

How Lifestyle Choices Impact Breast Cancer Risk

(Lifestyle Factors Can Alter Gene Expression) From Breast Cancer Options Healthy Lifestyles Calendars

There is ever increasing evidence of a strong relationship between the lifestyle choices we make - how we live, what we eat - and our individual risk of developing cancer. Known risk factors are not absolute indicators. No one factor alone or in any known combination determines whether a person will or will not develop breast cancer. The risk factors we have listed can all be changed by modifications in lifestyle.

Weight Gain: Weight gain after the age of 18 is associated with a 45% increase in breast cancer risk and higher rates of breast cancer recurrence and mortality in both premenopausal and postmenopausal breast cancer patients.

WEIGHT GAIN AFFECTS SURVIVAL! The greatest impact is after menopause when circulating estrogen levels normally drop dramatically. The main estrogen source after menopause is the body's fatty tissue so the more body fat a woman has, the more estrogen she will have circulating. 80% of all breast cancers are fueled by estrogen. Further study showed that women who were overweight and were fairly inactive had the highest risk for breast cancer. Women who were overweight but were physically active did not appear to have a higher risk.

Lack of Physical Activity: Women who increased their physical activity after a breast cancer diagnosis lowered their risk of death by 45% when compared with women who were inactive both before and after their diagnosis. Women who cut back on physical activity after diagnosis had a fourfold increase in mortality. There are physical and psychological healing benefits to exercise. Exercise can chase the blues, help fight stress and raise energy levels. Exercise oxygenates the body and stimulates lymphatic circulation which helps to clear the body of toxins and can help reduce the amount of estrogen in your body and that may also reduce the risk of cancer by normalizing body weight and reducing breast density. Lack of physical activity is a modifiable risk factor for breast cancer recurrence and mortality, and one which is solely within the control of the person with the disease. **SUGGESTIONS:** Brisk walking, Strength training, Swimming, Tai Chi, Yoga 3 to 5 days a week at moderate intensity for 20 to 60 minutes.

Breast Density: Breast density is a major risk factor for breast cancer. Density can make it difficult for radiologists to see trouble spots on mammograms. Studies have demonstrated that women with dense tissue in 75% or more of the breast on mammography have a risk for breast cancer 4 to 6 times higher than women without dense tissue. Increased tissue density is a risk factor equal to age and BRCA1-BRCA2 mutations in increasing women's risk for breast cancer. * Hormone replacement therapy produced a twofold increase in breast density in post-menopausal women.

CAN BREAST DENSITY BE REDUCED? THE ANSWER IS YES! Increases in vitamin D and calcium intakes are associated with decreases in breast densities, suggesting that they could reduce breast cancer risk possibly through influences on breast tissue morphology. Studies have shown that high fiber-low-fat diets (organic, high in vegetables and fruit) can alter density through their effect on sex hormones and circulating estrogens. In addition, increasing physical activity among obese postmenopausal breast cancer survivors may be a reasonable intervention in reducing breast density on mammograms. A new 2016 study on aspirin intake shows that women who took 300 mg of aspirin or more per day had a 38% lower likelihood of having extremely or heterogeneously dense breasts. This association between aspirin use and lower density was more pronounced for women younger than 60 and for African-American women.

Smoking: Studies show a 30 to 40 percent increased risk of breast cancer among: Women who were current or long-term smokers (a pack a day for 11 years or more) --Women who started smoking at a young age--Women who started smoking before the birth of their first child. There is significant interaction between breast cancer risk, smoking, and genes that break down tobacco smoke carcinogens. Teenage girls who smoke increase their risk of developing breast cancer before they reach menopause. Smoking is also associated with increased risk of breast cancer before age 50 in BRCA1 and BRCA2 mutation carriers. It's Never Too Late to Quit! Researchers say that the risk of breast cancer decreases as the number of years since the women quit smoking increases. Within 10 years after a woman stops smoking her risk of breast cancer falls back to the level of a woman who has never smoked.

Alcohol Intake: Alcohol interferes with estrogen pathways in multiple ways, influencing hormone levels and effects on the estrogen receptors and disrupting absorption of folic acid, a B vitamin needed for

production and repair of DNA. It is a substantial risk factor for development of the most common type of breast cancer in post-menopausal women -- estrogen and progesterone receptor positive(ER+/PR+). Compared with teetotalers, women who drank one to two drinks a day were 32% more likely to develop ER+/PR+ breast cancer. Having three or more drinks daily raised the risk of ER+/PR+ tumors by 51%. Alcohol intake is also linked to increased breast densities in both pre and post menopausal women. SUGGESTIONS: Cut down on alcohol, or avoid it altogether. Take at least 400 micrograms of folic acid if you must drink.

High Stress Levels: Studies show that stress may contribute to an increase in cancer by modifying cell responses to environmental factors. Stress affects the immune system lowering Natural Killers Cells and T-lymphocytes -- white blood cells that are key to immune response. Studies show that feelings of happiness and optimism can play a protective role against the disease and influence the interaction between the central nerve, endocrine, and immune systems. SUGGESTIONS: Let go of what you cannot control; Get the help you need; Do what you love. STRESS MANAGEMENT TECHNIQUES: Yoga, Meditation, Guided Imagery, Exercise, Hypnosis, Prayer. We may not have control over cancer recurrence, but we can have control over the worry.

Exposure to Estrogen and Estrogen Mimics: Prolonged, uninterrupted exposure to estrogen and estrogen mimics (xenoestrogens) can increase breast cancer risk. Like estrogen, xenoestrogens bind to estrogen receptors and can affect estrogen levels. Xenoestrogens are found in household products, pesticides used on produce, cosmetics and meat based animal feed, among other things we are exposed to everyday. Understanding and reducing these exposures can be a factor in reducing the risk of developing breast cancer. SUGGESTION: Learn to be an informed consumer and avoid harmful products.

Resources

Aspirin Use Does Not Improve Outcomes for Cancer Patients, but May Lower Breast Tissue Density, Allowing for Earlier Detection, Two Penn Studies Find

http://www.uphs.upenn.edu/news/News_Releases/2015/12/tchou/