

# Tel Aviv University research links childhood obesity to cancer risk

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Parents are increasingly conscious of the dangers of childhood obesity. There is a growing recognition of health problems associated with extra pounds, including the risk of diabetes, heart disease, and joint and muscle pain.

New research from Tel Aviv University has revealed another significant reason for children to maintain a healthy weight. Dr. Ari Shamiss and Dr. Adi Leiba of TAU's Sackler Faculty of Medicine and the Sheba Medical Center and their fellow researchers found that obesity in adolescence, defined as a [Body Mass Index](#) (BMI) in the 85th percentile and above, has a direct link to the incidence of urothelial (bladder and urinary tract) and [colorectal cancers](#) in adulthood. According to the [American Heart Association](#), one in three children and teenagers are now considered overweight or obese.

Children above the 84th percentile in BMI have a 1.42% greater chance, representing a 50% higher risk, of developing urothelial or colorectal cancers in adulthood compared to those beneath it, explains Dr. Shamiss, whose research has been published in the journals [Cancer Epidemiology, Biomarkers and Prevention](#) and *Obesity*.

## Understanding the connection

To examine the relationship between obesity and cancers, the researchers conducted a [longitudinal study](#) of a cohort of 1.1 million

males in the Israeli Defense Forces. Their health information was gathered by the army, with a follow-up period of 18 years. When they controlled for factors such as year of birth and education, the researchers discovered a clear link between childhood BMI and those who were diagnosed with urothelial or colorectal cancers later in life.

While the researchers have so far uncovered risk in two different [types of cancer](#), Dr. Shamiss believes that further research will reveal connections between childhood obesity and a wide range of other cancers, including pancreatic cancer, which he is currently researching.

These findings show a distinct need for more research in this field, he notes. "We need to examine the questions of whether obesity is a direct risk factor for cancer or a confounding factor for a genetic variation, for example," he explains, pointing out that basic research could help researchers to understand the connection between obesity and cancer on a deeper level.

## **The role of weight loss**

One of the crucial questions, says Dr. Shamiss, is whether or not a successful weight loss attempt can reduce a child's risk of developing urothelial or colorectal cancer in adulthood. Their current sample looks at children who were obese and those who were of normal weight, but does not reveal whether weight loss makes a significant difference.

New research should focus on researching the pathogenetic link between obesity and cancer, and whether losing weight in adulthood could lower the risk, Dr. Shamiss says. Although healthcare professionals are already stressing the importance of preventing [childhood obesity](#), this finding certainly adds to the urgency.

Provided by Tel Aviv University

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