**Supplementary Table 1.** Dietary intakes of participants according to tertiles of dietary AGE intakes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Tertile1  (n=88) | Tertile2  (n=89) | Tertile3  (n=88) | P-value\* | p-trend\*\* |
| **AGE/Energy (kU/kcal)** | <2.96 | 2.96 – 4.45 | 4.45< |  |  |
| Mean | 2.37 | 3.67 | 6.13 |  |  |
| SD | 0.46 | 0.46 | 1.54 |  |  |
| **Energy (kcal/d)** | | | | | |
| **Male** |  |  |  | 0.06 | 0.03 |
| Mean | 2326 | 2651 | 2698 |  |  |
| SD | 748 | 720 | 744 |  |  |
| **Female** |  |  |  | 0.85 | 0.65 |
| Mean | 2082 | 2075 | 2140 |  |  |
| SD | 588 | 670 | 598 |  |  |
| **Carbohydrate (% of total energy)** | | | | | |
| **Male** |  |  |  | <0.001 | <0.001 |
| Mean | 64.6 | 56.4 | 52.3 |  |  |
| SD | 6.12 | 7.58 | 5.49 |  |  |
| **Female** |  |  |  | <0.001 | <0.001 |
| Mean | 62.6 | 56.5 | 51 |  |  |
| SD | 5.41 | 6.07 | 6.54 |  |  |
| **Fat (% of total energy)** | | | | | |
| **Male** |  |  |  | <0.001 | <0.001 |
| Mean | 21.9 | 28.5 | 34.2 |  |  |
| SD | 4.52 | 4.71 | 5.20 |  |  |
| **Female** |  |  |  | <0.001 | <0.001 |
| Mean | 24.7 | 30.2 | 38.3 |  |  |
| SD | 4.96 | 4.71 | 6.31 |  |  |
| **Protein (% of total energy)** | | | | | |
| **Male** |  |  |  | 0.04 | 0.93 |
| Mean | 15.3 | 17 | 15.2 |  |  |
| SD | 3.01 | 4.06 | 3.22 |  |  |
| **Female** |  |  |  | <0.001 | <0.001 |
| Mean | 15 | 15.7 | 13 |  |  |
| SD | 2.93 | 3.03 | 1.93 |  |  |
| **Total fiber (g/d)** | | | | | |
| **Male** |  |  |  | 0.92 | 0.77 |
| Mean | 16.3 | 16.9 | 16.8 |  |  |
| SD | 5.77 | 6.81 | 7.09 |  |  |
| **Female** |  |  |  | 0.06 | 0.02 |
| Mean | 16.4 | 14.5 | 13.5 |  |  |
| SD | 6.79 | 6.02 | 5.06 |  |  |
| **Meats group(g/d)** | | | | | |
| **Male** |  |  |  | 0.002 | 0.05 |
| Mean | 138 | 228 | 185 |  |  |
| SD | 66.8 | 145 | 95.6 |  |  |
| **Female** |  |  |  | 0.03 | 0.97 |
| Mean | 108 | 140 | 109 |  |  |
| SD | 58.9 | 85 | 57.1 |  |  |

dAGEs, dietary advanced glycation end products; SD, standard deviation. \*P value compared the dietary intakes of participants across tertiles of AGEs using one-way analysis of variance. \*\*p-trend is considered significant at <0.05

