

Obesity affects prostate cancer test results

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University of Adelaide research shows that the results of the most widely used test for prostate cancer may be affected by obesity.

With increasing prevalence of obesity in high-income countries, this study published by the Society for Endocrinology, has important implications for detecting and monitoring the most common form of

[cancer](#) in men.

Using data from 970 South Australian men from the Florey Adelaide Male Ageing Study, Ph.D. student and medical oncologist Dr. Adel Aref from the University's Adelaide Medical School and the Freemasons Foundation Centre for Men's Health, studied the effects of obesity on PSA levels detected in blood and the influence of the hormones, testosterone and estrogen.

"Elevated levels of prostate specific antigen (PSA) in the blood can be an indicator of [prostate cancer](#) and lead to further diagnostic investigations," says Dr. Aref.

PSA is increased by the male [sex steroid hormone](#), testosterone. "We have shown for the first time that the concentration of PSA in the blood is lower in men with severe [obesity](#) (with a [body mass index](#) or BMI of 30 or higher) than in lean men, and that this can be attributed to lower concentrations of circulating testosterone."

"The results of this study have important implications for how we should interpret PSA levels in men who are obese," says project supervisor Professor Gary Wittert, Director of the Freemasons Foundation Centre for Men's Health and the Adelaide Medical School at the University of Adelaide and SAHMRI.

"Obesity is a major risk factor in the development of cancer, as well as other diseases. More than 65% of men in Australia are overweight or obese and this level is predicted to increase.

"Further studies are now required to investigate effective strategies for applying this knowledge in clinical practice" says Professor Wittert.

Provided by University of Adelaide

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