

After the procedure is complete, pressure will be applied to the needle site to help stop any bleeding and a bandage will be applied (usually an adhesive strip). The procedure takes approximately 30 minutes.

Your Results

Your specimens will be delivered to a pathologist who will examine them under a microscope. The findings will be reported to your healthcare provider who will, in turn, forward the results on to you.

Your Questions

We realize this is a stressful time for you. As our patient, we want you to be as confident and informed about your healthcare as you can be. We hope this brochure has been informative for you. Please feel free to ask us any questions you may have.

Risks

- There is a slight chance of developing bleeding or an infection in the area of the biopsy. If an infection occurs, it can usually be treated easily with oral antibiotics.
- Core needle biopsy may leave a very small round scar where the tiny incision was made in the skin.

Disadvantages

- Because a needle biopsy collects tissue from such a small area, there is a chance that a cancerous growth may be missed.
- At times, the location of the lump may affect the accuracy of a core needle biopsy. If the lesion is deep within a small breast, very close to the nipple or next to the chest wall, it may be difficult to obtain an adequate sample.

American Cancer Society Guidelines

Regarding Breast Health

- **Breast Self-Exam (BSE)** – More recently the focus of BSE has been moving from the monthly routine self-exam to becoming more self-aware of your breast changes and seeking help if any abnormalities are noticed. BSE represents a structured way in which the breasts can be examined effectively. You should know how your breasts normally feel and look.

Beginning in their 20's, women should learn the benefits of BSE. You can be instructed on the proper techniques of BSE at the time of your routine health examination. You should also know that there are limitations to BSE. Report any breast changes that you notice to your healthcare provider immediately.

- **Clinical Breast Exam** – Women between the ages of 20 and 30 should have a breast exam by a healthcare provider every three years. Women age 40 and older should have a clinical exam annually.
- **Mammography** – At age 40, women should begin to have annual mammograms. They may be recommended at an earlier age if there is a strong family history of breast cancer or other risk factors.

For women at high-risk, the guidelines advise you to discuss your risk with your healthcare provider to decide whether or not additional testing is indicated.

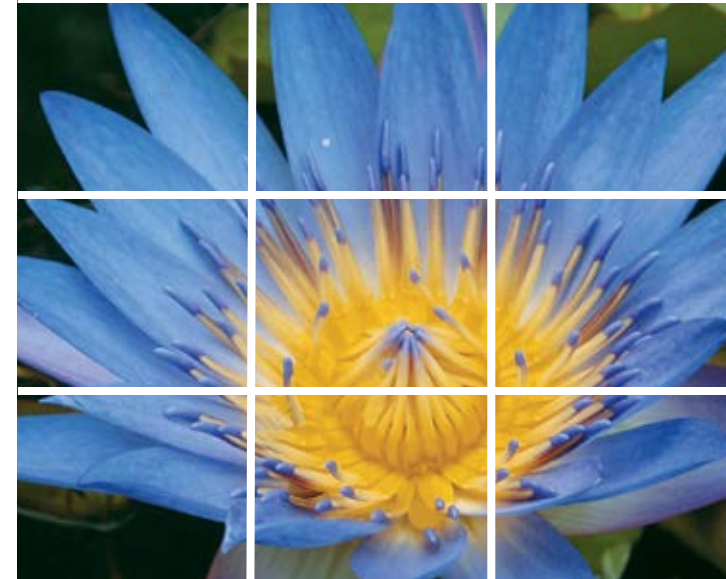
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Core Needle Biopsy



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Core Needle Biopsy

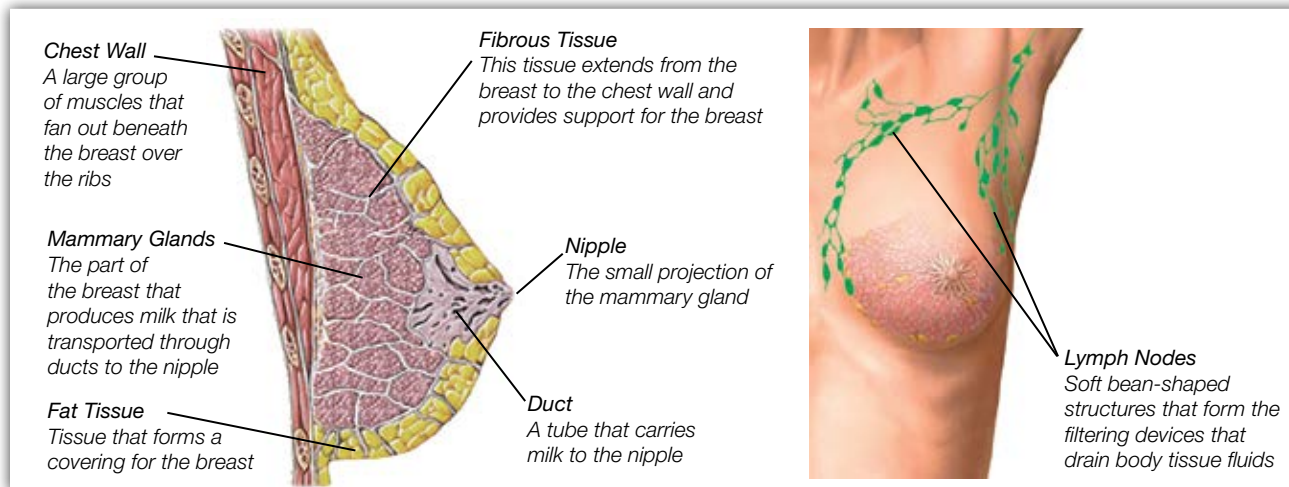
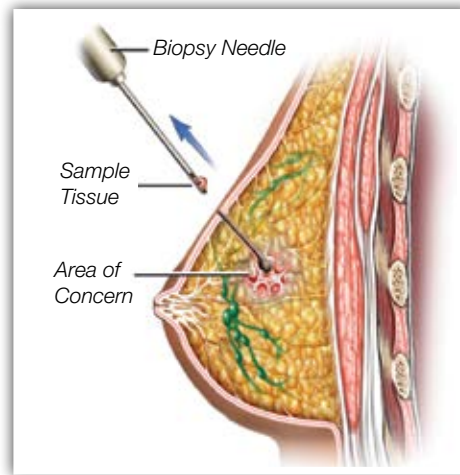
Your healthcare provider has identified a need for further testing of your breast. It could be the result of an exam in which a mass was found, a mammogram or a breast sonogram. A breast biopsy is the removal of a sample of the breast tissue in question in order to examine it under a microscope. This will help determine whether the tissue is cancerous (malignant) or noncancerous (benign). Once it is established that a biopsy is needed, there may be choices in the type of biopsy. The types of biopsy include fine needle aspiration, stereotactic biopsy, excisional (open) biopsy and core needle biopsy.

