



What is Breast MRI?

Breast MRI is a new imaging technique that is being used for certain women at very high risk for cancer, whose breast tissue can't be fully evaluated in the usual ways. For some of these women, physical exam, mammogram, and ultrasound alone may not give enough useful information. MRI is most helpful for women with a very high risk of breast cancer. MRI isn't recommended for screening most women because it is TOO sensitive to normal glandular, 'fibrocystic' breast changes. Also, it misses certain early cancers that are easily seen on mammogram.

Who might benefit from Breast MRI?

- Women with the **BRCA 1** or **BRCA 2** gene mutations.
- Women with at least two first degree relatives, such as mother and sister, with invasive breast cancer when one of them was found before age 40.
- Women with certain very rare genetic or medical conditions that increase the risk of cancer.
- Certain women with breast cancer. An MRI can help plan surgery when it is not clear if the breast can be saved or if full removal (mastectomy) might be needed instead.
- Women with silicone gel implants to detect possible leaking of the implant.

How is Breast MRI different from Mammography?

- MRI, or magnetic resonance imaging, is done using a strong magnetic field and radio waves. Mammograms are done by x-ray.
- MRI requires intravenous (IV) injection of a contrast fluid.
- MRI shows very subtle changes in breast tissue, which could mean early breast cancer. However, these changes often look the same as normal breast tissue.
- MRI does not show calcium deposits, a common sign of early cancer which is seen very well on mammogram.
- The overall accuracy for finding breast cancer is lower with MRI, so for most women, mammogram is still the best screening test for breast cancer.

What happens in a Breast MRI?

- Breast MRI may require traveling to another site that has specialized equipment and trained personnel.
- Ideally, a scan should be done on day 7-12 of the menstrual cycle, when hormonal breast changes are the least. It is possible that women will be asked to discontinue hormone replacement therapy for 6 weeks prior to the test. This will be discussed at the time of scheduling.
- When you arrive, an intravenous line (IV) will be started in your arm. The machine is very noisy, and you will get earplugs to protect your hearing. You need to lie on your stomach, and hold very still as the scan table slides into the scanner. The scan takes about 45 minutes.

- Hundreds of images are obtained during the scan. These are studied by a Radiologist, with the help of a computer. The report is sent to the doctor who ordered the study. If anything unusual is seen, you will be called back for more testing, or a biopsy. Many biopsies can be done with a needle.

What should I do?

- If you have questions about your risk factors, please talk with your doctor or other health care professional. You may be referred to one of our genetic counseling centers for advice and possible testing.
- If you know that you are at high risk, contact your primary care provider, who will refer you to a genetic counselor or a High Risk Breast Clinic to help plan your care.
- Remember, Breast MRI is a new test, and its best uses are still being studied. Our clinical experts at Kaiser Permanente are constantly evaluating scientific reports, and regularly updating the guidelines.

All women can practice good breast health:

- Have a mammogram every 1-2 years beginning at the age of 40, or earlier if you have any of the risk factors described above.
- Have a clinical breast exam every 1-2 years.
- Do monthly breast self-exams yourself.
- Be physically active, eat a low fat diet, manage your stress, and enjoy life!

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Use these Kaiser Permanente resources for reliable health information:

- ❖ Connect to our Web site at **kp.org** to access health and drug encyclopedias, interactive programs, health classes, and much more.
- ❖ Contact your Kaiser Permanente Health Education Center or Department for health information, programs, and other resources.
- ❖ If you are hit, hurt, or threatened by a partner or spouse, this can seriously affect your health. There is help. Call the National Domestic Violence Hotline at 1-800-799-7233 or connect to **ndvh.org**.

This information is not intended to diagnose health problems or to take the place of medical advice or care you receive from your physician or other health care professional. If you have persistent health problems, or if you have additional questions, please consult with your doctor.