**SUPPLEMENTARY FILES**

**Supplementary table 1**: methods to compute the three hypothesis-oriented dietary scores and the dietary inflammatory index.

|  |  |  |
| --- | --- | --- |
| **Score / index** | **Foods / nutrients** | **Scoring procedure** |
| Mediterranean diet score 1 § |  |  |
|  | Vegetables (g/day) | 1 if **above** sex-specific median, 0 otherwise |
|  | Legumes (g/day) | 1 if **above** sex-specific median, 0 otherwise |
|  | Fruits & nuts (g/day) | 1 if **above** sex-specific median, 0 otherwise |
|  | Cereals (g/day) | 1 if **above** sex-specific median, 0 otherwise |
|  | Fish (g/day) | 1 if **above** sex-specific median, 0 otherwise |
|  | Dairy products (g/day) | 1 if **below** sex-specific median, 0 otherwise |
|  | Meat (g/day) | 1 if **below** sex-specific median, 0 otherwise |
|  | Poultry (g/day) | 1 if **below** sex-specific median, 0 otherwise |
|  | Alcohol (g/day) | Men: 1 if consumption between 10 and 50 g/day, 0 otherwise  Women: 1 if consumption between 5 and 25 g/day, 0 otherwise |
| Mediterranean diet score 2 §§ | Vegetables (g/day) | 1 if **above** sex-specific median, 0 otherwise |
|  | Legumes (g/day) | 1 if **above** sex-specific median, 0 otherwise |
|  | Fruits & nuts (g/day) | 1 if **above** sex-specific median, 0 otherwise |
|  | Cereals (g/day) | 1 if **above** sex-specific median, 0 otherwise |
|  | Fish (g/day) | 1 if **above** sex-specific median, 0 otherwise |
|  | Dairy products (g/day) | 1 if **above** sex-specific median, 0 otherwise |
|  | Meat (g/day) | 1 if **below** sex-specific median, 0 otherwise |
|  | Poultry (g/day) | 1 if **below** sex-specific median, 0 otherwise |
|  | Alcohol (g/day) | Men: 1 if consumption between 10 and 50 g/day, 0 otherwise  Women: 1 if consumption between 5 and 25 g/day, 0 otherwise |
| Alternative healthy eating index † |  |  |
|  | Vegetables (servings/day) | 0 if no serving, 10 if 5 servings/day; score intermediate intakes proportionately between 0 and 10 |
|  | Fruit (servings/day) | 0 if no serving, 10 if 4 servings/day; score intermediate intakes proportionately between 0 and 10 |
|  | Nuts & soy (servings/day) | 0 if no serving, 10 if 1 serving/day; score intermediate intakes proportionately between 0 and 10 |
|  | Ratio of white to red meat | 0 if zero, 10 if 4; score intermediate ratios proportionately between 0 and 10 |
|  | Cereal fiber (g/day) | 0 if 0 g/d, 10 if 15 g/day; score intermediate intakes proportionately between 0 and 10 |
|  | Trans fat (% energy) \* | 0 if ≥4 , 10 if ≤0.5; score intermediate intakes proportionately between 0 and 10 |
|  | Polyunsaturated to saturated fatty acids ratio | 0 if≤0.1 , 10 if ≥1; score intermediate intakes proportionately between 0 and 10 |
|  | Duration of multivitamin use (years) | 0 if≤5 , 10 if ≥5; score intermediate intakes proportionately between 0 and 10 |
|  | Alcohol (servings/day) | Men: 0 if 0 or >3.5, 10 if 1.5 to 2.5. score intermediate intakes proportionately between 0 and 10  Women: 0 if 0 or >2.5, 10 if 0.5 to 1.5. score intermediate intakes proportionately between 0 and 10 |
| Dietary inflammatory index ǂ |  | Multiply by |
|  | Alcohol (g) | -0.278 |
|  | Vitamin B12 (mg) \* | 0.106 |
|  | Vitamin B6 (mg) \* | -0.365 |
|  | β-Carotene (mg) | -0.584 |
|  | Caffeine (g) \* | -0.110 |
|  | Carbohydrate (g) | 0.097 |
|  | Cholesterol (mg) | 0.110 |
|  | Energy (kcal) | 0.180 |
|  | Eugenol (mg) \* | -0.140 |
|  | Total fat (g) | 0.298 |
|  | Fibre (g) | -0.663 |
|  | Folic acid (mg) \* | -0.190 |
|  | Garlic (g) \* | -0.412 |
|  | Ginger (g) \* | -0.453 |
|  | Fe (mg) | 0.032 |
|  | Mg (mg) \* | -0.484 |
|  | MUFA (g) | -0.009 |
|  | Niacin (mg) \* | -0.246 |
|  | n-3 Fatty acids (g) \* | -0.436 |
|  | n-6 Fatty acids (g) \* | -0.159 |
|  | Onion (g) \* | -0.301 |
|  | Protein (g) | 0.021 |
|  | PUFA (g) | -0.337 |
|  | Riboflavin (mg) \* | -0.068 |
|  | Saffron (g) \* | -0.140 |
|  | Saturated fat (g) | 0.373 |
|  | Se (mg) \* | -0.191 |
|  | Thiamin (mg) \* | -0.098 |
|  | *Trans* fat (g) \* | 0.229 |
|  | Turmeric (mg) \* | -0.785 |
|  | Vitamin A (RE) | -0.401 |
|  | Vitamin C (mg) \* | -0.424 |
|  | Vitamin D (mg) | -0.446 |
|  | Vitamin E (mg) \* | -0.419 |
|  | Zn (mg) \* | -0.313 |
|  | Green/black tea (g) \* | -0.536 |
|  | Flavan-3-ol (mg) \* | -0.415 |
|  | Flavones (mg) \* | -0.616 |
|  | Flavonols (mg) \* | -0.467 |
|  | Flavonones (mg) \* | -0.250 |
|  | Anthocyanidins (mg) \* | -0.131 |
|  | Isoflavones (mg) \* | -0.593 |
|  | Pepper (g) \* | -0.131 |
|  | Thyme/oregano (mg) \* | -0.102 |
|  | Rosemary (mg) \* | -0.013 |

