

Low Testosterone Levels May Be Associated With Increased Risk of Prostate Cancer Progression

The study does not suggest that low testosterone causes aggressive cancer, but rather that there is an association that could help guide monitoring and decision-making.

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- Study found low testosterone levels were associated with a 60% higher likelihood that prostate cancer managed on active surveillance would progress to a more aggressive state over time.
- Research challenges the long-held belief that high testosterone fuels early-stage prostate cancer growth, suggesting instead that low testosterone may be associated with prostate cancer progression.
- Baseline testosterone may serve as a useful clinical marker to guide treatment and surveillance strategies.

A new study led by researchers at [The University of Texas MD Anderson Cancer Center](#) found that [prostate cancer](#) patients with low testosterone levels may have a higher risk of cancer progressing to a more aggressive form while under active surveillance.

The findings, published in the [The Journal of Urology](#), suggest that baseline testosterone may serve as a useful clinical marker to better stratify risk and tailor monitoring strategies for patients choosing active surveillance.

“Active surveillance is a safe and effective option for many men with early-stage prostate cancer. However, identifying which patients may be more likely to experience progression remains a key challenge,” said corresponding author [Justin R. Gregg, MD](#), associate professor of [Urology](#) and [Health Disparities Research](#). “Understanding how hormonal factors influence prostate cancer biology may help us refine surveillance strategies.”

What did the study reveal about testosterone levels and cancer progression?

Researchers found that prostate cancer patients with low baseline testosterone levels (300 ng/dl and lower) had a significantly higher likelihood of their cancer progressing to

Grade group 3 or higher, which represents a more aggressive disease.

In the retrospective cohort study, researchers analyzed clinical and pathological data from more than 900 men undergoing surveillance. Low testosterone levels were associated with an increase in the likelihood of disease progression, even after accounting for other factors including age, prostate-specific antigen (PSA), body mass index (BMI), and tumor density and size.

Should men with prostate cancer be concerned about low testosterone?

Active surveillance is recommended for patients with low-risk prostate cancer, allowing physicians to closely monitor the disease and delay or avoid treatment unless the cancer shows signs of becoming more aggressive. Surveillance remains safe and effective.

The study does not suggest that low testosterone causes aggressive cancer, but rather that there is an association that could help guide monitoring and decision-making. Future studies are needed to confirm these findings and to determine if testosterone level may be a useful marker of future progression risk in individual patients.

A full list of collaborating authors and their disclosures can be found with the [full paper](#).

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