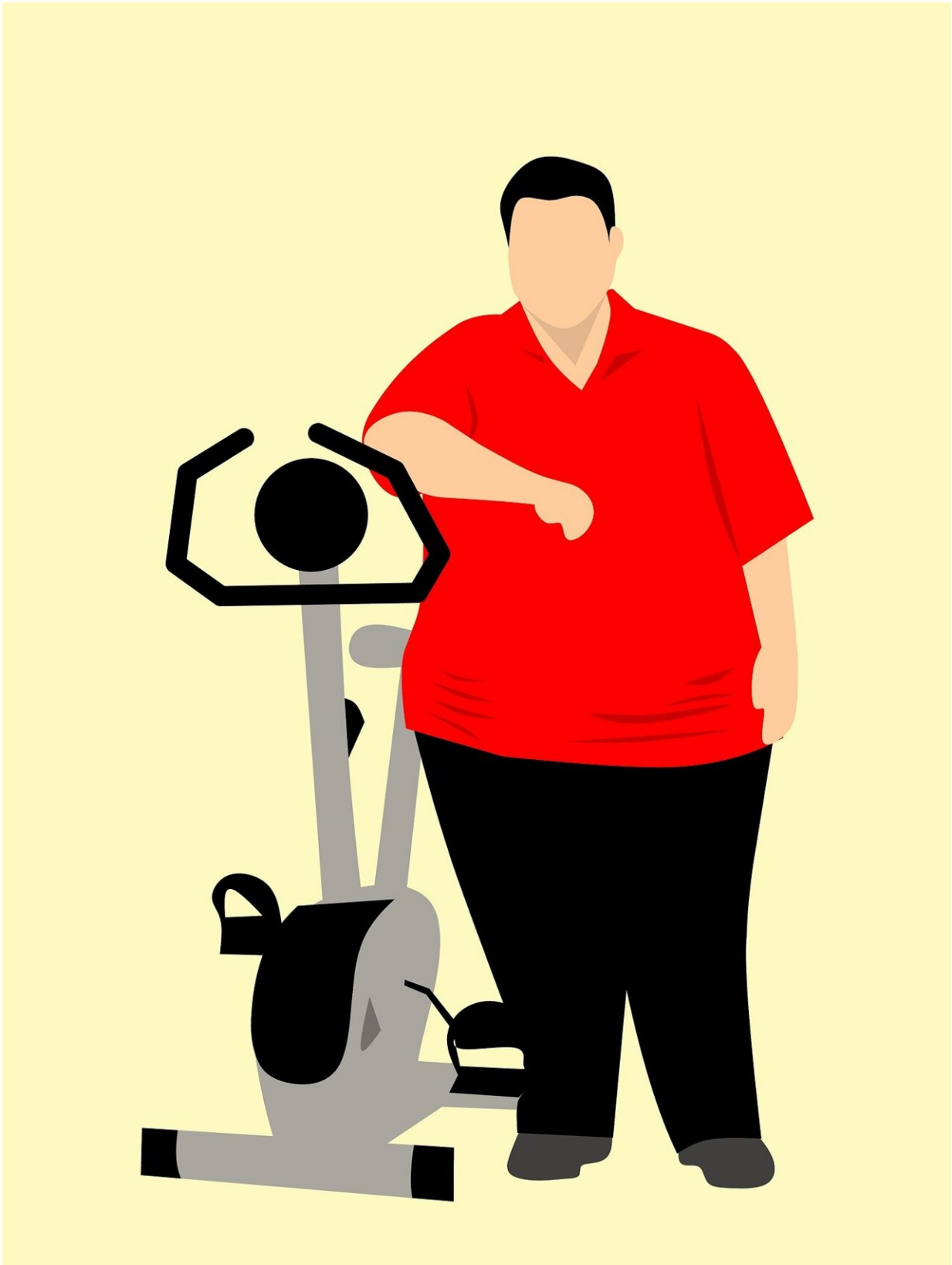


Weight gain in late teens and 20s associated with higher risk of fatal prostate cancer

May 16 2023



Credit: Pixabay/CC0 Public Domain

Weight gain in a man's late teens and 20s increases his risk of dying from prostate cancer later in life, research being presented at the [European Congress on Obesity \(ECO\)](#) in Dublin, Ireland (May 17-20), suggests.

