and has proven itself time and time again to patients and doctors. The benefits of such imaging to both the physician and patient are invaluable when a diagnosis via conventional structural imaging and standard physical examinations are inconclusive or do not provide relief to the patient.

This paper will discuss the benefits of Medical Thermography for both men and women from head to toe. It will also discuss womens' breast imaging and why all women should get imaged with thermography. Several intriguing case studies that the author came across at his Medical Thermography imaging center over the past year will be presented as well.

## **Introduction**

At the IR/INFO 2010 conference, I presented a paper titled "How and Why I Got Into Medical Thermography". This paper was a precursor to the information contained here. For those interested in my previous paper, you may view it at the IR/INFO website: [www.irinfo.org](http://www.irinfo.org).

Although Medical Thermography has been around for several decades, it has not received the attention and credit it deserves from the medical establishment. However, we are seeing more patients becoming aware of this amazing technology. Usually it is the patient that ends up informing their physician about thermography.

## **Discussion**

Unlike other imaging technologies such as ultrasound, mammography (radiography) and Magnetic Resonance Imaging (MRI), thermography is really in a class by itself. All of these other technologies look at the human body in almost the same dimension; that is, the structure or anatomy of the human body. Thermography does not look at the human body in this way. Thermography is a test of function or physiology.

Because Medical Thermography is a test of function rather than structure, it is capable of alerting you and your doctor of problems that are being missed or even misdiagnosed. Thermography sees what radiography, ultrasound and MRI cannot (and vice versa). So, right away we see that all of these technologies add to one another and do not replace each other.

For example, many patients who suffer from pain issues would usually get an x-ray or MRI. These technologies will look inside the body and give the physician an image of the internal structure or make-up of the body. Bones, organs, tumors and even blood vessels can be seen, but the dilemma that doctors meet is when nothing abnormal is seen with the internal structure of the human body. Everything is where it is supposed to be and no lumps or tumors are noticed. This is very frustrating to the doctor because the job of diagnosis tends to now fall mainly with the patient's symptoms. Sometimes this is not enough and usually leads to an educated deductive reasoning (guess) by the doctor so that some kind of treatment (even if it is only for the symptoms) can be administered. In the meantime, the patient is still in pain and the root cause of the problem is not found.

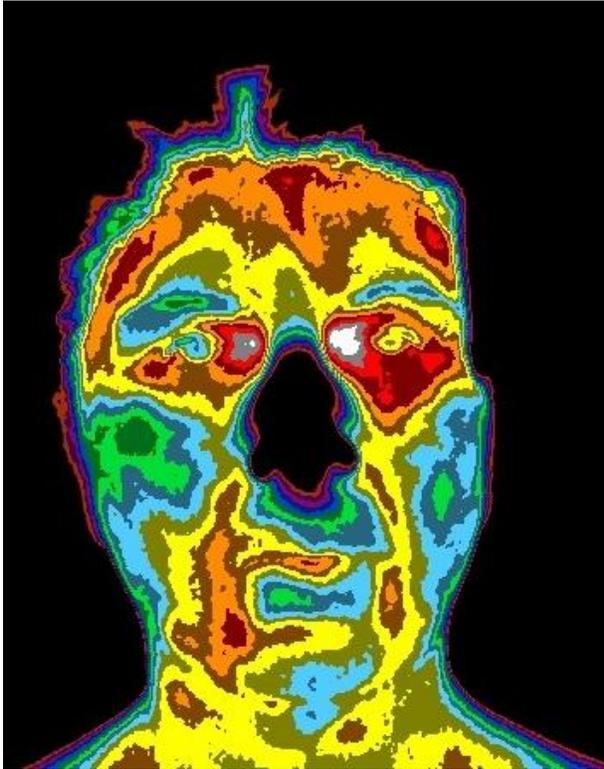
Clearly we see that the doctor is not getting all the relevant information and only has one piece of the pie. This is where Medical Thermography comes in. Thermography shows the patient and doctor what is being missed. It adds an extra piece to the pie. Thermography shows how the body is functioning and how it is being physiologically affected by the patient's problem. Many ailments and medical problems start off as a physiological change before structure is affected. Problems associated with inflammation, nerve root irritation, trigger points, muscular spasms, hormone imbalance and circulatory issues can effectively be seen with Thermography. Thermography can lead the doctor in the right direction to properly diagnose and treat the patient.

