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[American Association for Cancer Research](http://www.aacr.org)

Vigorous exercise reduces breast cancer risk in African-American women

MIAMI — Vigorous exercise of more than two hours per week reduces the risk of developing breast cancer in postmenopausal African-American women by 64 percent, compared to women of the same race who do not exercise, according to researchers at Georgetown Lombardi Comprehensive Cancer Center. Results were presented at the Third AACR Conference on The Science of Cancer Health Disparities, held Sept. 30 to Oct. 3, 2010.

"People often want to know what they can do to reduce their risk of disease, and we have found that just two or more hours of vigorous activity per week can made a difference in one's risk of developing breast cancer," said the lead researcher Vanessa Sheppard, Ph.D., a cancer control scientist and assistant professor in the department of oncology at the Lombardi Comprehensive Cancer Center.

In this study, more than two hours of aerobics, running or similar activity over the span of a week counted as vigorous activity.

"We also know from other studies that being physically active can have benefits in other diseases that occur at high rates in African-American women, such as diabetes and hypertension," Sheppard said.

"Four out of five African-American women are either overweight or obese, and disease control is a particularly important issue for them."

Evidence showing exercise reduces breast cancer risk has been inconsistent, and there are few that look specifically at African-American women, Sheppard said. The issue is important, she added, because breast cancer has some important differences in this community. Whereas more white women are diagnosed with breast cancer, African-American women have a higher risk of developing premenopausal breast cancer than white women do, and comparatively more African-American women develop the most aggressive form of the disease, known as triple-negative breast cancer.

The researchers identified 97 recently diagnosed African-American breast cancer patients in the Washington, D.C., area and matched them with 102 African-American women without breast cancer. Participants filled out a questionnaire about exercise routines; the responses were analyzed and compared. Women who exercised vigorously for more than two hours a week in the past year had a 64 percent reduced risk of breast cancer compared to women who did not exercise. Women who engaged in moderate exercise, like walking, had a 17 percent reduced risk, compared to women who were sedentary. After evaluating those who were pre- and postmenopausal, they found that vigorous exercise only significantly benefitted postmenopausal women — they had a 62 percent reduction in risk.

"I was surprised that we did not find a significant effect in premenopausal women, but it may be because we need a larger sample," Sheppard said.

However, when the researchers examined the effect of total physical activity, which combined walking with vigorous activity of two or more hours per week, they saw significant gains for both premenopausal and postmenopausal women.

"We suggest that our findings, while promising, should be interpreted with caution. This is a pilot study and a larger, more rigorous study is needed to precisely quantify the effect of exercise on development of breast cancer. I think it is fair to conclude that if African American women exercise they can help take charge of their health," said Sheppard.

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