weight, and incidence of overweight. obesity.

**Results:** The consumption of fried foods was associated with higher weight gain, but the differences were of small magnitude and statistically non-significant. The incidence of overweight. obesity during follow-up was also assessed in the subset of 6821 participants with initial body mass index <25 kg. m2 (initially free of overweight. obesity), after adjusting for potential confounders, the odds ratio for developing overweight. obesity among participants who consumed fried foods >4 times. week was 1.37 (95% confidence interval: 1.08 to 1.73) in comparison with those who consumed fried foods <2 times. week (p for trend = 0.02).

**Conclusions:** In this Mediterranean prospective cohort, a more frequent consumption of fried foods at baseline was associated with a higher risk of subsequently developing overweight. obesity during follow-up.

Key Words: fried food intake, obesity, overweight

## 27/145. Nutrition and Healthy Lifestyle Dietary fat intake and quality of life: the Sun Project

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**Introduction:** Few studies have related nutritional factors with quality of life in healthy populations.

**Objectives:** To assess whether mental and physical health related quality of life (HRQL) were associated with dietary fat intake.

**Method. Design:** This analysis included 8,430 participants from the "Seguimiento Universidad de Navarra", SUN cohort study (1999-2010). The intake of saturated fatty acids (SFA), polyunsaturated fatty acids (PUFA), trans unsaturated fatty acids (TFA), and monounsaturated fatty acids (MUFA) was assessed through a 136-item foodfrequency questionnaire at baseline. HRQL was measured with the SF-36 Health Survey after 4 years of follow-up. Generalized Linear Models were fitted to assess the regression coefficients (b) and their 95% confidence intervals (95% CI) for the 8 domains of the SF-36 according to successive quintiles of each kind of fatty acids intake.

**Results:** The multivariate-adjusted models revealed a significant inverse association between TFA intake (grams per day) and most of the mental (vitality, social functioning and role emotional), and physical (physical functioning, bodily pain and general health) domains. For vitality: highest quintile of intake (Q5) vs. lowest quintile (Q1), b=-2.0, 95% CI= -3.1, -0.9. Moreover a dose-response relationship (p for trend<0.05) was found for each domain. For SFA intake, a significant inverse association was found for vitality and most of the physical domains (role physical, general health and physical functioning). For vitality :(Q5 vs. Q1), b=-1.7; 95% CI= -2.8, -0.6. Vitality, physical functioning, and general health also showed a dose response relations-

hip (p for trend<0.05). After adjusting for potential lifestyle or dietary confounders, including adherence to a Mediterranean Dietary Pattern, the association with the mental domains and general health for TFA and social functioning and role physical for SFA remained significant.

**Conclusions:** A detrimental relationship between SA and TFA intake at baseline and quality of life measured 4 years later was found.

Key Words: dietary fats; SF-36; quality of life

## 27/154. Nutrition and Healthy Lifestyle Heart symbol: a tool to decrease salt intake

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**Introduction**: Salt intake has decreased in Finland over the past decades, but still exceeds the recommended intake level. The main sources of salt are main dishes and cereal and bakery products. Every day over 2 million meals are served by catering services in Finland (population 5.2 million people). Since 2000 Heart Symbol has been one tool to decrease salt intake and also raise public awareness about nutritional quality of food. Foods and nowadays also meals of lower salt content can be labeled with the Heart Symbol. The criteria of the symbol include also fat, fiber and sugar.

**Objectives:** To illustrate tailored criteria of Heart Symbol and to estimate their potential for reducing salt intake components of a regular meal were changed to components that fulfill Heart Symbol criteria.

**Method/Design:** An example meal included: Fillet of salmon (portion size 120 g; salt 1.30 g $\rightarrow$ 0.95 g), rice (110 g; 1.10 g $\rightarrow$ 0.30 g), salad dressing (15 g; 0.20 g $\rightarrow$ 0.15 g), bread and spread (35 g; 0.40 g $\rightarrow$ 0.25 g).

**Results:** Total salt intake from a regular meal (3.0 g) reduced to 1.65 g when Heart Symbol meal was chosen. In addition, if for example bread eaten daily in Finland would be replaced by bread complying with the criteria, the salt intake would be 0.6 grams lower.

**Conclusions:** The Heart Symbol (on food packages as well as in lunch) has effected to salt intake reduction. Besides it has effected on fat, fiber and sugar intake also. Co-operation with food industry is important since their efforts on reformulating and developing new products including less salt is needed to have better options available for consumers and for those working at catering sector. Heart Symbol criteria set useful goals for product reformulation and recipes for meals served by catering service, which helps to meet goals for better food quality.

**Key Words:** labeling, salt intake, salt reduction, food nutritional quality.

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