

Breast MRI

Magnetic Resonance Imaging, or **MRI**, is a painless way to look inside the body and provide your doctor with specific information about certain areas of your body. **MRI** utilizes a combination of a magnetic field, radio waves, and computer processing to derive images. In certain cases, **BREAST MRI** can provide additional information about your breast structure which may not be visible with mammography or ultrasound and may not be felt during a clinical breast exam.

Indications for Breast MRI

1. Staging in women with recently diagnosed breast cancer (usually by a recent needle core biopsy) prior to breast surgery.

In this instance, **MRI** can often more accurately define the extent and size of the previously diagnosed cancer and can also assess whether there may be other areas of cancer in the same or opposite breast which were not visible on mammography or sonography. About 5-10% of women diagnosed with breast cancer have more than one area of cancer in the same breast, and a similar percentage have cancer in the opposite breast (contralateral tumors). Thus, breast **MRI** provides important “staging” information which allows better planning of your breast surgery and subsequent treatments.

2. Differentiating scar tissue from recurrent breast cancer in women who have previously been treated for breast cancer.

Following surgery, the healing process creates scar tissue in your breast which on mammography and sonography looks very similar to changes seen with cancer. With time, these findings become less prominent, but can still limit the accuracy of mammography and sonography. However, one year after breast surgery, **MRI** becomes very accurate at differentiating scar tissue from recurrent breast cancer, and is especially useful in dense breast tissue where mammography is weakest. A normal breast **MRI** gives strong reassurance that there is no recurrent disease.

3. Assessing response of Breast CA to chemotherapy in women being treated before surgery (Neoadjuvant Chemotherapy).

Chemotherapy is often given prior to surgery for large or locally advanced cancer. Breast **MRI** is very sensitive for determining how well the chemotherapy is working. If the tumor is not improving after one cycle of treatment, a different chemo agent might be used.

4. Screening in women who are at high risk for developing breast cancer.

This group includes women with a 20-25% or better lifetime risk of developing the disease due to risk factors including a strong family history of breast cancer (ie: pre-menopausal breast cancer in mother or sister) and those who carry the breast cancer genes, BRCA 1 or 2. When used in conjunction with mammography and sonography, Breast **MRI** can help screen for cancer in this high risk group. Furthermore, younger women tend to have

dense breast tissue, which limits mammographic accuracy.

5. In women with breast implants to detect implant rupture or to assess the breast tissue itself for signs of cancer.

Implants obscure much of the breast tissue at mammography and, thus, mammography has limitations in augmented breasts. **MRI** can image in multiple directions (3D) and helps to assess the breast tissue that is hidden by the implants at mammography.

General Information

A **Breast MRI** scan is very sensitive at detecting most forms of breast cancer, but may be less sensitive at detecting low-grade ductal carcinoma in situ (DCIS). Also breast **MRI**, like mammography and ultrasound, is not always specific, meaning that it may detect areas in your breast which have imaging characteristics similar to cancer, but are benign. About 1 in 4 biopsies of breast **MRI** abnormalities reveals cancer. It may be necessary for an additional needle biopsy after an **MRI** to confirm whether or not newly found areas represent areas of cancer. This process can add time to the diagnostic process before surgery, but can also improve your chances of cure. If the breast **MRI** shows **no additional** areas of concern, this finding has 98% accuracy that there is no other cancer in your breasts.

We hope this information is useful to you and helps to answer questions you may have about the use of **Breast MRI**.

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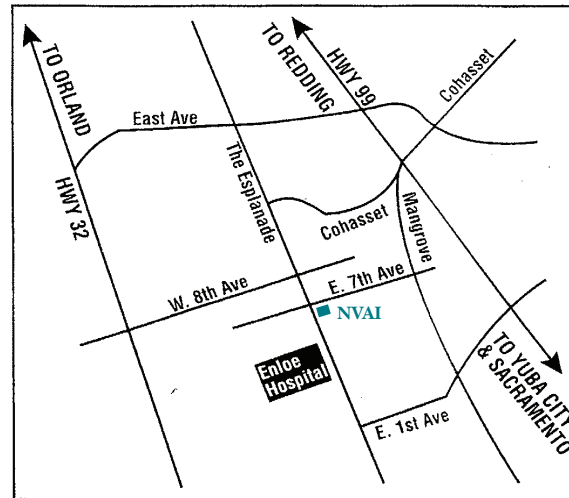
Appointment:

Date: _____

Time: _____

Special Instructions: _____

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BREAST MRI Patient Information



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