Teenage Obesity Tied to Higher Midlife Cancer Risk

Breast and cervical cancer in women and lung cancer in men are exceptions.

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Adolescents who are obese have a higher risk of being diagnosed with cancer during midlife, Healio reports.

Gilad Twig, MD, PhD, a professor in the research and academic division of the Israel Defense Forces Medical Corps in Ramat Gan, Israel, and colleagues analyzed data on 2.3 million adolescents 16 to 19 years old,—including 930,000 young women—who were screened for their mandatory military service between 1967 and 2012.

The study authors stratified the cohort members' body mass index (BMI) by considering those below the bottom 5% underweight, 5% through 49% low to normal weight, 50% through 94% overweight and those in the top 5% obese. Then the investigators compared those percentiles with cancer diagnosis data from the Israeli National Cancer Registry spanning 1967 to 2012.

Publishing their findings in The Lancet Diabetes & Endocrinology, the study authors found 26,353 cancer diagnoses among men and 29,488 among women. The average age at diagnosis was 42 years old among men and 40 years old among women. The most common cancers among men were lymphoma (17.4%), melanoma (11.9%) and colorectal cancer (7.7%); among women, they were breast cancer (32.7%) and cervical cancer (19.9%).

Compared with men who had with low to normal BMI during adolescence, those who were obese at that time had a 26% higher risk of developing cancer in midlife. The exception was lung cancer, which was less common in men who had been obese as teens.

For women, the exceptions were breast and cervical cancer, which occurred in lower rates among those who had been obese as teens. When the study authors excluded those cancers, they found that obesity at this stage in life was associated with a 27% increased risk of cancer.

The study authors estimated that obesity was responsible for 5.1% of cancers among men and 5.7% among women.

For those who did get cancer, a healthy weight was also associated with a slightly better chance of

survival. During the study's follow-up period, 8,351 of the men and 5,218 of the women died. Following their diagnosis, 72.2% of those who were obese as teens and 75.2% of those who had a low to normal BMI at that time survived for five years. Among women, the corresponding respective figures were 83.1% and 89.3%. The investigators calculated that being obese as an adolescent raised the risk of dying within five years of a cancer diagnosis by 33% for men and 89% for women. These findings persisted after the researchers adjusted the data to account for differences in the cohort members' age upon entering the study, birth year, education and socioeconomic status.

For more information about obesity's ties to cancer risk, read the Cancer Health articles "Being Overweight Raises Cancer Risk Twice as Much as Previously Thought" and "Obesity Is Driving Rise in Cancer Among Young People."

To read the Healio article, click here.

To read the study abstract, click here.

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