

Stereotactic Core Needle Biopsy

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Mammograms are used to discover breast cancer. Often times, if cancer is found early on, it can be successfully treated. In the past, when an abnormality, or lesion, was found on a mammogram it was treated in one of two ways. Either it was “followed” over a period of time by the physician to see if there was a significant change, or the patient had surgery to remove the lesion completely (surgical excisional biopsy). However, a large percentage (about 80%) of these abnormalities are benign and present no health risk to the patient. In order to eliminate the need for an incision, the technology of stereotactic breast biopsy (Mammotest®) has been developed. This procedure is a less painful, less invasive way to obtain the tissue samples that are needed for diagnosis. This procedure requires much less recovery time than does excisional biopsy. Further, there is no significant scarring to the breast.

Here’s how it works. A physician teams up with a radiology (x-ray) technologist. Together, they perform the Mammotest procedure. The physician first studies the mammogram to get familiar with the location of the abnormality. The patient lies face down on a Mammotest exam table. The breast containing the abnormality is then positioned through an opening in the table. The table is then elevated, which allows the physician and technologist to work below. The first part of the procedure is similar to a mammogram, except that the patient is lying face down instead of standing up. First, the breast is compressed with a compression paddle, just as it is during a mammogram. The confirming x-ray is taken to ensure that the area of the breast containing the lesion is correctly centered in the paddle window. Once the position is confirmed, two stereo x-rays are taken. They are called stereo images because they are images of the same area from different angles. With the help of a computer, the exact positioning of the biopsy needle is determined from these stereo images.

Using this information, the physician then positions the device that holds the biopsy needle for the correct angle of entry. The physician then numbs the biopsy area by injecting a local anesthetic into the breast.

After the anesthetic has taken effect, the physician will insert a biopsy needle into the breast. Another set of stereo x-rays are then taken to ensure proper needle placement. Once placement is confirmed, a tissue sample is then acquired. The needle, which now contains the sample, is then withdrawn. Several more samples of the area are then quickly acquired. When the physician has retrieved all the necessary samples, the compression paddle is then released from the breast. A nurse or technologist will then apply pressure to the biopsy site for a few minutes to prevent bleeding. The tissue samples are sent to a pathologist who examines them. Specifically, the pathologist is checking to determine if there is cancer in the specimen.

This procedure can be advantageous to patients because most women feel fine immediately following it. This allows them to return to their normal routines right away.

If you are interested in learning more about Stereotactic Breast Biopsies, contact the Department of General Surgery, The Midlands Clinic, P.C.