

Cancer Prevention Month

Issue 2

February 2010

Breast Cancer and Physical Activity

Our last newsletter discussed the relationship between physical activity and colon cancer. Although the evidence for a link between physical activity and breast cancer is not as strong as the link for colon cancer, most studies still report a 20% reduction in risk for physically active subjects.

From the 57 published studies a few trends have emerged:

- **total activity** (occupational and leisure-time) seems to be the key
- significantly lower rates were found in women getting 230 minutes of vigorous exercise a week

The Nurses Health Study revealed that 150 minutes of moderate-level physical activity significantly reduced risk recurrent breast cancer.

Cancer Causes- a Complex Picture

The origins of cancer are complex, and no one knows exactly what causes it. But scientists are getting a better understanding of factors that increase cancer risk.

For example, there is no proven link between pesticide residues on produce and cancer occurrence. Yet in the American Institute of Cancer Research survey, 71 percent of Americans still believe pesticide residues are a risk factor. They also thought that food additives, stress, breast implants, beef hormones, genetically modified foods, power lines, cell phones, and artificial sweeteners are significant risk factors for cancer. But research shows little or no support for these assumptions.

Although cancer occurs more frequently with age, (75% of cancers occur in people older than 55), other primary contributory factors include genetics, environment, and lifestyle choices. Reducing one's risk of cancer means concentrating on the factors we can control. That means avoiding carcinogenic environmental influences (tobacco, asbestos, etc) and making wise lifestyle choices in the areas of nutrition and physical activity.

Increasing Activity is a Wise Choice!

Maintaining a healthy weight and exercising regularly can play a role in cancer prevention. Being overweight or obese may increase your risk of cancers of the breast, colon, esophagus, kidney, stomach and uterus. Physical activity can help you avoid obesity by controlling your weight. Physical activity on its own may also lower your risk of cancers of the breast, colon, prostate and uterus.

Physical activity recommendations:

- try to be physically active for at least 30 minutes on most days of the week
- once you have achieved this goal, adding more exercise to your day may reduce your risk of certain cancers further
- exercise can include brisk walking, raking leaves, dancing, biking, playing tag, mowing lawn with push mower- be creative with ways to add more physical activity to your daily life!!

How does being overweight increase your cancer risk?

- the fat we store on our bodies is not an inert mass... the fat cells produce estrogen which promotes cell growth
- fat cells also produce a variety of proteins that cause inflammation and insulin resistance which promote cell growth and reproduction
- fat in the waist is even more active in producing these growth stimulants
- the more often cells divide, the more opportunity there is for cancer to develop

A BMI over 30 significantly increases risk for developing breast, ovarian, and uterine cancers. In addition, a weight gain of over 40 pounds after age 18 is now considered an established risk factor.

BMI Formula= weight (lb) / [height (in)]² x 703

Sources: <http://www.mayoclinic.com/health/cancer-prevention/CA00024>, <http://www.aicr.org/site/DocServer/FPC-E7B-EDW.pdf?docID=1546>, http://www.aicr.org/site/PageServer?pagename=reduce_weight_home; Bernstein et al. JI of the National Cancer Institute 86:1403-08,1994; Demark-Wahnefried, JI. of Clinical Oncology 24(22):3517-18, 2006.