

Breast Cancer Awareness and Prevention: from the desk of Carol Coldren, M.D.

Breast cancer is one of the most anxiety provoking topics for many women. In the United States, it continues to be the most frequently diagnosed cancer, and the second highest cause of cancer death for women. Over 200,000 new cases were diagnosed last year (and 2000 in men). There are many genetic, environmental and lifestyle factors that contribute to an individual's risk – and surely more will be discovered. Some of the biggest known risk factors are things that cannot be changed - being female, getting older, getting one's first period at an early age, going through menopause at a late age and having a family history of the disease. Other known risk factors include having dense breast tissue (more fibrous and glandular tissue and less fatty tissue in the breast). Exposures to radiation (including diagnostic studies like mammograms, chest x-rays and CT scans as well as therapeutic radiation like that used to treat lymphoma) have been shown to increase the risk for women with a genetic pre-disposition. However, the effect of radiation on women who are not genetic carriers is less clear. Long-term hormone replacement therapy is also a known risk – though for many women the benefits of at least short term use outweigh the risks. In addition, for unclear reasons, breast cancer has been found to be more common in tall women compared to those of us who are vertically challenged.

So, what are the modifiable risk factors? Factors known to be associated with a decreased risk of breast cancer include having children before the age of 30, and breast-feeding. Women who do not have children have the same risk as women who have their first child at age 35. There may be a modest increased risk for current smokers – data as to the risk of second-hand smoke has been inconclusive with some studies showing an increased risk and others showing no increased risk. There is a known dose related increased risk with alcohol ingestion. Night shift work is a risk factor, as is weight gain after menopause (especially 20 lbs or more). Regular physical activity may provide modest protection. High consumption of fruits and vegetables may decrease risk slightly, while the influence of dietary fat and red meat remains unclear.

Studies have conclusively ruled out an increased risk of breast cancer from breast trauma, use of antiperspirants and underwire bras, miscarriage or abortion, caffeine, breast implants, hair dyes, exposure to electromagnetic fields (like electric blanket use) and some known carcinogens including PCBs and DDT (which are factors in other kinds of cancer but not breast cancer).

How can your risk be determined? There are several risk assessment tools in use today – the most well-known by the general public is called the Gail model. Family history involving breast cancer susceptibility genes like BRCA1 and 2 has only been found to be a factor in 5-10% of all breast cancers. The biggest family history risk is having two or more 1st degree relatives (parents and siblings) with breast cancer, especially if they have been diagnosed at an early age. Genetic counseling is available to help you decide whether or not to have genetic testing done. There are clear guidelines established for testing but the tests can be costly and may not be covered by your insurance.

How can your risk be managed? Early detection remains the best defense against breast cancer. Mammograms are still the best screening tool for most patients. They can detect most breast cancers long before they are large enough to feel on exam. The newest technology (3D or Tomosynthesis) is finding more cancers than digital 2D mammograms. Women who get screening mammograms have been shown to have mortality rates from breast cancer that are 30% lower than those who do not. Women at high risk may be candidates for additional screening with MRI, and have the option of taking medications that can significantly reduce the risk of breast cancer (such as Tamoxifen, Evista and Aromasin). Others may opt for more frequent clinical exams, alternating every 6 months between a breast surgeon specialist and their gynecologist. Some decide to have prophylactic mastectomy.

The good news is that in the U.S., where breast cancer rates rose significantly between 1980 and 2000, the incidence rates have stabilized and the mortality rates have declined by about 30% when compared to rates in 1990. The 1 in 12 lifetime risk of breast cancer for women who live to age 90 is still higher than everyone would like, but remember, most women – even in the highest risk groups – will not get breast cancer. Do what you can to reduce your risk by eating well-balanced meals, staying active, and getting plenty of sleep, and get clinical exams and screening tests that are appropriate for your risk factors.

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