Table S1. Characteristics of participants

| | | All (n＝213) | | | Men (n=109) | | | Women (n=104) | | | $p$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Age | (y) | 37 | ± | 9 * | 35 | ± | 9 | 38 | ± | 9 | 0.028 |
| Occupation | | | | | | | | | | | <0.001 |
| Full-time employee | (%) | | 65.7 | | | 77.1 | | | 53.8 | | |
| Part-time employee | (%) | | 8.0 | | | 0.0 | | | 16.3 | | |
| Homemaker | (%) | | 5.6 | | | 0.0 | | | 11.5 | | |
| Healthcare worker and teacher | (%) | | 8.0 | | | 4.6 | | | 11.5 | | |
| Student | (%) | | 7.5 | | | 11.0 | | | 3.8 | | |
| Other | (%) | | 5.2 | | | 7.3 | | | 2.9 | | |
| Smoking habits | | | | | | | | | | | 0.008 |
| Non-smoker | (%) | | 74.6 | | | 67.0 | | | 82.7 | | |
| Past-smoker | (%) | | 15.5 | | | 17.4 | | | 13.5 | | |
| Smoker | (%) | | 9.9 | | | 15.6 | | | 3.8 | | |
| Physical activity | (METs) | 18.2 | ± | 7.3 * | 17.7 | ± | 7.4 | 18.6 | ± | 7.3 | 0.369 |

*: Values are presented as mean ±standard deviation.

$p$ values are calculated using the unpaired t-test for comparison between men and women, and using the Chi-squared test of independence for distribution comparison between men and women.

METs: Metabolic equivalents

Table S2. Energy intake from processed and RET food

| | | All (n=213) | | Men (n=109) | | Women (n=104) | | p |
|---|---|---|---|---|---|---|---|---|
| Total energy intake | (kcal/ IBW)* | 31.6 | (6.8) | 32.0 | (6.7) | 31.2 | (6.9) | 0.000 |
| Processed food [a] | (kcal /IBW) | 2.1 | ( 0.9 , 3.9 ) | 1.88 | ( 0.64 , 3.87 ) | 2.36 | ( 1.03 , 4.10 ) | 0.150 |
| Non-fatty RTE food | (kcal /IBW) | 5.0 | ( 3.2 , 7.3 ) | 5.43 | ( 3.58 , 7.50 ) | 4.72 | ( 2.64 , 6.99 ) | 0.170 |
| Fatty-RTE food | (kcal /IBW)* | 11.3 | (6.0) | 12.94 | (6.1) | 9.51 | (5.39) | 0.000 |
| RTE food | (kcal /IBW)* | 16.8 | (7.3) | 18.87 | (7.70) | 14.73 | (6.22) | 0.000 |
| Processed and RTE food | (kcal /IBW)* | 19.7 | (6.7) | 21.56 | (6.99) | 17.82 | (5.80) | 0.000 |
| Processed food [a] | (%En) | 6.7 | ( 2.7 , 12.5 ) | 5.72 | ( 1.69 , 12.62 ) | 7.28 | ( 3.08 , 12.37 ) | 0.136 |
| Non-fatty-RTE food | (%En) | 15.2 | ( 9.6 , 23.2 ) | 15.34 | ( 10.51 , 23.03 ) | 15.05 | ( 8.89 , 23.29 ) | 0.352 |
| Fatty-RTE food | (%En)* | 36.4 | (18.7) | 40.80 | (18.43) | 31.78 | (18.01) | 0.000 |
| RTE food | (%En) | 53.2 | ( 37.9 , 71.5 ) | 59.19 | ( 42.14 , 78.09 ) | 47.55 | ( 35.17 , 62.94 ) | 0.000 |
| Processed and RTE food | (%En)* | 63.2 | (18.8) | 68.13 | (19.66) | 58.09 | (16.44) | 0.000 |

Values are presented as medians (IQR). *: Values are presented as means (SD).

a: processed food require additional ingredients and/or cooking.

RTE: ready to eat, IBW: ideal body weight.

