

What Does Mammography Follow Up Involve?

Table of Contents

- 1 Introduction
- 2 Imaging
- 3 Biopsy
- 4 Surgical Biopsy
- 4 The Benefits of Regular Screening
- 5 Contact Us
- 6 Sources

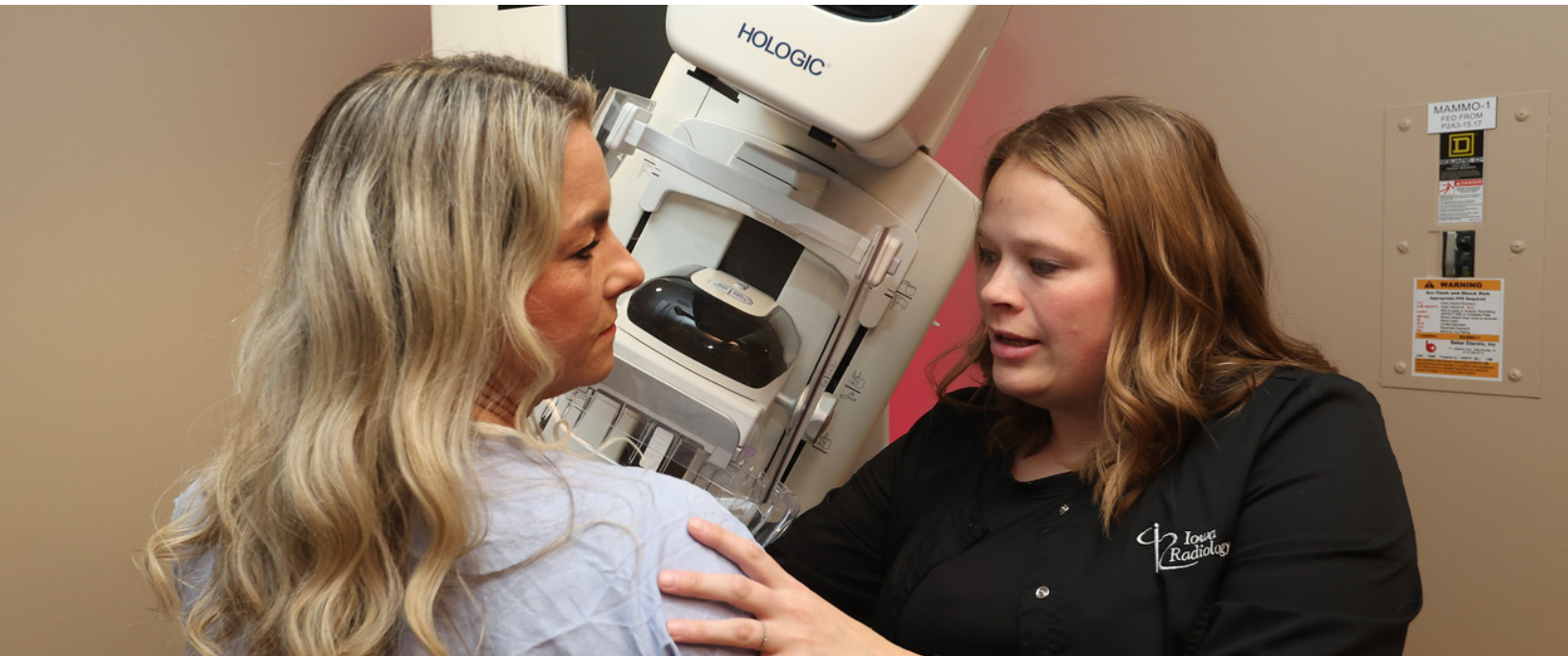
Introduction

While most abnormal mammography results are ultimately found not to be breast cancer, it's important to promptly schedule any recommended follow-up tests to ensure that if cancer is present, it's identified as early as possible. Even in the modern age of advanced breast cancer treatment, patients whose invasive breast cancers are identified when they are smaller and involve fewer lymph nodes enjoy a more favorable prognosis, including increased survival rates and less invasive treatments.¹

First and foremost, if you're called back for follow-up testing after your mammogram, don't panic. The American Cancer Society reports that it's fairly common to be called back for follow up after mammography, but fewer than 1 in 10 of these callbacks lead to cancer diagnoses.² That means even if you're called back, the odds are good that you don't have breast cancer. It's important to keep this in mind as you go through your follow-up procedures to keep your stress level under control. Needless stress will only drain your energy, making it more difficult for your body to fight off disease of all kinds—including cancer.³



Imaging



MAMMOGRAPHY AND ULTRASOUND

Follow up typically begins with additional mammography images to get a closer look at the suspicious area. If the radiologist is not able to get sufficient information from these images, then ultrasound is often used to determine whether the lesion is a fluid-filled cyst or a solid mass. Much like in an obstetric ultrasound, during a breast ultrasound, the technologist passes a lubricated transducer over the breast. As the sound waves bounce off internal breast features, a computer translates them into images, which appear on a monitor. The procedure is simple and most often painless, although you may experience discomfort if your breasts are already very tender or inflamed. If you have a breast ultrasound at Iowa Radiology, we will send a report of the results to your doctor within one business day.