Understanding the structures of the breast may be helpful for you. Below is a diagram of the normal breast. An area that is questionable and needs further investigation may be in any part of the breast.

A core needle biopsy is most often minimally traumatic and less expensive than a surgical or excisional biopsy. As the number of screening mammograms increases, the number of biopsies also increases. This biopsy technique has spared many women unnecessary surgical procedures in the hospital setting as this particular procedure is done in the physician's office. When a core needle biopsy rules out cancer – and most do – the patient has achieved that diagnosis

with a 30-minute procedure. The procedure itself involves local anesthetic, avoids disfiguring the breast and leaves no scar. It has almost no risk of infection and leaves you well enough to immediately return to normal activities. For this reason, many times women will prefer needle biopsy to the surgical option.

A core needle biopsy is a procedure that involves removing small samples of breast tissue using a hollow “core” needle. The examination of those samples under a microscope can detect the presence of cancer cells. Each sample taken is about the size of a pencil lead. When a lump is palpable (able to be felt), the lump is stabilized with one hand of the physician while the biopsy is performed with the other. If the suspicious area cannot be felt, ultrasound may be used.



How to Prepare

You may eat a light meal prior to the procedure unless your physician directs you otherwise. A comfortable two-piece garment should be worn. You should not wear powder, deodorant, lotion or perfume under your arms or on your breasts on the day of the procedure. If you take blood thinners or aspirin, you should talk to your physician about whether you should discontinue using them prior to core needle biopsy. Any jewelry worn (earrings or necklaces) should be easily removable.

What to Expect

Upon arrival for your biopsy, you will be asked to sign a consent form stating that you understand the procedure being performed and the risks involved and that you agree to have the procedure. Talk to your healthcare professional about any concerns or questions you may have regarding the need for the biopsy, its risks involved or how it will be performed. It is important for you to feel comfortable with your decision.

You will be escorted to a specially-equipped procedure room and asked to undress above the waist. A paper or cloth drape or covering will be available for you to place around your shoulders. The biopsy will be done while you sit or lie on an exam table. Your hands will be placed at your side or above your head, depending on which position makes it easiest to find the lump. An injection of local anesthetic, with a very small needle, will be given to numb the area of the breast where the biopsy needle will be inserted. Once the area is numb, a small incision (less than 1 inch) will be made in the skin and the biopsy needle will be inserted through the skin.

The radiologist or surgeon will guide the needle into the area of concern by feeling the lump or by ultrasound. You may feel a slight pressure during the procedure, but you should not experience any significant pain. Once the sample is obtained, the needle will be removed and the sample will be prepared and sent to a pathologist for diagnosis. This procedure may be repeated for additional samples, usually through the initial incision.



However the actual injection of the tracer results in only mild discomfort. Once the radioactive tracer is injected, a special instrument is used by the radiologist to find the area of concentrated radioactive material (hot spot). This would be where the sentinel node is located. Usually he will mark the outer skin to indicate where the sentinel node is. At this point you are ready to go to surgery for the actual biopsy procedure. Once in the operating room, the surgeon usually injects blue dye around the tumor site and the lymph fluid will also carry it to the sentinel node. A small incision is made in the axilla (armpit) and the surgeon looks for the lymph node that is stained with the blue dye and may use a special tiny probe that will tell with an audible signal precisely which node(s) contains the radioactivity. That node(s) is removed and sent to the pathologist for examination under a microscope for cancer cells.

At Home

After surgery, your urine will be blue or green-blue for 24-28 hours. Your breast tissue around the injection sites will be blue for weeks, maybe even months. Both of these are harmless to you.

You will have a small scar from the incision to remove the lymph node. More than likely it will be under your arm. For the first day or two after surgery you may have some swelling and mild discomfort.

Should you notice any unusual drainage, a foul odor, redness or warmth at the site or if you develop a fever of 100°F or above, please notify your healthcare provider.

