Medical Grade Infrared Technology

The specifications and quality of the thermography system provided by the Back to Health Center exceeds patient's expectations. Designed by engineer experts, the Spectron IR Camera provided by Dayton's only Thermography Clinic is nothing short of the finest medical infrared imaging systems available.

Indications for use set by the FDA for diagnostic screening of breast cancer and summary of safety and effectiveness can be viewed here: http://www.accessdata.fda.gov/cdrh_docs/pdf3/k032471.pdf

Our Equipment:
The 307,000 pixels of the Spectron IR detector, produces images which provide the highest absolute resolution available today.

Spatial resolution is another property that is important for detection of distinct areas. Complete with 8-12 microns, fine detail, such as blood vessels, are isolated for comparison and interpretation.

Thermal sensitivity and image quality are other important aspects for thermal imaging. Detection of extremely small temperature differences is used to monitor and compare underlying physiology. The highest quality image is achieved through the largest lens practical for the camera.

Our camera is capable of "real-time" imaging, focusing on an object in motion without compromising attention to detail or temperature differentials.

Specific details of our camera are listed below:

- *DETECTOR: 640 x 480 focal plane array*
- *SPECTRAL BAND: 8-12 microns*
- *FRAME RATE: 30 Hz*
- *TEMPERATURE RANGE: 15-45C*
- *SPATIAL RESOLUTION: 0.50 mrad*
- *LENS: 50mm EFL @ F/1.0 FOCUSING DISTANCE: 1 to 15 feet*
- *SENSITIVITY: Less than 50 mK*
- *Software controlled electronic focus*
- *High-resolution grayscale*
- *Repeatability and precision of ≤ ±0.15 degree C*
- *Plane Array Radiometric Microbolometer*

Interpretations of these images are done by Dr. William Amalu D.C. of Pacific Chiropractic and Research Center. With over 20 years of clinical experience, Dr. Amalu has a passion for early detection of breast cancer with use of Thermography as an adjunctive screening tool.

Dr. Amalu's Credentials

- Board Certified Clinical Thermologist
- Diplomate in Clinical Thermography
- Clinical Thermology Fellow

Certifying organizations:

- American Board of Clinical Thermography
- American Board of Medical Infrared Imaging
- International Academy of Clinical Thermology

Thermographic Guidelines Committee Member and Co-Author

- *International Academy of Clinical Thermology* - "Quality Assurance Guidelines - Standards and Protocols in Clinical Thermographic Imaging"
- *American Academy of Thermology* - "Breast Thermography Guidelines"