**Supplementary Table 2.** Association of dietary AGE intake and anthropometric measures and body composition.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Tertile1  (n=88) | Tertile2  (n=89) | Tertile3  (n=88) | P-value\* | p-trend | P-Ancova\*\* |
| **BMI(kg/ m2)** | | | | | | |
| **Male** |  |  |  | 0.47 | 0.24 | 0.28 |
| Mean | 26.7 | 26.4 | 25.5 |  |  |  |
| SD | 4.78 | 4.15 | 2.86 |  |  |  |
| **Female** |  |  |  | 0.30 | 0.19 | 0.46 |
| Mean | 25.5 | 25.5 | 24.2 |  |  |  |
| SD | 5.28 | 5.49 | 4.42 |  |  |  |
| **WC(cm)** | | | | | | |
| **Male** |  |  |  | 0.35 | 0.16 | 0.17 |
| Mean | 95.8 | 92.9 | 92 |  |  |  |
| SD | 14.2 | 12.7 | 8.42 |  |  |  |
| **Female** |  |  |  | 0.54 | 0.28 | 0.67 |
| Mean | 87.5 | 86.7 | 85 |  |  |  |
| SD | 12.3 | 12.9 | 10.2 |  |  |  |
| **WHR** | | | | | | |
| **Male** |  |  |  | 0.33 | 0.21 | 0.20 |
| Mean | 0.93 | 0.91 | 0.91 |  |  |  |
| SD | 0.07 | 0.07 | 0.06 |  |  |  |
| **Female** |  |  |  | 0.80 | 0.51 | 0.85 |
| Mean | 0.89 | 0.89 | 0.88 |  |  |  |
| SD | 0.06 | 0.05 | 0.05 |  |  |  |
| **VFL** | | | | | | |
| **Male** |  |  |  | 0.23 | 0.09 | 0.15 |
| Mean | 9.30 | 8.56 | 7.62 |  |  |  |
| SD | 4.70 | 4.30 | 3.30 |  |  |  |
| **Female** |  |  |  | 0.41 | 0.34 | 0.58 |
| Mean | 11 | 11.3 | 10.2 |  |  |  |
| SD | 4.96 | 4.69 | 4.08 |  |  |  |
| **SMM(kg)** | | | | | | |
| **Male** |  |  |  |  |  |  |
| Mean | 34.5 | 34.3 | 34.9 | 0.90 | 0.77 | 0.95 |
| SD | 5.25 | 5.79 | 4.70 |  |  |  |
| **Female** |  |  |  | 0.22 | 0.16 | 0.37 |
| Mean | 23.2 | 22.1 | 22.3 |  |  |  |
| SD | 3.21 | 3.74 | 3.22 |  |  |  |
| **PBF(%)** | | | | | | |
| **Male** |  |  |  | 0.36 | 0.16 | 0.30 |
| Mean | 25.3 | 24.5 | 22.7 |  |  |  |
| SD | 8.24 | 8.37 | 6.98 |  |  |  |
| **Female** |  |  |  | 0.45 | 0.63 | 0.67 |
| Mean | 35.2 | 36.3 | 34.5 |  |  |  |
| SD | 8.62 | 7.12 | 6.60 |  |  |  |
| **BFM(kg)** | | | | | | |
| **Male** |  |  |  | 0.22 | 0.08 | 0.10 |
| Mean | 22.1 | 20.5 | 18.4 |  |  |  |
| SD | 10.3 | 9.69 | 6.49 |  |  |  |
| **Female** |  |  |  | 0.39 | 0.27 | 0.51 |
| Mean | 24.6 | 24.8 | 22.5 |  |  |  |
| SD | 10.7 | 9.70 | 7.70 |  |  |  |
| **FFM(kg)** | | | | | | |
| **Male** |  |  |  | 0.94 | 0.84 | 0.93 |
| Mean | 61.3 | 61 | 61.7 |  |  |  |
| SD | 8.89 | 9.74 | 7.69 |  |  |  |
| **Female** |  |  |  | 0.15 | 0.06 | 0.25 |
| Mean | 42.8 | 40.9 | 40.4 |  |  |  |
| SD | 5.47 | 6.24 | 7.19 |  |  |  |
| **MMI(kg/ m2)** | | | | | | |
| **Male** |  |  |  | 0.99 | 0.90 | 0.86 |
| Mean | 11 | 11 | 11.1 |  |  |  |
| SD | 1.16 | 1.17 | 1.07 |  |  |  |
| **Female** |  |  |  | 0.27 | 0.10 | 0.43 |
| Mean | 8.80 | 8.60 | 8.46 |  |  |  |
| SD | 1 | 1.21 | 0.95 |  |  |  |
| **TF(kg)** | | | | | | |
| **Male** |  |  |  | 0.30 | 0.12 | 0.15 |
| Mean | 11.6 | 10.7 | 9.89 |  |  |  |
| SD | 5.46 | 4.95 | 3.68 |  |  |  |
| **Female** |  |  |  | 0.45 | 0.32 | 0.61 |
| Mean | 11.9 | 12 | 11 |  |  |  |
| SD | 4.94 | 4.71 | 3.90 |  |  |  |

AGE, advanced glycation end products; BMI, body mass index; SD, standard deviation; FM, fat mass; WC, waist circumference; WHR, waist to hip ratio; VFL, visceral fat level; SMM, skeletal muscle mass; PBF, percent body fat; BFM, body fat mass; FFM, fat free mass; MMI, muscle mass index; TF, trunk fat.

\*Calculated by analysis of variance (ANOVA) in crude model and analysis of covariance (ANCOVA) in adjusted models and is considered significant at <0.05.

\*\*Adjusted for age, sex, physical activity, smoking status, education status, metabolic diseases and energy intake