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## **Obesity increases survival in advanced prostate cancer**

Obese patients with a form of advanced prostate cancer survive longer than overweight and normal weight patients, new research has found.

The study, presented today at the European Association of Urology congress, EAU21, followed more than 1500 patients over three years. Patients classed as obese – with a BMI over 30 – had a ten percent higher survival rate than thinner patients over 36 months.

Although obesity is usually associated with an increased risk of death from many cancers and some other chronic diseases, there is some evidence in a few cancers of a survival advantage for patients with high body mass index. This phenomenon is known as the 'obesity paradox'.

Alberto Martini and colleagues at San Raffaele University in Italy and Mount Sinai Hospital in New York, USA, wanted to test whether the 'obesity paradox' held true for patients with metastatic castration resistant prostate cancer – an advanced form of the disease that no longer responds to testosterone lowering treatments.

They looked at survival rates in 1,577 patients involved in three different clinical trials, with an average age of 69 and average BMI of 28. They found that BMI was a protective factor in both overall and cancer-specific survival, with 29% higher overall survival probability and 35% cancer-specific survival probability. Even when they adjusted for higher doses of chemotherapy given to larger patients, the team found the protective effect remained. Over 36 months, around 30% of obese patients survived compared to 20% of overweight and normal weight individuals.

Dr Nicola Fossati, a urologist at San Raffaele University says: "Looking at patients with metastasis of prostate cancer, we found that obese patients are living longer. This means that BMI could be used to predict survival in these patients.

"This obesity paradox has been seen in some other cancers, possibly due to the relationship between tissue fat and cancer genomes, and more research is needed in this area. It's also possible that improved survival may be due to the interaction of chemotherapy with other drugs. Obese patients in this older age group tend to be taking medication for other conditions and we do not fully understand how these medicines interconnect.

"Nevertheless, we would not recommend weight gain to anyone with this or another disease. Obesity is a risk factor for many cancers and other diseases and patients should always aim for a healthy BMI of 18 to 24."

Professor Peter Albers, from Düsseldorf University, who chairs the EAU Scientific Congress Office, said: "There are many possible explanations for the association of body weight with positive outcome in metastatic cancers. It might be that patients with higher BMI are able to tolerate the toxicity of the treatments and their side effects better; in prostate cancer it might be due to the protective impact of hormones found in tissue fat; and it is known that healthy

men with slightly higher BMI have a higher overall life expectancy compared to very slim ones.

“However, at the moment, these are just hypotheses. Further research is needed to identify the biological mechanism behind these different outcomes. Until that mechanism is proven, we can’t recommend any change to treatment for patients with advanced prostate cancer.”

## Ends

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### Notes to editors:

#### About EAU21

Europe’s biggest urology congress will take place from 8th-12th July 2021 in a virtual setting. With over 1,500 abstracts presented and moderated live, the [Annual Congress of the European Association of Urology](#) (EAU21) will be amongst Europe’s biggest medical congresses in 2021.

Clinicians, scientists, and patients will meet to discuss topics such as:

- Prostate cancer: new developments to improve treatments of the most common male cancer
- Urinary incontinence: a growing concern for the elderly population
- Practice changing treatments for both bladder and kidney cancer
- Prevention and treatment of urinary stones; 1 in 10 people (55 million adults in Europe) will form a stone at some point
- Special track for representatives of patient advocacy group on Friday 9 July

...and many other conditions related to the male and female urinary tract system and male reproductive organs. Review the full scientific programme on the [congress website](#).