§ according to Trichopoulou et al (1); §§, according to Vormund et al. (2); † according to McCullough et al. (3); ǂ, according to Shivappa et al. (4). Items marked with an asterisk (\*) were not included in the calculations for the current study.

**Supplementary table 2**: Comparison between excluded and included participants, CoLaus study, Lausanne, Switzerland, 2009-2012.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Included | Excluded | P-value |
| Sample size | 4027 | 1037 |  |
| Gender (male) | 1873 (46.5) | 484 (46.7) | 0.926 |
| Age (years) | 57.2 ± 10.2 | 60.0 ± 11.3 | <0.001 |
| Education |  |  | <0.001 |
| High | 930 (23.1) | 149 (14.4) |  |
| Middle | 1083 (26.9) | 223 (21.6) |  |
| Low | 2014 (50.0) | 660 (64.0) |  |
| BMI (kg/m2) | 26.0 ± 4.5 | 27.0 ± 5.1 | <0.001 |
| BMI categories |  |  | <0.001 |
| Normal | 1816 (45.1) | 364 (37.5) |  |
| Overweight | 1570 (39.0) | 390 (40.1) |  |
| Obese | 641 (15.9) | 218 (22.4) |  |
| Smoking status |  |  | <0.001 |
| Current | 1680 (41.7) | 355 (36.2) |  |
| Former | 1528 (37.9) | 355 (36.2) |  |
| Never | 819 (20.3) | 270 (27.6) |  |
| Sedentary | 2078 (56.4) | 327 (65.8) | <0.001 |
| Diabetes | 385 (9.6) | 154 (15.1) | <0.001 |

BMI, body mass index. Results are expressed as number of participants (percentage) for categorical variables or as average ± standard deviation for continuous variables. Between group comparisons using chi-square for categorical variables or student’s t-test for continuous variables.

**Supplementary table 3:** multivariate associations between selected dietary patterns or scores with C-reactive protein levels. CoLaus study, Lausanne, Switzerland, 2009-2012.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Fruits & Vegetables** | **Mediterranean diet** | **AHEI** |
| Fruit intake | -0.018 (0.322) | -0.032 (0.063) | -0.015 (0.399) |
| Selected score/pattern | -0.071 (<0.001) | -0.035 (0.027) | -0.061 (<0.001) |

AHEI, alternate healthy eating index. Data from 4027 participants. Results are expressed as standardized regression coefficients and (p-value). Multivariable analysis adjusting for age (continuous), body mass index (continuous), gender, smoking (never, former, current), educational level (high, middle, low), sedentary status (yes/no), diabetes (yes/no) and total caloric intake (continuous).

**References**

1. Trichopoulou A, Costacou T, Bamia C *et al.* (2003) Adherence to a Mediterranean Diet and Survival in a Greek Population. *New Engl J Med* **348**, 2599-2608.

2. Vormund K, Braun J, Rohrmann S *et al.* (2015) Mediterranean diet and mortality in Switzerland: an alpine paradox? *Eur J Nutr* **54**, 139-148.

3. McCullough ML, Feskanich D, Stampfer MJ *et al.* (2002) Diet quality and major chronic disease risk in men and women: Moving toward improved dietary guidance. *Am J Clin Nutr* **76**, 1261-1271.

4. Shivappa N, Steck SE, Hurley TG *et al.* (2014) Designing and developing a literature-derived, population-based dietary inflammatory index. *Public Health Nutr* **17**, 1689-1696.