

Best Breast Test: The Promise of Thermography

By Dr. Christiana Northrup, MD

EVERY YEAR WHEN BREAST CANCER AWARENESS MONTH (October) comes around I am saddened and surprised that thermography hasn't become more popular. Part of this is my mindset. I'd rather focus on breast health and ways to prevent breast cancer at the cellular level than put the emphasis on testing and retesting until you finally do find something to poke, prod, cut out, or radiate. I understand that mammography has been the gold standard for years. Doctors are the most familiar with this test, and many believe that a mammogram is the best test for detecting breast cancer early. But it's not. Studies show that a thermogram identifies precancerous or cancerous cells earlier, produces unambiguous results (which cuts down on additional testing), and doesn't hurt the body. Isn't this what women really want?

I recently discussed thermography with my colleague Philip Getson, D.O. Dr. Getson has been a medical thermographer since 1982. As you may know, thermography is a form of thermal (infrared) imaging. Dr. Getson explains how thermography works this way, "It is widely acknowledged that cancers, even in their earliest stages, need nutrients to maintain or accelerate their growth. In order to facilitate this process, blood vessels are caused to remain open, inactive blood vessels are activated, and new ones are formed through a process known as neoangiogenesis. This vascular process causes an increase in surface temperature in the affected regions, which can be viewed with infrared imaging cameras. Additionally, the newly formed or activated blood vessels have a distinct appearance, which thermography can detect." Heat is an indication that inflammation exists, and typically inflammation is present in precancerous and cancerous cells, too. (It's also present in torn muscles and ligaments as well as arthritic joints, which thermography can also detect.)

Thermography's accuracy and reliability is remarkable, too. In the 1970's and 1980's, a great deal of research was conducted on thermography. In 1981, Michel Gautherie, Ph.D., and his colleagues reported on a ten-year study, which found that an abnormal thermogram was ten times more significant as a future risk indicator for breast cancer than having a history of breast cancer in your family.¹

Early Detection

The most promising aspect of thermography is its ability to spot anomalies years before mammography. Using the same ten-year study data,² researcher Dr. Getson adds, "Since thermal imaging detects changes at the cellular level, studies suggest that this test can detect activity eight to ten years before any other test. This makes it unique in that it affords us the opportunity to view changes before the actual formation of the tumor. Studies have shown that by the time a tumor has grown to sufficient size to be detectable by physical examination or mammography, it has in fact been growing for about seven years achieving more than twenty-five doublings of the malignant cell colony. At 90 days there are two cells, at one year there are 16 cells, and at five years there are 1,048,576 cells—an amount that is still undetectable by a mammogram. (At 8 years, there are almost 4 billion cells.)"

Today, women are encouraged to get a mammogram, so they can find their breast cancer as early as possible. With thermography as your regular screening tool, it's likely that you would have the opportunity to make adjustments to your diet, beliefs, and lifestyle to transform your cells before they became cancerous. Talk about true prevention.

Clearer Results, Fewer Additional Tests

It seems like the world was set on its ear when, in November 2009, the United States Preventative Services Task Force said it recommended that women begin regular mammograms at 50 instead of 40 and that mammograms are needed every two years instead of annually between the ages of 50 and 74. Some women felt this was a way for the insurance companies to save money, but I cheered these new guidelines. (For more information read “[The New Mammography Guidelines](#).”) The Task Force concluded that the risk of additional and unnecessary testing far outweighed the benefits of annual mammograms—and I couldn’t agree more. Ten years ago, Danish researchers Ole Olsen and Peter Gotzsche concluded, after analyzing data from seven studies, that mammograms often led to needless treatments and were linked to a 20 percent increase in mastectomies, many of which were unnecessary.³ Dr. Getson expounded, “According to the 1998 Merck Manual, for every case of breast cancer diagnosed each year, five to ten women will undergo a painful breast biopsy. This means that if a woman has an annual mammogram for ten years, she has a 50 percent chance of having a breast biopsy.”

Thermography is a particularly good choice for younger breasts, which tend to be denser. It doesn’t identify fibrocystic tissue, breast implants, or scars as needing further investigation. It’s also good at detecting changes in the cells in the armpit area, an area that mammography isn’t always good at screening. Perhaps even more exciting is that a thermogram can help a woman diagnosed with ductal carcinoma in situ (DCIS) decide, along with her health practitioners, whether she requires aggressive or conservative treatment. If you’ve ever had an unnecessary biopsy or been scared by a false positive result on a mammogram, please consider getting a thermogram and using it in conjunction with the mammogram to figure out your treatment options.

It Doesn’t Hurt

It’s ironic that the test women are using for prevention may be causing the very problem they’re trying to avoid in the first place! Another reason the United States Preventative Services Task Force reversed its aggressive mammogram guidelines, was because of the exposure to radiation. It’s well known that excessive doses of radiation can increase your risk of cancer.⁴ And this doesn’t even touch on the harm done to the body from unnecessary biopsies, lumpectomies, mastectomies, chemotherapy, radiation treatment, and so forth.

Thermography is very safe—it’s even safe for pregnant and nursing women! It’s merely an image of the heat of your body.

Unlike a mammogram, a thermogram doesn’t hurt! Just about everyone who’s ever had a mammogram has complained about how painful it is. The first time you get a mammogram can be quite a shock. Who knew a breast could be flattened like that? Well, the pain isn’t in your imagination. The pressure that the mammogram machine puts on each breast when it’s being compressed is equivalent to putting a 50 pound weight on your breast.

The Best Test for You

As with anything, I suggest you let your inner guidance help you in all decisions about your health. If you feel it’s best to get an annual mammogram, then by all means continue with them. Just be aware of the drawbacks and risks associated with the test. One helpful way to assess your risk for breast cancer—which in turn can help you decide how often you want to have mammograms—is to use the National Cancer Institute’s Breast Cancer Risk Assessment Tool, available online at www.cancer.gov/bcrisktool. After you answer seven simple questions, it calculates both your risk of getting invasive breast cancer in the next five years as well as your

lifetime risk, and it compares each to the risk for the average U.S. woman of the same age and race or ethnicity.

You would be surprised by how many women tell me their doctors make them feel guilty for not having a mammogram. Women who just *know* they have healthy breasts. Don't be intimidated if you prefer to forgo annual mammography.

Thermography is a better technology for all the reasons I've already described. Plus it gives results that are unique to you, time after time. But there are some things to be wary of. Dr. Getson explains, "To be sure, not all thermographic equipment is the same, nor is every center backed by qualified, board-certified physicians who are specifically trained in the interpretation of these images."

Women (and men) seeking to have infrared imaging should consider the following:

1. What is the "drift factor" in the apparatus? Anything over 0.2 degrees centigrade leads to poor reproducibility.
2. What are the credentials of the interpreting physician?
3. The room in which the study is performed should be free of outside light and the temperature should always be at 68-72 degrees Fahrenheit, with a proper cooling system in place.
4. Make sure the images are "stat"-ed or marked up for future comparison.
5. Ask if the studies are read on site or sent by e-mail to a distant interpreter.
6. Be sure that the physician is available to explain and discuss all findings.

Instead of just screening for breast cancer, a thermogram can tell you how healthy your breasts are. It also has the potential to truly detect breast cell anomalies long before mammography can detect cancer, when done properly. This allows you to implement lifestyle changes that can improve the health of your breasts proactively instead of waiting for a cancer diagnosis later. In honor of Breast *Health* Awareness month, I encourage you to check out thermography for yourself and your loved ones.

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