

Exercise linked with reduced prostate cancer risk in Caucasians but not African Americans

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A new study suggests that exercise may reduce Caucasian men's risk of developing prostate cancer. And among Caucasian men who do have prostate cancer, exercise may reduce their risk of having more serious forms of the disease. Unfortunately, the benefits do not seem to apply to African-American men. The study is published early online in *Cancer*.

Previous research has linked exercise to a reduced risk of developing prostate cancer. Studies have also revealed that African-American men have an increased risk of developing prostate cancer and of dying from the disease compared with Caucasians. It is not clear if exercise as a function of race plays any role in these disparities.

To investigate, Lionel L. Bañez, MD, of the Durham Veterans Affairs Medical Center, and his colleagues asked 307 men (164 white; 143 black) undergoing a prostate biopsy to complete a survey that assessed their exercise amounts per week. The exercise categories included sedentary, mildly active, moderately active, and highly active. Among Caucasians, men who were moderately or highly active were 53% less likely to have biopsy results indicating that they had prostate cancer compared with men who were sedentary or mildly active. There was no association between exercise amount and prostate cancer among black men.

The investigators also looked to see if exercise influenced the grade of



tumors that were detected in men who did develop prostate cancer. Among men with cancer, those who exercised had a 13% reduced risk of having high grade disease, meaning that their <u>cancer cells</u> looked particularly abnormal under a microscope and were likely to quickly grow and spread. When this relationship was further explored as a function of race, it remained significant in <u>Caucasians</u> but not in African Americans.

"These findings that African-American men may not benefit from exercise the way <u>Caucasian men</u> do could be a contributor to why African- American race is a risk factor for prostate cancer and aggressive <u>prostate cancer</u>. Further studies are needed to investigate the mechanism behind this racial disparity in deriving cancer-related benefits from exercise which disfavors African-American men," said Dr. Bañez.

More information: "Association between exercise and primary incidence of prostate cancer – Does race matter?" Abhay A. Singh, Lee W. Jones, Jodi A. Antonelli, Leah Gerber, Elizabeth E. Calloway, Kathleen H. Shuler, Stephen J. Freedland, Delores J. Grant, Cathrine Hoyo, and Lionel L. Bañez. *CANCER*; Published Online: February 11, 2013 (DOI: 10.1002/cncr.27791).

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