

## I am currently taking Hormone Replacement Therapy. Will that affect my Breast MRI?

Yes. Hormone Replacement Therapy (HRT) increases the blood flow to the glandular tissue in the breast. Since the radiologist finds tumors by looking for increased blood flow, the HRT makes it harder to see the tumors. In essence, the HRT make the “background” brighter and, therefore, makes the tumors harder to see. We recommend that women not take HRT for 3 months prior to the MRI, but we realize this can sometimes be very difficult. Therefore, although we suggest it, we *do not require* that you discontinue your HRT prior to the MRI.

## Do I need a Breast MRI if my breast cancer was detected by a digital mammogram or ultrasound? Should I have this done before any other treatment for my breast cancer?

Having breast cancer places you in a high-risk group. Almost 30% of patients with a newly diagnosed cancer in their breast will have a second cancer in the same breast that was not diagnosed by digital mammography, ultrasound or a physical exam. In addition, 3-5% of women newly diagnosed with breast cancer have an undetected cancer in the other breast. The decision to get a breast MRI should be one that you make with your treating physician. Getting this information is important only if it changes your therapy plan.

## If I am a breast cancer survivor and still have my breast(s). Should I be screened with MRI?

At this point, the American Cancer Society’s position is that there is insufficient information to recommend for or against screening in these individuals. Your physician will help you determine whether MRI is appropriate for your individual situation.

## What happens if my MRI is abnormal?

If your MRI shows an abnormality, there are two possibilities. One is that the abnormality is probably a benign lesion not seen on the other imaging modalities, and all that is necessary is a six-month follow-up by MRI of just that one breast. This follow-up exam will establish that the lesion is not changing and, therefore, is unlikely to be cancer. Alternatively, if the lesion’s appearance is suspicious to the radiologist, then we will perform a biopsy. Approximately 50% of these lesions can be seen with an ultrasound targeted to the area seen on the MRI. If your abnormality is seen on ultrasound, it will be biopsied with ultrasound guidance. If it cannot be seen on ultrasound, then we will perform an MRI-guided biopsy.

*This breast MRI shows a breast cancer, which appears white due to increased blood flow.*



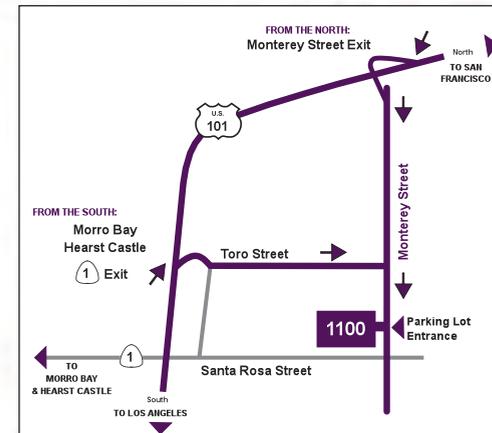
## What is an MRI-guided biopsy like?

The MRI-guided biopsy is done in the same machine that you had your diagnostic MRI performed in. You lie on the same surface that we used to detect your abnormality. Your breast will be secured between two paddles just as it is for a mammogram. One of those paddles will have a grid built into it. We will compress your breast and obtain a series of images. We may or may not inject dye to see the abnormality within the breast. Once we localize that abnormality, we find the location within the grid compressing your breast, clean your skin, inject a local anesthetic, and then insert the device for biopsy. After we complete the biopsy, we place a small metal marker in your breast so that we have the area of biopsy localized for future reference on a mammogram. These procedures take about 60-90 minutes. We performed our first MRI-guided biopsy in 2004 and have more experience than any other facility in the county.

## Insurance

San Luis Diagnostic Center contracts with most major insurance companies and bills patients’ insurance companies for them. Prior to an examination, we contact all patients for details regarding their insurance coverage. We ask patients to sign an assignment of benefits form so that payment comes directly to our center. Any amounts not covered by insurances, such as deductibles or co-insurance amounts, we collect at the time of service. For our patients’ convenience, we accept personal checks and credit cards.

Specific insurance inquiries are handled by our business office at 805-542-9700.



**FROM THE NORTH:** Hwy 101 South to Monterey St. exit. Turn left, over the freeway. Stay on Monterey Street 4 blocks. Driveway is on right **before** Santa Rosa Street. Park at street level, below the building.

**FROM THE SOUTH:** Hwy 101 North to Morro Bay/Hearst Castle Hwy 1 exit. Veer left on Toro, straight 5 blocks to Monterey St. Turn right on Monterey. Driveway is on right **before** Santa Rosa Street. Park at street level, below the building.

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# Breast MRI

*A cancer detection test for high-risk women*



MRI detects up to 3 times more cancers in high-risk women than mammography

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## What is a Breast MRI?

