

**Supplementary Table 1.** The comparison of anthropometric measures, blood pressure, lipid profile, dietary intake, physical activity and leptin between men and women

|                                      | Men (n=252)    | Women (n=251)  | p                   |
|--------------------------------------|----------------|----------------|---------------------|
| Age (years)                          | 41.1 ± 10.8    | 42.1 ± 9.6     | 0.500^              |
| <b>Anthropometric measures</b>       |                |                |                     |
| Body weight (kg)                     | 65.4 ± 13.2    | 59.7 ± 12.3    | <0.001^             |
| Height (cm)                          | 164.9 ± 6.4    | 152.0 ± 6.2    | <0.001*             |
| Body mass index (kg/m <sup>2</sup> ) | 24.0 ± 4.4     | 25.9 ± 5.4     | <0.001^             |
| Body fat (%)                         | 21.1 ± 6.0     | 33.9 ± 5.9     | <0.001^             |
| Waist circumference (cm)             | 84.4 ± 11.8    | 88.1 ± 13.4    | 0.003^              |
| Hip circumference (cm)               | 91.4 ± 9.8     | 96.5 ± 11.9    | <0.001^             |
| Waist-to-hip ratio                   | 0.92 ± 0.06    | 0.91 ± 0.07    | 0.094^              |
| <b>Blood pressure</b>                |                |                |                     |
| Systolic (mmHg)                      | 131.0 ± 26.5   | 126.3 ± 23.7   | 0.020^              |
| Diastolic (mmHg)                     | 81.2 ± 15.8    | 78.2 ± 13.6    | 0.043^              |
| <b>Metabolic profile</b>             |                |                |                     |
| Triglycerides (mmol/L)               | 1.71 ± 0.91    | 1.42 ± 0.67    | 0.003^              |
| HDL cholesterol (mmol/L)             | 1.07 ± 0.36    | 1.30 ± 0.54    | <0.001^             |
| Leptin (ng/mL)                       | 2.7 ± 4.8      | 11.4 ± 9.6     | <0.001^             |
| Physical activity (METS-min/week)    | 6815 ± 6532    | 4747 ± 5071    | <0.001^             |
| <b>Dietary intake</b>                |                |                |                     |
| Energy (kJ/day)                      | 11 394 ± 4 621 | 10 277 ± 4 898 | 0.002^              |
| Protein (energy%)                    | 12.5 ± 3.3     | 12.6 ± 3.5     | 0.664^              |
| Fat (energy%)                        | 21.3 ± 9.8     | 25.0 ± 11.1    | <0.001^             |
| Carbohydrate (energy%)               | 66.1 ± 9.9     | 62.5 ± 11.4    | <0.001^             |
| Dietary Inflammatory Index score     | 1.07 ± 7.19    | 0.95 ± 7.4     | 0.898^              |
| % overweight <sup>a</sup>            | 19.7           | 26.2           | 0.003 <sup>#</sup>  |
| % obese <sup>b</sup>                 | 3.6            | 11.3           | <0.001 <sup>#</sup> |

Values are presented as mean ± standard deviation, p value of difference between men and women, <sup>a</sup>body mass index ≥ 25 kg/m<sup>2</sup> or higher, <sup>b</sup>body mass index ≥ 30 kg/m<sup>2</sup> or higher, <sup>a,b</sup>percent of total study participants, \* independent t-test, ^Mann-Whitney test, #Chi-square test

Supplementary Table 2. Linear regression analysis with the DII score as independent variable for men and women.

|                          | Men (n=252) |       |                     |       |                     |       | Women (n=251) |       |                     |       |                     |       |
|--------------------------|-------------|-------|---------------------|-------|---------------------|-------|---------------|-------|---------------------|-------|---------------------|-------|
|                          | Model 0     |       | Model I             |       | Model II            |       | Model 0       |       | Model I             |       | Model II            |       |
|                          | B           | p     | B                   | p     | B                   | p     | B             | p     | B                   | p     | B                   | p     |
| Body weight (kg)         | -0.157      | 0.180 | -0.082 <sup>a</sup> | 0.194 | -0.037 <sup>b</sup> | 0.643 | 0.121         | 0.249 | 0.062 <sup>a</sup>  | 0.323 | -0.020 <sup>b</sup> | 0.787 |
| BMI (kg/m <sup>2</sup> ) | -0.049      | 0.204 | -0.076 <sup>a</sup> | 0.224 | -0.049 <sup>b</sup> | 0.535 | 0.025         | 0.593 | 0.022 <sup>a</sup>  | 0.720 | -0.084 <sup>b</sup> | 0.257 |
| Body fat (%)             | -0.040      | 0.446 | -0.042 <sup>a</sup> | 0.487 | -0.026 <sup>b</sup> | 0.731 | 0.023         | 0.650 | 0.015 <sup>a</sup>  | 0.804 | -0.075 <sup>b</sup> | 0.295 |
| Waist circumference (cm) | -0.127      | 0.227 | -0.071 <sup>a</sup> | 0.245 | -0.011 <sup>b</sup> | 0.891 | -0.031        | 0.789 | -0.033 <sup>a</sup> | 0.578 | -0.058 <sup>b</sup> | 0.414 |
| Hip circumference (cm)   | -0.082      | 0.345 | -0.054 <sup>a</sup> | 0.379 | -0.036 <sup>b</sup> | 0.638 | 0.107         | 0.294 | 0.053 <sup>a</sup>  | 0.381 | -0.039 <sup>b</sup> | 0.596 |
| Systolic BP (mmHg)       | 0.173       | 0.460 | 0.049 <sup>a</sup>  | 0.424 | 0.056 <sup>c</sup>  | 0.440 | 0.261         | 0.196 | 0.066 <sup>a</sup>  | 0.244 | 0.005 <sup>c</sup>  | 0.938 |
| Diastolic BP (mmHg)      | 0.069       | 0.622 | 0.034 <sup>a</sup>  | 0.589 | 0.052 <sup>c</sup>  | 0.485 | 0.181         | 0.120 | 0.086 <sup>a</sup>  | 0.156 | 0.039 <sup>c</sup>  | 0.574 |
| Triglycerides (mmol/L)   | -0.009      | 0.263 | -0.067 <sup>a</sup> | 0.300 | -0.059 <sup>c</sup> | 0.448 | -0.0002       | 0.973 | -0.008 <sup>a</sup> | 0.896 | -0.044 <sup>c</sup> | 0.573 |
| HDL cholesterol (mmol/L) | -0.005      | 0.160 | -0.096 <sup>a</sup> | 0.136 | -0.131 <sup>c</sup> | 0.102 | 0.006         | 0.230 | 0.084 <sup>a</sup>  | 0.198 | 0.003 <sup>c</sup>  | 0.971 |
| Leptin (ng/mL)           | 0.055       | 0.281 | 0.081 <sup>a</sup>  | 0.263 | 0.157 <sup>c</sup>  | 0.019 | 0.160         | 0.070 | 0.120 <sup>a</sup>  | 0.078 | 0.110 <sup>c</sup>  | 0.089 |

Model 0, linear regression analysis without adjustment; Model I and Model II, linear regression analysis with adjustment; <sup>a</sup>linear regression analysis with adjustment for age; <sup>b</sup>linear regression analysis with adjustment for age, energy intake and physical activity; <sup>c</sup>linear regression analysis with adjustment for age, sex, body mass index, energy intake and physical activity. BP: blood pressure.