

## **What is Breast Cancer?**

Breast cancer is the most common cancer in women in the United States. According to the American Cancer Society, it's estimated that About 178,480 women in the United States will be found to have invasive breast cancer in 2007. About 40,460 women will die from the disease this year. Right now there are slightly over 2 million women living in the United States who have been treated for breast cancer.

If you're worried about developing breast cancer, or if you know someone who has been diagnosed with the disease, one way to deal with your concerns is to get as much information as possible. In this section you'll find important background information about what breast cancer is and how it develops.

Breast cancer is a malignant tumor that grows in one or both of the breasts. Breast cancer usually develops in the ducts or lobules, also known as the milk-producing areas of the breast.

Breast cancer is the second leading cause of cancer death in women (after lung cancer). Although African-American women have a slightly lower incidence of breast cancer after age 40 than Caucasian women, they have a slightly higher incidence rate of breast cancer before age 40. However, African-American women are more likely to die from breast cancer at every age. Breast cancer is much less common in males; by comparison, the disease is about 100 times more common among women. The American Cancer Society estimates that in 2007 some 2,030 new cases of invasive breast cancer will be diagnosed among men in the United States.

### **Types of breast cancer**

There are several different types of breast cancer that can be divided into two main categories - noninvasive cancers and invasive cancers. Noninvasive cancer may also be called "carcinoma in situ." Noninvasive breast cancers are confined to the ducts or lobules and they do not spread to surrounding tissues. The two types of noninvasive breast cancers are ductal carcinoma in situ (referred to as DCIS) and lobular carcinoma in situ (referred to as LCIS).

It is known that hormones in a woman's body, such as estrogen and progesterone, can play a role in the development of breast cancer. In breast cancer, estrogen causes a doubling of cancer cells every 36 hours. The growing tumor needs to increase its blood supply to provide food and oxygen. Progesterone seems to cause stromal cells (the woman's own cells to send out signals for more blood supply to feed the tumor. (Source: Dr. V. Craig Jordan, vice president and scientific director for the medical science division at Fox Chase Cancer Center in Philadelphia as quoted in NY Times, Hormones And Cancer: By Gina Kolata, Published: December 26, 2006)

Non-invasive breast cancer. The majority of non-invasive breast cancers are DCIS. In DCIS, the cancer cells are found only in the milk duct of the breast. If DCIS is not treated, it may progress to invasive cancer.

In LCIS, the abnormal cells are found only in the lobules of the breast. Unlike DCIS, LCIS is not considered to be a cancer. It is more like a warning sign of increased risk of developing an invasive breast cancer in the same or opposite breast. While LCIS is a risk factor for invasive cancer, it doesn't actually develop into invasive breast cancer in many women. Invasive breast cancer. Invasive or infiltrating breast cancers penetrate through normal breast tissue (such as the ducts and lobules) and invade surrounding areas. They are more serious than noninvasive cancers because they can spread to other parts of the body, such as the bones, liver, lungs, and brain.

There are several kinds of invasive breast cancers. The most common type is invasive ductal carcinoma, which appears in the ducts and accounts for about 80 percent of all breast cancer cases. There are differences in the various types of invasive breast cancer, but the treatment options are similar for all of them.

**Not all breast cancers are alike**

Not all breast cancers are alike - there are different stages of breast cancer based on the size of the tumor and whether the cancer has spread. For doctor and patient, knowing the stage of breast cancer is the most important factor in choosing among treatment options. Doctors use a physical exam, biopsy, and other tests to determine breast cancer stage.

**Stages of Breast Cancer**

The most common system used to describe the stages of breast cancer is the AJCC/TNM (American Joint Committee on Cancer/Tumor-Nodes-Metastases) system. This system takes into account the tumor size and spread, whether the cancer has spread to lymph nodes, and whether it has spread to distant organs (metastasis).

All of this information is then combined in a process called stage grouping. The stage is expressed as a Roman numeral. After stage 0 (carcinoma in situ), the other stages are I through IV (1-4). Some of the stages are further sub-divided using the letters A, B, and C. In general, the lower the number, the less the cancer has spread. A higher number, such as stage IV (4), means a more advanced cancer.

Information provided by [National Breast Cancer Awareness Month](#) website.