Not all women with breast cancer are candidates for sentinel node biopsy. The following women are poor candidates:

- Women with lymph nodes that are enlarged
- Women with locally advanced breast cancer
- Women with multi-focal breast cancer (in many areas of the breast)
- Women who have previously undergone breast surgery
- Women who have previously undergone radiation therapy to the breast

Sentinel node biopsy (SLNB) is not for everyone. While some patients are overwhelmingly enthusiastic about this procedure, it is important that you discuss the pros and cons for you as an individual with your healthcare provider or cancer care team. It is also important that you feel confident that your surgeon is well experienced in sentinel node biopsy. Last, you should be aware that there is a small chance (less than 1 in 10 cases) that the results of the sentinel node biopsy can be inaccurate; that is, there is no cancer in the sentinel nodes but cancer exists in other axillary lymph nodes.

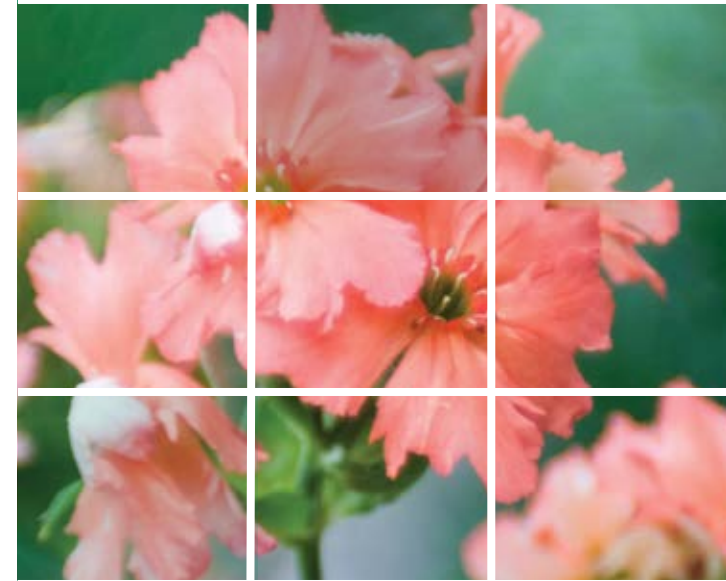
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Sentinel Node Biopsy



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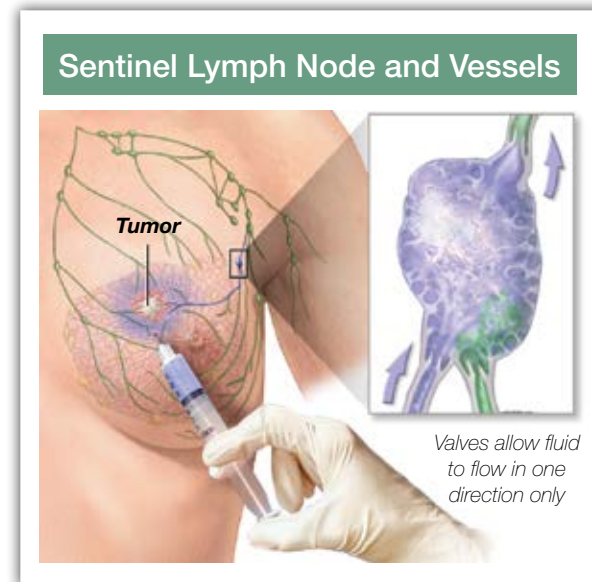
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Sentinel Node Biopsy (SLNB)

At this point, your healthcare provider or team has determined that there is an abnormality in your breast that is cancerous. You have had so many decisions to make with your new-found cancer and now there may be another one. We are hopeful that the information found in this brochure will be helpful in your decision-making process.

Standard treatment for breast cancer usually involves removing a breast tumor by one of two ways – **lumpectomy** or **mastectomy**. Lumpectomy is the removal of a small portion of the breast. It is considered breast conservation therapy because it only requires removal of the tumor itself and a margin of tissue around it. This allows you to keep most of your breast tissue. Mastectomy involves removal of the entire breast and sometimes the tissue around the breast. Normally, breast tissue drains into the lymph nodes beneath the arm pit by several connecting channels. The lymph system is an important part of the body that produces and stores lymphocytes (cells that fight infection), drains fluid from tissues throughout the body and aids the immune system. Just like normal tissues drain into the lymph nodes to remove waste, cancer cells do too. When cancer cells travel from a tumor in the breast, their first stop is most often the lymph nodes in the axilla (underarm). The presence of cancer in the lymph nodes has long been considered the single most reliable indicator of cancer that has spread. Until now, most of the lymph nodes in the underarm (axilla) closest to the cancerous breast have also been removed to examine them for spread of the cancer. This is referred to as an **axillary lymph node dissection** or just **axillary dissection**. The removal of these lymph nodes causes a change in the structure and function of the lymphatic system and may create side effects in patients post-operatively (after surgery). With fewer lymph nodes to drain lymph fluid, the fluid can back up causing painful swelling (lymphedema) in the arm. This condition can be persistent and interfere with activities of daily living. Patients with prior axillary lymph node dissections are also at an increased risk for infection in that arm.

