

Almonds May Decrease Appetite Without Increasing Body Weight

Source: Institute of Food Technologists

A study published in the *European Journal of Clinical Nutrition* shows that eating 1.5-oz of almonds every day may reduce hunger without increasing body weight.

The four-week randomized, controlled clinical study, led by researchers at Purdue University, investigated the effects of almond snacking on weight and appetite. The study included 137 adult participants at increased risk for type 2 diabetes. Participants were assigned randomly to one of five groups for four weeks: a control group that did not consume nuts or seeds during the study period, and two meal groups and two snack groups that consumed 43 g, or 1.5-oz of whole almonds daily at assigned breakfast or lunch meal times, or morning or afternoon snack times, respectively.

Oral glucose tolerance tests (OGTT) were performed at baseline, along with height, weight, body fat, waist circumference, and blood pressure measurements. A 24-hr dietary recall was completed with a registered dietitian and “hunger,” “fullness” and “desire to eat” sensations were captured using visual analog scales. Acute feeding sessions involving an overnight fast and consecutive blood samplings after ingestion of meals or snacks were performed one week after the OGTT and at the end of the four weeks. Participants underwent weekly follow-up visits where weight was recorded, 24-hr dietary intake and appetite sensation ratings were assessed.

The researchers found that monounsaturated fat and vitamin E intake were significantly increased in all almond groups compared to baseline and the control group. Daylong ratings of hunger and desire to eat were significantly reduced in the combined (mid-morning + mid-afternoon) snack groups and the combined (breakfast + lunch) meal groups relative to the control group, with the most pronounced reductions observed when almonds were consumed as a snack.

Despite the consumption of 250 calories from the 1.5-oz serving of almonds daily, body weight did not increase among participants, which researchers suggest may be due to energy compensation in the diet and through inefficient energy absorption.

“This research suggests that almonds may be a good snack option, especially for those concerned about weight,” said Richard Mattes, Professor of Nutrition Science at Purdue University and the study’s principal investigator. “In this study, participants compensated for the additional calories provided by the almonds so daily energy intake did not rise and reported reduced hunger levels and desire to eat at subsequent meals, particularly when almonds were consumed as a snack.”

It should be noted that the study was short in duration and did not measure the long-term impact of consuming almonds as a snack. The measures of hunger, desire to eat, and fullness are subjective measures with uncertain effects on actual calorie or nutrient intake.