

ABOUT THE PROCEDURE

- The procedure is completely non-invasive and performed by a female technician.
- At first you will be asked to fill out a thorough breast health history form.
- The procedure itself begins with a 15 minute temperature acclimation period.
 - During this time, you will disrobe from the waist up in a special temperature controlled room.
- Once acclimated, you will be placed in front of the infrared camera while multiple images are taken from different angles.
 - The imaging process takes less than 5 minutes.
- The images will be analyzed by a doctor trained in interpreting thermograms.
- You will receive your results in the mail in 10-14 days.
- Per your request, a manual breast exam can be arranged with one of the nurse practitioners at Prevention & Healing of Iowa.

WHY SHOULD I HAVE A THERMOGRAM?

- **Prevention**—breast thermography is a front line test for early detection.
- Breast thermography has the ability to detect the chemical and blood vessel changes in pre-cancerous as well as cancerous breast tissue.
- Consequently, breast thermography can be the first indicator that a cancer may be forming or present.
 - In many cases breast thermography can detect abnormalities 8-10 years before any other method.

BREAST THERMOGRAPHY GUIDELINES

- Baseline thermogram at age 20
- 20 – 30 years of age: Every 3 years
- 30 years of age and over: Every year

DII's unique ability to see the abnormal heat changes produced by diseased breast tissue allows for extremely **early detection**. Proper use of breast self-exams, physician exams, thermography, ultrasound, and mammography together provide a comprehensive detection system. If treated in the earliest stages, cure rates of greater than 95% are possible.

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What is breast thermography?

An infrared camera and computer system (digital infrared imaging or DII) are used to measure heat from the surface of the breast to produce an image which can be evaluated for abnormalities. DII has the ability to warn women up to 10 years before any other procedure that a cancer may be forming. This can allow for prompt and timely intervention. This modality has been in use since the 1960s and approved by the FDA in 1982 for use as an adjunctive breast cancer screening procedure.

How exactly does breast thermography pick up changes in breast tissue?

Cancerous tumors increase circulation to their cells by holding open existing blood vessels, opening dormant vessels, and creating new ones (neovascularization) in their need for nutrients. Regional surface temperatures of the breast increase frequently during this process. DII can detect, analyze, and produce high-resolution images of these temperature variations. Because of DII's extreme sensitivity, it can detect early signs of breast cancer and/or a pre-cancerous state of the breast.

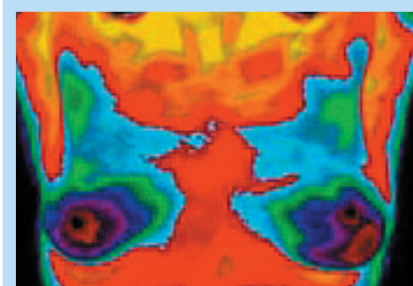
What makes Digital Infrared Imaging so unique?

Breast thermography does not use radiation, compression, contact or intravenous injection. As such, DII is a very comfortable procedure which poses absolutely NO health risks to the patient. Consequently, scans can be performed as frequently as necessary. Signs of pre-cancerous tissue, or early stage cancers that are too small to be found by physical examination and mammography, can be discovered with thermography.

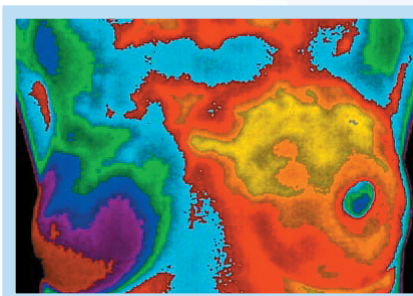
Women with smaller breasts or implants find the procedure to be comfortable. DII is safe for pregnant or nursing women.

HIGH RESOLUTION

Infrared Imaging



Above: Example of normal breast tissue



Above: Example of inflamed breast cancer in left breast

Thermography of Iowa adheres to **standardized** analysis guidelines in which breast thermograms are analyzed with a 20-point instruction, assessing temperature readings, heat patterns, vascular formations, vascular dilation and breast cancer risk ratings.

It takes 8-10 years for a dime-sized tumor to grow. Digital Infrared Imaging can be the first signal that such a possibility is developing.

Early Detection Means Life.

- Breast cancer is the most common cancer in women.
- The risk of breast cancer increases with age.
 - Even so, 1/3 of all breast cancers occur in women under age 45.
- Risk is also higher in women whose close relatives have had the disease.
- Women without children, and those who have had their first child after age 30, also seem to be at higher risk.
- Lifetime exposure to estrogen the single greatest risk factor.
 - Balancing hormones may be a significant step in prevention of breast cancer.
- However, EVERY WOMAN is at risk of developing breast cancer.
 - Current research indicates that 1 in every 8 women in the US will get breast cancer in their lifetime.
 - Since 1950, breast cancer incidence has risen by 60 percent—and each year over 40,000 American women die from it.

Is Current Screening Providing Early Enough Detection?

The following chart shows the average growth rate of a breast cancer tumor:

Atypical pre-cancerous cells

Thermography can warn at this stage

90 days	Precancerous cells (Cancer cells double in number on average every 90 days)
1 year	16 cells
2 years	256 cells
3 years	4,096 cells
4 years	65,536 cells
5 years	1,048,576 cells
6 years	16,777,216 cells
7 years	268,435,456 cells
8 years	4,294,967,296 cells (doubled 32 times)

Most cancers are detected by mammography at this point – when the diameter of the tumor is about 1cm (about the size of a dime) and contains over 4 billion cells.