

# Excess body weight before age 50 is associated with higher pancreatic cancer mortality risk

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BMI before age 50 may be more strongly associated with pancreatic cancer risk than BMI at older ages.

Whilst pancreatic cancer is relatively uncommon, accounting for just over 3% of all new cancer cases, it is an extremely deadly type of cancer. In the USA, pancreatic cancer is the third leading cause of cancer death, after lung and colorectal cancer, and is expected to cause approximately 46,000 deaths in 2019.

“Pancreatic cancer rates have been steadily increasing since the early 2000s,” commented lead author, Eric J. Jacobs (American Cancer Society, GA, USA). “We’ve been puzzled by that increase because smoking—a major risk factor for pancreatic cancer—is declining.”

“Increased weight in the US population is a likely suspect, but previous studies have indicated that excess weight is linked with only a relatively small increase in risk, which doesn’t look large enough to fully explain recent increases in pancreatic cancer rates,” Jacobs continued.

In this study, researchers wanted to discover if excess weight measured earlier in adulthood might be more strongly linked to pancreatic cancer risk than excess weight measured at older ages.

The researchers examined data from 963,317 US adults with no history of cancer who registered in a nationwide study of cancer mortality that began in 1982 and followed participants through 2014; the American Cancer Society’s Cancer Prevention Study II. At the beginning of the study, all participants reported their weight and height. This included some participants as young as 30 while others were in their 70s or 80s. Body Mass Index (BMI) was then calculated from this information.

During the follow-up period, 8,354 participants died of pancreatic cancer. As predicted, higher BMI was linked with increased risk of dying of pancreatic cancer, but this increase in risk was largest for BMI assessed at earlier ages. Jacobs noted that while the study only had information on

deaths from pancreatic cancer, the disease is nearly always fatal, so results are expected to be similar to those for new diagnoses of pancreatic cancer.

The results suggest that excess weight could increase risk of death from pancreatic cancer more than previously believed. Moreover, the researchers recorded that recent generations are reaching early middle age with more excess weight than earlier generations previously did. This indicates that excess weight will explain a larger proportion of pancreatic risk in the future.

Interestingly, Jacobs estimates that 28% of pancreatic cancer deaths amongst Americans born between 1970 and 1974 will be attributable to excess weight, in comparison to just 15% of Americans born in the 1930s, who are much less likely to be obese in early middle age. Thus, highlighting the importance of preventing excess weight gain before middle age for reducing rates of pancreatic cancer.

“Our results strongly suggest that to stop and eventually reverse recent increases in pancreatic cancer rates, we will need to do better in preventing excess weight gain in children and younger adults, an achievement which would help prevent many other diseases as well,” concluded Jacobs.

Written By Joseph Martin

Source Jacobs EJ, Newton CC, Patel AV et al. The association between body mass index (BMI) and risk of pancreatic cancer depends on age at BMI assessment. Presented at: AACR (March 29 – April 3, Atlanta, GA, USA, 2019) Session number: PO.EP01.02

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