A breast MRI (Magnetic Resonance Image) can detect breast cancer that is undetectable by physical exam, ultrasound or even digital mammography. By using a combination of a magnetic field, radio-frequency antennas, high-speed computers and an imaging device designed specifically for the breast, the radiologist gets a very detailed look at the tissues inside the breast. The MRI acquires 2-dimensional pictures. Then using a computer, the radiologist converts these 2-dimensional pictures into 3-dimensional pictures for a more in-depth evaluation. These images, usually over 1,500 of them, are also color-coded to define areas in the breast that show different levels of blood flow. By analyzing these areas of blood flow and looking at the shape of any abnormalities within the breast, the radiologist is able to determine if a woman may have breast cancer.

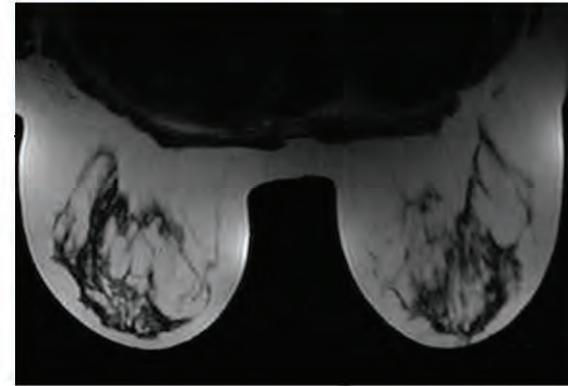
### Who needs this exam?

Not all women need this exam, but this exam has been shown to be effective in high-risk women. In a 2004 New England Journal of Medicine article, researchers reported that MRI detected between 2-3 times more cancers in high-risk women than were detected by mammography. Because of its cost and an increased false-positive rate, MRI should be reserved for women who are at high risk for breast cancer. Breast MRI can also be used to assess the extent of breast cancer. Your physician may recommend a breast MRI for a number of reasons:

- You've been diagnosed with breast cancer and your physician wants to determine the extent of the cancer in the breast tissue
- You're at high risk of breast cancer, defined as a lifetime risk of 20 percent or greater, as calculated by risk tools that take your family history and other factors into consideration
- You have a strong family history of breast cancer or ovarian cancer or have a known BRCA 1 or 2 gene mutation
- You have very dense breast tissue as seen on mammography
- You have a history of precancerous breast changes—such as atypical ductal or lobular hyperplasia, ductal carcinoma in situ, or lobular carcinoma in situ.
- You have a suspected leak or rupture of a breast implant

If you're unsure whether you're considered high risk, ask your physician to help you determine your personal risk estimate. Several risk assessment tools (for example the Gail model, the Claus model, and the Tyrer-Cuzick model) are available to help health professionals estimate a woman's breast cancer risk. These tools give estimates of breast cancer risk based on different combinations of risk factors and can result in different estimates of risk.

Breast MRI is intended to be used in addition to a mammogram or another breast-imaging test, not as a replacement for a mammogram. Although it's a sensitive test, breast MRI can still miss some breast cancers that a mammogram will detect.



*An example of a normal breast MRI.*

### What should I expect when I arrive for my Breast MRI?

When you arrive, the San Luis Diagnostic Center staff will ask you about your medical history and any past exams that you have had on your breasts. For the MRI exam, you will be given an injection of a special dye that allows the MRI scanner to detect blood flow within your breasts. For most studies, that injection will be in the vein near your elbow through a temporary intravenous line. When the contrast is injected, you may feel a cool sensation in your arm, have a "funny" taste in your mouth, or experience some facial flushing. These are all normal side effects and will come and go within about 30 seconds.

### What will the scan be like?

The specific details of your breast MRI will be fully explained by your technologist. You will lie comfortably on your stomach on a specially padded surface. Your breasts will rest in two holes in the imaging device. You will be asked to lie very still while we take a series of 6-8 pictures. Any movement during your exam may result in blurry or distorted images. During the scan you will not feel anything unusual, but you will hear a loud knocking noise. We will provide hearing protection. The table may move slightly at various times during the exam.

### How long will all this take?

The breast MRI takes about 20-30 minutes. Plan on spending approximately 45 minutes total at San Luis Diagnostic Center.

### What happens after the exam?

You may leave as soon as the exam is complete. There will be no special instructions after the exam, and you will be able to eat and drink immediately afterwards. In the meantime, the technologist will process the data on our high-speed computer and prepare the results for review by our radiologists. We will send the radiologists' report to your physician the next day, and he or she will then relay that information to you.

### Is Breast MRI safe?

Breast MRI is a very safe and effective diagnostic procedure. The dye passes in and out of your body within hours.

### Please follow these instructions prior to your Breast MRI:

1. Do not eat or drink anything except water beginning four hours before your exam. It is preferable that you are well hydrated for the exam, so we encourage you to drink up to 24 ounces of water in the timeframe from four hours up to one hour prior to your exam.
2. If you take medication, use water to swallow it.
3. If you have been advised not to take your medication on an empty stomach, you may eat a few saltine crackers within that four-hour period.
4. Wear comfortable clothing, preferably including pants that are completely free of all metal, with a drawstring or elastic waistband. You will be asked to remove your top and your bra and put on a gown. If you do not have metal-free pants, we will provide some for you.

