

# Team pinpoints biological risk factor in obesity-related cancers

September 24 2013

---

It is estimated that over a third of the new cancer cases expected to occur in the U.S. in 2013 will be related to overweight or obesity, physical inactivity, and poor nutrition. Thanks to the work of one NYU Steinhardt researcher, we may better understand why.

Nutritional epidemiologist Niyati Parekh's latest research study, which appears in the journal *Cancer Epidemiology, Biomarkers, and Prevention*, concludes that disturbances in body insulin and [glucose levels](#), specifically exposures to longer periods, are associated with an increased risk of obesity-related cancers and offers suggestions for clinicians to screen for these disturbances to aid in the prevention of these cancers.

"There is convincing evidence in the literature that [body fatness](#) is linked to cancer of the esophagus, pancreas, colorectum, breast (post-menopausal), and some other cancers," explained Parekh, Assistant Professor of Public Health Nutrition within NYU Steinhardt's Department of Nutrition, Food Studies, and Public Health and NYU Langone's Department of Population Health. "A sedentary lifestyle – that is a lack of physical activity – and poor diet contributes to increased body fat and produces an overall environment within the body that is conducive to [cancer development](#)."

According to Parekh, obesity creates disruption of insulin regulation.

"Insulin is responsible for regulating [blood glucose](#), which serves as a fuel for cell growth," she said. "Obese individuals are more likely to

have higher concentrations of both insulin and glucose, an undesirable condition that may promote [cancer cells](#) to grow, multiply, and spread rapidly, as compared to individuals who do not have these abnormalities."

Parekh's project used the offspring generation data from the renowned Framingham Heart Study, a 60-year research study initially seeking to identify the common factors or characteristics that contribute to cardiovascular disease. Framingham researchers followed three generations of participants gathering demographic, diet, medical, blood and physical history through in-person interviews and questionnaires with continuous follow-ups every four years on average from the start of the study.

"What's most promising about these conclusions is that we may be able to contribute to the eventual development of guidelines and prevention strategies for cancers related to obesity," Parekh said. "Based on our findings, we recommend lifestyle that may alleviate disturbances in insulin and glucose, as a cancer control tool in the context of the nation's obesity problem."

**More information:** "Metabolic Dysregulation of the Insulin-Glucose Axis and Risk of Obesity-Related Cancers in the Framingham Heart Study Offspring Population," *Cancer Epidemiology, Biomarkers, and Prevention*, 2013.

Provided by New York University

Citation: Team pinpoints biological risk factor in obesity-related cancers (2013, September 24) retrieved 25 April 2024 from <https://medicalxpress.com/news/2013-09-team-biological-factor-obesity-related-cancers.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.