## **Our Medical Division**

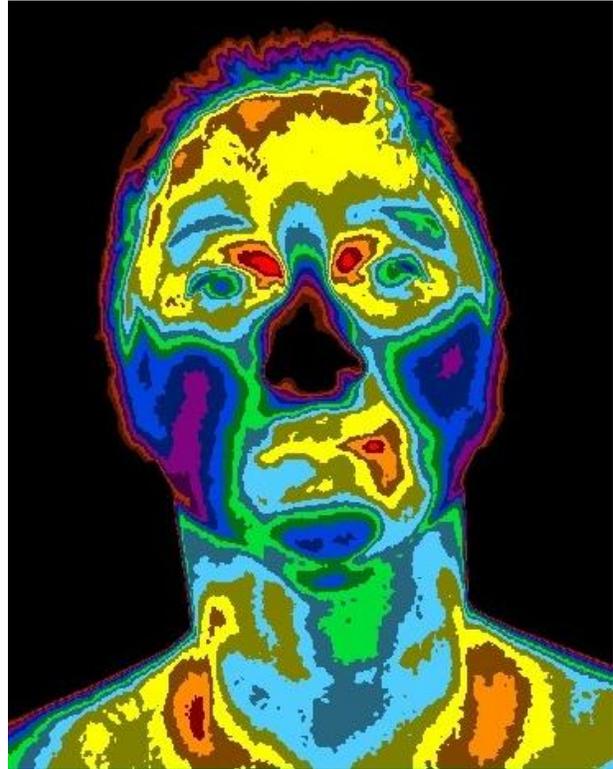
We have been providing Medical Thermographic Imaging for several years and have come across many interesting cases. Our business is comprised of about 50% breast imaging and 50% body imaging. We are very small with a staff of only two technicians, but still keep pretty busy.

The following are some thermographic images of just a few cases during the last year: From head to toe...

## Dental Issues

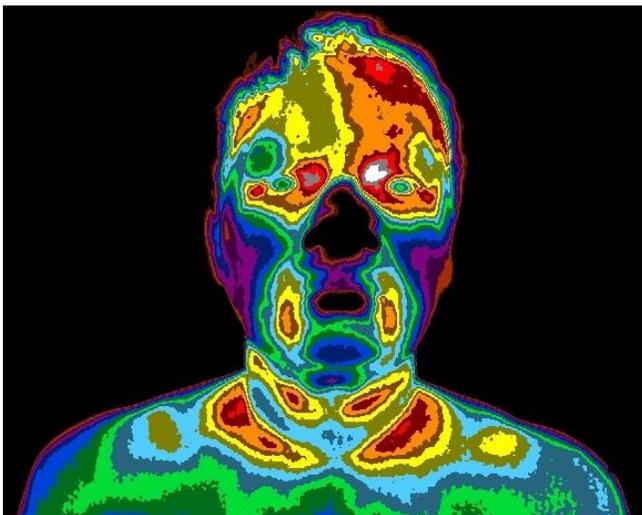


Patient with asymptomatic dental irritation seen over the right mandibular area (indicated by the abnormal heating on the left side of the image).



Patient with asymptomatic dental irritation seen over the left mandibular area (indicated by the abnormal heating on the right side of the image).

## Stroke Screening



Patient came in for body imaging for a separate, unrelated problem. Thermogram of face shows the right side of the forehead and eye (left side on image) abnormally cool.

This thermal signature is suggestive of either arterial malformation or narrowing or hardening of the arteries. This is a sign of a possible impending stroke.