Originally developed for use with melanoma, sentinel node biopsy was first reported for breast cancer use in 1993. Through years of research, it has been discovered that when breast cancer spreads from the primary tumor to the lymph nodes it appears in some nodes before spreading to others. These are known as **sentinel nodes** or first nodes. Doctors and patients are now wrapping their eager arms around a new technique of biopsying only the sentinel node(s). With the ability to biopsy only the sentinel node(s) for metastasis (spread of cancer), doctors are able to prevent many women with breast cancer from having more extensive surgery. If the sentinel node is free of cancer, nodes further “downstream” presumably will be cancer free as well and can be left alone. Only one-third of women with breast cancer will have cancer in the lymph nodes. Sentinel node biopsy appears to lower a woman’s chance of developing lymphedema (arm swelling) as much as half, in comparison with axillary node dissection. The recovery time for sentinel node biopsy is also much shorter and less painful than with axillary dissection if less than 5 lymph nodes are removed. In addition, it allows more accurate staging of the cancer, while leaving the unaffected nodes behind to continue their job of draining fluids from the tissue.



What to Expect

You will typically be given detailed instructions by your surgeon, the hospital or surgery center prior to the day of your procedure. You will be informed to avoid eating or drinking anything after midnight if you are scheduled for surgery the following morning or afternoon.



When you arrive at the facility for your procedure, you will first be asked to sign a consent form which states that you understand the procedure being performed and the risks involved and that you agree to have the procedure. You will then be directed to the changing area to undress and put on a hospital gown. The actual removal of the sentinel node(s) takes place in the operating room, but more than likely you will report to Nuclear Medicine first.

A sentinel node biopsy involves mapping the lymphatic system to find the sentinel node. This is referred to as **sentinel node mapping**. It is done with the use of a mildly radioactive tracer and a blue dye.

While you are in Nuclear Medicine the radioactive tracer will be injected around the tumor site to follow the path of the lymphatic fluid from the tumor to the sentinel node. It is important to explain that during the injection of the radioactive material, local anesthetic cannot be used because it is not known how it might affect or react with the radioactive tracer.

Scars from a surgical biopsy are usually small. However, whether or not surgery changes the shape of your breast depends on a number of factors:

- The size of the breast lesion (tumor or abnormality).
- The location of the breast lesion.
- The amount of surrounding breast tissue that is removed in addition to the breast lesion.
- The unique manner in which individuals heal.

Postoperative pain is usually minimal and resolves within a few days. Pain medication may or may not be prescribed. As stated earlier, you may return to work as early as the following day providing your job is not physically demanding. Heavy lifting should be avoided for 1 to 2 weeks following the procedure. The incision should be completely healed within one month.

Advantages and Disadvantages

Excisional biopsy yields the largest breast tissue sample of all the breast biopsies and the accuracy of a diagnosis using the excisional biopsy method is close to 100%.

While excisional biopsy may be the best choice for some patients, it does have its disadvantages:

- It requires skin closure.
- Scar formation within the breast may persist, complicating the interpretation of follow-up mammograms.
- Bleeding, infection, or problems with wound healing (rare).
- Mortality risks (minimal).

Many patients are anxious about the cosmetic appearance of their breast following biopsy surgery. The incision leaves a small scar that fades in time. The location and size of the breast lesion and the amount of surrounding tissue removed will determine whether or not your breast will change in appearance.

Your Results

Your tissue specimens will be delivered to a pathologist who will examine them under a microscope. The findings will be reported to your healthcare provider who will, in turn, forward the results on to you.

In closing, it is important for you to give an accurate health history to your healthcare provider, regardless of the type of biopsy you are having. It is especially important for you to tell him or her all medications you are taking or have taken recently. This includes vitamins, herbs and over-the-counter medications.

Your Questions are Welcome

We realize this is a stressful time for you. As our patient, we want you to be as confident and informed about your healthcare as you can be. We hope this information has been helpful. Please do not hesitate to ask any questions you may have; we are here for you. Helping you to be as educated as possible is our goal for your healthcare.

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Excisional (Open) Biopsy



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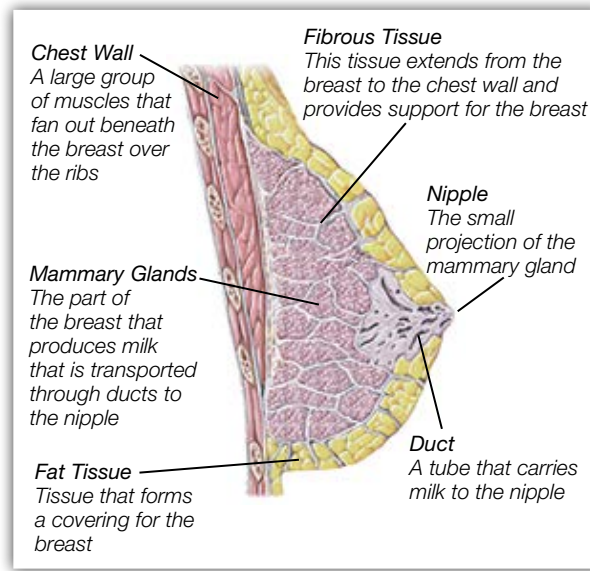
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Excisional (Open) Biopsy

Your healthcare provider has recommended that you have an excisional (open) biopsy. Like most women, you probably feel anxious and have questions about what will take place, what you can expect, and what the outcome will be. The only certain way to learn whether a breast lump or mammographic abnormality is cancerous is by having a biopsy. A biopsy is a medical diagnostic test used to determine the structure and composition of tissue. Generally the tissue is removed by a surgeon or other specialist and examined under a microscope by a pathologist. A pathologist is a doctor who specializes in identifying tissue changes that are characteristic of disease, including cancer.

