**Supplementary files**

**Dietary inflammatory potential and arterial stiffness in a French cohort: Insights from the STANISLAS study**

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**Supplementary Table 1**. Dietary components and the methods used for calculation of the Adapted Dietary Inflammatory Index (ADII)

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| --- | --- | --- |
|  | **ADII** | **ADII** |
| **Computation methods in line with** | van Woudenbergh et al.1 | van Woudenbergh et al.1 |
| **Energy-adjusted intakes** | Yes (residual method2) | Yes (residual method2) |
| **Reference population for standardized daily intake** | CATHY or YOUNG-THYR study3 | Visit 4 cohort STANISLAS |
| **Inflammatory weights4** |  |  |
|  | Carbohydrate (g/d) | 0.097 | 0.097 |
|  | Proteins (g/d) | 0.021 | 0.021 |
|  | Fibers (g/d) | -0.663 | -0.663 |
|  | Saturated fat (g/d) | 0.373 | 0.373 |
|  | Monounsaturated fat (g/d) | -0.009 | -0.009 |
|  | n-3 fatty acids (g/d) | -0.436 | -0.436 |
|  | n-6 fatty acids (g/d) | -0.159 | -0.159 |
|  | Cholesterol (mg/d) | 0.110 | 0.110 |
|  | Ethanol (g/d) | -0.2785 | -0.2785 |
|  | Vitamin A (µg/d) | -0.401 | -0.401 |
|  | β-carotene (µg/d) | -0.584 | -0.584 |
|  | Thiamin (mg/d) | -0.098 | -0.098 |
|  | Riboflavin (mg/d) | -0.068 | -0.068 |
|  | Vitamin B6 (µg/d) | -0.365 | -0.365 |
|  | Folic acid (µg/d) | -0.190 | -0.190 |
|  | Vitamin B12 (µg/d) | 0.106 | 0.106 |
|  | Vitamin C (mg/d) | -0.424 | -0.424 |
|  | Vitamin D (µg/d) | -0.446 | -0.446 |
|  | Vitamin E (mg/d) | -0.419 | -0.419 |
|  | Iron (mg/d) | 0.032 | 0.032 |
|  | Magnesium (mg/d) | -0.484 | -0.484 |
|  | Flavonols (mg/d) | -0.467 | x |
|  | Isoflavones (mg/d) | -0.593 | x |
|  | Flavones (mg/d) | -0.616 | x |
|  | Anthocyanidins (mg/d) | -0.131 | x |
|  | Flavanones (mg/d) | -0.250 | x |
|  | Caffeine (g/d) | -0.110 | -0.110 |
|  | Niacin (mg/d) | -0.246 | -0.246 |
|  | Zinc (mg/d) | -0.313 | x |
|  | Selenium (mg/d) | -0.191 | x |
|  | Dry tea (g/d) | -0.536 | -0.536 |
|  | **Mean (Standard deviation)** | **0.030 (3.67)** | **0.049 (3.04)** |
|  | **Median (Min, Max)** | **0.542 (-23.56, 12.62)** | **0.45 (-16.63, 8.08)** |

1 doi: 10.3945/ajcn.112.056333.

2 The dietary intakes of participants were regressed on their total energy intakes.

3 doi: [10.1007/s00394-021-02721-x](https://doi.org/10.1007/s00394-021-02721-x).

