

Obese men at high risk for prostate cancer even after benign biopsy

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Obese men were more likely to have precancerous lesions detected in their benign prostate biopsies compared with non-obese men, and were at a greater risk for subsequently developing prostate cancer, according to researchers at Columbia University's Mailman School of Public Health. The findings will be published online in *Cancer Epidemiology, Biomarkers & Prevention*, a journal of the American Association for Cancer Research.

"Our study is focused on a large group of men who have had a prostate [biopsy](#) that is benign but are still at a very high risk for prostate cancer," said Andrew Rundle, DrPH, associate professor of Epidemiology and the first author of the paper. "Studies conducted in the past have attempted to determine if there are subpopulations of men diagnosed with benign conditions that may be at a greater risk for developing prostate cancer. Here we were able to show that obesity is associated with a significantly higher risk of prostate cancer after an initial benign biopsy, particularly in the first few years after a biopsy. This was also one of the first studies to assess the association between obesity and precancerous abnormalities in the benign biopsy tissue specimens."

Dr. Rundle and his colleagues investigated the association between obesity and future prostate cancer incidence within a cohort of 6,692 men at the Henry Ford Health System who were followed for 14 years after a biopsy or transurethral resection of the prostate with benign findings. The investigation was part of a larger study for prostate cancer funded through a research grant by the National Institutes of Health to the Henry Ford Health System.

The researchers conducted a case-control study among 494 of these patients and 494 matched controls; they found precancerous abnormalities in 11% of the patients' benign specimens. These abnormalities were significantly associated with obesity at the time of the procedure, according to

Dr. Rundle. After accounting for several variables, including family history of prostate cancer, prostate-specific antigen (PSA) levels during the initial procedure, and the number of PSA tests and digital rectal exams during follow-up, the researchers found that obesity at the time of the initial procedure was associated with a 57% increased incidence of prostate cancer during follow-up.

Dr. Rundle noted, however, that this association was only apparent for tumors occurring earlier in the follow-up period. "We don't absolutely know what the true biology is," he said. "In some ways, this reflects the association between the body size and larger prostate size, which is thought to reduce the sensitivity of the needle biopsy. It is possible that the tumors missed by initial biopsy grew and were detected in a follow-up biopsy."

The association observed between body size and prostate cancer risk is greater than that seen in prior studies, according to Dr. Rundle. He attributed the discrepancy to differences between the cohorts studied; the current study was composed only of men at high risk for [prostate cancer](#). In addition, since these high-risk [men](#) were members of the comprehensive Henry Ford Medical System, they underwent increased medical surveillance, which included repeated biopsy and regular PSA screening.

"We need some guidance on when or for whom a full follow-up is required," said Dr. Rundle. "Obesity should be considered a factor for more intensive follow-up after a benign prostate biopsy."

Provided by Columbia University's Mailman School of Public Health

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