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# 12th European Nutrition Conference (FENS)

Berlin, Germany, October 20–23, 2015

## Abstracts

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## **EDITORS ABSTRACT**

Every four years, the Federation of the European Nutrition societies (FENS) organizes a scientific conference that brings together European and Pan-European experts to discuss most recent scientific developments in the food, diet and health arena. The 12th FENS conference took place in Berlin, October 20 to 23, 2015, under the hospice of the German Nutrition Society with the motto “Nutrition and Health during life cycle – science for the European consumer”. Sessions were dedicated to latest research and outcomes of studies on the impact of diet into body functions, on dietary intake and dietary status of the population and of specific groups as well on the role of diets in disease occurrence and prevention. Translational research addressed strategies and approaches to change dietary behavior and policy measures. Four plenary sessions framed the program with distinguished speakers covering health aspects in the life cycle but also the global dimension of food security.

The present supplement comprises the 950 submitted abstracts and additional 320 abstracts of invited and selected speakers. The abstracts are ordered according to the scientific sessions of the conference, and the industry sponsored satellite activities, and posters. Within the program up to eight scientific sessions were held in parallel with thematic areas of (1) Food and nutrient intake, dietary patterns, dietary guidelines, (2) Advances in dietary studies, methodology and design, (3) Metabolic diversity, (4) Nutrition, public health, chronic diseases, and (5) Food quality, food safety, sustainability, consumer, behavior and policy.

The supplement can be searched with pdf-tools by using keywords such as authors, topics, specific compounds, etc.

Keywords: Nutrition, Nutrition policy, FENS, German Nutrition Society

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over the intervention period. Additionally, were not found satisfactory effects on the lipid profile modification between groups.

**Conclusions:** Thus, it is concluded that anthocyanins present in jucara acai does not exercise effective participation in reversing the lipid imbalances and also in the treatment of obesity.

**Keywords: (maximum 5):** CARDIOVASCULAR DISEASE; OBESITY; JUCARA ACAI; ANTHOCYANINS

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## 149/1123. Cake and cookie consumption and risk factors of cardiometabolic diseases in EPIC-Potsdam

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**Introduction:** Recent analyses of cohort studies observed an inverse association of cake and cookie (CC) intake and risk of chronic diseases.

**Objectives:** This study aims to elucidate the role of CC intake in metabolic status as preclinical condition of chronic diseases.

**Method / Design:** In a cross-sectional EPIC-Potsdam sub-study (667 participants, 51.1% men, mean age 65.4 years) dietary intake was assessed by three 24 h dietary recalls and one food frequency questionnaire. Individual usual total and afternoon CC intake were estimated using the National Cancer Institute method. Metabolic status was represented by clinical blood parameters, blood pressure, physical activity and fitness as well as anthropometry. Associations of CC consumption (sex-stratified quartiles) were analyzed using ANCOVA.

**Results:** Total and afternoon CC intake were inversely related to anthropometric parameters when adjusted for age and education alone or in addition with lifestyle parameters. However, additional adjustment for energy misreporting, which was highly correlated with CC consumption, reversed the associations to direct relations. In men, total and afternoon CC consumption exhibited direct associations with total (cross-quartile difference ( $\Delta Q4-Q1$ ) up to 12.4 mg/dl) and LDL cholesterol ( $\Delta Q4-Q1$  up to 17.6 mg/dl). Initial unsubstantial relations between total CC intake and HDL cholesterol became direct after accounting for energy misreporting (men:  $\Delta Q4-Q1 = -1.5$  mg/dl; women:  $\Delta Q4-Q1 = -3.5$  mg/dl). Relevant systolic blood pressure reductions (-5.5 mmHg) were only observed for females.

**Conclusions:** The high correlation between CC intake and energy misreporting has considerable impact on the size and direction of the relation between CC intake and metabolic status. Thus, the previously observed favorable relations with chronic disease risk might be confounded.

**Keywords: (maximum 5):** cake and cookies, cardiometabolic disease risk factors, energy misreporting

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## 149/1125. Dietary total antioxidant capacity and polyphenols intake in Serbian university students

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**Introduction:** Epidemiological studies have shown an inverse association between intake of polyphenols and other dietary antioxidants and the risk of numerous chronic diseases. Good eating habits established during the University years play an essential part of a healthy lifestyle.

**Objectives:** The aim of this study was to estimate total dietary antioxidant capacity (TDAC) and polyphenols intake among students of the Faculty of Pharmacy in Serbia.

**Method / Design:** A total of 223 students with the mean aged of  $21,2 \pm 2,7$  participated in this study. Food intakes were measured with the 3-day dietary record method. A self-developed database was used to calculate TDAC and dietary total polyphenolic content.

**Results:** Polyphenols intake and TDAC was 748 mg/person per day and 9,51 mmol Trolox equivalents/person per day, respectively. The food group that contributed the most to the TDAC was beverages (about 31,2%), followed by fruits and vegetables (28,2%), chocolates (21,1%) and cereals (15,2%). Fruits and vegetables provide a daily intake of 130-425 mg of polyphenols/person/diet.

**Conclusions:** The mean daily intake of dietary polyphenols in the Serbian student population is 1g lower than recommended polyphenols daily intake. There is a need to promote the fruit and vegetable intake consumption as a source of polyphenols and dietary antioxidants among the student population.

**Keywords: (maximum 5):** Antioxidant Capacity, Polyphenols Intake, Students

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## 149/1126. Depression and unhealthy lifestyle – Associations with diet, physical activity, body mass index, and smoking

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