Study Links Moderate Activity to Lower Breast Cancer Risk

Walking an hour per day associated with lower risk

ATLANTA –October 4, 2013—A large new American Cancer Society study adds to increasing evidence that physical activity reduces the risk of breast cancer in postmenopausal women. Researchers say moderate recreational activity was associated with a 14 percent lower risk and high physical activity with a 25 percent lower risk of breast cancer compared to women who were active at the lowest level. The study appears in the October 2013 issue of *Cancer Epidemiology, Biomarkers, and Prevention*.

A large body of evidence shows that women taking part in regular physical activity have an approximately 25 percent lower risk of breast cancer compared to the most inactive. But still unclear are issues such as whether moderate intensity activity, like walking, imparts a benefit in the absence of vigorous exercise. Also unclear is whether the association differs based on tumor features, such as hormone receptor status, or by individual factors such as a woman's body mass index (BMI), weight status, and use of postmenopausal hormones. In addition, while prolonged periods of sitting have been associated with the risk of some cancers, the relation between sitting time and postmenopausal breast cancer risk is not well understood.

To learn more, American Cancer Society researchers led by Alpa Patel, Ph.D. compared exercise and breast cancer status in 73,615 postmenopausal women taking part in in the CPS-II Nutrition Cohort, a prospective study of cancer incidence established by the American Cancer Society in 1992. During the 17-year study, 4,760 women in the study were diagnosed with breast cancer.

About one in ten (9.2 percent) women reported no recreational physical activity at the beginning of the study. Among those who were active, the average expenditure was equivalent to 3.5 hours per week of moderately-paced walking. Physically active women engaged primarily in moderate intensity activities, like walking, cycling, aerobics, and dancing rather than vigorous-intensity activities like running, swimming, and tennis. Among all women, 47 percent reported walking as their only recreational activity. Physically active women tended to be leaner, more likely to maintain or lose weight during adulthood, more likely to drink alcohol, and less likely to currently smoke. They were also more likely to use postmenopausal hormone therapy and to have had a mammogram in the past year.

Among those who reported walking as their only activity, those who walked at least seven hours per week had a 14 percent lower risk of breast cancer compared to those who walked three or fewer hours per week. Consistent with most prior studies, the most active women had 25 percent lower risk of breast cancer than the least active. The associations did not differ by hormone receptor status, BMI, weight gain, or postmenopausal hormone use. Also, sitting time was not associated with risk.

"Our results clearly support an association between physical activity and postmenopausal breast cancer, with more vigorous activity having a stronger effect," said Dr. Patel. "Our findings are particularly relevant, as people struggle with conflicting information about how much activity they need to stay healthy. Without any other recreational physical activities, walking on average of at least one hour per day was associated with a modestly lower risk of breast cancer. More strenuous and longer activities lowered the risk even more."

Current guidelines recommend adults get at least two-and-a-half hours per week of moderate-intensity activity, or 75 minutes per week of vigorous-intensity aerobic activity for overall health. But studies indicate less than half of U.S. adult women are active at these minimum levels. “Given that more than 60 percent of women report some daily walking, promoting walking as a healthy leisure-time activity could be an effective strategy for increasing physical activity among postmenopausal women,” added Dr. Patel.

Article: Hildebrand JS, Gapstur SM, Campbell PT, Gaudet MM, Patel AV. Recreational physical activity and leisure-time sitting in relation to postmenopausal breast cancer risk. Cancer Epidemiol Biomarkers Prev; 22(10); 1906–12.

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