Prior to recent biopsy advancements, physicians and surgeons routinely recommended open excisional biopsies. While this remains the gold standard against which all other biopsy techniques are measured, today many patients are candidates for less invasive biopsy procedures. Excisional biopsy is the most invasive biopsy procedure and usually results in external and internal scarring. Most patients recover quickly from a breast biopsy surgery. However, some may experience post-operative pain or minor disfiguring of the breast. This type of biopsy is considered general surgery – which means it requires an operating room, general anesthesia in many cases, and stitches. Because of the hospital resources needed to perform this procedure, it is more costly than other methods. During an excisional biopsy, your surgeon will attempt to completely remove the area of concern, often along with a surrounding margin of normal breast tissue.

Before talking specifically about the procedure itself, it is important for you to understand the composition of your breasts. The following diagram outlines the major structures associated with the breast.



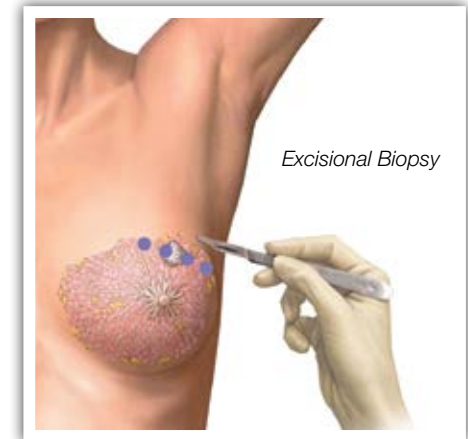
Preparing for Your Excisional Biopsy

You will typically be given detailed instructions by your surgeon, the hospital or surgery center prior to the day of your biopsy. You will be informed to avoid eating or drinking anything after midnight if you are scheduled for surgery the following morning or afternoon. There may be exceptions if you take certain medications. Be sure you check with your physician.

Upon arrival for your biopsy, you will be asked to sign a consent form which states that you understand the procedure being performed, the risks involved and that you agree to have the procedure. You should not wear powder, deodorant, lotion or perfume under or on your breasts the day of your biopsy (these may cause inaccurate readings or other problems). Patients who take blood thinners or aspirin should ask their physician about discontinuing them prior to surgery. At times the surgeon may have the area to be biopsied “marked” by a radiologist. This is done by placing a thin wire into your breast and into the tumor and is called a needle localization. If you are having a needle localization procedure prior to your biopsy, you will go to radiology first.

During Your Excisional Biopsy

At the time of your surgery, you will be taken to the operating room and most likely placed under general anesthesia. Your surgeon will make a 1-2 inch incision in your breast and remove the area in question and a margin of tissue around it. The incision will be closed with stitches either above or below the skin and a protective bandage will be placed over the area. The entire specimen will be sent to the pathologist for analysis. It is possible that the surgeon will send a sample of the tissue to the pathologist during your surgery for a “frozen section”. In this case, a small piece of the specimen is sent immediately to the lab for the pathologist to review while you are asleep. This preliminary reading will give your surgeon an idea regarding whether or not the area in question is malignant.



What to Expect After Your Excisional Biopsy

Because an excisional biopsy involves a skin incision, your recovery will be longer than with other breast biopsy procedures such as fine needle aspiration, core needle biopsy or stereotactic biopsy. Usually a full day of recovery is required. However, you can expect to return to work the following day if necessary.

When the medicine has numbed the area, the healthcare provider will insert a biopsy needle and take additional x-rays to ensure its proper placement. Then, several samples of tissue will be extracted for analysis. After the samples are taken, a tiny clip may or may not be placed inside the breast to mark the area biopsied. That is it! You will probably find that the entire process takes about one hour and the procedure itself, only a few minutes. Afterward, a gauze pad will be applied to the site for several minutes to prevent bleeding. Finally, a simple dressing will be placed over the site. Most women feel well enough to resume their usual activities shortly after the procedure.

At Home

Ask your healthcare provider when you may remove your dressing. Afterward, you may shower or bathe using plain soap and water to wash the area. If you wish, you may protect the site with a sterile adhesive strip until it is completely healed. It is unlikely that you will experience any problems following the biopsy. However, if you notice prolonged bleeding, unusual discharge or drainage, a foul odor, or any firmness, redness or warmth at the site, please inform your healthcare provider. You will also need to notify him or her if you develop a fever of 100°F or above.

Your Results

Your specimens will be delivered to a pathologist who will examine them under a microscope. The findings will be reported to your healthcare provider who will, in turn, forward the results on to you.

Your Questions

Are Welcome

Our staff hopes that this brochure has answered many of your questions about the stereotactic biopsy procedure. We would like to make this stressful time as easy as possible for you. Please feel free to ask us any additional questions you may have.

American Cancer Society Guidelines Regarding Breast Health

- **Breast Self-Exam (BSE)** – More recently the focus of BSE has been moving from the monthly routine self-exam to becoming more self-aware of your breast changes and seeking help if any abnormalities are noticed. BSE represents a structured way in which the breasts can be examined effectively. You should know how your breasts normally feel and look.

