

# Obesity tied to shorter survival in cancer patients

30 March 2021, by Amy Norton Healthday Reporter



(HealthDay)—Obesity may shorten the lives of patients with certain types of cancers, but not others, a new research review concludes.

The analysis, of more than 200 studies, found that across numerous cancers, obesity was linked to shorter survival. The list included breast, colon, prostate, uterine and pancreatic cancers.

On the other hand, patients with lung, kidney or melanoma skin cancer all had better survival, on average, if they were obese.

Experts said the relationship between weight and cancer survival is complicated, and the results do not necessarily reflect cause and effect.

The finding that obesity was linked to better survival in certain cancers is no surprise: Researchers have even labeled it the "obesity paradox."

But the connection does not prove obesity, itself, is

protective, said Lauren Teras, scientific director of epidemiology research for the American Cancer Society.

She pointed to the case of lung cancer.

"When people are very ill with lung cancer, cachexia is a common problem," Teras said, referring to the marked loss of body fat and muscle that can strike in the advanced stages of cancer.

So that, Teras said, may at least partly explain the better survival among lung cancer patients with a higher body mass index, or BMI.

Teras also pointed out that BMI, which is how most studies gauge obesity, is an imprecise tool. It's a measure of weight in relation to height, and says nothing about a person's body composition—including their muscle mass.

Then there is the other side: Why is obesity (or a high BMI) linked to shorter survival in other cancers?

"I don't think we can say for sure that obesity is the reason," Teras cautioned.

That said, she explained that fat tissue is not inert, but "metabolically active." It produces hormones and other substances that can feed inflammation, cell growth and other processes that can directly affect cancer outcomes.

There might be an indirect relationship, too, Teras said. Cancer therapies, for example, are often dosed according to body weight, and obesity might make it harder to determine the best dose.

The analysis—published March 29 in *JAMA Network Open*—was led by Dr. Fausto Petrelli of the oncology unit at Azienda Socio Sanitaria Territoriale Bergamo Ovest, in Treviglio, Italy.

The researchers combined data from 203 past studies that involved more than 6.3 million cancer patients. They looked at the relationship between obesity (defined as a BMI of 30 or above) and patients' risk of dying during the study period.

On average, obesity was tied to a 14% greater risk of dying from any cause, and a 17% higher risk of death from cancer. That was with factors like age, race and coexisting health problems taken into account.

But there was variation according to the cancer type: Among breast cancer patients, for example, obese women were 26% more likely to die compared to leaner women. Similarly, patients with pancreatic cancer were 36% more likely to die if they were obese.

On the other end of the spectrum were patients with lung or kidney cancer, and those with melanoma. Lung cancer patients who were obese, for example, were 14% less likely to die.

Dr. Jennifer Ligibel is an expert with the American Society of Clinical Oncology and an associate professor of medicine at Harvard Medical School in Boston.

She noted that cancer encompasses many different diseases, and the impact of obesity on survival will vary.

With lung cancer, smoking is an overwhelmingly strong factor. But with breast cancer, Ligibel said, there is good evidence that women who are obese at diagnosis have a heightened risk of recurrence.

The bottom line, Ligibel said, is that obesity is linked to poorer survival across numerous cancers.

While the reasons are not fully clear, she agreed there could be direct effects of obesity—from dampening immune function to fueling inflammation.

Right now, Ligibel said, there are no firm guidelines on weight management for people undergoing active cancer treatment.

"But," she added, "it is important for them to be physically active."

That may help them feel better, prevent deconditioning (declines in fitness and muscle strength), and lower their chances of gaining weight, Ligibel said.

Once patients are through their treatment course, the American Cancer Society recommends using diet and exercise to achieve a healthier weight. That's for the sake of overall health, and possibly to lower the chances of a recurrence.

Ongoing research, Ligibel said, is testing whether weight loss after a breast cancer diagnosis does, in fact, help stave off a recurrence.

Ligibel sees a "hopeful" message in the current findings.

"So many things are out of your control when you have cancer," she said. "And patients want to know what they can do."

Healthy eating and physical activity are two steps they can take, she said.

**More information:** The American Cancer Society has advice for cancer patients on [diet and exercise](#).

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APA citation: Obesity tied to shorter survival in cancer patients (2021, March 30) retrieved 3 October 2022 from <https://medicalxpress.com/news/2021-03-obesity-tied-mortality-patients-cancer.html>

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