

BREAST MRI

What is a MRI of the Breast?

Magnetic resonance imaging (MRI) is a non-invasive way of viewing organs, soft tissues, bone and other internal body structures without the use of x-rays. MRI uses a magnetic field and radio waves together with a computer to create cross-sectional, three-dimensional pictures of the head and body. Detailed MR images allow physicians to better evaluate parts of the body for conditions that may not be visible with other imaging methods. MRI has proven valuable in diagnosing a broad range of conditions, including cancer, heart and vascular disease, stroke, and musculoskeletal disorders.

MRI of the breast is not a replacement for mammography or ultrasound imaging but rather is a supplemental tool for detecting and staging breast cancer and other breast abnormalities.

Common Uses

- Further evaluation of abnormalities detected by mammography
- Finding early breast cancers not detected by other tests, especially in women at high risk and women with dense breast tissue
- Examination for cancer in women who have implants or scar tissue that might produce an inaccurate result from a mammogram This test can also be helpful for women with lumpectomy scars to check for any changes.
- Detecting small abnormalities not seen with mammography or ultrasound (for example, MRI has been useful for women who have breast cancer cells present in an underarm lymph node, but do not have a lump that can be felt or can be viewed on diagnostic studies)
- Assess for leakage from a silicone gel implant
- Evaluate the size and precise location of breast cancer lesions, including the possibility that more than one area of the breast may be involved
- Determining whether lumpectomy or mastectomy would be more effective
- Detecting changes in the other breast that has not been newly diagnosed with breast cancer
- Detection of the spread of breast cancer into the chest wall, which may change treatment options
- Detection of breast cancer recurrence or residual tumor after lumpectomy
- Evaluation of a newly inverted nipple change

Without contrast material, an MRI of the breast can show:

- Breast tissue density
- Cysts
- Enlarged ducts
- Hematomas
- Leaking or ruptured breast implants

By comparing breast images taken before and after contrast material injection, an MRI exam can determine:

- If there are breast abnormalities
- Whether an abnormality looks benign (non-cancerous) or malignant (cancerous)
- The size and location of any abnormality that looks malignant
- The presence of enlarged lymph nodes

Safety

MRI scanners do not use X-rays. Instead, they use a strong magnet and radio frequency. Because of this powerful magnet it is vital that you remove all metallic belongings in advance of an MRI exam, including watches, jewelry, and items of clothing that have metallic threads or fasteners. Please tell the technologist if you are, or might be, pregnant. In certain cases, you may not be able to have an MRI and will need to discuss alternatives with your doctor.

Patients with any kind of metallic implant anywhere in their body should not have an MRI unless

BREAST MRI

their physician is fully aware of the device and has approved the MRI procedure. Under no circumstances should a patient who has a pacemaker have an MRI.

What should I expect BEFORE my Breast MRI?

Medications

It is important for you to keep to your regular medication schedule. Just let our staff know what medications you have taken prior to your MRI Exam.

Food and drink

There are no restrictions on what you may eat or drink before a typical MRI test.

When to arrive

Please arrive 15 minutes prior to your scheduled exam.

What to wear

For MRI scans, you should wear comfortable clothing; however, you may have to change into a hospital gown. If you are wearing anything metallic, such as jewelry, dentures, eyeglasses, or hearing aids that might interfere with the MRI scan, we will ask you to remove them. You should not have your credit cards in your pockets during the scan because the MRI magnet can affect the magnetic strip on the card. Makeup and nail polish that contain metal particles should be removed if applied to the area undergoing the MRI examination.

Intravenous preparation

Many of our patients receive a contrast agent intravenously during their MRI scan to give a clearer picture of the area being scanned. If your doctor has determined that this procedure will enhance your MRI scan results, the technologist will place an IV in your arm prior to your going into the scan.

What will I experience DURING my Breast MRI?

Scanning

You will be positioned face down on the moveable bed with your breasts hanging into the cushioned openings. The bed will then be moved into the magnet of the MRI unit. The technologist will leave the room while the MRI examination is performed. You will be asked to lie still while the machine acquires the images. Imaging is done in sequences, each lasting between one and fifteen minutes. In between sequences, you will be able to relax. You will know when images are being recorded because you will hear tapping or thumping sounds when the coils that create the magnetic field are turned on. It will be important for you to remain very still during the examination, as any movement could cause distortion and affect the quality of the scan. While the MRI procedure itself causes no pain, having to lie still for the length of the procedure might cause some discomfort or pain, particularly in the case of a recent injury or invasive procedure such as surgery. The technologist will use all possible comfort measures and complete the procedure as quickly as possible to minimize any discomfort or pain.

After an initial series of scans, the contrast material is injected into the intravenous line.

Additional series of images are taken following the injection.

When your exam is completed, you will wait a short time on the table while the images are evaluated to ensure no additional images are needed. Your intravenous line will be removed.

Length of my Breast MRI

The imaging session lasts between 30 minutes and one hour. The total exam will take approximately an hour and a half.

BREAST MRI

Contrast Medium

If you are over 60 or have kidney disease, diabetes, lupus, or multiple myeloma, you may need a blood test beforehand to make sure the contrast will be safe for you.

What should I expect AFTER my Breast MRI?

After a breast MRI examination, you should be able to resume your normal activities immediately. To help eliminate the contrast medium from your body, remember to drink plenty of fluids.

Breast MRI Results

We understand that quick results are important for our patients. Exams are typically read within 24 hours and results will be sent to your physician who will go over them with you.