

# Understanding Your Thermal Breast Imaging



## **An Introduction**

Thermal imaging helps determine a woman's risk for currently having breast cancer or developing it in the future by looking at the temperature of the breasts. This information can be used to help determine when additional testing might be necessary and improve the accuracy of finding cancer on other examinations. By watching for changes between examinations, Thermal Imaging can also help monitor the effects of diet, lifestyle, nutrition, and preventative treatment with respect to your current risk for breast cancer. It does not directly detect or diagnose cancer but can help reach those goals. Thermal imaging does not replace mammography or any other diagnostic imaging.

## **TH 1: Lowest Risk**

Based upon temperature analysis, this rating suggests the lowest risk that breast cancer is currently present or that it may develop in the future. This rating cannot guarantee that the breasts are cancer free and should not delay any other breast examination recommended by your doctor. When cancer is present it tends to be very early stage or less severe.

## **TH 2: Low Risk**

This is also a low risk thermal image. The increase in risk between TH1 and TH2 is minimal. This rating is not a guarantee that breasts are cancer free and should not delay any other breast examination recommended by your doctor. When cancer is present it tends to be very early stage or less severe. Follow Up Recommendations for TH 1 and TH 2: Follow-up imaging for women over 30 years of age should be performed annually and, for women 20 to 30 years of age, every 3 years. Imaging should be performed along with your annual breast examination.

## **TH 3: Medium Risk**

This rating suggests a medium risk that breast cancer is currently present or that it may develop in the future. Follow-up thermal imaging and other breast examinations can help clarify any significance to this rating. When cancer is present it may be at a mid stage or growing slightly faster. Follow Up Recommendations for TH 3: 3-6 month follow-up thermal imaging is recommended depending on your individual situation. Additional imaging such as mammogram or ultrasound should be performed if it has not taken place within the last year. Your doctor will recommend the best test for you. If something is being watched on another examination such as a mammogram, you should consult with your doctor to determine if any additional testing is necessary at this time. Lifestyle factors should be optimized as soon as possible as a preventive measure.

#### **TH 4: High Risk**

Based upon temperature analysis, this rating suggests a high risk that breast cancer is currently present or that it may develop in the future. This rating is not a guarantee that cancer is present and needs to be evaluated by your doctor to determine its significance.

#### **TH 5: Highest Risk**

This is also a high risk thermal image. This rating is not a guarantee that cancer is present and needs to be evaluated by your doctor to determine its significance. Follow up Recommendations for TH 4 and TH 5 It is strongly recommended that you consult with your physician and begin additional imaging such as mammography, ultrasound, or MRI promptly to help clarify the thermal findings. A biopsy may be recommended if this rating occurs in a breast with a lump or other suspicious finding. It is strongly recommended that lifestyle factors be optimized immediately. Follow-up thermal imaging should be performed at 3-month intervals until the stability of the thermal findings is demonstrated. Modifiers A plus or minus sign is used to upgrade or downgrade the severity within a particular TH rating.

#### **How Do You Determine Effects of Estrogen on Your Breasts**

##### **Level of Risk:**

##### **The Hormonal Grade**

Lifetime exposure to estrogen has been identified as a significant risk factor for the development of cancer. The hormonal grade is a way to look at the effects of estrogen on the breasts. When we measure the level of estrogen and progesterone in the blood, urine or saliva we are looking at the hormonal balance in the whole body. The question remains, what is the effect of these hormone levels on the breasts. Normal fatty tissue in the breasts can actually produce estrogen and will be missed on blood testing and can contribute to risk. Some women have estrogen receptors that are more sensitive or bind estrogen more easily. They may even have low estrogen levels but their breasts are actually being over stimulated by the estrogen they have. By looking at the hormonal grade, we can put all of these factors into perspective.

