

Increased protein consumption linked to feelings of fullness

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Many people turn to high-protein foods when trying to lose weight because eating protein-rich meals is commonly believed to make dieters feel fuller. Surprisingly, this idea hadn't been tested on a large scale. In a new study featured in the *Journal of the Academy of Nutrition and Dietetics*, researchers conducted a systematic review of the evidence on the effect of protein intake on perceived fullness and confirmed that protein does, in fact, make us feel fuller.

The recent popularity of low-carb, high-protein diets can partially be attributed to the fact that dieters often feel fuller when [protein intake](#) is high, even if they are consuming fewer calories overall. "A good deal of evidence suggests that protein activates satiety hormone release and so should be most strongly tied with fullness ratings," said lead investigator Richard D. Mattes, MPH, PhD, RD, Distinguished Professor, Department of Nutrition Science, Director of Public Health, and Director of the Ingestive Behavior Research Center at Purdue University, "but individual studies are often conducted in small populations or with different approaches that can make interpretation of results challenging. Our study combined multiple experiments to confirm the presence of an effect."

The research team used a variety of statistical approaches to make sense of the data. These techniques included a quantitative meta-analysis and a secondary directional analysis using a vote counting procedure. Both the meta-analysis and directional analysis indicated that higher protein loads have a greater effect on fullness than lower protein loads.

With the confirmation that protein intake is related to satiety, defined as fullness between meals, modestly higher protein intake may allow individuals to feel fuller between meals. Yet, while protein may help dieters feel fuller, it is by no means a magic bullet. "Feelings like hunger and fullness are not the only factors that influence intake. We often eat for other reasons. Anyone who has ever felt too full to finish their meal but has room for dessert knows this all too well," explained Dr. Mattes.

"The exact amount of protein needed to prolong fullness as well as when to consume protein throughout the day is not resolved, and our study did not determine this," said Heather Leidy, PhD, Assistant Professor, Department of Nutrition & Exercise Physiology at the University of Missouri. So while the researchers encourage the public not to consume protein to the point of excess, people looking to moderate their energy intake by enhancing the sensation of fullness might consider a moderate increment in protein consumption as a first step. "Though this study did not specifically evaluate dieters, feeling fuller could help to reduce food intake, an important factor when dieting," concluded Dr. Mattes. "If these effects are sustained over the long-term - and our study only looked at short-term effects - increased protein intake may aid in the loss or maintenance of body weight."

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