

Body size and prostate cancer risk

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Prostate cancer is the most common cancer in men in Europe and the second most frequently diagnosed cancer in men worldwide.

A new study led by researchers in the Nuffield Department of Population Health Cancer Epidemiology Unit (CEU) investigated the

associations of height and obesity with [prostate cancer](#) by different [tumour](#) characteristics and death from prostate cancer and found that taller men and men with more fat are at greater risk of high grade prostate cancer and death from prostate cancer. The research was based on data from 141,896 men in eight countries from the European Prospective Investigation into Cancer and Nutrition (EPIC) cohort and included a total of 7,024 prostate cancer cases.

The study results showed an 18% greater risk of death from prostate cancer and a 13% greater risk of high grade cancer with every 10 cm increase in waist circumference. The research also found that while height was not associated with overall [prostate cancer risk](#), the risk of high grade disease increased by 21% and the risk of death from prostate cancer increased by 17% with every additional 10 cm in height.

The innovative aspect of this study was its focus on different tumour subtypes. The researchers distinguished between the stage (or spread) and the histological grade of the cancer. A tumour that has spread outside the prostate is described as advanced stage, whereas one contained within the prostate is defined as localized stage. The histological grade of the cancer (high, intermediate or low) refers to how abnormal tumour cells look compared to normal cells. Most previous research in this area has grouped the stage and grade of tumour together in combined categories of aggressive or non-aggressive cancer.

Lead author, Dr Aurora Perez-Cornago, said: "The results emphasise the importance of studying risk factors for prostate cancer separately for advanced stage and high grade tumours. There is nothing men can do about their height but at least it is now more evident that they may reduce their risk of aggressive [prostate cancer](#) by having a healthy weight. However, further research is still needed to understand possible mechanisms, such as hormonal alterations, and to establish whether the associations we have seen are causal."

More information: Aurora Perez-Cornago et al. Tall height and obesity are associated with an increased risk of aggressive prostate cancer: results from the EPIC cohort study, *BMC Medicine* (2017). [DOI: 10.1186/s12916-017-0876-7](https://doi.org/10.1186/s12916-017-0876-7)

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