

Mind over matter: You are what you think you eat

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(PhysOrg.com) -- A new study by Yale University suggests that people's state of mind may influence how physically satisfied they feel after a meal and how likely they are to still feel hungry and consume additional food. The study, which could have implications in the fight against obesity, appears online in the journal *Health Psychology*.

The research team focused on levels of ghrelin, the so-called "hunger hormone" in the gut, which stimulates the [appetite](#) and feelings of

[hunger](#). Ghrelin levels typically increase before meals and decrease after meals. The higher the levels of ghrelin in the system, the more likely a person is to overeat.

The Yale team's research subjects were given a 380 calorie milkshake under the pretense that it was either a 620 calorie "indulgent" shake or a 140 calorie "sensible" shake. Those who drank what they thought was the "indulgent" high-fat, high-calorie shake had a dramatically steeper decline in ghrelin after drinking it. Those who thought they were drinking the "sensible" low-fat, low-calorie shake had a flat ghrelin response. The ghrelin response to perceived [calorie counts](#) was consistent with what would be observed had the counts actually been that high or low.

"This study shows that [mindset](#) can affect feelings of physical satiety," said lead author Alia J. Crum of the department of psychology at Yale. "The brain was tricked into either feeling full or feeling unsatisfied. That feeling depended on what people believed they were consuming, rather than what they actually were consuming."

Because elevated ghrelin levels can cause increased body weight and fat gain through increased caloric consumption, this study may open new avenues in the fight against [obesity](#) by providing new insight into how the mind and body work together to impact responses to food. "What was most interesting," Crum said, "is that the results were somewhat counterintuitive. Consuming the shake thinking it was 'indulgent' was healthier than thinking it was 'sensible.' It led to a sharper reduction in ghrelin."

Provided by Yale University

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