

SWAN UPDATES

JULY 2000

Breast cancer is an important health concern of women today. In the U.S. alone in 1998, 178,700 women were diagnosed with breast cancer and 43,900 women died of the disease. Since 1996 when we started enrolling women in the SWAN study, 26 of you have been diagnosed with breast cancer. Some of you have had family members diagnosed with breast cancer. (Remember the interview we did about your family history at your second follow-up visit?) Many of you have told us, in person and in your monthly calendars, about friends who have had breast cancer. There has been a great deal of research done on breast cancer in recent years. The following is a summary, adapted with permission from the American Cancer Society, of some of the important risk factors for breast cancer.

What are the risk factors for breast cancer?

A risk factor is anything that increases a person's chance of getting a disease. Different cancers have different risk factors. There are different kinds of risk factors. Some, like a person's age or race, can't be changed. Others are linked to cancer-causing factors in the environment. Still others are related to personal choices such as smoking, drinking, and diet. Some factors influence risk more than others. For example, unprotected exposure to strong sunlight is a risk factor for skin cancer. Smoking is a risk factor for cancers of the lung, mouth, larynx, bladder, kidney, and several other organs. But having a risk factor, or even several, does not necessarily mean that a person will get a disease. Many women with one or more breast cancer risk factors never develop the disease, while most women with breast cancer have no apparent risk factors. Even when a woman with breast cancer has a risk factor, there is no way to prove that it actually caused her cancer.

Risk factors that cannot be changed

Gender: Simply being a woman is the main risk factor for developing breast cancer. Breast cancer can affect men, but this disease is about 100 times more common among women than men. **Aging:** A woman's risk of developing breast cancer increases with age. About 77% of women with breast cancer are over age 50 at the time of diagnosis. **Genetic risk factors:** Recent studies have shown that about 10% of breast cancer cases are hereditary and that most of these result from mutations (changes) of the BRCA1 and BRCA2 genes. If a person has inherited a mutated gene from either parent, chances of developing breast cancer increase. **Family history of breast cancer:** Breast cancer risk is higher among women whose close blood relatives have this disease. Blood relatives can be from either the mother's or father's side of the family. **Personal history of breast cancer:** A woman with cancer in one breast has an increased risk of developing a new cancer in the other breast. This is different from a recurrence of the first cancer. **Race:** White women are slightly more likely to develop breast cancer than are African-American women. But African Americans are more likely to die of this cancer. Asian and Hispanic women have a lower risk of developing breast cancer than white or African American women. **Previous breast biopsy:** A previous biopsy result of atypical hyperplasia increases a woman's breast cancer risk by 4 to 5 times. **Menstrual periods:** Women who started menstruating at an early age (before age 12) or who went through menopause after age 50 have a slightly higher risk of breast cancer.

Lifestyle-related factors and breast cancer risk

Oral contraceptives: It is still not clear what part birth control pills might play in breast cancer risk. Women who stopped using oral contraceptives more than 10 years ago do not appear to have any increased breast cancer risk. **Not having children:** Women who have had no children or who had their first child after age 30 have a slightly higher breast cancer risk than women who have their first child before age 30. **Estrogen replacement therapy:** Estrogen replacement therapy (ERT) and hormone replacement (HRT, use of both estrogen and progesterone) are sometimes prescribed to relieve menopausal symptoms and to lower a woman's risk of health problems related to low estrogen

levels. Some studies suggest that long-term use (10 years or more) of estrogen replacement therapy after menopause, may slightly increase the risk of breast cancer. The decision to use hormone replacement therapy after menopause should be made by a woman and her health care provider after weighing all of the possible risks and benefits. **Not breast feeding:** Some studies suggest that breast feeding may slightly lower breast cancer risk. Other studies found no impact on breast cancer risk. **Alcohol:** Use of alcohol is clearly linked to increased risk of developing breast cancer. Compared with nondrinkers, women who consume one alcoholic drink a day have a very small increase in risk, and those who have 2 to 5 drinks daily, have about 1.5 times the risk of women who drink no alcohol. **Smoking:** While no studies have yet linked cigarette smoking to breast cancer, smoking adversely affects overall health and increases the risk for many other cancers, as well as heart disease. **Obesity and high-fat diets:** Obesity (being overweight) has been suggested as a breast cancer risk in many studies, especially for women after menopause. However, the connection between weight and breast cancer risk is complex. For example, risk appears to be increased for women who gained weight as an adult but not among those who have been overweight since childhood. **Physical activity:** Exercise and cancer is a relatively new area of research. Recent studies indicate that strenuous exercise in youth might provide life-long protection against breast cancer, and that even moderate physical activity as an adult can lower breast cancer risk. Additional research is underway to confirm these findings. **Environmental risk factors:** A great deal of research has been reported and more is under way in the field of environmental influences on breast cancer risk, but relatively little is known with certainty about environmental risk factors and breast cancer. **Other factors:** Recent internet e-mail rumors have suggested that underarm antiperspirants and underwire bras contribute to development of breast cancer. There is no evidence that either factor is causally related to breast cancer risk.

The American Cancer Society suggests:

- Women aged 40 and older should have a screening mammogram every year.
 - After age 40, women should have a breast exam by a health professional every year.
 - Women aged 20 or older should perform breast self-examination (BSE) every month.
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