

## What is an MRI breast biopsy?

An MRI-guided breast biopsy is similar to a regular breast MRI exam, but you also will be moved in and out of the scanner during the procedure. After each step of the biopsy process (done on the table you will be laying on but outside of the scanner), you will move back into the scanner to be sure the procedure is accurate. Your physician and the technologists who do your exam will give you a detailed description of the procedure and discuss any questions ahead of time. Part of the discussion will include getting your informed consent for the procedure. Please plan to arrive at least one hour before your scan time for this discussion and the consent process.

## How will I get my results?

After your scan is complete, a breast radiologist who specializes in interpreting breast MRI exams will analyze the images. The results will be sent to the provider that requested your exam. If our team sees an abnormality in your scan we will contact you to discuss the need for additional imaging (such as mammography or ultrasound) or a biopsy. Typically, results of your breast MRI are available to your physician within three to five business days after the scan.

## Questions

If you have any questions regarding the breast MRI procedure, please call the Dartmouth-Hitchcock Radiology Department at (603) 650-8445 and ask to speak to one of the MRI technologists. We will be happy to answer your questions and explain each step of the process.



One Medical Center Drive, Lebanon, NH  
dartmouth-hitchcock.org

# Breast Magnetic Resonance Imaging

## Information for Patients



Dartmouth-Hitchcock offers high-definition breast imaging that gives you peace of mind. Our team uses the Siemens Skyra 3.0T and GE HDXT 1.5T magnetic resonance imaging (MRI) scanners to help get the most accurate result possible when screening for breast cancer or diagnosing the best treatment for breast-related health issues.

### What is a breast MRI used for?

A breast MRI screens for early stage breast cancer in women who are at high risk. This technique can also help women who have a new diagnosis of breast cancer to determine the stage of cancer and the most appropriate treatment plan. An MRI can be used to locate the right spot for a breast biopsy to find more answers when a mammography or ultrasound gives unclear results. MRI-guided breast needle biopsy is another option for women who have a suspicious abnormality seen in a breast MRI. Finally, for those who have a breast implant, an MRI may be done to confirm if there is any leaking.

### Breast MRI for screening

For women who have a high lifetime risk of developing breast cancer, the American Cancer Society recommends that a breast MRI be done each year in addition to a mammogram. Those considered at high risk include women who:

- Are at high risk for breast cancer as defined by the Familial Cancer Program at Dartmouth-Hitchcock; to schedule a risk assessment call (603) 653-3541.
- Test positive for the BRCA gene mutation (breast cancer gene) or who have a first-degree relative that tests positive for this gene.

- Have had ovarian cancer but have not been tested for the BRCA gene.
- Have Li-Fraumeni syndrome, Cowden syndrome, or Bannayan-Riley-Ruvacalba syndrome; women who have a first-degree relative with these syndromes are also advised to undergo annual breast MRI screening.
- Have a greater than 20% lifetime chance of developing breast cancer as defined by breast cancer risk assessment models, such as BRCAPRO or BOADICEA.
- Received radiation therapy to the chest as a child.

### Scheduling your breast MRI

To reduce the chance of a false positive result, it is important to consider the timing of your breast MRI scan. Here are the guidelines we follow when scheduling a breast MRI:

- If you have a regular menstrual cycle, it is best to schedule a screening MRI between day 5 and day 15 of your cycle (with day 1 being the beginning of your menses/period).
- If you no longer have periods, your MRI can be done at any time.
- In general, if you are having a breast MRI for reasons other than screening you should not delay your MRI exam.

In order to provide the most accurate result, the radiologist will compare the breast MRI to your most recent mammogram. If you are older than age 25 and have not had a mammogram within the last six months, please inform the scheduler when you call to set up your appointment. If you have had a mammogram outside of Dartmouth-Hitchcock, please tell the scheduler so that we can obtain the exam results before your appointment.

### What happens during the MRI?

During the scan you will be positioned on your stomach. The MRI scan usually takes about 45 minutes. A female technologist will position your breasts within the MRI coil. The MRI is quite noisy. We do have an internet-based music system you can listen to, or you may choose to wear earplugs. You will also be given a rubber ball to squeeze if you need to talk to the technologist during the scan or if you wish to end the exam early. The technologist will go over the entire scanning process with you at the beginning of your appointment.

### Will a contrast agent be used?

The breast MRI technology requires an injection of what is called a “contrast agent” into one of your veins using an intravenous catheter. The contrast agent is used to make it easier to find abnormalities that have an increased or abnormal blood flow, such as with some types of cancer or areas of inflammation. For those who have allergies to iodine, the contrast liquid is gadolinium-based, not iodine-based (iodine is used for CT scans). Typically, patients will feel a cool sensation going up their arm and they may notice a metallic taste or smell. Please tell the scheduler if you are diabetic or have a history of kidney problems when you make your MRI appointment. If you are having a breast MRI for evaluation of an implant, the contrast agent is not needed.