Supplementary Table S1: Associations of sedentary time, standing, and stepping with cardio-metabolic outcomes

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Sedentary time  (30 min/day) | | Standing  (30 min/day) | | Stepping  (30 min/day) | |
|  | B | (95% CI) | B | (95% CI) | B | (95% CI) |
| Waist circumference (cm) | **0.686** | **(0.54; 0.83)** | **-0.627** | **(-0.81; -0.44)** | **-1.644** | **(-1.99; -1.30)** |
| BMI (kg/m2) | **0.160** | **(0.11; 0.22)** | **-0.113** | **(-0.18; -0.04)** | **-0.501** | **(-0.63; -0.37)** |
| Systolic blood pressure (mmHg) | -0.209 | (-0.44; 0.02) | 0.247 | (-0.05; 0.54) | 0.299 | (-0.25; 0.85) |
| Diastolic blood pressure (mmHg) | 0.052 | (-0.08; 0.18) | -0.114 | (-0.28; 0.05) | 0.113 | (-0.20; 0.43) |
| HDL cholesterol (mmol/L) | **-0.015** | **(-0.02; -0.01)** | **0.011** | **(0.00; 0.02)** | **0.043** | **(0.03; 0.06)** |
| Total-to-HDL cholesterol ratio\* | **1.010** | **(1.01; 1.01)** | **0.990** | **(0.99; 1.00)** | **0.977** | **(0.97; 0.99)** |
| Triacylglycerol (mmol/L)\* | **1.013** | **(1.01; 1.02)** | **0.987** | **(0.98; 1.00)** | **0.970** | **(0.96; 0.99)** |
| Fasting glucose (mmol/L)\* | 1.001 | (1.00; 1.00) | 0.999 | (1.00; 1.00) | 0.997 | (0.99; 1.00) |
| 2 h post-load glucose (mmol/L)\*† | **1.006** | **(1.00; 1.01)** | 0.997 | (0.99; 1.00) | **0.981** | **(0.97; 0.99)** |
| Fasting insulin (pmol/L)\* | **1.018** | **(1.01; 1.03)** | **0.982** | **(0.97; 0.99)** | **0.964** | **(0.95; 0.98)** |
| HbA1c (mmol/mol)\* | 1.000 | (1.00; 1.00) | 1.001 | (1.00; 1.00) | 0.997 | (0.99; 1.00) |
|  |  |  |  |  |  |  |
|  | OR | (95% CI) | OR | (95% CI) | OR | (95% CI) |
| Metabolic syndrome | **1.154** | **(1.12; 1.19)** | **0.882** | **(0.85; 0.92)** | **0.689** | **(0.64; 0.75)** |
| Type 2 diabetes | **1.115** | **(1.07; 1.16)** | **0.905** | **(0.86; 0.95)** | **0.761** | **(0.69; 0.84)** |

Regression results are presented as unstandardized coefficients (B) and odds ratios (OR). \*Scores are back-transformed from the natural log scale. †N=2,048. Boldface indicates statistical significance (P<0.05). The associations were adjusted for sex, age, level of education, waking time, glucose metabolism status (except the metabolic syndrome and type 2 diabetes), smoking status, alcohol consumption, energy intake, mobility limitation, prevalent cardiovascular disease, depression, and antihypertensive and lipid-modifying medication (except the metabolic syndrome and type 2 diabetes). All associations except those describing waist circumference, BMI, and the metabolic syndrome were also adjusted for BMI.