**Supplementary material**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Underweight (n=59) | | Normal weight (n=631) | | Overweight (n=803) | | Obese (n=214) | |
|  | Mean | SD | Mean | SD | Mean | SD | Mean | SD |
| Energy intake (kcal) | 1570.6 | 630.3 | 1716.6 | 619.2 | 1770.0 | 638.9 | 1745.0 | 673.5 |
| Carbohydrates (g) | 209.1 | 79.5 | 225.8 | 83.1 | 232.0 | 83.7 | 222.2 | 90.7 |
| Dietary fibre (g) | 17.5a | 8.94 | 20.3 | 9.09 | 21.0b | 9.60 | 20.9 | 9.32 |
| Protein (g) | 73.8 | 32.1 | 82.1 | 35.0 | 84.6 | 36.5 | 84.8 | 36.5 |
| Protein (g/kg BW) | 1.55a | 0.65 | 1.49a | 0.63 | 1.28b | 0.55 | 1.08c | 0.45 |
| Protein (g/kg FFM) | 1.77a | 0.75 | 1.90ab | 0.81 | 1.75ac | 0.76 | 1.68ad | 0.64 |
| Fat (g) | 49.5 | 29.4 | 54.7 | 25.1 | 56.0 | 26.3 | 57.3 | 26.9 |
| SFA (g) | 15.4 | 11.4 | 16.2 | 8.02 | 16.2 | 8.0 | 16.4 | 8.14 |
| MUFA (g) | 19.0 | 11.5 | 20.5 | 9.60 | 21.0 | 10.0 | 21.5 | 10.5 |
| PUFA (g) | 11.5a | 5.95 | 13.6 | 6.82 | 14.3b | 7.29 | 14.8b | 7.75 |
|  |  |  |  |  |  |  |  |  |
| Ht (cm) | 163.9 | 11.3 | 161.5 | 7.83 | 162.7 | 8.57 | 162.9 | 9.07 |
| BW (kg) | 47.7a | 6.69 | 55.3b | 6.29 | 66.4c | 7.94 | 78.2d | 9.54 |
| BMI (kg/m2) | 17.4a | 0.99 | 21.2b | 1.18 | 25.0c | 1.26 | 29.5d | 1.95 |
| Waist (cm) | 69.5a | 7.21 | 76.3b | 6.03 | 86.1c | 5.93 | 95.3d | 7.0 |
| FFM (kg) | 41.8a | 6.81 | 43.6a | 6.50 | 49.2b | 8.40 | 54.1c | 10.0 |
| FFM (%) | 87.5a | 4.53 | 78.8b | 5.86 | 73.7c | 6.06 | 68.9d | 6.73 |
| FFMI (kg/m2) | 15.5a | 1.01 | 16.6b | 1.36 | 18.4c | 1.65 | 20.2d | 2.10 |
| FM (kg) | 5.87a | 2.18 | 11.7b | 3.36 | 17.2c | 3.75 | 24.0d | 4.94 |
| FM (%) | 12.4a | 4.45 | 21.3b | 6.29 | 26.3c | 6.12 | 31.0d | 6.70 |
| FMI (kg/m2) | 2.21a | 0.82 | 4.51b | 1.36 | 6.57c | 1.62 | 9.16d | 2.21 |

**Supplementary Table S1.** Dietary intake and body composition by BMI category

Data are reported as mean ± SD per day.

a,b,c,d Different letters indicate significant, P<0.05.

Ht, height; BW, body weight; FFM, fat-free mass; FFMI, fat-free mass index; FM, fat mass; FMI, fat mass index.

**Supplementary Table S2.** Dietary intake by age category

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Young adults (n=472) | SD | Middle-age adults (n=862) | SD | Older adults (n=373) | SD |
| Energy intake (kcal) | 1825.7a | 644.5 | 1717.2b | 636.3 | 1683.1b | 617.7 |
| Carbohydrates (g) | 234.3 | 85.7 | 225.1 | 85.2 | 225.0 | 79.9 |
| Dietary fibre (g) | 19.56a | 9.03 | 20.7 | 9.37 | 21.8b | 9.67 |
| Protein (g) | 89.1a | 38.1 | 82.1b | 35.1 | 78.7b | 33.8 |
| Protein (g/kg BW) | 1.47a | 0.66 | 1.30b | 0.56 | 1.29b | 0.56 |
| Protein (g/kg FFM) | 1.89a | 0.82 | 1.76b | 0.74 | 1.75b | 0.77 |
| Fat (g) | 59.2a | 26.7 | 54.4b | 25.5 | 53.2b | 25.9 |
| SFA (g) | 17.7a | 8.59 | 15.7b | 7.95 | 15.3b | 7.86 |
| MUFA (g) | 22.3a | 10.2 | 20.4b | 9.88 | 19.8b | 9.81 |
| PUFA (g) | 14.3 | 7.13 | 13.9 | 7.05 | 13.8 | 7.44 |

Data are reported as mean ± SD per day.

a,b Different letters indicate significant, P<0.05.

Young adult: 21 – 44 yr old; middle-aged: 45 – 64 yr old; older adult: >65 yr old; BW, body weight; FFM, fat-free mass.