

Breast cancer:

Breast cancer is cancer is formed in the cells of the breasts, breast cancer can happen in both men and women, but it's far more common in women.

Awareness for breast cancer and research funding helped create progress in the diagnosis and treatment of breast cancer. Breast cancer survival rates have increased, and the number of deaths associated with this disease is steadily declining, largely due to factors such as earlier detection, a new personalized approach to treatment and a better understanding of the disease.

Symptoms:

Generally, symptoms of breast cancer include:

- a breast lump or thickening;
- alteration in size, shape or appearance of a breast;
- dimpling, redness, pitting or other alteration in the skin;
- change in nipple appearance or alteration in the skin surrounding the nipple (areola); and/or
- abnormal nipple discharge.

Causes:

Breast cancer usually begins with cells in the milk-producing ducts (invasive ductal carcinoma). Breast cancer can also begin in the glandular tissue called lobules (invasive lobular carcinoma) or in other cells or tissue within the breast.

It has been identified that hormonal, lifestyle and environmental factors may increase the risk of breast cancer. But it's not clear why some people who have no risk factors develop cancer, yet other people with risk factors never do. It's likely that breast cancer is caused by a complex interaction of your genetic makeup and your environment.



Risk Factors:

- Being female: Women are much more at risk to develop breast cancer.
- Increasing age: older age individuals are more at risk
- A family history of breast cancer and Inherited genes that increase cancer risk. Certain gene mutations that increase the risk of breast cancer can be passed from parents to children. The most well-known gene mutations are referred to as BRCA1 and BRCA2. These genes can greatly increase your risk of breast cancer and other cancers, but they don't make cancer inevitable.
- Radiation exposure: If the patient received radiation treatments to their chest as a child or young adult, the risk of breast cancer is increased.
- Beginning the period before age 12 increases the risk of breast cancer.
- If you began menopause at an older age, you're more likely to develop breast cancer.
- Having your first child at an older age. Women who give birth to their first child after age 30 may have an increased risk of breast cancer.
- Postmenopausal hormone therapy. Women who take hormone therapy medications that contains estrogen and progesterone to treat the signs and symptoms of menopause have an increased risk of breast cancer. The risk of breast cancer decreases when women stop taking these medications.
- Drinking alcohol increases the risk of breast cancer.



Prevention:

Although breast cancer cannot be prevented, the risks of developing breast cancer can be minimized through specific preventive activities. These include achieving changes in lifestyle, diet, overall physical characteristics and obesity, and interventions for women at high risk of developing breast cancer using tamoxifen and other anti-estrogen compounds.

- Become familiar with your breasts through breast self-exam for breast awareness
- Exercise most days of the week.
- Limit postmenopausal hormone therapy
- Choose a healthy diet.



Treatment:

The doctor determines the breast cancer treatment options based on the type of breast cancer, its stage and grade, size, and whether the cancer cells are sensitive to hormones.

Surgery:

Most women undergo surgery for breast cancer and they may also receive additional treatment after surgery, such as chemotherapy, hormone therapy or radiation. Chemotherapy can also be needed before surgery in certain cases.

Removing the breast cancer (lumpectomy): the surgeon removes the tumor and a small margin of surrounding healthy tissue.

Removing the entire breast (mastectomy): an operation to remove all of the breast tissue.

Removing a limited number of lymph nodes (sentinel node biopsy): To determine whether cancer has spread to the lymph nodes.

Radiotherapy:

Radiation therapy uses high-powered beams of energy, such as X-rays and protons, to destroy cancer cells. Radiation therapy is typically done using a large machine that aims the energy beams at your body. Doctors may also recommend radiation therapy to the chest wall after a mastectomy for larger breast cancers or cancers that have spread to the lymph nodes. Breast cancer radiation can last from three days to six weeks, depending on the treatment

Chemotherapy:

Chemotherapy is using drugs to destroy cancer cells.

Chemotherapy is sometimes given before surgery in women with larger breast tumors to shrink a tumor to a size that makes it easier to remove with surgery.



Hormonal therapy:

Hormonal therapy is used to treat breast cancers that are sensitive to hormones. Doctors refer to these cancers as estrogen receptor positive (ER positive) and progesterone receptor positive (PR positive) cancers.

