

High-intensity interval training beneficial in prostate cancer

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(HealthDay)—For men with low-risk to favorable intermediate-risk

prostate cancer undergoing active surveillance, high-intensity interval training (HIIT) increases peak oxygen consumption and is associated with reduced prostate-specific antigen (PSA) level and velocity, according to a study published online Aug. 19 in *JAMA Oncology*.

Dong-Woo Kang, Ph.D., from the University of Alberta in Edmonton, Canada, and colleagues examined the effects of exercise on cardiorespiratory fitness and biochemical progression in men with low-risk to favorable intermediate-risk prostate cancer undergoing [active surveillance](#). Participants were randomly assigned to HIIT three times per week or usual care (26 men to each) for 12 weeks.

The researchers found that adherence to HIIT was 96 percent. The primary outcome of peak oxygen consumption increased by 0.9 mL/kg/min and decreased by 0.5 mL/kg/min in the HIIT and usual care groups, respectively. The HIIT group experienced decreased PSA level ($-1.1 \mu\text{g/L}$), PSA velocity ($-1.3 \mu\text{g/L/year}$), and prostate cancer cell line LNCaP growth (-0.13 optical density unit) compared with the usual care group. PSA doubling time and testosterone did not differ significantly between the groups.

"Demonstration that HIIT alone, without dietary changes, resulted in improved [cardiorespiratory fitness](#) and biochemical parameters in men with localized prostate cancer on active surveillance and growth inhibition at the cellular level is novel and noteworthy," write the authors of an accompanying editorial.

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