Beginning in their 20's, women should learn the benefits of BSE. You can be instructed on the proper techniques of BSE at the time of your routine health examination. You should also know that there are limitations to BSE. Report any breast changes that you notice to your healthcare provider immediately.

- **Clinical Breast Exam** – Women between the ages of 20 and 30 should have a breast exam by a healthcare provider every three years. Women age 40 and older should have a clinical exam annually.
- **Mammography** – At age 40, women should begin to have annual mammograms. They may be recommended at an earlier age if there is a strong family history of breast cancer or other risk factors.

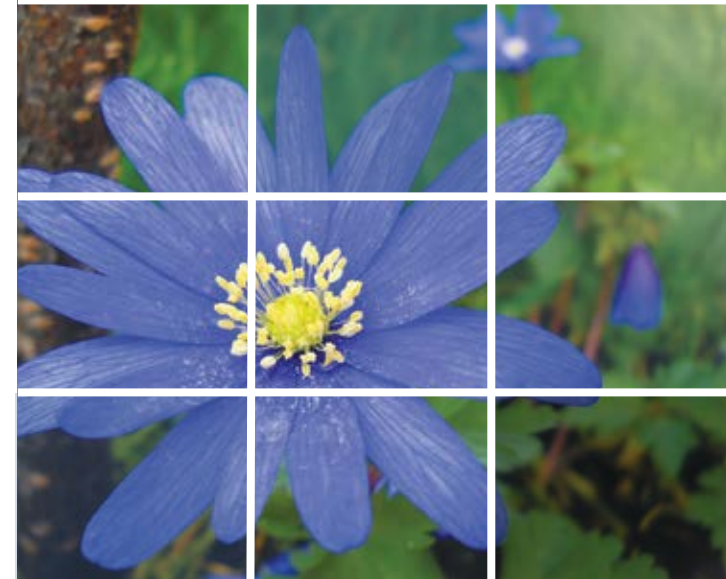
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Stereotactic Biopsy



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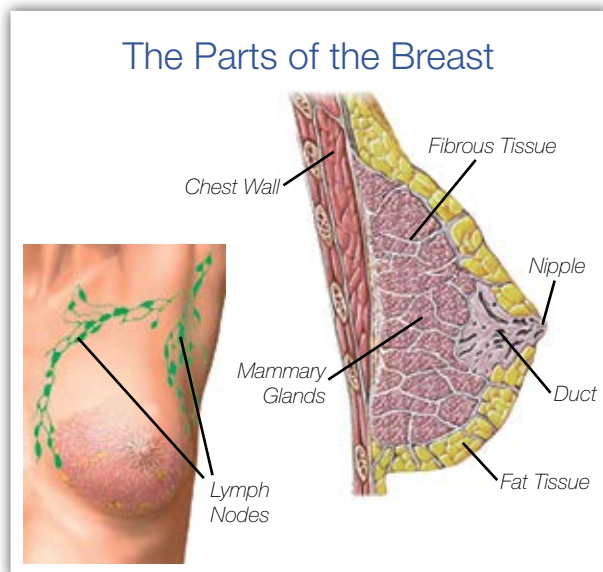


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Stereotactic Biopsy

It is a well-known fact that mammography has become the state-of-the-art method for detecting early breast cancers. But, what happens when a mammogram is abnormal? There are times when an abnormality on a mammogram may be seen on the film, but it cannot be felt by you or your healthcare provider. It also may or may not be seen on ultrasound, therefore the next step is to biopsy the area in question. A biopsy involves taking a sample of the tissue in question and looking at it under a microscope for abnormalities. The stereotactic-guided biopsy involves finding the precise location of the abnormal area by using conventional mammography from three angles. Once located, a biopsy is taken of that area. A stereotactic breast biopsy is the most helpful when mammography shows a mass, a cluster of microcalcifications (tiny calcium deposits that are closely grouped together), or an area of abnormal tissue change; but no lump can be felt on careful breast examination.

Before talking specifically about the procedure itself, it is important for you to understand the composition of your breasts. Below is a diagram of the major structures associated with the breast.



Your healthcare provider has ordered this test for further evaluation of your breast tissue. Like most women, you probably feel anxious and have questions such as, “What will the biopsy procedure be like?”...“Will it be painful?”...“Is it cancer?” This brochure will help to answer some of these questions and describe what you can expect before, during and after the biopsy procedure. First, you should know that the majority of breast lumps – around 80% – are not cancerous. Fortunately, the stereotactic breast biopsy procedure will enable you and your healthcare provider to know for sure in a way that is simpler, faster and more accurate than ever before. Since the procedure causes only minimal discomfort, you will most likely be able to resume your normal activities immediately afterward.

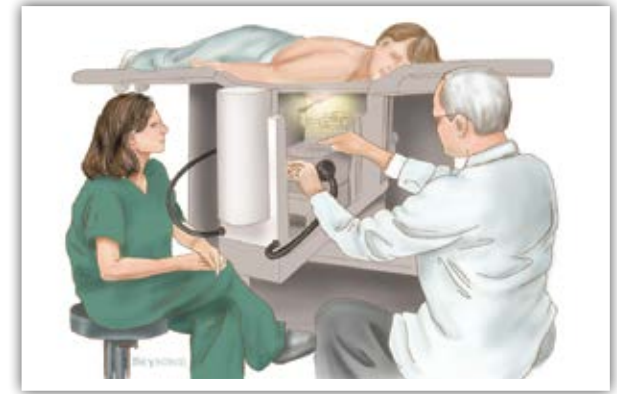
What Is Stereotactic Technology?

