

Biopsy

Biopsy is a very small operation that removes tissue from an area of concern in the body. There are several kinds of breast biopsy.



Image Source: National Cancer Institute; Linda Bartlett, Photographer

- **Needle biopsy** is least invasive, and is a small procedure. It can be done in the doctor's office. Results are often available in 24-48 hours. Needle biopsy removes part of a lump that can be felt. The surgeon, oncologist or radiology doctor uses a needle with a hollow center to take out some material from the lump to examine under a microscope.

In some cases when the lump cannot be felt but was seen by mammography, a special technique guides biopsy. The hollow needle is placed in the lump. Mammography, ultrasound or MRI helps to locate the tumor and direct where the needle is going. During needle biopsy, cells are taken out through the center of the needle. A collapsible hook at the end of the needle keeps the needle in place until the surgery is done. X-rays make sure that the abnormal area is the same area where the surgeon inserts the needle.

- **Core needle biopsy is the current standard of care.** Like needle biopsy, core needle biopsy is a small procedure and can be done in the doctor's office. Results are often available in 24-48 hours. The surgeon, oncologist or radiology doctor removes multiple pieces of a lump. Core needle biopsy allows a better view than needle biopsy of the presence of cancer cells among normal cells. A small metal clip may be put into the breast to mark the area of biopsy. If the biopsy shows cancer and additional surgery is needed, then the clip helps the surgeon find the same area of the breast.

Needle biopsy and core needle biopsy have no risk of spreading cancer. There is a sheath (covering) that protects the needle from "spilling" cancer cells. These procedures are safe and do not disturb the cancer nor cause cells to spread or grow. Unfortunately, needle biopsy and core needle biopsy have a risk of giving normal results even though cancer is present. The reason for this is probably that the needle doesn't always pick up the cancer cells.

- **Incisional (cutting) biopsy** is more like regular surgery. It removes a small piece of tissue for examination. Cutting biopsies are done when needle biopsies have not given a clear answer or if the lump is too big to be removed easily. Like needle biopsy, the cutting biopsy has a risk of giving normal results even though cancer is present.
- **Excisional (cutting out) biopsy** is also called a **lumpectomy**. It tries to remove the entire suspicious lump of tissue from the breast. This is the surest way to establish the diagnosis (cancer or no cancer) without having a mistaken result.

Both cutting and cutting out biopsies can be done in a clinic or hospital without the patient staying overnight. Medication is used to numb the area of biopsy.