Increased risk of 11 types of cancer linked to being overweight, researchers warn

Study shows strong evidence of a link between excess body fat and cancers of the colon, breast, pancreas and ovary among others

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Tuesday 28 February 2017 23.30 GMTLast modified on Tuesday 28 February 2017 23.32 GMT

Being overweight could increase the risk of a host of cancers, including those of the colon, breast, pancreas and ovary, researchers have warned following a wide review of more than 200 studies.

According to previous figures from two leading charities, almost three quarters of people are expected to be overweight by 2035, with [700,000 new cases](https://www.theguardian.com/society/2016/jan/07/obesity-could-lead-to-700000-more-cancer-cases-in-next-20-years) of obesity-related cancer expected over the next 20 years.

The new study by an international team adds weight to the warning, revealing that there is currently strong evidence for a link between excess body fat and an increased risk of 11 cancers: colon, rectum, endometrium, breast, ovary, kidney, pancreas, gastric cardia, biliary tract system and certain cancers of the oesophagus and bone marrow.

“I think now the public and physicians really need to pay attention to obesity with respect to cancer,” said Marc Gunter, a co-author of the research from the International Agency for Research on [Cancer](https://www.theguardian.com/society/cancer). “Telling people to avoid being overweight not only reduces their risk of, say, diabetes and cardiovascular disease, it also reduces their risk of many different cancers.”

Published in the [British Medical Journal](http://www.bmj.com/cgi/doi/10.1136/bmj.j477), the study examined evidence from 204 previously published studies which each looked at combined results from multiple pieces of research probing the link between body fat and the development of particular cancers.

Of the 95 studies which looked at obesity measures on a continuous scale such as body mass index, 12 were found to offer strong evidence of an association, encompassing a total of nine different cancers.

Analysis of these studies revealed that as BMI (weight divided by height squared) increased, so too did the risk of developing certain cancers. For men, for every 5kg/m2 increase in BMI, the risk of developing colorectal cancer rose by 9%, while among women forgoing HRT, the risk of developing postmenopausal breast cancer increased by 11%. The figures were even higher for cancer of the biliary tract system, with risk increasing by 56% for every 5kg/m2 increase in BMI.

The authors note the remaining 83 such studies were of mixed quality. While 18% were deemed “highly suggestive” of a link between excess body fat and cancer, 20% had only weak evidence while 25% had no evidence for a link.

When studies that looked at other measures of obesity were included in the analysis, the total number of cancers for which there was strong evidence of a link to body fat came to 11.

While the new study does not shed light on how excess body weight is linked to an increased risk of various cancers, a number of explanations have previously been proposed. “We know that if you are overweight it causes lots of disruption of hormonal and metabolic pathways,” said Gunter, noting that excess fat has been linked to higher oestrogen levels, higher insulin levels and increased inflammation – all of which can affect cell division.

Dr Rachel Orritt, Cancer Research UK’s health information officer, said: “This research uses very strict criteria to evaluate the evidence and confirms that obesity increases the risk of cancer, linking many of the same cancer types that have been linked before.”

Being overweight, Orritt adds, is second only to smoking as the biggest preventable cause of cancer. “Whether it’s taking the stairs or switching to sugar-free versions of your favourite drinks, small changes can make a real difference, helping you keep a healthy weight and reducing your risk of cancer,” she said.

Dr Alison Tedstone, chief nutritionist at Public Health England, added that awareness was key. “[Less than half the population realise that being obese increases the risk of cancer](https://www.theguardian.com/society/2016/sep/09/three-in-four-britons-unclear-on-obesity-link-to-cancer-poll) and, with almost two-thirds of adults carrying excess weight, this is worrying,” she said.

Paul Aveyard, professor of behavioural Mmedicine at the University of Oxford, agreed that the study highlighted the need for society to take steps to reverse the rise of obesity. “It is one more reason for people to be concerned about the excess body weight that they carry,” he said. “This risk isn’t confined just to people who are really overweight. All of us who carry excess fat, and that is most of us in this country, are at some degree of risk.”