Stereotactic technology uses a computer to enable healthcare providers to locate and obtain a sample of the precise center of the questionable area. It uses “stereo” x rays, (x-rays taken from multiple angles), and a special biopsy needle. Surgical biopsy requires an incision, the removal of a larger piece of tissue, anesthesia and a brief hospital stay. Because this procedure can be done in the doctor’s office, it is rapidly replacing surgical biopsy.

Benefits for You

Women who undergo stereotactic biopsy can take comfort in knowing that the procedure is safe, simple and only mildly uncomfortable. Unlike the more invasive surgical procedure, there is...

- No external scarring of the breast
- No internal scar to interfere with future mammogram readings
- No lengthy wait for test results (Your healthcare provider can tell you when to expect yours)
- No exposure to general anesthesia
- No prolonged recovery period



Getting Ready

There is no special preparation required for the procedure. You may eat, drink and engage in all of your usual activities before your appointment.

What to Expect

When you arrive, you will be escorted to a procedure room. It is best to wear a blouse and slacks or skirt, since you will need to remove the clothing from the upper portion of your body. A trained assistant will help you change and prepare for your procedure. Depending on your facility, you may either have your procedure performed while sitting or lying down. If you are sitting, you will be in a special chair with the stereotactic machine in front of you or at the side of your affected breast. If lying down, you will be on your abdomen on a specially designed examination table. Your breast will be placed through an opening in the table. The tabletop is then raised and the radiologist and technologist perform the procedure from beneath you. For either position, your breast will be compressed like during a mammogram. Several x-ray films will be taken in order to locate the area in question. Once this is done, the healthcare provider will review the films and use a computer to locate the exact area to be sampled. The skin of the breast is then cleaned, and a small amount of local anesthetic is injected into the skin and deeper tissues of the breast with a small needle. This local anesthetic is similar to what one might have at a dentist’s office. You will feel a tiny pinch similar to a pin prick.

Benefits

- Ultrasound-guided breast biopsy reliably provides tissue samples that can determine whether a breast lump is benign or malignant.
- Ultrasound-guided breast biopsy takes much less time than surgical biopsy, causing less tissue damage.
- Compared to stereotactic-guided breast biopsy, the ultrasound method is faster and avoids the need for radiation exposure.
- Ultrasound-guided breast biopsy is able to evaluate lumps under the arm or near the chest wall, which are hard to assess by stereotactic method.
- Ultrasound-guided breast biopsy is somewhat less expensive than the stereotactic, or surgical method.

Risks

- When the VAD is used for ultrasound-guided breast biopsy, larger pieces of tissue are removed; therefore there is a risk of bleeding. The risk appears to be less than 1% of all patients.
- Infection can occur whenever the skin is penetrated, but the chance of infection requiring antibiotic therapy is less than 1 in 1000.
- As with other types of biopsy, ultrasound-guided biopsy occasionally will miss a lump or underestimate the extent of the disease. If your diagnosis remains uncertain after a technically successful procedure, surgical biopsy will be necessary.
- Smaller lumps (lesions) may be difficult to target accurately by ultrasound-guided biopsy and may actually be missed.

Your Results

Regardless of the method used for your biopsy, the tissue specimens will be sent to a pathologist for review. A pathologist is a physician who specializes in analyzing the growth of abnormal cells. A definite diagnosis should be available within a few days. Please check with your healthcare provider regarding specific expectations for your facility. Many times physicians will instruct you to make an appointment to discuss your results and decide together on the next step, if necessary.

At Home

The procedure requires little recovery time, and there is no significant scarring to the breast. Most women feel fine after the procedure. Acetaminophen may be used for relief of any discomfort. An ice pack may also be helpful and should be placed inside of your bra for best results. It is a good idea to avoid exercise or strenuous activity for 24 hours following your procedure. If possible, you should go home after the procedure and relax. If you notice any bleeding, swelling, redness or heat, notify your healthcare provider.

Your Questions Are Welcome

We realize this is a stressful time for you. As our patient, we want you to be as confident and informed about your healthcare as you can be. We hope this information has been helpful. Please do not hesitate to ask any questions you may have; we are here for you. Helping you to be as educated as possible is our goal for your healthcare.

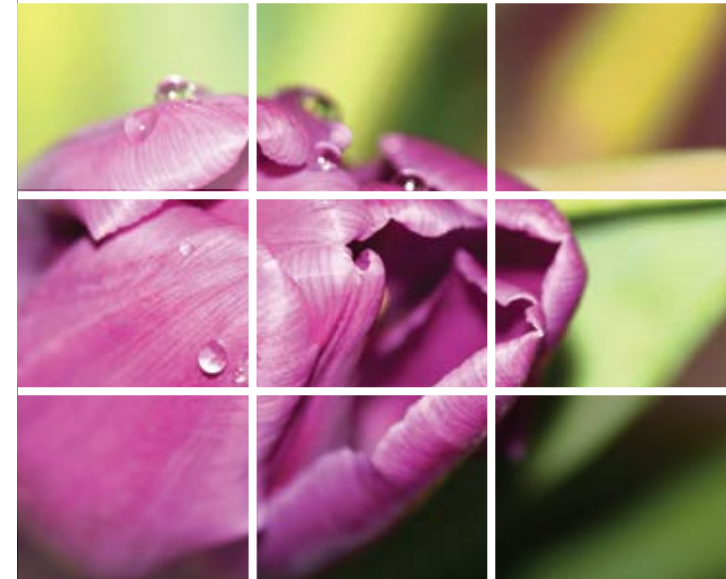
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Ultrasound-Guided Breast Biopsy



