MRI-Guided Core Needle Breast Biopsy

A magnetic resonance imaging (MRI) machine is used as part of the biopsy procedure. The MRI imaging procedure uses no radiation. The image helps to precisely position a biopsy needle within the breast. A sample of breast tissue will be collected and sent to a pathologist for evaluation.

Important Instructions

Your MRI-guided breast biopsy is a scheduled appointment. If you are unable to keep your appointment, call the clinic that scheduled your appointment. Your clinic should then notify the Diagnostic Imaging-Interventional Radiology team.

Preparation

- Bring a list of your medicines.
- Leave jewelry and valuables at home.
- You must have a responsible adult come with you and drive you home. This person will wait in the lobby area during your procedure. Only trained staff will be allowed in the procedure room.
- You do not have to do anything special to prepare for this procedure, unless you have a metal trach. If you have a metal trach, it must be changed to a plastic one. This is done in the Head and Neck Center before the MRI procedure.
- You may drink and eat a light meal before the procedure, unless you are fasting for another appointment. If you are to be sedated for the procedure, do not eat or drink anything. It is important that you follow all preparation instructions for all procedures (see Sedation Instructions below).

Call your clinic if you:

- Have claustrophobia (fear of enclosed spaces) and need to be given a sedative.
- Are pregnant or breast feeding.
- Are under the age of 18.
- Have any metal devices in or on your body.

Precautions

You will not be able to have the procedure if you have a pacemaker or defibrillator. Tell the nurse or the radiology technologist if you have any of the following:

- Spinal cord stimulator
- Implanted infusion pump
- Ear implants/cochlear device
- Other implanted/external electronic devices
- Cerebral aneurysm/brain clip
- Breast tissue expanders
- Pill camera (endoscopy capsule) in last 48 hours
- Any metal in your eyes
- Work with metal or are a welder
- On body medication injector (OBI) attached (i.e., Neulasta® Onpro®, Omnipod®, etc.)
- Continuous glucose monitor (CGM) (i.e. FreeStyle Libre)
- Aortic clips
- Artificial heart valves
- Stents
- Bullet fragments or shrapnel
- Dental braces
- Dental retainer/partial plate/bridge
- Inferior vena cava (IVC) filter (umbrella filter)
- Intrauterine device (IUD)
- Joint replacements
- Limb prosthesis
- Metal mesh
- Metal tracheostomy
- Penile implants
- Permanent eyeliner
- Piercing that cannot be removed
- Port/Port-a-Cath
- Rods/screws/plates
- Shunts
- Fentanyl or medication patch
- Tattoos
- Any chance of pregnancy
- Claustrophobia
- Any device in or on your body that was not present at birth
- Any other metal or biomedical devices
- Allergy to local anesthetic (Xylocaine®, Novocain®), adhesive tape and antiseptic soap or latex
- Are on chemotherapy
- Significant neck and back pain
- Respiratory problems such as cough, difficulty breathing and/or a need for oxygen
- Weigh more than 350 pounds
- Have had recent abdominal or chest surgery
- Are allergic to MRI contrast
- Are taking aspirin, ibuprofen, Coumadin®, Heparin, Plavix®, ginkgo biloba, vitamin E or other blood thinners

⚠️ You need to stop taking these medicines at least 5 days before the biopsy because they can interfere with blood clotting. If you are taking Coumadin®, ask your doctor if you can stop it 5 days prior to the biopsy.
Sedation Instructions

Some patients need help to relax during an MRI procedure. Some patients have found guided imagery or focused counting to be helpful. Others choose to take medicine to help with anxiety.

If your doctor has prescribed medicine for anxiety or claustrophobia to take before this MRI procedure, bring it with you. There may be a delay in the appointment schedule, so do not take the medicine until after you have signed the procedure consent form and the MRI staff tells you when you may take the medicine.

If you are going to be sedated for this procedure, follow these instructions:
- Do not eat or drink anything for 8 hours before your schedule procedure time.
- You must have a responsible adult come with you and drive you home.
- You may not drive for 24 hours.

Biopsy Procedure

Pre-procedure
- Arrive at your scheduled check-in time.
- You will be taken to a patient dressing room, where you will change into a hospital gown. If you are wearing anything that contains metal, you may be asked to remove it.
- The nurse will check your blood pressure, heart rate and temperature. The nurse will also ask questions to verify your medical history.
- The radiologist will explain the procedure, answer all your questions and concerns. You will be asked to sign a consent form stating that you understand the procedure with the risks and benefits explained to you.
- An intravenous (IV) line will be started in order to give you contrast medium (dye) during the procedure. The contrast medium does not contain iodine. It is rare to have an allergic reaction to it.

MRI Procedure
- You will be escorted to the MRI area where you will be asked to lie on a padded table. This table will gently move you into the imaging area of the MRI machine.
- Both ends of the MRI machine are open and it is lighted inside.
- A 2-way intercom system is set up for you to talk to the technologist at any time. You will also be given a special ball that you can squeeze to alert the staff to any problems you may be having.
- It will be noisy while the MRI is operating. You will be given ear plugs to reduce the noise. You will be positioned safely and comfortably.
- Next, you will lie face down on your abdomen during the procedure.
- Your breast will be lightly compressed and immobilized.
- You will need to lie still. The technologist will ensure you are as comfortable as possible prior to starting the procedure.
**Biopsy Procedure**

- After imaging the breast area, your skin will be cleansed with antiseptic soap and alcohol. The radiologist will administer a local anesthetic and then guide the biopsy needle into your breast tissue. Local anesthesia is used and the procedure is usually painless. You may feel some vibration or pressure when the tissue samples are taken.
- Using the MRI images as a guide, the radiologist will take several tissue samples through the needle.
- A small titanium clip will be inserted through the biopsy needle to mark the area being sampled.
- After the biopsy is completed, the nurse or technologist will apply Steri-Strips™ to close the small incision. Gauze and pressure will be applied to the biopsy site to stop any bleeding.
- You will be escorted to the Breast Center where a mammogram will be taken to verify the clip placement.
- The Breast Center nurse will provide you with discharge instructions.

**Discharge Instructions**

- Your biopsy results will be available in 3 to 5 business days. You will need to provide us with a phone number where you can be reached for follow up.
- The discharge nurse will give you additional ice packs and gauze to place in your bra. Keep the ice pack on for 20 minutes and then remove it for 20 minutes. Do this for the first 24 hours (while you are awake only).
- Do not lift anything heavy (over 10 pounds) and avoid strenuous physical activity for 48 hours.
- You may take regular or extra strength Tylenol® (acetaminophen) for pain (1 to 2 tablets every 4 to 6 hours as needed). Do not use aspirin or ibuprofen because they may increase bleeding.
- Keep the biopsy area clean and dry. You may take a shower after 24 hours, but do not soak in a tub or swim until the biopsy site is healed.
- You may remove the gauze and ice pack after 24 hours. Leave the Steri-Strips on until they are ready to fall off (usually 5 to 7 days).
- You may notice bruising or color changes on your breast or around the biopsy site. This is normal and will slowly go away in 2 to 3 weeks.
- You may notice a firm area at the biopsy site after 1 to 2 weeks. The firm area is scar tissue and is a normal part of the healing process.