

Egg Nutrition Center



Protein Research

Vander Wal JS, Marth JM, Khosla P, Jen C, Dhurandhar NV. Short-term effect of eggs on satiety in overweight and obese subjects. *J AM Coll Nutr* 2005;24:510-15.

OBJECTIVE: To test the hypotheses that among overweight and obese participants, a breakfast consisting of eggs, in comparison to an isocaloric equal-weight bagel-based breakfast, would induce greater satiety, reduce perceived cravings, and reduce subsequent short-term energy intake.

SUBJECTS: Thirty women with BMI's of at least 25 kg/M² between the ages of 25 to 60 y were recruited to participate in a randomized crossover design study in an outpatient clinic setting.

DESIGN: Following an overnight fast, subjects consumed either an egg or bagel-based breakfast followed by lunch 3.5 h later, in random order two weeks apart. Food intake was weighed at breakfast and lunch and recorded via dietary recall up to 36 h post breakfast. Satiety was assessed using the Fullness Questionnaire and the State-Trait Food Cravings Questionnaire, state version.

RESULTS: During the pre-lunch period, participants had greater feelings of satiety after the egg breakfast, and consumed significantly less energy (kJ; 2405.6 +/- 550.0 vs 3091.3 +/- 445.5, Egg vs Bagel breakfasts, $p < 0.0001$), grams of protein (16.8 +/- 4.2 vs 22.3 +/- 3.4, Egg vs Bagel breakfasts, $p < 0.0001$), carbohydrate 83.1 +/- 20.2 vs 110.9 +/- 18.7, Egg vs Bagel breakfasts, $p < 0.0001$), and fat 19.4 +/- 5.1 vs 22.8 +/- 3.2, Egg vs Bagel breakfasts, $p < 0.0001$) for lunch. Energy intake following the egg breakfast remained lower for the entire day ($p < 0.05$) as well as for the next 36 hours ($p < 0.001$).

CONCLUSIONS: Compared to an isocaloric, equal weight bagel-based breakfast, the egg-breakfast induced greater satiety and significantly reduced short-term food intake. The potential role of a routine egg breakfast in producing a sustained caloric deficit and consequent weight loss, should be determined.