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Ultrasound-Guided Breast Biopsy

If you are reading this brochure, more than likely your physician has determined that there is a need to further evaluate your breast. Ultrasound is an excellent way to evaluate breast abnormalities that have been detected by mammography, Breast Self-Exam (BSE) or your healthcare provider. However, sometimes it is not possible to tell from the imaging studies alone whether a questionable area is benign or cancerous. Ultrasound-guided breast biopsy is a highly accurate way to evaluate suspicious masses within the breast, that are visible by ultrasound. This method can be indicated even if the questionable area cannot be felt during breast self-exam or by clinical examination.



Ultrasound uses sound waves at very high frequency to outline specific structures of the body. The echo of the waves produces a picture called an ultrasound. Ultrasound is a useful way of examining many of the body's internal organs. It is helpful to know that the terms ultrasound and sonogram are used interchangeably. There are many ways to perform breast biopsies. For many years, surgeons removed part or all of a suspicious breast mass through an incision made in the breast. With more recent advances in breast biopsies, other methods have been added. An ultrasound-guided biopsy is just as it states – a biopsy performed by using ultrasound to locate the area in question. Unlike procedures that require the use of x-ray, ultrasound-guided biopsy requires no exposure to x-ray. This procedure is very useful when suspicious changes can be seen by mammogram and ultrasound,

but no abnormality can be felt during an exam. However, your healthcare provider may decide to use ultrasound guidance for a biopsy even when the mass can be felt. This type of biopsy is a minimally invasive way to obtain a sample of breast tissue for further diagnosis. It is also faster and less painful than traditional surgical biopsy. It is actually the preferred biopsy method of many physicians and patients.

Who Performs the Ultrasound-Guided Biopsy?

Your procedure will be performed by a board certified radiologist who specializes in breast imaging. The radiologist will be assisted by a technologist who is also trained in this procedure.

Your Medications

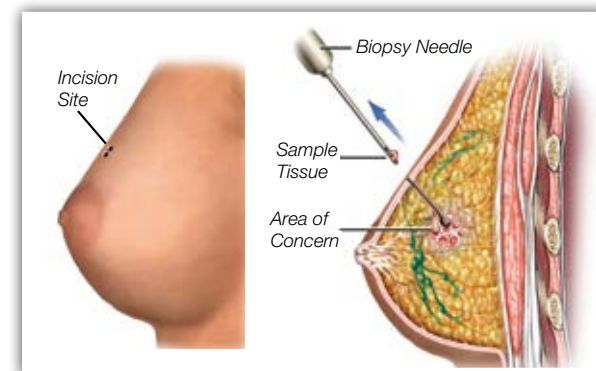
It is extremely important that you inform your healthcare provider regarding all medications you are currently taking. This includes vitamins, herbs and over the counter medications. There are several medications, herbs and vitamins that can cause increased bleeding. Any time the skin is penetrated, there is a slight risk of bleeding. If you are taking aspirin or a blood thinner, your physician may advise you to stop your medication prior to your procedure. You will need to ask about specific instructions.

What to Expect

There is no special preparation required prior to having an ultrasound-guided breast biopsy. It is recommended that a comfortable two-piece outfit be worn, as you will be undressing from the waist up. When you arrive for your procedure, you will be asked to change into a hospital gown and escorted to the room where you will have your biopsy. Before you arrive, the radiologist will have studied your imaging exams to become familiar with the location of the abnormality.

You will be awake during your biopsy and should have little or no discomfort. The procedure itself will usually take less than an hour. The first part of the procedure will seem much like your original ultrasound. While lying on your back or turned slightly on your side, your breast will be scanned to find the abnormality. Then the

radiologist/technician will mark your skin over the area. The radiologist will clean your breast and then numb the area with enough anesthetic to insure that you will not feel discomfort during the procedure. At times, ultrasound is also used to guide the injection of the anesthetic along the route to the mass. The anesthetic used is very similar to what is used at the dentist. There is a tiny stick on the outer skin, and you may feel a sting as the medication goes in. After the anesthetic has taken effect, the radiologist will make a very small nick in the skin where the biopsy needle will be inserted. Using ultrasound guidance, a hollowcore needle or vacuum assisted needle is placed in the breast and guided to the location of the mass. Specimens are then collected. Once the placement of the needle is confirmed, you will be asked to remain motionless while the samples are taken. Ultrasound transmits a visual image during the entire procedure, enabling the physician to view the procedure on a video screen and ensure accurate placement of the needle.



There are two methods used to collect the tissue sample. One is the core biopsy method – which is using a hollowcore needle. The inside of the needle holds the tissue sample until the needle is withdrawn, and it is placed in a specimen container. This may be repeated multiple times.

The other method uses a vacuum assisted device (VAD). When the VAD is used and the needle is in place, a vacuum pulls the tissue into the specimen collector. Once the procedure is complete, the technician will apply pressure to the biopsy site for several minutes. Then, a dressing will be applied.