

Skipping breakfast is a common practice among adolescent females. A new study shows that eating breakfast, especially one that is protein-rich, improves diet quality and reduces snacking in overweight adolescent females.

High protein breakfasts improve satiety and reduce snacking in adolescent girls

Skipping breakfast is a common dietary habit most prevalent among adolescent females. Breakfast skipping has been shown in numerous studies to be associated with increased incidence of obesity.

In a new study published in the *American Journal of Clinical Nutrition*, researchers examined whether a high-protein (HP) breakfast lead to improvements in appetite, satiety, food motivation and reward, and evening snacking in overweight or obese females who routinely skipped breakfast.

This randomized crossover study included 20 females with an average age of 19 and a BMI of 28. The participants consumed either a 350 calorie normal protein (NP) cereal-based breakfast (13 g protein), a high-protein (HP) egg and beef-rich breakfast of 350 calories (35 g protein) , or continued skipping breakfast for 7 consecutive days. On the 7th day, repeated blood sampling and assessments were completed to analyze hormones, appetite, satiety, a pre-dinner food cue-stimulated fMRI brain scan, ad libitum dinner (ate what they desired), and evening snacking.

Compared to skipping breakfast, consuming breakfast reduced daily hunger with the HP breakfast resulting in greater satiety than the NP breakfast. In addition, only the HP breakfast reduced ghrelin (a hunger stimulating hormone) and increased daily peptide YY (appetite reducing hormone) concentrations compared with breakfast skipping. Brain activated pre-dinner cues were reduced by consuming either breakfast, although the HP further reduced certain food cue-stimulation compared with NP breakfast. The HP breakfast also reduced high-fat food snacking in the evening when compared to breakfast skipping.

This study shows that eating breakfast leads to improvements in appetite, hormonal and neural signals that influence food intake. The high-protein breakfast resulted in even greater improvements in these food signals and reduced evening snacking compared to skipping breakfast. Eating breakfast, especially one rich in protein, reduces food cravings, improves satiety and results in a better diet quality in teenage girls who are overweight or obese.

Heather J Leidy et al. Beneficial effects of a higher-protein breakfast on the appetitive, hormonal, and neural signals controlling energy intake regulation in overweight/obese, “breakfast-skipping,” late-adolescent girls. Am J Clin Nutr April 2013 vol. 97 no. 4 677-688.



Essentials of Health