

BREAST CANCER

Breast cancer is the most common cancer in women (excluding skin cancer), accounting for 32% of all cancers in women in the United States. In the United States, a woman has a 1 in 8 risk of developing breast cancer during her life time, with an increasing risk in each decade of life after age 40. The incidence of breast cancer has increased, but this is attributable to improved screening and detection. Although the overall incidence of breast cancer has increased, the mortality (death) rate from breast cancer has undergone a gradual decline. This decline in mortality is likely due to numerous factors, including earlier stage at diagnosis, advances in local therapy, and advances in systemic treatment of breast cancer.

The cause of breast cancer in humans is not known, but some factors will put a woman at higher risk than average:

- ❖ **Gender**- breast cancer occurs almost 100 times more frequently in women than men.
- ❖ **Age**- the risk of breast cancer increases with age.
- ❖ **Genetic risk factors** – about 5 to 10% of breast cancer cases are thought to be hereditary, resulting from defects in genes inherited from a parent. The most common cause of hereditary breast cancer is an inherited mutation in BRCA1 and BRCA2 genes. Having a BRCA1 mutation gives a woman up to an 85% risk of developing breast cancer. In addition it increases a woman's risk of developing ovarian cancer.
- ❖ **Demographics**- breast cancer is more commonly a disease of upper higher socioeconomic classes.
- ❖ **Family History** – the risk of breast cancer doubles if there is a history of breast cancer in a first degree relative (mother, sister)
- ❖ **Personal History** of breast cancer increases a women's risk of developing a second breast cancer
- ❖ **Reproductive Factors** – having no children or having first full-term pregnancy after age 30 increases a woman's risk of developing breast cancer.
- ❖ **Menstrual Factors** – starting periods before age 12 or onset of menopause after age 55 is associated with increased breast cancer risk.
- ❖ **Estrogen plus Progestin replacement therapy** – The combination of estrogen and progesterone in postmenopausal women increased the risk of breast cancer. The risk of estrogen alone is not known.
- ❖ **Being overweight or obese** – has been found to increase breast cancer risk, especially for women after menopause.
- ❖ **Alcohol** – use of alcohol is clearly linked to an increased risk of breast cancer. The risk increases with amount consumed. Those who have 2-5 drinks daily have about 1 ½ times the risk of women who drink no alcohol.

There is no prevention for breast cancer, but there are ways to reduce one's risk by changing the risk factors that can be changed. If you limit alcohol intake, exercise regularly, and maintain a healthy body weight, you are decreasing your risk of getting breast cancer. Other than lifestyle changes, the most important action a woman can take is to follow early detection guidelines.

Although breast cancer is sometimes found after symptoms appear, some people do not have any signs or symptoms at all. A person may find out they have breast cancer after a routine mammogram or other screening exam. A woman should see her physician for any significant signs or symptoms in her breast.

The goal of screening is to detect cancers at the earliest stage possible, because the extent of disease at diagnosis is correlated with survival. Three main tests are used to screen the breasts for cancer. Talk to your doctor about which tests are right for you, and when you should have them.

- ❖ **Mammogram-** A mammogram is an X-ray of the breast. Mammograms are the best method to detect breast cancer early (when it is easier to treat) and before it is big enough to be felt or to cause symptoms. Having regular mammograms can lower the risk of dying from breast cancer. If you are age 40 years or older, you should have a screening mammogram every one to two years.
- ❖ **Clinical breast exam-** A clinical breast exam is an examination by a doctor or nurse, who uses his or her hands to feel for lumps or other changes.
- ❖ **Breast self-exam-** A breast self-exam is when you check your own breasts for lumps, changes in size or shape of the breast, or any other changes in the breasts or underarm (armpit).

Breast cancer is treated in several ways. It depends on the kind of breast cancer and how far it has spread. People with breast cancer often get more than one kind of treatment.

- ❖ **Surgery-** An operation where doctors cut out and remove cancer tissue.
- ❖ **Chemotherapy-** Using special medicines, or drugs to shrink or kill the cancer. The drugs can be pills you take or medicines given through an intravenous (IV) tube, or, sometimes, both.
- ❖ **Hormonal therapy-** Some cancers need certain hormones to grow. Hormonal treatment is used to block cancer cells from getting the hormones they need to grow.
- ❖ **Biological therapy-** This treatment works with your body's immune system to help it fight cancer or to control side effects from other cancer treatments. Side effects are how your body reacts to drugs or other treatments. Biological therapy is different from chemotherapy, which attacks cancer cells directly.
- ❖ **Targeted Therapy-** This uses medicines specifically directed at mutations in the cancer cells and attacks them without affecting non-cancerous cells as much.
- ❖ **Radiation.** The use of high-energy rays (similar to X-rays) to kill the cancer cells. The rays are aimed at the part of the body where the cancer is located

Being diagnosed with breast cancer, regardless if it is early stage or advanced, can be devastating. However, recent advances in breast cancer treatment as well as access to organizations offering emotional support for breast cancer patients and survivors have proven successful in offering hope for survival and cure a much better quality of life.