Abstract

Title: Effective weight loss with a larger energy intake early in the day

Author: Nadia Andersson & Terese Torstensson

Supervisor: Heléne Bertéus Forslund
Examiner: Frode Slinde
Programme: Programme in dietetics, 180/240 ECTS
Type of paper: Bachelor’s thesis in clinical nutrition, 15 higher education credits
Date: May 23, 2018

Background: Today overweight and obesity is one of the most serious public health issues in the world. The main cause of obesity and overweight is an energy intake that exceeds the energy consumption. A high BMI is related to an increased risk of many sequelae and mortality. Obesity is a disease difficult to treat where the treatment result is rarely lasting. Today’s nutrition treatment is focused on the amount of calories and food composition. Science has shown a connection between the meal time and obesity.

Objective: To review and compile existing scientific research of whether the time of the day’s largest energy intake affects weight loss in adults with overweight or obesity.

Search strategy: A literature study was performed by searching the scientific databases Pubmed and Scopus. The used search terms were: Overweight, Obese, Obesity, “Meal time”, “Meal timing”, Time, Meal, Late, Early, Breakfast, Lunch, Dinner, and Weight loss.

Selection criteria: Only randomized controlled trials on adults with overweight or obesity were included. The intervention was supposed to evaluate two weight loss diets where the majority of the energy intake was ingested early or late in the day. The selection was restricted to studies published in Swedish or English.

Data collection and analysis: The papers found in the literature study were systematically reviewed by title, abstract and full text. Three articles fulfilled the requirements to be included and were examined according to the template “Quality control of randomized controlled trials” by SBU. All assessments were united to a common evidence grading through “Basis for united assessment according to GRADE”.

Main results: All the studies indicated a weight loss both in the intervention group and the control group. The intervention group showed a greater weight loss in all three studies, however it was only significant in two of them.

Conclusions: There is a moderate (+++ ) scientific evidence that eating the largest amount of the daily energy to breakfast or lunch will give a greater weight loss after a hypocaloric diet in adult women with overweight or obesity.

Keywords: Overweight, obese, obesity, weight loss, meal timing, energy distribution