



*We are what we eat. Nutritional advice for women with breast cancer is a balanced diet rich in fruits and vegetables, whole grains and lean protein. These foods contain beneficial plant materials that help prevent breast cancer. This advice isn't new but today there is more science to back it up. Fat tissue raises estrogen levels and produces insulin, explaining why both may promote tumor growth. Good nutrition can boost the immune system, helping to make the body as healthy as possible, and reducing the risk of breast cancer.*

*Sandy Schwark, R.N., BSN*

### ***A Multigene Assay to Predict Recurrence of Tamoxifen-Treated, Node-Negative Breast Cancer***

*The New England Journal of Medicine*

Using a prospectively defined gene-expression assay and an algorithm for calculating recurrence scores, we are able to quantify the likelihood of distant recurrence in patients with node-negative, estrogen-receptor-positive breast cancer who had been treated with Tamoxifen. The difference in the risk of distant recurrence between patients with low recurrence scores and those with high recurrence scores was large and statistically significant. Many patients (51 percent of the patients in the study) were categorized as having a low risk, and their rate of distant recurrence at 10 years was 6.8 percent. A smaller group of patients (27 percent) was categorized as having a high risk; their rate of distant recurrence at 10 years was 30.5 percent, which is a risk similar to that observed among patients with node-positive disease. The use of the recurrence score as a continuous predictor provides an accurate estimate of the risk of distant recurrence in individual patients.

The recurrence score can also predict overall survival. In addition, the recurrence score predicts the relapse-free interval (including the interval free of local and regional recurrences). Thus, the recurrence score correlates in a statistically significant manner with all the end points examined.

The patients age and the size of the tumor are routinely used as predictors of recurrence in breast cancer and are incorporated into current treatment guidelines. When the recurrence score was combined with data pertaining to age and tumor size to predict the risk of distant recurrence, only the recurrence score remained statistically significant in a multivariate analysis. It is likely that the decreased risk of recurrence in older patients is not related to age itself but instead, at least in part, to the higher amount of estrogen-receptor protein in older patients' tumors. The contribution of ER expression to the recurrence score captures this factor.

### ***Alcohol Increases Breast Cancer Risk***

Whatever your pleasure - beer, wine or spirits, more than three daily drinks increases your risk of breast cancer by 30%. That's the same increase in breast cancer risk you would get from smoking a pack of cigarettes every day, finds Kaiser Permanente researchers Yan Li, MD, PhD, and colleagues.

Studies consistently find that heavy drinking - more than three drinks a day - increases breast cancer risk. But it was previously found that red wine has a number of health benefits. Might it also be less risky for breast cancer?

It doesn't matter if you drink red wine or white wine. If you are a heavy drinker - more than three drinks a day - you will have an additional 30% risk of breast cancer. Does the type of beverage make any difference at all? It was found that it does not make much of a difference whether a woman drinks beer, wine or liquor; it is the alcohol itself.

Looked at on more than 70,000 women in the Kaiser Permanente database, the women supplied information on themselves and on their drinking habits during doctor visits from 1978 through 1985. The researchers then looked at whether the women had breast cancer by 2004. Just over 2,800 of the women did get breast cancer. Women who drank one or two drinks a day had a 10% higher chance of breast cancer than women who drank less than a drink a day. But it took more than three drinks a day to increase that risk to 30%.

Shumin Zhang, MD, ScD, associate professor of medicine at Brigham and Women's Hospital and Harvard Medical School, has also found that frequent drinking raises a woman's risk of breast cancer. Many studies have reported an association between alcohol consumption and breast cancer risk. The current findings are generally consistent with previous research.

It's important for women who drink to be aware of the risks as well as the benefits. Recent studies have linked alcohol consumption to a lower risk of heart disease. Other studies disagree. Whatever the heart benefit, heavy drinking comes with a breast cancer risk. Even for people who are not alcoholics, drinking several drinks a day is bad for their health.

Aside from non-melanoma skin cancer, breast cancer is the most common form of cancer in women. Breast cancer is the number one cause of cancer death in Hispanic women, the second most common cause of cancer death in white, black, Asian/Pacific Islander, and American Indian/Alaska Native women.

In 2004:

- 186,772 women and 1,815 men were diagnosed with breast cancer \*
- 40,954 women and 362 men died from breast cancer \*

Source: U.S. Cancer Statistics Working Group

Note: Incidence counts cover approximately 98% of the U.S. population and death counts cover 100% of the U.S. population.