UNDERSTANDING BREAST CANCER

What Is Breast Cancer?

Breast cancer is the most common form of cancer in women and is the number two killer (after lung cancer) of women age 35 to 54. It can also occur in men, though incidence is rare. The survival rate has improved because of earlier diagnosis and the variety of treatments now available.

Most breast cancer occurs in the upper outer quadrant (the upper part of the breast closest to the arm). A woman may not be able to feel a slow-growing breast tumor by touch for up to eight years, until it is 1-centimeter in diameter.

Breast cancer may spread by way of the lymphatic system or bloodstream to the liver, bones and other organs, or directly to the skin or surrounding tissues.

Causes of Breast Cancer

The cause of breast cancer isn’t known, but its higher incidence in women suggests that estrogen may be a causative factor. Other factors that increase the risk include:

- Women who are at increased risk include:
  - Women who have had endometrial or ovarian cancer
  - Women who have had cancer in one breast
  - Women whose tumors are estrogen-dependent. Tamoxifen is a hormone-based drug that reduces the risk of breast cancer recurrence, especially in younger women. Most chemotherapy is given into the vein and may cause hair loss, nausea or increased risk of infection.

Stages

Clinical staging is a part of the pretreatment evaluation and is performed by histologic examination of the biopsy and axillary specimen to assess the extent of the disease, lymph node involvement, the status of the other breast, and the possibility of systemic metastasis (passing from one site to another). The most commonly used system is the TNM (Tumor-Node-Metaasis status) system.

- **Stage I** describes lymph node involvement, and the possibility of systemic metastasis, if any.
- **Stage II** describes lymph node involvement, and the possibility of systemic metastasis, if any.
- **Stage III** describes lymph node involvement, and the possibility of systemic metastasis, if any.
- **Stage IV** describes metastasis, if any.

Types of Breast Cancer

Ductal carcinoma in situ (DCIS) and infiltrating ductal carcinoma (IDC) are the most common types of breast cancer. Others include infiltrating lobular carcinoma, lobular carcinoma in situ and medullary carcinoma.

Ductal Carcinoma in Situ (DCIS)

This is breast cancer at the earliest stage. It is confined to the ducts (milk passages). Nearly 100% of women at this cancer stage can be cured.

Infiltrating (Invasive) Ductal Carcinoma (IDC)

This cancer starts in a duct then breaks through the duct wall, and invades the fatty tissue of the breast. IDC is the most common type of breast cancer, accounting for nearly 80% of cases.

Diagnosis of Breast Cancer

The earlier breast cancer is found, the better the chances for successful treatment. A reliable way to detect cancer is by a monthly self-exam, with immediate evaluation of any abnormality. Other tests include mammography (an X-ray of the breast) and biops (removal of breast tissue).

Breast Self Examination (BSE)

The best time to perform a self-exam is about one week after your period ends. If you do not have regular periods, perform a self-exam on the same day every month.

1) Stand barefoot in front of a mirror. Compare both breasts, noting the shape and size. It is not unusual for one breast to be larger than the other. Check for unusual signs such as discharge from nipples, puckering, dimpling, scaling of skin, or changes in size or shape. Look at the same things with your arms in different positions.
2) Raise your left arm. Using the pads of three fingers of your right hand, feel your left breast firmly, carefully and slowly. Begin at the outer edge, pressing in small circles moving slowly around the breast. Be sure to cover the entire breast. Also be sure to examine from your armpit to the collar bone, as well as below your breast.
3) Gently squeeze the nipple and check for any discharge.
4) Repeat steps 2 and 3 on your right breast.
5) Repeat steps 2 and 3 on both breasts while lying down.
6) Have your breast examined by your doctor. Be sure to mention any changes you have noticed.

Signs and Symptoms

Warning signs of breast cancer include:

- lump or mass in the breast
- change in size or feel of breast
- change in the skin, such as thickening or dimpling, scalloped skin around the nipple, an orange-peel-like appearance, or a dimple
- change in skin temperature or color
- a warm, chot, or pink area
- unusual drainage or discharge from the breast
- change in the nipple, such as itching, burning, erosion, or retraction
- soiling of the are
- pain (with an advanced tumor)

Treatment Options

Because of treatment and technological advances, there are now several surgical treatment options.

Lumpectomy

Lumpectomy plus radiation is used for small, well-defined cancers. The surgeon makes a small incision near the nipple and then removes the tumor, marginal tissue, and possibly, nearby lymph nodes.

Partial Mastectomy

In this procedure, also called a simple mastectomy, the surgeon removes the entire breast.

Total Mastectomy

In this procedure, also called a modified radical mastectomy, the surgeon removes the entire breast, axillary nodes, and the lining that covers the chest muscles. Modified radical mastectomy differs from radical mastectomy in that it preserves the woman’s pectoral (upper chest) muscles. Modified radical mastectomy has replaced radical mastectomy as the most widely used surgical procedure for treating breast cancer.

Adjuvant Treatment

Despite adequate local therapy with surgery and without radiation, many women experience recurrence of their breast cancers. For some cases, this may be prevented by the use of chemotherapy or tamoxifen.

Chemotherapy: A short course of chemotherapy can reduce the risk of breast cancer recurrence, especially in younger women. Most chemotherapy is given into the veins and may cause hair loss, nausea or increased risk of infection.

Tamoxifen: Tamoxifen is a hormone-based drug that reduces the risk of breast cancer recurrence in patients whose tumors are estrogen-dependent. Tamoxifen is given as one pill a day for five years. Tamoxifen may produce hot flashes and may increase the risk of clot and cancer of the uterus.