Breast Biopsy
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Getting Answers

A biopsy is a test that examines a small amount of tissue under a microscope to see what kind of cells are there. If your doctor has suggested a biopsy, there may be one of several reasons: you may have had an abnormal finding on a mammogram, ultrasound or MRI, or you may have symptoms, such as a breast lump, that need to be investigated.

An abnormality in the breast may be benign (noncancerous) or malignant (cancerous). Fortunately, breast cancer can be curable, especially if detected early. In fact, 96 percent of women treated for early stage breast cancer are still free of disease five years after diagnosis. A biopsy is the only way to determine exactly which cell types are present in an abnormal area of the breast. The sooner the abnormality is diagnosed, the better your chances for a positive outcome.

There are many different procedures for breast biopsies, including new technologies. Each has different advantages and limitations.

This brochure outlines the basic steps in preparing for a biopsy, and the different types of biopsies available at City of Hope. It explains how they are performed, and when they may be most useful.

Be Informed

Most breast abnormalities are benign, but a biopsy will let you know for sure.

As a National Cancer Institute-designated Comprehensive Cancer Center, we take a multidisciplinary approach that ensures a woman receives the best possible care, from prevention and screening to diagnosis, treatment and follow-up.
Preparing for Your Biopsy

Five to seven days before your biopsy, you will need to stop taking any medications that decrease your blood’s ability to clot (drugs with a blood-thinning effect). These include:

Aspirin and aspirin-containing products such as:
- Anacin®
- Bufferin®
- Generic aspirin products

(Note that acetaminophen products such as Tylenol® do not interfere with blood clotting and are okay to take.)

Ibuprofen and other nonsteroidal anti-inflammatory drugs (NSAIDs) such as:
- Advil®
- Aleve®
- Motrin®
- Nuprin®
- Celebrex®
- Naprosyn®
- Naproxen
- Generic NSAIDs

The use of anticoagulant drugs and vitamins that slow blood clotting must be discussed with your doctor. These include:
- Coumadin®
- Warfarin
- Heparin
- Plavix®

If your doctor has directed you to take any of these medications, be sure to tell him or her that you are having a biopsy. Also, tell your doctor, radiologist and scheduler about any herbal preparations you may be taking, such as ginkgo biloba or garlic tablets.

Although you will not receive any medications that make you drowsy during your biopsy, we recommend that you do have someone accompany you to and from City of Hope.

Support Call

Ask a friend or family member to take you to your biopsy appointment, and to bring you home.

Fine Needle Aspiration (FNA) Biopsy

Although a lump may be felt during an exam, doctors cannot know if it is a concern without further testing. Some breast lumps are solid tissue, while others may be filled with fluid (cysts). A fine needle aspiration (FNA) biopsy can help determine the type of abnormality involved.

FNA Biopsy Procedure

To begin, the skin in the area of the breast abnormality will be numbed with a local anesthetic, such as novocaine. The doctor will place a needle in the breast and withdraw any fluid or a small amount of tissue that may be found inside it. The needle tip will be moved back and forth to collect samples of cells, after which it will be removed and a sterile dressing applied.

A pathologist will examine the cells under a microscope and prepare a report, which usually takes several days. Your doctor will give you the results. Please call your doctor if you have not been contacted in a timely manner.
Stereotactic Breast Biopsy

This procedure is used to sample tissue that appears abnormal on mammograms. It can often eliminate the need for a more invasive surgical biopsy. While it is as reliable as a surgical biopsy, stereotactic breast biopsy is less complicated and needs no general anesthesia.

Stereotactic Breast Biopsy Procedure

You will have this procedure lying down on your stomach. The breast to be biopsied will be positioned between two plates, like having a mammogram. It will be held in place using compression to prevent movement.

First, mammogram images will be taken, and a computer will calculate the precise location of the area to be sampled. You may be repositioned if needed. The area to be tested will be numbed, and a small incision is then made in the skin. Then, a biopsy needle will be inserted and tissue samples will be obtained from the precise area being evaluated. Finally, a sterile dressing will be applied.

Our staff will assist you throughout the procedure, to make sure you are as comfortable as possible and to answer any questions you may have. When the biopsy is complete, you will receive written instructions on how to care for yourself at home.

A pathologist will examine the tissue samples under a microscope and prepare a report, which usually takes several days. Your doctor will give you the results. Please call your doctor if you have not been contacted in a timely manner.

Ultrasound-guided Breast Biopsy

This procedure is used to evaluate areas of the breast that appear abnormal on a mammogram or an ultrasound exam, whether or not they can be felt. It avoids the need to obtain tissue by performing traditional “open” surgery, and is useful for examining lumps under the arm or near the chest wall.