4 Positive weights represent a pro-inflammatory effect while negative weights represent an anti-inflammatory effect.

5 Ethanol’s weight is set to zero when the intake is >40g/day.

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| **Supplementary Table 2.** Description of the study population after weighting on IPW.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Overall**  | Quartile 1[-16.62, -1.57] | Quartile 2[-1.57, 0.45] | Quartile 3[0.45, 2.04] | Quartile 4[2.04, 8.08] | **Mean ASMD** |
| N | 1307 | 324.6 | 335.7 | 330.1 | 311.7 |  |
| Women, n(%) | 657.7 (50.6) | 165.8 (51.1) | 167.2 (51.4) | 168.3 (51.4) | 156.3 (48.4) | 0.032 |
| Age, years |  55.0 [34.0, 60.0] |  55.0 [35.0, 60.0] | 55.0 [36.0, 60.0] | 56.0 [34.0, 60.0] | 55.0 [33.0, 61.0]  | 0.013 |
| Generation 2, n(%)  | 546.3 (42.0) |  137.0 (42.2) | 133.2 (41.0) | 136.7 (41.8) | 139.3 (43.1) | 0.023 |
| Education level, n(%) |  |  |  |  |  | 0.028 |
|  <High school degree | 514.5 (39.6) | 125.2 (38.6) | 129.0 (39.7) | 130.2 (39.8) | 130.1 (40.2) |  |
|  >2 years after high school  | 352.5 (27.1) |  89.4 (27.5) | 90.6 (27.9) | 87.5 (26.7) | 84.9 (26.3) |  |
|  0-2 years after high school  | 433.3 (33.3) |  109.9 (33.9) | 105.4 (32.4) | 109.6 (33.5) | 108.4 (33.5) |  |
| Physical activity (MET/min) | 1783.5 [636.0, 4253.4] | 1927.6 [794.7, 4254.8] | 1655.7 [675.7, 4212.2] | 1873.8 [651.6, 4204.7] | 1576.3 [455.2, 4279.8] | 0.014 |
| BMI (kg/m²) |  25.1 [22.5, 28.4]  |  25.3 [22.6, 28.7] | 24.9 [22.5, 28.0] | 24.7 [22.5, 28.4] | 25.4 [22.4, 28.5] | 0.034 |
| Waist circumference | 89.8 (13.7)  | 89.8 (13.7) | 89.5 (13.1)  | 89.4 (14.0) | 90.4 (14.2) | 0.042 |
| Smoking status, n(%)  |  |  |  |  |  | 0.019 |
|  Current smoker | 252.6 (19.4) | 60.6 (18.7) | 63.4 (19.5) | 64.1 (19.6) | 64.5 (19.9) |  |
|  Never smoker | 619.8 (47.7) | 157.3 (48.5) | 153.8 (47.3) | 156.0 (47.7) | 152.6 (47.2) |  |
|  Past smoker | 427.9 (32.9) |  106.6 (32.9) | 107.8 (33.2) | 107.2 (32.8) | 106.3 (32.9) |  |
| Use of anti-diabetic drugs, n(%) | 44.9 ( 3.5) | 11.1 ( 3.4) | 10.9 ( 3.3) | 11.3 ( 3.5) | 11.6 ( 3.6) | 0.007 |
| Use of antihypertensive drugs, n(%) | 250.3 (19.3)  |  61.6 (19.0) | 61.6 (19.0) | 60.7 (18.6) | 66.4 (20.5) | 0.025 |
| Use of lipid-lowering drugs, n(%) | 185.7 (14.3) |  45.9 (14.1) | 47.9 (14.7) | 46.8 (14.3)  | 45.2 (14.0) | 0.012 |
| Systolic blood pressure (mmHg) |  125.4 (15.1) | 125.1 (15.1) | 125.6 (14.9) | 125.1 (15.4) | 125.9 (15.2) | 0.033 |

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ADII, adapted dietary inflammatory index; MET, metabolic equivalent minutes; BMI, body mass index, ASMD, absolute standardized mean differences.

Continuous variables are expressed as the mean and standard deviation in the case of normal distribution, and median and quartiles in other cases. Categorical variables are expressed as numbers and percentages.

Supplementary Table 3. Cross-sectional association between continuous ADII score and ADII score quartiles and carotid-femoral pulse-wave velocity

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Log (cfPWV) β (95% CI) | Continuous | Quartile 1[-16.62, -1.57] | Quartile 2[-1.57, 0.45] | Quartile 3[0.45, 2.04] | Quartile 4[2.04, 8.08] |
| Model 1 | -0.002 (-0.006 ; 0.001)P=0.21 | Reference | 0.003 (-0.03 ; 0.03) P=0.87 | 0.0009 (-0.03 ; 0.03)P=0.95 | -0.003 (-0.06 ; 0.0008)P=0.06 |
| Model 2  | 0.004 (0.001 ;0.007)P=0.005 | Reference | 0.02 (-0.007 ; 0.04)P=0.18 | 0.03 (0.008 ; 0.05)P=0.01 | 0.03 (0.008 ;0.05) P=0.009 |

Model 1: crude model, unadjusted.

Model 2: adjusted on age, sex, education level, smoking status, waist circumference, physical activity, SBP, antihypertensive treatments, antidiabetic treatments, and lipid-lowering treatments.

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