

CANCER

Obesity Is Linked to at Least 13 Types of Cancer

By **Nicholas Bakalar** August 24, 2016 5:00 pm

A review of more than a thousand studies has found solid evidence that being overweight or obese increases the risk for at least 13 types of cancer. The study was conducted by a working group of the International Agency for Research on Cancer, part of the World Health Organization.

Strong evidence was already available to link five cancers to being overweight or obese: adenocarcinoma of the esophagus; colorectal cancer; breast cancer in postmenopausal women; and uterine and kidney cancers.

This new review, published in *The New England Journal of Medicine*, links an additional eight cancers to excess fat: gastric cardia, a cancer of the part of the stomach closest to the esophagus; liver cancer; gallbladder cancer; pancreatic cancer; thyroid cancer; ovarian cancer; meningioma, a usually benign type of brain tumor; and multiple myeloma, a blood cancer.

According to the chairman of the working group, Dr. Graham Colditz, a professor of medicine and surgery at Washington University in St. Louis, these 13 cancers together account for 42 percent of all new cancer diagnoses.

“Only smoking comes close” as an environmental factor affecting cancer risk, Dr. Colditz said. “And that’s an important message for nonsmokers. Obesity now goes to the top of the list of things to focus on.”

Obesity is associated with significant metabolic and hormone abnormalities, and with chronic inflammation, factors that may help explain its link to cancer.

Elizabeth A. Platz, a professor of epidemiology at the Johns Hopkins Bloomberg School of Public Health and a widely published cancer researcher who was not involved in the report, said that this was a “high-caliber working group of respected epidemiologists and laboratory researchers,” and that women in particular should take note of the results.

“The strongest association they found,” she said, “is with uterine cancer. And postmenopausal breast cancer is also connected to obesity, especially estrogen receptor positive cancer. These are important messages that women need to hear.”

Most of the studies the researchers looked at were observational so can't prove cause and effect, though researchers considered evidence sufficient if an association could not be explained by chance, bias or other confounding factors. And most compared any increases in risk to that of an adult of normal weight having a body mass index of 18.5 to 24.9.

For some cancers, the group found that the fatter the person, the greater the risk. In endometrial cancer, for example, compared with a woman of normal weight, one with a B.M.I. of 25 to 29.9 was at a 50 percent higher relative risk. But her risk more than doubled at B.M.I.s between 30 and 34.9 and more than quadrupled at B.M.I.s of 35 to 39.9. A woman with a B.M.I. of 40 or more was at seven times the risk for endometrial cancer as a woman of normal weight.

The group found only limited evidence that obesity could be linked to three additional types of cancer: male breast cancer; prostate cancer; and diffuse large B-cell lymphoma, the most common form of non-Hodgkin's lymphoma.

They found no adequate evidence to link obesity with squamous-cell esophageal cancer, gastric noncardia cancer, cancer of the biliary tract, lung cancer, cutaneous melanoma, testicular cancer, urinary tract cancer, or glioma of the brain or spinal cord.

Does losing weight reduce the risk? Although animal studies suggest that it does, Dr. Colditz said, “it's hard to study in humans because so few people lose

weight and keep it off. But the priority of avoiding weight gain is the first thing we need to address.”

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