ASHEVILLE INTEGRATIVE MEDICINE

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Breast Thermography

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Screening Breast Thermography may soon become a new household word in the field of breast-cancer screening. It is attractive to both patients and researchers because it is non-invasive, inexpensive, comfortable, and does not cause radiation exposure or compression of the breasts.

A thermogram is the measurement of the infrared heat coming off our skin, using similar technology as the color weather maps on TV. A thermogram of the breast can detect the distinctive heat patterns around tumors. Screening Breast Thermography was FDA-approved in 1982 as an adjunctive diagnostic breast-cancer screening procedure.

The exact mechanisms by which breast cancers cause a distinctive heat pattern on thermography is still not certain, but it is thought to be from increased vascular activity, or the growth of blood vessels that feed the tumor, as well as increased metabolic activity of the tumor compared to healthy skin, due to the rapid growth rate of the cancer cells.

Screening Breast Thermography has been researched extensively for over forty years, with multiple large studies following tens-of-thousands of women for as long as twelve years after examination. Over the last fifteen years, the technology of the technique and the standardization of the interpretation protocols have advanced rapidly, giving much better results than some of the earlier studies.

Published studies now show thermography to be about ninety-percent sensitive and also about ninety-percent specific in detecting early breast cancers. This means that only about ten percent of strongly-positive thermogram results will be a false alarm, and only about ten percent of normal thermograms will be a false reassurance. Although we would love to have a perfect breast test, these figures are actually quite impressive and also quite competitive with other techniques.

However, Breast Thermography does not replace other breast screening tests. It is considered an adjunctive or “add-on” test to mammography, self breast exam, and physician breast exam. It appears that thermography may miss about ten percent of breast cancers found by mammography, but it also picks up a significant percentage of tumors that mammography misses, or doesn’t find until later. When used in combination with the other screening techniques, Breast Thermography raises the detection rate for breast cancers to ninety-five percent accuracy, which is at least a ten-percent improvement.

Many women have concerns about the discomfort and radiation exposure of mammograms. Screening Breast Thermography avoids those hazards while having a lower price tag and also direct patient accessibility. Because it has no known risks, it can be performed without an order from a physician. However, evaluation of an abnormal thermogram should always be managed with a physician. A normal thermogram is usually repeated yearly, after an initial repeat at three months in order to establish thermal stability.

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One published model looked at the possibility of using Screening Breast Thermography as an initial breast test and concluded that we could maintain our current rates of breast cancer detection while reducing the frequency of mammography down to twenty-three percent of current levels, which would save many breasts a great deal of radiation exposure. Thermography is also well suited for women prior to menopause, as the denser breast tissue makes mammography more difficult and less accurate.

The main drawback currently to Screening Breast Thermography is that it is not routinely paid for by insurance companies. Apparently insurance companies spent decades fighting the use of clinical medical thermography because plaintiffs were using it to prove whiplash injuries after car accidents, resulting in more settlements against the insurance companies. Hopefully old prejudices will fade away in the light of new data.