MRI-Guided Breast Biopsy
Patient Education

What Is an MRI-Guided Breast Biopsy?
A biopsy is a procedure that removes a small amount of tissue from your breast using a special kind of needle. Your doctor may recommend a biopsy after a magnetic resonance imaging (MRI) of the breast shows a suspicious area.

In an MRI-guided breast biopsy, doctors use MRI to guide the instruments to the suspicious area.

What Are the Risks of a Biopsy?
The main risks are bleeding and infection. Infection is a very low risk. Most bleeding is minor and happens during and shortly after the biopsy. This usually stops by applying pressure. In some cases, blood collects within the breast, creating a tender lump that looks bruised. This will heal with time like any normal bruise.

How Long Does the Biopsy Take?
Plan on about one hour for a biopsy. The actual biopsy is very fast. However, capturing images and positioning the biopsy guide takes some time. You can expect to be on the MRI table for about 40 minutes. The table slides you in and out of the MRI machine several times during the biopsy.

Will I Be Awake During the Biopsy?
Yes. This is a minor procedure that does not require sedation.

Can I Eat the Day of the Biopsy?
Yes, you can eat normally the day of your biopsy.

What Happens Before the Biopsy?
The doctor, called a radiologist, who will perform the biopsy will visit with you. He or she will discuss the procedure, get your consent, and answer any questions you may have.

A technologist will place an IV in your forearm and you will lie face-down on the MRI table. We will make every effort to make you as comfortable as possible. We can have music of your choice available through headphones that you can wear.

Your breast will be placed into position with a small amount of pressure (much less than a mammogram). This keeps the breast still. It is very important that your breast not move during the biopsy.

What Happens During the Biopsy?
The table will slide you into the MRI machine to get a set of images. After the radiologist reviews them, the technologist will inject a contrast material (gadolinium) through your IV. This helps the radiologist find the suspicious area. Next, the radiologist will take more images and review them using special software to target the suspicious area.

At this point, the table will slide you out of the MRI machine. The radiologist will clean the skin over the suspicious area and inject a medicine (lidocaine with epinephrine) to numb the area. You may feel a mild sting and burning sensation, but this will quickly go away. Next, the radiologist will place a sterile plastic tube (called the biopsy guide) into the breast through a small cut in the skin. The table will slide you back into the MRI machine to get more images.

If the images show the guide is where it needs to be, the needle is inserted through the guide to remove small tissue samples. The area is numb, but you may feel mild pressure or vibration. Once the biopsy is taken, the needle is removed, leaving the guide in place. The radiologist will review another set of images and will decide if any more tissue samples are needed. Each set of images takes about two to three minutes.
What Happens After the Biopsy?
When the biopsy is complete, the radiologist places a small biopsy marker (called a clip) through the guide to mark the area that was biopsied. The radiologist will then remove the guide and apply pressure to the area to stop any bleeding.

You can then turn over onto your back. The radiologist will continue to apply pressure to reduce any bruising, usually for about 5-10 minutes. Next, the radiologist places a dressing over the wound. A technologist will take you to have two mammogram images. These images confirm if the clip is in the correct area.

You will go home with an ice pack, instructions on how to care for your breast over the next few days, and a phone number to call if you have any questions or concerns.

What Is a Clip?
A clip is a tiny piece of titanium, the same material used in implanted joint replacements. You will not be able to feel it and it won’t set off any alarms. It is also safe for future MRIs. The clip marks the area that was biopsied for future reference.

If the tissue sample removed during the biopsy has abnormal or cancer cells, the clip shows where the tissue came from if surgery is needed. If the tissue sample shows no cancer, the marker remains in your breast to show that the area was biopsied.

When Will I Get the Results?
Usually in three to five business days. The tissue samples have to process for the first one to two days. Next, a doctor called a pathologist will look at the tissue samples under a microscope and write a report with any findings or diagnosis. This is called a pathology report.

The radiologist who performed the biopsy will compare the pathology report to the images from the biopsy to make sure everything matches. Once this is complete, we will call you with the results.

If the Biopsy Shows No Cancer, Is Any Follow Up Needed?
The radiologist may recommend a diagnostic MRI six months after the biopsy. In some rare cases, an open biopsy (surgery) may be recommended if the pathology report does not match the MRI findings.

Should I Avoid Any Activities After the Biopsy?
Yes, please follow these guidelines to allow the breast to heal as quickly as possible.

The day of your biopsy
- Avoid any activity that will jostle the breast, such as jogging or vacuuming.
- Avoid lifting anything heavier than a gallon of milk.
- Do not shower for 24 hours after the biopsy.
- Follow the instructions you are given to care for the wound dressing. Ask a member of your health care team if you have any questions.
- Take it easy. Most women take the day off work to rest. You may return to work as long as you avoid heavy lifting and activities that jostle the breast.

The day after your biopsy
- Do not scrub the wound area or apply ointments to it.
- Do not submerge your breast in water for at least three days. This allows the wound to close before it is exposed to bacteria. (You may shower 24 hours after the biopsy.)
- Return to 50% of your normal activity, but listen to your body. If you feel discomfort, wait another day or two.