If imaging shows only completely fluid-filled cysts, which are benign, no further follow up is required; if a cyst contains solid material, it will be evaluated more closely. If a solid mass is detected, then the radiologist will look at its borders and composition; masses with blurry or spiky borders are considered more suspicious than those with well defined borders.

MRI

MRI can provide enhanced imaging clarity and is often used to assess known or suspected breast cancer that isn't clearly visible with other imaging methods. If an MRI is ordered for you, then you may need to undergo a creatinine test prior to the exam. This is a blood test that evaluates your kidney function; impaired function will counter indicate the use of gadolinium contrast, which is used to obtain the heightened image clarity that the radiologist will need to effectively assess your condition.

During a breast MRI, you will lie on your stomach on the exam table with your breasts hanging down into cushioned openings.⁴ The table will slide into the MRI machine, and you will hear clicking sounds as it operates. It's important that you lie completely still during the exam in order to obtain useful images. After initial images are taken, you'll receive an injection of contrast dye into a vein in your arm, and more images will be taken. The scan itself takes 15-20 minutes, and the entire visit lasts around 60 minutes. If you have your exam at Iowa Radiology, we'll send a report of your breast MRI results to your referring physician within two business days.

Biopsy

If your imaging tests suggest the presence of breast cancer, then the doctor will order a biopsy. The most common form of breast biopsy is a needle biopsy; in rare cases, surgical biopsies are needed.

NEEDLE BIOPSIES

Two main types of needle biopsies are used: fine needle aspiration and core needle biopsy.

FINE NEEDLE ASPIRATION

Fine needle aspiration (FNA) is the least invasive type of breast biopsy and typically leaves no scar. Because FNA takes a smaller sample, it can be less accurate and provide less information about the area of concern than core needle biopsy. Although it's used less often, fine needle aspiration can be performed in a provider's office, with a local anesthetic if needed. Fine needle aspiration is sometimes used to get information quickly about an abnormal area that is likely to be a fluid-filled cyst. Removing the fluid in this way can also alleviate pain in the area.^{5,6}

CORE NEEDLE BIOPSY

Core needle biopsy is an accurate way to diagnose breast cancer when performed by an experienced radiologist. A hollow needle is used to remove tissue from the area of concern. The needle may be mounted on a spring-loaded tool that rapidly inserts and withdraws it, or it may be attached to a vacuum device that pulls the tissue into the needle. The doctor may take several samples to ensure accurate results. If the mass can be felt, then the doctor may be able to take an effective core needle biopsy without the need for imaging. For a nonpalpable mass, however, a core needle procedure will be scheduled at the radiologist's office for imaging-guided biopsy using mammography (stereotactic biopsy), ultrasound, or MRI.

If you undergo a core biopsy, you'll be given a local anesthetic, and the doctor may make a very small incision (about ¼ inch) in the breast, into which the needle will be inserted. Most often, they will leave a small stainless steel or titanium clip to mark the biopsied area so it can be easily found again for future follow up. You won't be able to feel the clip, and it won't set off metal detectors.^{7,8}

- During stereotactic biopsy, you will sit in a chair, positioned similarly to how you would be for a mammogram. Your breast will be compressed as several images are taken to guide the radiologist to the area of concern.
- During an ultrasound-guided biopsy, you will lie on your back, and the transducer will be pressed against your breast in order to locate the suspicious area.
- With MRI-guided biopsy, you'll receive a contrast injection before images are taken. You'll lie on your back, and your breast will be compressed as with stereotactic biopsy.⁹

Your biopsy appointment will last around two hours, 30-40 minutes of which is for the procedure itself. Following the procedure, the site will be closed with either Dermabond or Steri-Strips to promote healing, and a follow-up mammogram will be obtained.

You'll go home with an ice pack, Steri-Strips, and aftercare instructions. Expect the site to be tender for a few days and possibly bruise. Many women experience moderate achiness during this time that can be effectively controlled with ice packs and acetaminophen. Plan to get plenty of rest over the following few days, and avoid strenuous activity. You'll be able to bathe the morning after the biopsy, as long as you're careful not to soak or scrub the biopsy site. Iowa Radiology reports biopsy results to both the patient and the referring provider within two business days.

Surgical Biopsy

In some cases, doctors recommend surgical biopsy to obtain an accurate diagnosis. Surgical biopsy is typically performed in a hospital outpatient department using a local anesthetic in addition to IV sedation, but general anesthesia may be used in some cases. There are two main types of surgical biopsy: incisional and excisional. In an incisional biopsy, the surgeon removes only part of the suspicious area, while an excisional biopsy involves removal of the entire abnormality and, in some cases, a margin of normal tissue around it.¹⁰ While surgical biopsy is more invasive than needle biopsy and carries greater risk of complications, it is also the most accurate way to diagnose breast cancer and get complete information about the tumor.