## Thyroid Function

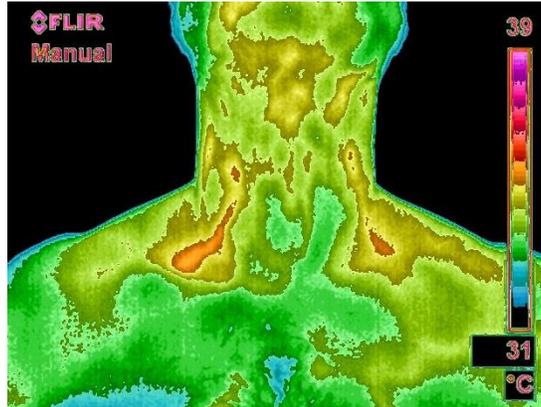
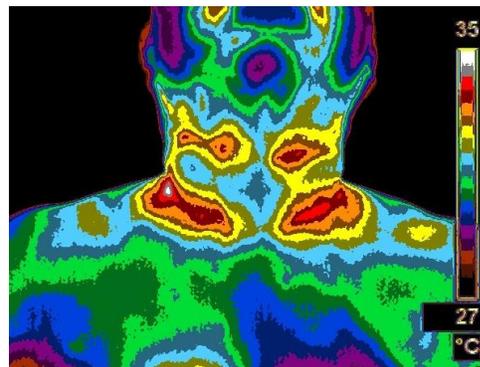
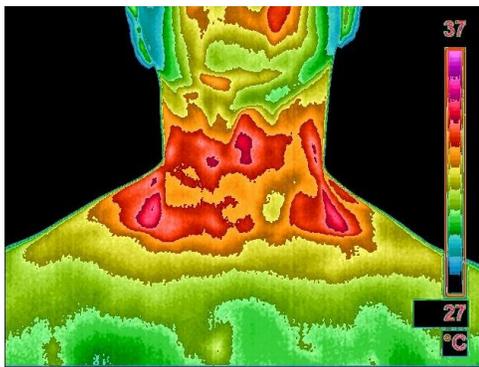


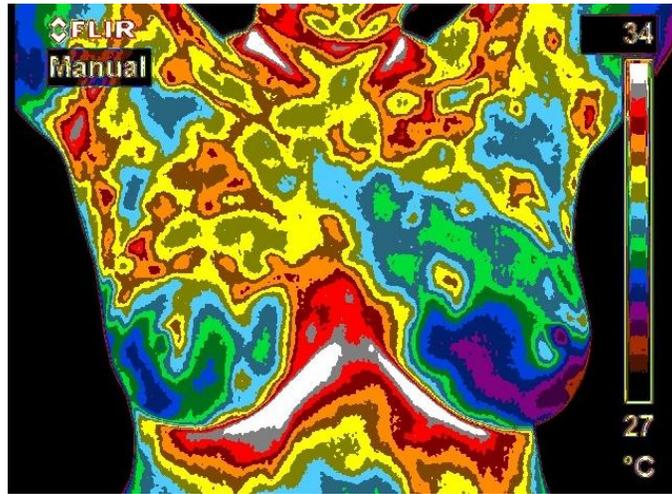
Image shows normal thyroid function



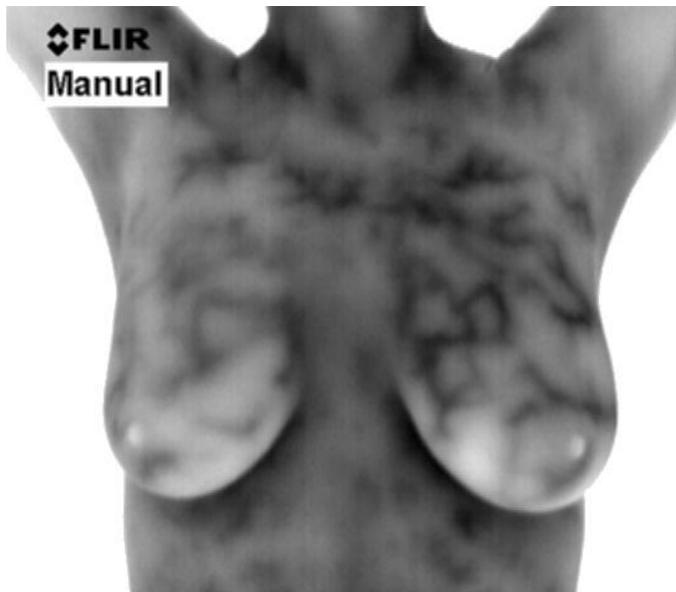
Images show signs of thyroid dysfunction and warrant thyroid work-ups. Patients were asymptomatic.

