

Warmer office temperatures could lower food intake, pilot study finds

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University of Alabama at Birmingham researchers have found preliminary evidence of effects of thermal environment on food intake.

Molly C. Bernhard, MPH, pre-doctoral fellow in the Nutrition Obesity Research Center and pre-doctoral candidate in the Department of

Environmental Health Sciences, hypothesized that food intake would decrease in young adults exposed to temperatures above normal room temperatures (68° to 72°F) in a sedentary office environment. To test this, 20 participants were randomized to perform routine office work over a two-hour period either in a room kept at normal building temperature of 19° to 20°C (66° to 68°F) or above 26° to 27°C (78° to 80°F). Thermal images were taken throughout to estimate heat dissipation.

After controlling for variables such as gender and BMI, Bernhard and colleagues found for every 1 degree Celsius increase in peripheral temperature—suggesting increased heat dissipation—participants ate 85.9 kcal less.

"This suggests that decreased food intake in the experimental (warmer) [environment](#) is potentially mediated through thermoregulatory mechanisms," Bernhard explained.

"Warm Ambient Temperature Decreases Food Intake in a Simulated Office Setting: A Pilot Randomized Controlled Trial" is published online in *Frontiers in Nutrition*. The investigators are currently following up on this work by examining the effects of a longer exposure time on [food intake](#) using a cross-over randomized control trial study design.

More information: "Warm ambient temperature decreases food intake in a simulated office setting: A pilot randomized controlled trial" *Front. Nutr.* [DOI: 10.3389/fnut.2015.00020](https://doi.org/10.3389/fnut.2015.00020)

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