The analysis of data on more than 250,000 men in Sweden found that weight gain over the course of a man's life was associated with developing [prostate cancer](#) overall and aggressive and fatal prostate [cancer](#).

The link with aggressive and fatal prostate cancer was driven by weight gain between the ages of 17 and 29.

Prostate cancer is the second most common cancer in men globally, with more than 1.4 million cases diagnosed annually. It is most common cancer in men in Sweden, with 10,000 cases a year and the most common cause of cancer death in males, with 2,000 deaths annually.

It is the most common cancer in men in the UK, with around 52,000 cases a year and the second most common cause of cancer death in males, with almost 12,000 deaths a year.

"Knowing more about the factors that cause prostate cancer is key to preventing it," says Dr. Marisa da Silva, of the Department of Translational Medicine, Lund University, Malmö, Sweden.

"The only well-established [risk factors](#), such as increasing age, a family history of the disease and several [genetic markers](#), are not modifiable, making it vital to identify risk factors that can be changed."

In addition, although many [prostate cancers](#) are slow-growing and may not cause a man harm during his lifetime, others are more aggressive—they have or are likely to spread quickly outside the prostate and are harder to treat—and it is important to find out if they have the same or different risk factors.

Previous research has found strong evidence that excess body fat increases the risk of fatal prostate cancer. The evidence that body fat is associated with prostate cancer overall is, however, unclear. In addition, many of these studies relied on measures of body fat from one point in time and did not assess aggressiveness.

To learn more about the links between weight and prostate cancer, Dr. da Silva and colleagues analyzed data on 258,477 men whose weight had been measured at least three times between the ages of 17 and 60 years, as part of the Obesity and Disease Development Sweden (ODDS) study.

Weight was measured objectively (83%), subjectively (5%) and recalled (12%).

The men, who were free of prostate cancer when they enrolled in the ODDS from 1963-2014, were followed up until 2019 (median follow up 43 years). Prostate cancer diagnoses and deaths during that time were logged.

Of the group, 23,348 participants were diagnosed with prostate cancer, with an average age at diagnosis of 70 years, and 4,790 men died from prostate cancer.

The participants gained on average 0.45 kg/year during a median of 16 years from the first to last weight observation.

Weight gain was greatest early in life. It was an average of 0.73 kg/year

(1.6lb/year) at 17 to 29 years, 0.34 kg/year (0.75 lb/year) at 30 to 44 years and 0.22 kg/year (0.5 lb/year) at 45 to 60 years.

Weight gain was associated with both the development of prostate cancer and its aggressiveness.

Weight gain (over half a kg or 1.1lb per year) compared to stable weight across a man's life was associated with a 10% greater risk of aggressive prostate cancer and a 29% greater risk of fatal prostate cancer.

Further analysis showed that this link was being driven by weight gain between the ages of 17 and 29 years.

For a man who gains 1 kg (2.2 lb) a year between the ages of 17 and 29 years (total weight gained across this period 13 kg/21 lbs), this is associated with a 13% increased risk of aggressive prostate cancer and a 27% increased risk of fatal prostate cancer.

Dr. da Silva says, "Previous research has implicated elevated concentrations of insulin-like growth factor-1 (IGF-1), a hormone that is involved in [cell growth](#) and development, with an increased risk of prostate cancer. Levels of this hormone are raised in people with obesity and a steep increase in weight may fuel this elevation and the development of the cancer."

The researchers conclude that preventing weight gain in young adulthood may reduce the risk of aggressive and fatal prostate cancer.

Dr. da Silva adds, "We do not know if it is the [weight gain](#) itself or the long duration of being heavier that is the main driver of the association that we see. Nevertheless, one must gain weight to become heavier, so preventing a steep increase in weight in young men is imperative for the prevention of [prostate](#) cancer."

Provided by European Association for the Study of Obesity

Citation: Weight gain in late teens and 20s associated with higher risk of fatal prostate cancer (2023, May 16) retrieved 25 June 2024 from <https://medicalxpress.com/news/2023-05-weight-gain-late-teens-20s.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.