## Breast Imaging and Breast Cancer Screening

Medical Thermography has excelled in breast cancer screening. Many times, Breast Thermography shows the earliest warning signs that a problem exists. All women 18 years and up should get at least one Breast Thermography done as it is documented that it is one of the most sensitive imaging modalities for breast disease and cancer screening. The following images all show evidence of abnormalities that were not picked up by mammograms or ultrasound.



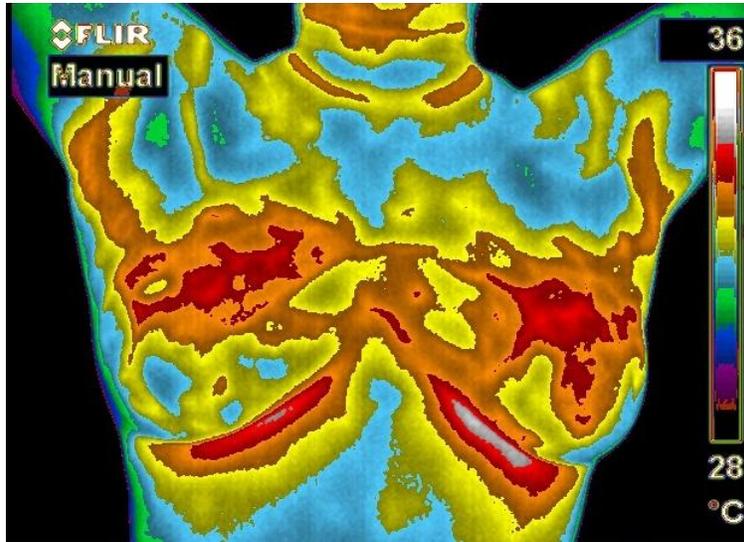
40 Year-old Patient: Right Breast (left side on image) graded as abnormal (TH4).



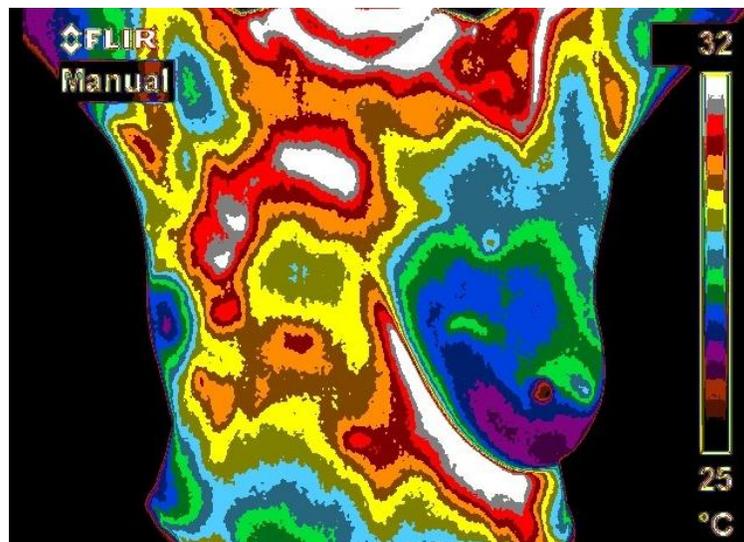
Patient with a unique vascular pattern suggestive of the effects of hormones on the breasts.

It is common knowledge that one of the contributing factors for higher risk of breast cancer is a hormone imbalance such as estrogen dominance. A prolonged or lifetime exposure to unopposed estrogen puts all women at higher risk of developing breast cancer.

Thermography can catch hormone imbalance issues early and can also be used to monitor treatment. Catch it early, fix it early and possibly prevent breast cancer. This is true early detection and prevention unlike any other imaging modality.



Bilateral heating of the nipples as compared to the background of the breasts is opposite to the normal thermal patterns of the breasts. Is this patient normal for her physiology? Clearly, immediate further investigation is warranted.

