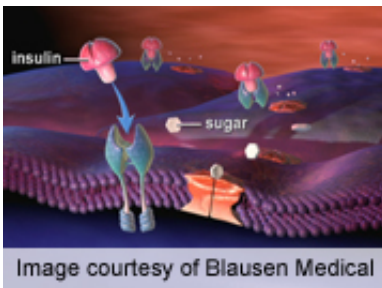


# Sucralose affects response to oral glucose load in obese

July 2 2013

---



For obese adults who do not use non-nutritive sweetener, sucralose affects the glycemic and insulin responses to an oral glucose load, according to a study published online April 30 in *Diabetes Care*.

(HealthDay)—For obese adults who do not use non-nutritive sweetener (NNS), sucralose affects the glycemic and insulin responses to an oral glucose load, according to a study published online April 30 in *Diabetes Care*.

M. Yanina Pepino, Ph.D., from the Washington University School of Medicine in St. Louis, and colleagues examined the acute effects of sucralose ingestion on the metabolic response to an oral glucose load in 17 obese individuals who did not use NNS and were insulin sensitive. In a randomized crossover design study, participants underwent a five-hour modified [oral glucose tolerance test](#) on two occasions 10 minutes after consuming sucralose or water.

The researchers found that sucralose ingestion caused significantly greater incremental increases in peak [plasma glucose](#) concentrations and insulin area under the curve, as well as a greater peak [insulin secretion](#) rate, and caused significant decreases in insulin clearance and insulin sensitivity, compared with the control condition. For active glucagon-like peptide 1, glucose-dependent insulintropic polypeptide, glucagon incremental area under the curve, or indices of sensitivity to the  $\beta$ -cell response to glucose, there were no significant differences between the conditions.

"In conclusion, the results from our study demonstrate that sucralose affects the glycemic and hormonal responses to an oral glucose load in obese people who do not normally consume NNS," the authors write. "These findings support the notion that sucralose is not metabolically inert but has physiologic effects."

Tate & Lyle provided sucralose for the study.

**More information:** [Abstract](#)  
[Full Text \(subscription or payment may be required\)](#)

[Health News](#) Copyright © 2013 [HealthDay](#). All rights reserved.

Citation: Sucralose affects response to oral glucose load in obese (2013, July 2) retrieved 20 March 2024 from  
<https://medicalxpress.com/news/2013-07-sucralose-affects-response-oral-glucose.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.
---