



What is a breast MRI?

Breast magnetic resonance imaging (MRI) is a technique used for women at very high risk for cancer, and whose breast tissue can't be fully evaluated in the usual ways. For these women, physical breast exam, mammogram, and ultrasound alone may not provide enough information.

Mammograms are still the only screening test that saves lives by finding breast cancer early. Breast MRI is not recommended for women who have low or average risk of breast cancer.

Who might benefit from a breast MRI?

MRI is recommended for women who:

- Have inherited mutations in certain genes, such as BRCA1 or BRCA2.
- Had chest radiation therapy at an early age.
- Are identified as high risk by a genetics risk assessment based on personal and family history of cancer.
- Have at least 2 first-degree relatives, such as mother, sister, or daughter, with invasive breast cancer, and one of them was younger than age 40.
- Have been recently diagnosed with breast cancer and may benefit from an MRI to plan their cancer treatment.
- Have silicone gel implants and are monitoring complications from these.

How is a breast MRI different from mammography?

MRI is done using a strong magnetic field and radio waves. Mammograms are done by X-ray.

An MRI also:

- Requires intravenous (IV) injection of a contrast fluid (dye).
- Shows very subtle changes in breast tissue, which could mean early breast cancer, though these often look the same as normal breast tissue.
- Does not show calcium deposits, a common sign of early cancer that is seen very well on a mammogram.

What happens in a breast MRI?

Breast MRI may require traveling to another site that has specialized equipment and trained staff. It's best to do a scan on day 7 to 12 of the menstrual cycle, when hormonal breast changes are the lowest. Women will also be asked to stop hormone replacement therapy 6 weeks before the test.

This will be discussed at the time of scheduling. During the procedure you will:

- Get earplugs to protect your hearing because the machine is very noisy.
- Receive an intravenous line (IV) in your arm for the dye.
- Be asked 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. The report is then 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.

Potential risks from the procedure include allergic reactions to the dye used in the MRI, anxiety while in the scanner, and damage to kidney function.

What should I do?

If you have questions about whether breast MRI is right for you, please talk with your doctor or other health care professional. You may also be referred to our:

- Genetics Center for risk assessment and/or genetic testing.
- High Risk Breast Clinic for advice and follow-up.

Practice good breast health

Knowing your own body may help you notice changes in your breast tissue. Talk with your doctor about self-exams and clinical breast exams.

You should also follow the guidelines for routine mammogram screening for women at average risk of breast cancer.

- **Ages 40 to 49.** You should consider the risks and benefits of screenings before deciding.
- **Ages 50 to 74.** Screenings are recommended every 1 to 2 years.

Women can also benefit from managing your overall health, including:

- Being physically active
- Eating a low-fat diet
- Managing your stress
- Enjoying life

* * * * *

For information, tools, programs, and other resources:

- Visit kp.org/mydoctor.
- Contact your Kaiser Permanente Health Education Center or Department.

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. Some photos may include models and not actual patients.