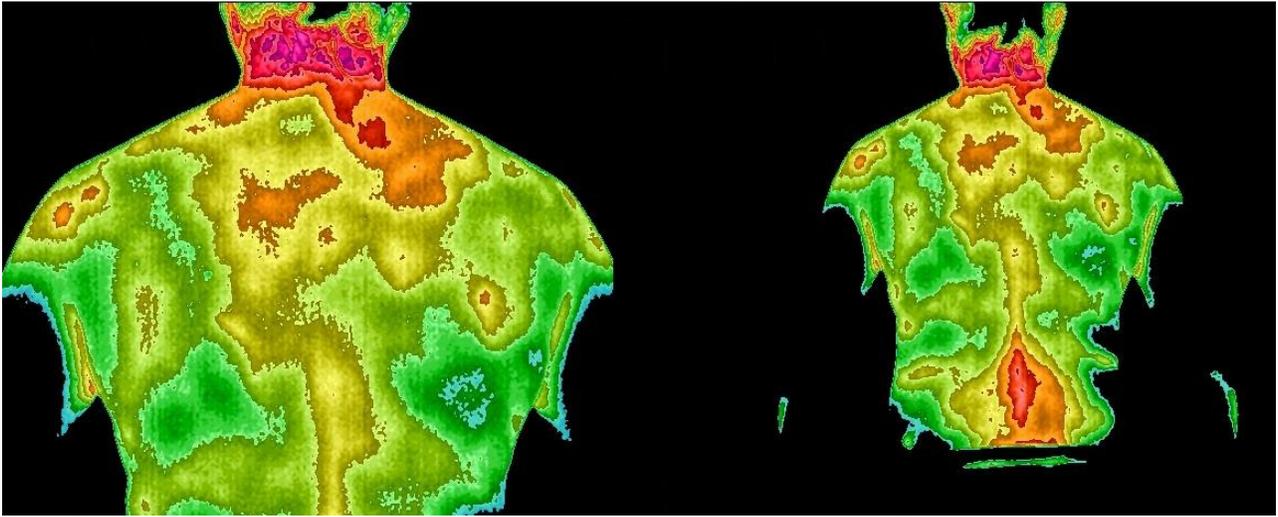


Cancer survivor patient of six years: Right side (left side on image) mastectomy scar shows localized heating. Why is there activity at the incision scar? Clearly this warrants immediate further investigation from her physician.

Breast Thermography is a perfect tool to monitor breast cancer survivors. With its ability to detect signs of abnormal vascular, hormone, metabolic and thermal patterns early, high risk patients can incorporate Breast Thermography as part of their routine screening practice.

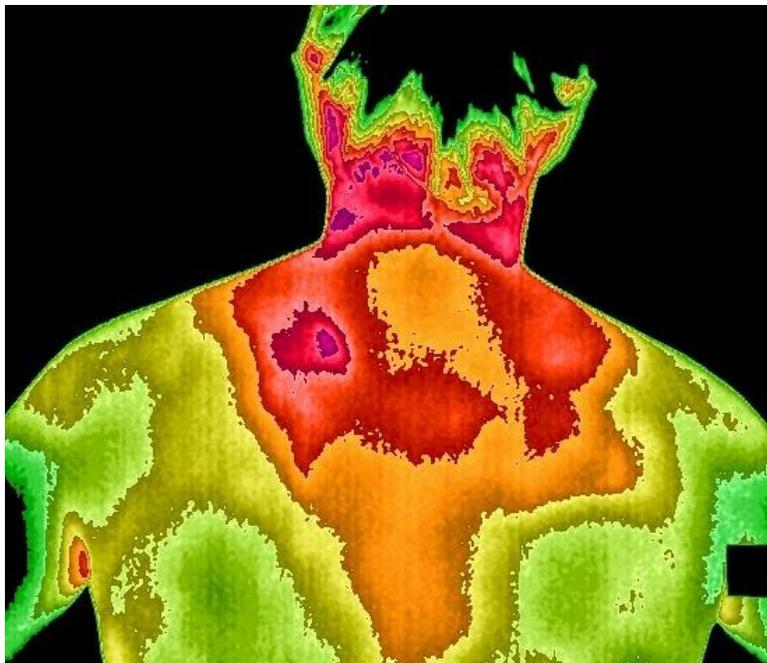
Because thermography is non-invasive and has no health hazards associated with it, frequent monitoring can be accomplished.

