

## Breast Cancer Diagnosis

Finding a breast lump is a terrifying experience. It's important to know, however, that many women and men have lumps in the breast area that are neither cancerous nor dangerous. A complete physical examination is the only way to make a certain breast cancer diagnosis.

There are several steps that a patient and doctor will take when diagnosing breast cancer. These include the initial breast examination and assessment followed by ultrasonography, mammography, and biopsy (tissue sample). A biopsy is the only true way to make a positive diagnosis, as the other methods are medically inconclusive.

### Physical Examination:

A doctor performing a breast examination will first conduct a complete visual inspection, looking for any changes in color, skin texture, or any obvious abnormalities. This inspection is followed by palpation of the breasts, armpits and the areas around the collarbone. Throughout this assessment, the doctor will palpate (feel) for lumps and thickening in the tissue in each area.

### Mammograms

These tests are essential for every woman over 40 years of age. Basically an x-ray of the breast, mammograms can detect and define lumps. From the mammogram results, a doctor can often tell whether a lump is a benign cyst, or a malignant tumor. However, this test does not provide conclusive results, and mammograms alone are believed to miss from 10 to 15 percent of breast cancers.

Mammograms can often provide a 'false-positive' result, suggesting the presence of a malignant tumor when in fact no malignancy is found in the biopsy. There is also the possibility of 'false-negative' mammogram result in which the findings appear negative when in fact a cancer is present. A mammogram may not be adequate to assess a lump, and your doctor should arrange supplementary tests. Any lump found in the breast should be defined as benign or malignant, and there can be no room for error.

### Ultrasonography

This method of detecting breast cancer is also known as an ultrasound test. The ultrasound technician will use a small, specialized wand to take an internal "picture" of your breast. The ultrasound test creates waves that will draw this picture. It's a very reliable method of telling the doctor whether the lump is a solid mass, or a watery cyst. Cancerous lumps are generally solid.

### Biopsy

A biopsy is a sample of tissue that is taken from the body to be assessed. The only definitive way to make a breast cancer diagnosis with absolute certainty is to perform a biopsy of the tissue. A biopsy is done by inserting a very fine needle into the suspect area and removing a small sample of tissue. A number of biopsy techniques may be used.

One biopsy procedure is called 'fine needle aspiration'. This involves placing a needle into the breast tissue and extracting a certain amount of cells. A pathologist will then examine the cells. Doctors generally use this technique when the mass has been identified as a cyst, and is not likely to be cancer.

'Core needle biopsy' is another type of biopsy using fine needles. This technique consists of a unique needle that is used to extract a small piece of tissue, which can then be examined for suspect cells. This type of test is usually used in conjunction with ultrasound or mammogram. If the doctor can feel the mass easily, he or she may be able to remove the cells using a needle without any extra control. Surgeons are using this method more frequently as it is less invasive and patients find it more comfortable. It also provides a sample of tissue for testing, rather than having to remove the entire lump.

If you find a lump in your breast, underarm or collarbone area, be sure to have it examined right away. Chances are very good that it's no more than a cyst, but it's important that you put your fears to rest with a proper doctor's assessment.