BIOPSY RESULTS

Your pathology report will describe the sample of tissue that was taken for biopsy, including the location it was taken from and the presence or absence of noncancerous, precancerous, and cancerous changes. If only noncancerous conditions are found, and your doctor and radiologist are comfortable with the result, then you'll be able to go back to your normal mammography screening schedule. If, on the other hand, your doctor and radiologist suspect (based on highly suspicious imaging results, for example) that a needle biopsy may have produced a false negative result, then a surgical biopsy may be recommended to be sure that cancer isn't missed.

If the pathology report indicates cancer, then it will contain valuable information about the type of cancer, such as hormone receptor status and other data that influence prognosis and will help to guide your treatment plan. A needle biopsy will not yield information about tumor size, lymph node status, or metastasis. However, other tests may be ordered to obtain this information.¹¹

The Benefits of Regular Screening

A 2020 study of more than half a million women found that those who underwent mammography screening had a 41% lower risk of dying of breast cancer within 10 years and a 25% lower rate of advanced breast cancers than those who did not.¹²

MAMMOGRAPHY SCREENING WITH HOLOGIC GENIUS 3D

Iowa Radiology is proud to provide Hologic Genius low-dose 3D mammograms with the option of SmartCurve compression. Research has shown modern 3D mammography (breast tomosynthesis) to reduce the need for callbacks after screening while increasing detection of invasive breast cancers.¹³

Low-dose technology means that the more detailed 3D images can be created without the need for additional radiation. The SmartCurve compression plate mirrors the shape of the breast to apply even pressure and provide a more comfortable exam for most women than standard flat imaging plates. Because each woman's body has a unique shape, our technologists determine whether to use SmartCurve on a case-by-case basis.



In Partnership With



Our focus is your good health!

Contact Iowa Radiology Today!

Sources

¹ American Cancer Society. American Cancer Society Recommendations for the Early Detection of Breast Cancer. Cancer.org. Revised December 19, 2023. Accessed February 1, 2024. <https://www.cancer.org/cancer/types/breast-cancer/screening-tests-and-early-detection/american-cancer-society-recommendations-for-the-early-detection-of-breast-cancer.html>.

² American Cancer Society. Getting Called Back After a Mammogram. Cancer.org. Revised May 17, 2022. Accessed February 1, 2024. <https://www.cancer.org/cancer/types/breast-cancer/screening-tests-and-early-detection/mammograms/getting-called-back-after-a-mammogram.html>.

³ Zieba J. Psychological Stress Distracts the Immune System from Fighting Infections. The Scientist. Published August 8, 2022. Accessed February 1, 2024. <https://www.the-scientist.com/news-opinion/psychological-stress-distracts-the-immune-system-from-fighting-infections-70309>.

⁴ Mayo Clinic. Breast Biopsy. MayoClinic.org. Published August 25, 2023. Accessed February 2, 2024. <https://www.mayoclinic.org/tests-procedures/breast-biopsy/about/pac-20384812>.

⁵ American Cancer Society. Fine Needle Aspiration (FNA) of the Breast. Cancer.org. Revised January 14, 2022. Accessed February 2, 2024. <https://www.cancer.org/cancer/types/breast-cancer/screening-tests-and-early-detection/breast-biopsy/fine-needle-aspiration-biopsy-of-the-breast.html>.

⁶ Breastcancer.org. Screening and Testing: Breast Biopsy. Updated January 19, 2024. Accessed February 2, 2024. <https://www.breastcancer.org/screening-testing/breast-biopsy>.

⁷ Ibid.

⁸ American Cancer Society. Core Needle Biopsy of the Breast. Cancer.org. Revised January 14, 2022. Accessed February 2, 2024. <https://www.cancer.org/cancer/types/breast-cancer/screening-tests-and-early-detection/breast-biopsy/core-needle-biopsy-of-the-breast.html>.

⁹ Mayo Clinic. Breast Biopsy. MayoClinic.org. Published August 25, 2024. Accessed February 2, 2024. <https://www.mayoclinic.org/tests-procedures/breast-biopsy/about/pac-20384812>.

¹⁰ American Cancer Society. Surgical Breast Biopsy. Cancer.org. Revised January 14, 2024. Accessed February 2, 2024. <https://www.cancer.org/cancer/types/breast-cancer/screening-tests-and-early-detection/breast-biopsy/surgical-breast-biopsy.html>.

¹¹ Breastcancer.org. Screening and Testing: Breast Biopsy. Updated January 19, 2024. Accessed February 2, 2024. <https://www.breastcancer.org/screening-testing/breast-biopsy>.

¹² Duffy SW, Stephen W, Tabár L, Ming-Fang Yen A, et al. Mammography screening reduces rates of advanced and fatal breast cancers: Results in 549,091 women. Cancer. 2020;(126): 2971-2979. <https://dx.doi.org/10.1002/cncr.32859>.

¹³ Conant EF, Talley MM, Parghi CR, et al. Mammographic Screening in Routine Practice: Multisite Study of Digital Breast Tomosynthesis and Digital Mammography Screenings. Radiology. 2023;307(3). <https://dx.doi.org/10.1148/radiol.221571>.