## Back and Spinal Problems



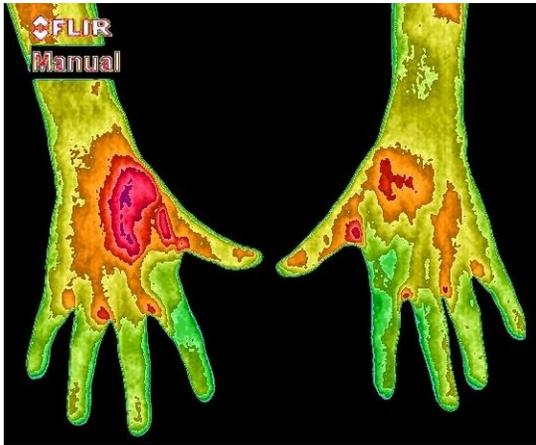
A hot area, suggestive of the presence of a myofascial trigger point, is noted over the region of the right levator scapula and rotator cuff. This contributed to the patient's neck pain.

Same patient with a focal hot zone suggestive of joint dysfunction and irritation is noted over the lower thoracic and lumbar regions.



A hot area, suggestive of the presence of a myofascial trigger point, is noted over the region of the left levator scapula. This finding may be contributing to the patient's headaches.

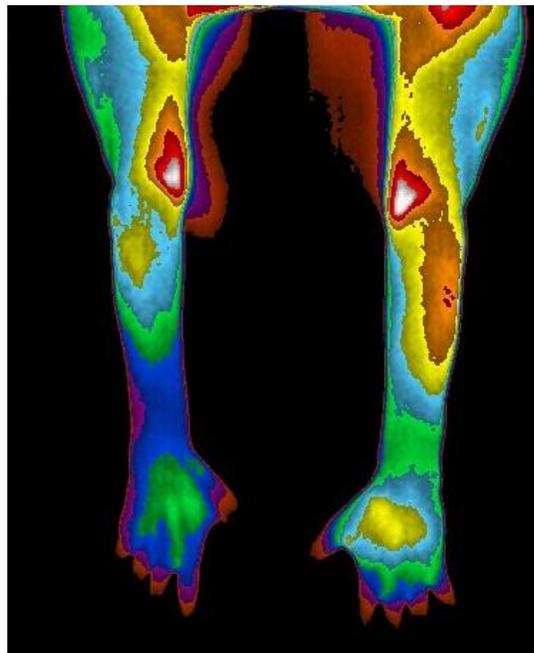
## Arms and Hands



Patient with signs suggestive of inflammation over the right thumb (left side on image).

