

Breast Cancer

Cancer involving the breast is the most common form of cancers in females around the world, affecting approximately one in every 12 women. Like other cancers, breast cancer arises when the cells of the breast lose control over their division and start to invade neighboring tissues. Unfortunately, breast cancer in its early stages is usually asymptomatic. However, as the tumor grows, visible signs or symptoms like a lump or thickening, a change in shape, color, or feel of the skin may be apparent.

Risk Factors

Gender: Only about 1% of all breast cancer cases are seen to occur in males. Therefore, being a female is a huge risk factor for breast cancer.

Age: The incidence of breast cancer is very low in the 20s, steadily increasing with a plateau at the age of 45, and dramatically increasing after 50 years of age.

Genetic: Approximately 5-10% of breast cancer cases are familial, and can result from mutations in the BRCA1 or BRCA2 genes that normally control the rate of cell division. Consequently, cells begin to divide in an uncontrolled manner, leading to tumor development. Yet, 90-95% of breast cancers are sporadic in nature, with no history of any familial involvement.

Other factors: Studies have shown that women who start menstruating at an earlier age and/or have late menopause, are more susceptible to developing breast cancer due to changes in hormone levels. A sedentary lifestyle, no childbearing or late age at first birth, decreased breast feeding, frequent alcohol consumption, or gaining weight after menopause are among other factors that promote the development of breast cancer.

Diagnosis and Management

Breast cancer symptoms can be detected by a simple self-check examination after the age of 20. Noticeable symptoms include a lump in the breast or under the arm (painful or not), discharge from the breast, puckering or redness of the breast skin, and/or nipple inversion.

Clinical diagnosis involves visual examination, a special X-ray of the breast tissue (mammography), ultrasonography, and/or biopsies. Molecular diagnostic tests are also available for the two major breast cancer susceptibility genes to predict chances for families at risk.

Surgery is the most commonly used treatment methodology to combat this disease. For tumors in the early stages of growth, lumpectomy, or breast sparing surgery can be performed. However, for more advanced cases, mastectomy, or complete removal of breast may be required.

Radiation therapy is another effective method of treatment, and is usually used when the cancer has spread to the lymph nodes. In aggressive cases, chemotherapy is started. Prognosis for breast cancer depends upon the stage, and grade of the tumor, and the patient's age, and general health. Chances of recurrence are especially low when the armpit lymph nodes have been unaffected and have been removed.

Breast Cancer in Arab Populations

Breast cancer prevalence rates in the Arab region are mostly similar to those in the rest of the world. Approximately 23 and 33% of cancer patients in Yemen and Egypt, respectively, are affected by breast

cancer. Among the countries of the Gulf Cooperation Council, although rates of breast cancer have been shown to be lower than those in industrialized countries, it is still the most common malignancy among females, with Bahrain showing the highest incidence rate (46.4 per 100,000). Breast cancer is also the most common cause of cancers among women in Jordan, Lebanon, Libya, Tunisia, and other Arab countries. Interestingly, unlike data from industrialized countries, increase in age is not associated with an increase in the number of cases with breast cancer in Bahrain, and most patients are between 40 and 49 years of age. Some studies have suggested that Arab women may experience a more aggressive form of breast cancer, whereas others have shown that Arab patients have a better overall survival rate when compared to Caucasians.

Literature on the genetic predisposition of breast cancer is limited in Arab women. However, it is well known that the estimated risk of developing breast cancer associated with an affected first-degree relative is higher in Arab patients in contrast to that reported in Western populations. Novel variations in genes, such as BRCA1 and BRCA2, have been discovered in Arab patients with breast cancer.

Due to social customs, many Arab women do not present themselves for regular medical examination, resulting in late stage identification of the disease. A survey conducted by the UAE University revealed that Arab women lack adequate knowledge about breast cancer screening and health workers infrequently offer screening examinations. In many Arab States, total mastectomy is the most common form of management of the disease, since most cases reach a locally advanced stage by the time of diagnosis.

How to Perform a Breast Self-Exam

Lie down and place your right arm behind your head.

Use the finger pads of the 3 middle fingers on your left hand to feel for lumps in the right breast. Use overlapping dime-sized circular motions of the finger pads to feel the breast tissue.

Use 3 different levels of pressure to feel all the breast tissue. Light pressure is needed to feel the tissue closest to the skin; medium pressure to feel a little deeper; and firm pressure to feel the tissue closest to the chest and ribs. It is normal to feel a firm ridge in the lower curve of each breast, but you should tell your doctor if you feel anything else out of the ordinary. Use each pressure level to feel the breast tissue before moving on to the next spot.

Move around the breast in an up and down pattern starting at an imaginary line drawn straight down your side from the underarm and moving across the breast to the middle of the chest bone (sternum or breastbone). Be sure to check the entire breast area going down until you feel only ribs and up to the neck or collar bone (clavicle). This procedure, called the vertical pattern, is the most effective procedure for covering the entire breast, without missing any breast tissue.

Repeat the exam on your left breast, putting your left arm behind your head and using the finger pads of your right hand to do the exam.

Examine each underarm while sitting up or standing and with your arm only slightly raised so you can easily feel in this area. Raising your arm straight up tightens the tissue in this area and makes it harder to examine.