Ultrasound-guided Breast Biopsy Procedure

This procedure is performed while you are lying on your back with your arm raised above your head. First, a warmed gel is placed on the breast to help transmit the sound waves. Then, a hand-held device is placed on the breast and moved back and forth to find the abnormal area.

Once located, the radiologist will cleanse and numb the area. A small incision will be made, and a biopsy needle inserted. After samples are obtained, the incision will be covered with a sterile dressing.

A pathologist will examine the tissue samples under a microscope and prepare a report, which usually takes several days. Your doctor will give you the results. Please call your doctor if you have not been contacted in a timely manner.

Sound Waves

Ultrasound uses high-frequency sound waves to create internal images of breast tissue.

MRI-guided Breast Biopsy

MRI (magnetic resonance imaging) uses magnetic fields and radio waves, and a computer system to generate three-dimensional cross-sectional images of the body. MRI-guided biopsy is used when an abnormal area cannot be visualized well by mammogram or ultrasound. Sometimes, an MRI-guided biopsy is used when an abnormality can only be visualized on an MRI scan.
IMPORTANT INFORMATION BEFORE UNDERGOING MRI-GUIDED BREAST BIOPSY

MRI procedures require additional preparations. First, follow the steps in the section, “Preparing for Your Biopsy,” above. In addition:

You may also be asked to provide a urine sample before your MRI. This is needed for a pregnancy test. Normally, pregnant women do not receive MRI because potential risks to the fetus are not yet known.

If you have fears of being in an enclosed space (claustrophobia), you may ask your doctor to prescribe a mild sedative.

As you will be receiving intravenous contrast material, you will be asked if you have any allergies. Also, certain health problems such as kidney disease or sickle cell anemia may prevent you from receiving contrast material.

You may be permitted to wear your own loose-fitting clothing if it has no metal fasteners, or you may be asked to change into a hospital gown. Please leave jewelry and accessories at home if possible. Metal and electronic objects can interfere with the magnetic field or be damaged by it, and are not permitted. These include:

- Jewelry, watches, credit cards, hearing aids
- Pins, hairpins, zippers, removable dental work
- Pens, eyeglasses, pocket knives

Tell the radiologist if you have:

- Artificial heart valves, artificial limbs or joint prostheses
- Implanted drug infusion lines or ports, nerve stimulators or other electronic devices
- Metal pins, screws, plates or surgical staples

MRI is usually safe for patients with metal implants, but recent implants may require another imaging procedure. Having metal objects in the body such as shrapnel may require a preliminary X-ray. Tattoo dyes containing iron may heat up during an MRI, but are rarely a problem.

MRI-guided Biopsy Procedure

You will lie face down on a moveable table. The breast or breasts to be sampled will be positioned in a cushioned opening and compressed between two plates, one of which is marked with a grid. Earphones and music will be provided to relax you.

When the MRI begins, the radiologist will precisely locate the area to be sampled, and will give a local anesthetic to the breast. A needle will be placed in this area and an image taken to verify its position. Then, tissue samples will be obtained. A marker may be placed after the biopsy to identify the location in case additional surgery is required.

The breast will be compressed again to stop any bleeding, and a sterile dressing applied.

Our staff will assist you throughout the procedure to make sure you are as comfortable as possible and answer any questions you may have. When the biopsy is complete, you will receive written instructions on how to care for yourself at home.

A pathologist will examine the tissue samples under a microscope and prepare a report, which usually takes several days. Your doctor will give you the results. Please call your doctor if you have not been contacted in a timely manner.

Needle-localized Open Surgical Biopsy

You will receive instructions from the surgeon about how to prepare for your biopsy. In this procedure, the skin over the area to be sampled will be marked to identify it for the surgeon, who will later remove a section of tissue.
Needle-localized Open Surgical Biopsy Procedure

Before the procedure, you will be given a local anesthetic. Then, a small needle will be inserted into the breast to mark the area to be sampled, and then one or more mammogram images will be taken. After confirming that the needle is correctly positioned, a guidewire will be inserted through the needle to show the surgeon exactly where to take the biopsy. This wire will be removed in the operating room, after the tissue biopsy is obtained.

Your surgeon will give you instructions about how to care for yourself at home.

The sample will be sent to a pathologist for examination under a microscope. The pathologist’s report usually takes several days. Your doctor will give you the results. Please call your doctor if you have not been contacted in a timely manner.

After Your Biopsy

Most biopsies turn out to be negative. However, if cancer is detected, you can get help at City of Hope. From breast-conserving surgeries to state-of-the-art radiation technologies, advanced medical treatments and supportive care, we have the answers and resources you need.

For Appointments and Information

For more information about biopsies, or to make an appointment at City of Hope, please call 800-826-HOPE or visit us at www.cityofhope.org.