**Grade 0** – There are no symmetrical blood vessel patterns in the breasts which means the breasts do not appear to be stimulated by estrogen at all. Your breasts appear to be handling the estrogen in your body very well and there is really nothing to be done to restore hormonal balance in the breasts. If you are taking hormone replacement, this rating is great news since it suggests that the estrogen is probably not contributing to any risk you may have for developing cancer. This rating is most common in post menopausal women and is considered to be the healthiest.

**Grade 1** – Symmetrical blood vessel patterns are seen in the chest wall and upper most breast surface only. This suggests a small amount estrogen activity but like Grade 0, suggests that the estrogen in your body is not contributing to any risk you may have for developing cancer. This rating is also common in post menopausal women and is considered to be healthy.

**How should you follow up for a Hormonal Grade of 0 or 1:**

No follow up or management is necessary. You are doing just fine!

**Grade 2** – Symmetrical blood vessel patterns now extend to the upper-inner and/or upper outer quadrants of the breasts. This suggests a slightly higher activity than Grade 1 suggests the estrogen in your body is probably not contributing to any risk you might have for developing cancer or that the contribution is small. This grade is commonly seen in premenopausal women and is considered to be healthy.

**How should you follow up for a Hormonal Grade 2:**

This grade does not necessarily require any follow up or management and may be normal especially for pre-menopausal women. For post menopausal women who are not on hormones, they may wish to work with a holistic practitioner to try to lower the estrogen stimulation to the breasts especially if their TH rating is suggesting any elevation in risk.

**Grade 3** – The blood vessel patterns now extend to the level of the nipple line as they do during pregnancy under the effects of estrogen. This suggests moderate estrogen activity and may suggest that estrogen stimulation of the breasts may be contributing to risk for developing cancer. The reason I say ‘may’ is because women who are pregnant, lactating will generally have a Hormonal Grade of 3 or 4 due to natural hormonal changes. Also, women on birth control pills and hormone replacement will also commonly exhibit this Hormonal Grade as a function of the hormones they are taking. This grade simply says the level of stimulation is elevated. The TH rating will let you know the level of risk for developing cancer. Other possible causes for this rating included large breast size, poor estrogen-progesterone balance and poor estrogen metabolism.

**Grade 4** – The symmetrical blood vessel patterns now are seen extending below the nipple line. The significance is the same as Grade 3. The level of stimulation is just greater.

**How should you follow up for a Hormonal Grade 3 or 4:**

The first thing to do with a Hormonal Grade 3 or 4 is to check the TH ratings to see the level of risk. We will show you how to put together the two rating systems in the next section. The next step is to investigate what might be causing the elevation.

**If you are pregnant or lactating there is nothing to do.**

This is completely normal for you and should not generate any concern. If you are taking hormones or birth control pills, this is likely the cause and reducing the activity may not be possible as long as you continue on these medications. Use the TH rating to determine if there is an elevated level of risk for the breasts.

If there is a TH rating of 3 or higher, addressing the estrogen may be a way to lower your risk. If discontinuing treatment is not an option or not desired, watch the TH ratings to see if any increase in risk can be detected and use that with your health care provider to determine if changes to your hormone intake are warranted.

If there are no obvious sources of estrogen that could explain the grade it is time to look at environmental and dietary estrogen, estrogen-progesterone balance and estrogen metabolism. Tips on how to do this may be available from the center where you were imaged or a consultation with a holistic health care provider can be considered.

**How do I understand the significance of a particular TH rating with a particular hormonal grade?**

The easiest way to think about this is to remember that the TH rating looks at the effect of all risk factors on the breast tissue while the Hormonal Grade looks at only the effects of estrogen.

In other words, you can have a high hormonal grade suggesting lots of estrogen stimulation but a low TH rating. This means that although the estrogen stimulation is high, it is not causing a measurable increase in your level of risk. It is also possible to have a high TH rating and a low Hormonal Grade.

This means that the level of risk for the high rated breast is elevated but that estrogen does appear to be a contributing factor.