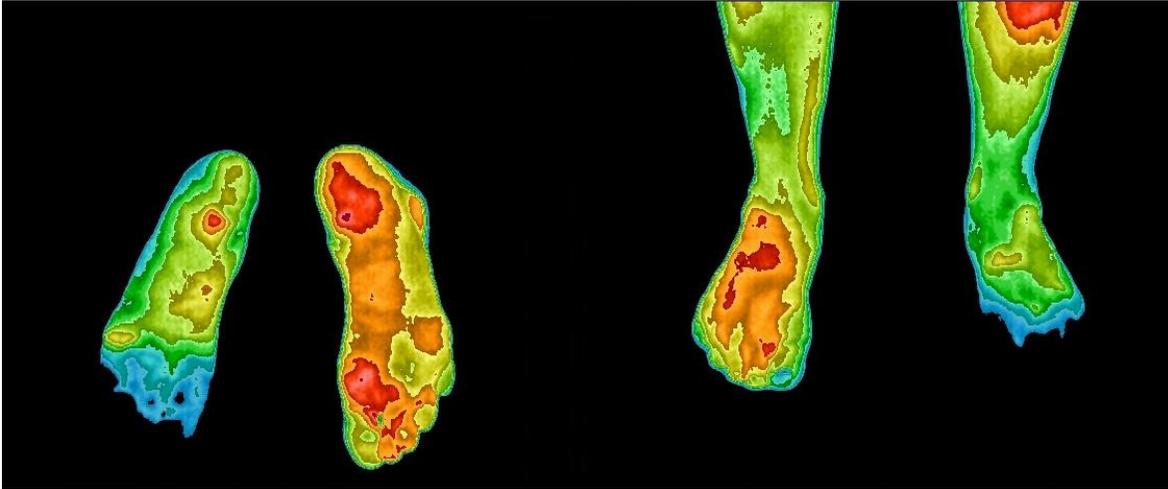


Thermal pointing of the fingers is seen in both hands suggestive of an early sign of diabetes.

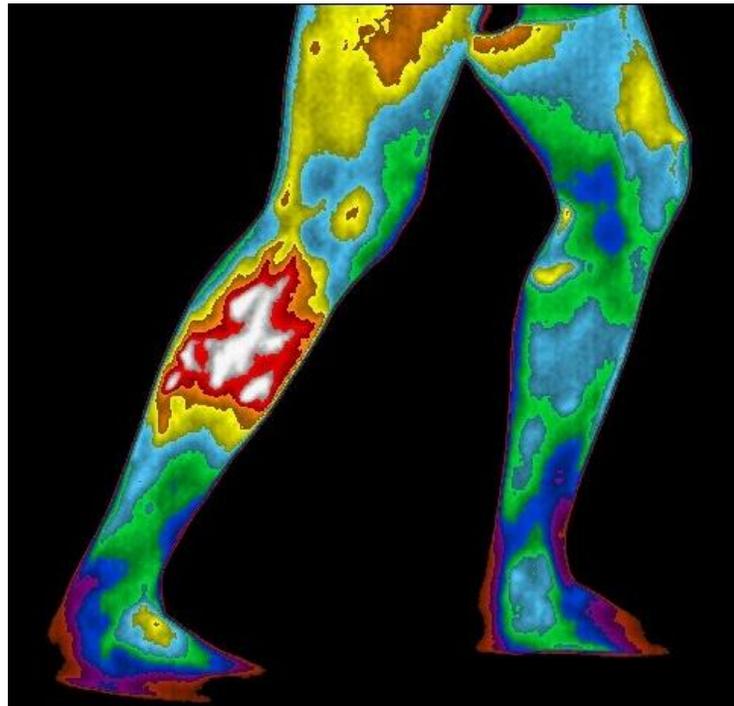


Decreased heat (cold spot) over the right C6, C7, and C8 dermatomes (left side on image) is seen and suggestive of nerve root irritation.

## Legs and Feet



Increased heat suggestive of inflammation is noted over the right foot. This finding accounts for the patient's right foot pain.



Increased thermal emissions, which suggests the presence of varicosities (circulation problems).

## **Conclusion**

From the thermographic imagery presented, it is undoubtedly clear that Medical Thermography plays a vital role in diagnosis and patient care. The more awareness that can be raised to both patients and doctors about this imaging modality, the more lives can be saved from breast cancer and other diseases and a better quality life can be achieved.

It should be noted that Medical Thermography must only be carried out by competent and trained technicians who adhere to strict imaging protocols. This type of imaging is very sensitive and if performed incorrectly will yield unfavorable and sometimes misleading results.

In addition to the qualifications of the imaging technician, the interpretation of all medical thermograms shall only be performed by a licensed medical diagnostician such as a medical doctor or chiropractor who has been properly trained and certified as a medical thermologist by a recognized board. The lack of this training and understanding of thermography will lead to misreading of thermograms.

Doctors without Medical Thermography image interpretation training should not interpret thermograms, and imaging technicians are also not qualified to do any reading or interpretation.

Performed correctly and by qualified and professional people, thermography helps in early detection, differential diagnosis and treatment monitoring. It is cost effective, safe and sensitive, and makes a great addition to the other technologies.