Table S3. Parameters of participants

| | | All (n＝213) | | Men (n=109) | | Women (n=104) | | p |
|---|---|---|---|---|---|---|---|---|
| Age | | 37.0 | ( 28.0 , 44.5 ) | 34.0 | ( 27.5 , 43 ) | 39.5 | ( 30.0 , 47.0 ) | 0.031 |
| Body weight | (kg) | 58.2 | ( 51.6 , 67.3 ) | 66.4 | ( 61.0 , 73.3 ) | 51.8 | ( 48.1 , 55.9 ) | <0.001 |
| Body mass index | (kg/m²) | 21.4 | ( 19.9 , 23.3 ) | 22.5 | ( 20.9 , 24.2 ) | 20.6 | ( 19.4 , 21.8 ) | <0.001 |
| Systolic blood pressure | (mmHg) | 112 | ( 104 , 125 ) | 122 | ( 111 , 132 ) | 106 | ( 99 , 112 ) | <0.001 |
| Diastolic blood pressure | (mmHg) | 71 | ( 64 , 78 ) | 75 | ( 68 , 85 ) | 67 | ( 62 , 74 ) | <0.001 |
| Total-cholesterol* | (mmol/L) | 5.07 | (0.88) | 5.07 | (0.93) | 5.04 | (0.80) | 0.841 |
| LDL-cholesterol* | (mmol/L) | 2.84 | (0.75) | 2.95 | (0.72) | 2.74 | (0.72) | 0.034 |
| HDL-cholesterol | (mmol/L) | 1.68 | ( 1.42 , 1.97 ) | 1.45 | ( 1.27 , 1.68 ) | 1.86 | ( 1.68 , 2.07 ) | <0.001 |
| Triglyceride | (mmol/L) | 0.71 | ( 0.52 , 1.08 ) | 0.91 | ( 0.64 , 1.71 ) | 0.60 | ( 0.46 , 0.79 ) | <0.001 |
| Phospholipid | (mmol/L) | 27.5 | ( 25.3 , 30.2 ) | 27.4 | ( 24.5 , 30.2 ) | 27.8 | ( 25.7 , 30.5 ) | 0.275 |
| Aspartate aminotransferase | (U/L) | 20 | ( 18 , 24 ) | 22 | ( 18 , 26 ) | 19 | ( 16 , 21 ) | <0.001 |
| Alanine aminotransferase | (U/L) | 16 | ( 12 , 24 ) | 20 | ( 16 , 29 ) | 14 | ( 11 , 17 ) | <0.001 |
| Alkaline phosphatase | (U/L) | 175 | ( 148 , 212 ) | 200 | ( 165 , 234 ) | 157 | ( 131 , 179 ) | <0.001 |
| γ-glutamyl transpeptidase | (U/L) | 20 | ( 15 , 33 ) | 26 | ( 18 , 39 ) | 16 | ( 12 , 24 ) | <0.001 |
| Leucine aminopeptidase | (U/L) | 49 | ( 44 , 56 ) | 54 | ( 49 , 61 ) | 45 | ( 41 , 49 ) | <0.001 |
| Total bilirubin | (μmol/L) | 12.0 | ( 10.3 , 15.4 ) | 13.7 | ( 10.3 , 15.4 ) | 12.0 | ( 8.5 , 13.7 ) | 0.003 |
| Direct bilirubin | (μmol/L) | 3.4 | ( 3.4 , 5.1 ) | 5.1 | ( 3.4 , 5.1 ) | 3.4 | ( 3.4 , 3.4 ) | <0.001 |
| Indirect bilirubin | (μmol/L) | 8.5 | (6.8 , 10.3 ) | 8.5 | ( 6.8 , 10.3 ) | 8.5 | ( 6.8 , 10.3 ) | 0.063 |
| Elaidic acid | (μM) | 3.740 | ( 3.245 , 4.605 ) | 3.760 | ( 3.245 , 4.72 ) | 3.715 | ( 3.238 , 4.308 ) | 0.550 |
| Vaccenic acid | (μM) | 4.470 | ( 3.42 , 5.715 ) | 4.060 | ( 2.940 , 5.205 ) | 5.035 | ( 3.865 , 6.223 ) | <0.001 |

Values are presented as medians (IQR). *: Values are presented as means (SD).