

# Association of Mean Daily Polyphenols Intake with Mediterranean Diet Adherence and Anthropometric Indices in Healthy Greek Adults: A Retrospective Study

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## Abstract

Research data indicate the possible effect of both polyphenols consumption and Mediterranean diet adherence on metabolic diseases' prevalence. The present retrospective study investigated the possible association of polyphenols mean daily intake with Mediterranean diet adherence and anthropometric indices in a sample of the Greek population. A total of 250 healthy volunteers, aged between 18 and 65 years, were randomly recruited from central and northern Greece. Total daily polyphenols intake was estimated using a semi-quantitative food frequency questionnaire (FFQ) based on the NHANES study, while Med Diet Score was used for the degree of Mediterranean diet adoption. Daily polyphenols intake was identified by the Phenol Explorer database, and anthropometric measurements (BMI, waist-to-hip circumference, and body composition) were performed. The mean daily polyphenols intake was determined to be 1905 mg, while most of the participants had moderate or high mean consumption last year (67.5% of the sample were consuming more than 1000 mg/d). Moderate adherence to the Mediterranean diet (higher Med Diet Score) was associated with increased mean daily polyphenols intake ( $p = 0.016$ ). Increased polyphenols intake and higher Med Diet Score were associated with decreased waist-to-hip circumference ( $p = 0.027, 0.004$ , respectively). Specific functional foods rich in polyphenols, such as sour cherry, tomatoes, black tea, and cocoa were associated with improved body composition indices. Larger epidemiological studies need to be performed for safer conclusions about whole population polyphenols intake and its association with metabolic disease biomarkers.

## Biography

Katerina Kapolou has graduated from the Department of Food Science and Nutrition of the University of the Aegean. She has done internships in Greece and Sweden and has worked as a quality control/ assurance assistant in the pharmaceutical industry and now in a food company. She has presented her

Batchelor thesis at conferences and has now been accepted to begin her postgraduate course in chemical and biomolecular analysis. He has also participated in the development of ecologically innovative food products in the Ecotrophelia competition.