

Breast cancer is the most frequent cancer and the the 2nd leading cause of cancer deaths occurring in women. Each year in the United States approximately 211,000 women are diagnosed with invasive breast cancer, and close to 60,000 are diagnosed with in situ cancer. Of these patients about 40,000 are expected to die from the disease. The etiology of breast cancer is not clearly known, but it is believed to be a combination of both genetic and environmental factors.

According to research about 90-95% of breast cancers occurs sporadic, while 5- 10% are believed to be inherited. The most common genetic mutations increasing the risk of cancer are BRCA1 and BRCA 2. Individuals carrying this mutation has a 60-80% lifetime risk of getting breast cancer. However, the most important risk factors associated with breast cancer are female gender and increasing age.

Lifestyle related risk factors such as HRT(hormone replacement therapy), oral contraceptives, obesity, lack of exercise, alcohol consumption also contribute to an increased risk. It is important to remember that the presence or absence of risk factors does not mean you will get the disease. In fact 75% of women who get breast cancer have no other risk factors than gender and increasing age.

Currently the best preventive options for breast cancer is early detection by screening and risk reduction. Breast self-examinations have long been thought as an important tool in breast cancer screening. However at the current time there exist no evidence to recommend it as a part of breast cancer prevention. Clinical breast examination and mammography is at the present time recommended as routine screening of breast cancer in women over 40 years of age. In high risk individuals an earlier onset of screening is recommended. Generally from age 25-35 years of age, with a combined approach of clinical breast examination, mammography and magnetic resonance imaging. The use of selective estrogen receptor modulators and prophylactic mastectomy is justified in high risk individuals as primary prevention.

Secondary prevention of breast cancer by screening and early detection is by date the most important part of decreasing the mortality rate of breast cancer patients. At the current time it is important that breast cancer prevention is really understood as risk reduction.