Breast Thermography Research Summary

The use of thermal imaging in health care is not a recent phenomenon. Its utilization in breast cancer screening, however, is seeing renewed interest. This attention is fueled by research that clearly demonstrates the value of this procedure and the tremendous impact it can have on the mortality of breast cancer.

The following is not a comprehensive review of the literature. Over 30 years of research compiling over 800 studies in the index-medicus exist. What follows is a pertinent summary of the research concerning the clinical application of infrared imaging (thermography) for use in adjunctive breast cancer screening. All the information is taken from the index-medicus peer-reviewed research literature or medical textbooks.

- In 1982, the FDA approved breast thermography as an adjunctive breast cancer screening procedure.
- Breast thermography has undergone extensive research since the late 1950’s.
- Over 800 peer-reviewed studies on breast thermography exist in the index-medicus literature.
- In this database, well over 300,000 women have been included as study participants.
- The numbers of participants in many studies are very large – 37K, 60K, 85K ..... 
- Some of these studies have followed patients up to 12 years.
- Strict standardized image interpretation protocols have been established for over 15 years.
- Breast thermography has an average sensitivity and specificity of 90%.
- An abnormal thermogram is 10 times more significant as a future risk indicator for breast cancer than a first order family history of the disease.
- A persistent abnormal thermogram carries with it a 22x higher risk of future breast cancer.
- An abnormal infrared image is the single most important marker of high risk for developing breast cancer.
- Studies have shown that breast thermography significantly augments the long-term survival rates of its recipients by as much as 61%.
- When used as part of a multimodal approach (clinical examination + mammography + thermography) 95% of early stage cancers will be detected.

REFERENCES (research review fact sheet)
[47] Gautherie, M., Gros, C.: Contribution of Infrared Thermography to Early Diagnosis, Pretherapeutic Prognosis, and Post-irradiation Follow-up of Breast Carcinomas. Laboratory of Electroradiology, Faculty of Medicine, Louis Pasteur University, Strasbourg, France, 1976