

## Health Effect of the Central European Diet in Postmenopausal Women with Increased Waist Circumference: A Preliminary Study

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**Abstract :** The Mediterranean diet (MED) is regarded as beneficial in the therapy of central obesity-associated metabolic abnormalities. However, in the traditional diet of the Central European countries, food items with positive nutritional profiles (rye bread, oats, buckwheat, herrings, linseed and rapeseed oil, berries, apples, plums, root vegetables etc.) are also used. We hypothesized that the Central European Diet (CED) may be comparatively effective in reducing symptoms of central obesity as MED. We tested the health effects of the CED, which is an environmentally friendly regional diet and the traditional MED diet in a group of postmenopausal centrally obese women. A total 58 with a mean age of 60 y (50-70y), body mass index (in kg/m<sup>2</sup>) of 33.4 (22.6-47.3), and waist circumference of 105 cm (87.5-137 cm) were randomly assigned to receive either the diet based on food items commonly used in Central Europe (the CED group; n = 29) or the Mediterranean diet (the MED group; n = 29) for 15 weeks. Body mass and body composition were measured with a Bod Pod (Cosmed, Italy). A non-elastic flexible measuring tape was used to measure waist circumference. Additionally, blood pressure, plasma lipid and glucose levels were assessed with the use of a biochemical analyzer. A total of 50 subjects [86% (CED 83%; MED 90%)] completed the intervention. A high dietary compliance for both described diets was achieved. The mean ( $\pm$ SEM) weight and waist circumference changes were  $-7.4 \pm 0.7$  kg;  $-8.3 \pm 0.7$  cm and  $-8.1 \pm 0.5$  kg;  $-7.1 \pm 0.6$  cm for the CED and MED groups, respectively. Moreover, there were no differences between the effectiveness of the diets used in terms of the influence on fat mass, blood pressure, and biochemical parameters. The preliminary data suggest that both described diets may be successfully used for improving central obesity-associated metabolic abnormalities. The project was financed by the National Science Centre awarded based on the number of decision DEC-013/09/B/NZ9/02365

**Keywords :** central european diet, central obesity, Mediterranean diet, metabolic abnormalities

**Conference Title :** ICFSN 2015 : International Conference on Food Security and Nutrition

**Conference Location :** Bali, Indonesia

**Conference Dates :** October 11-12, 2015