Supplemental Digital Content 3. Associations of physical activity (per standard deviation) with cardiometabolic biomarkers, additionally adjusted for BMI in US adults aged ≥ 20 years from NHANES 2003-2006

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | **LLPA (SD=62.5 min)** | **HLPA (SD=44.8 min)** | **MPA (SD=21.6 min)** | **VPA (SD=3.7 min)** |
| ***Full sample (n=4614)*** | **Model** |  |  |  |  |
| **†Systolic blood pressure (mm Hg)** | B | 1.01 (1.00, 1.01)\* | 1.00 (0.99, 1.00) | 1.00 (0.99, 1.00) | 1.00 (1.00, 1.00) |
| **Diastolic blood pressure (mm Hg)** | B | 0.52 (-0.32, 1.36) | 0.33 (-0.41, 1.07) | 0.20 (-0.47, 0.87) | 0.01 (-0.53, 0.55) |
| **†C-reactive protein (mg·dL**-1**)** | B | 0.94 (0.90, 0.98)\*\* | 0.88 (0.83, 0.94)\*\*\* | 0.90 (0.84, 0.96)\*\* | 0.98 (0.94, 1.02) |
| **†HDL cholesterol (mmol·L**-1**)** | B | 1.01 (1.00, 1.02) | 1.02 (1.01, 1.03)\*\* | 1.03 (1.02, 1.03)\*\*\* | 1.02 (1.01, 1.03)\*\*\* |
| ***Fasting sample (n=2003)*** |  |  |  |  |  |
| **††Triglycerides (mmol·L**-1**)** | B | 0.97 (0.95, 0.99)\*\* | 0.94 (0.91, 0.96)\*\*\* | 0.95 (0.92, 0.98)\*\* | 0.98 (0.95, 1.01) |
| **LDL cholesterol (mmol·L**-1**)** | B | 0.01 (-0.05, 0.07) | 0.03 (-0.02, 0.08) | 0.01 (-0.03, 0.06) | 0.01 (-0.06, 0.08) |
| **Plasma glucose (mmol·L**-1**)** | B | 1.00 (1.00, 1.01) | 1.00 (0.99, 1.00) | 0.99 (0.99, 1.00)\* | 1.00 (0.99, 1.00) |
| **†Insulin (pmol·L**-1**)** | B | 0.94 (0.91, 0.97)\*\*\* | 0.89 (0.86, 0.93)\*\*\* | 0.92 (0.87, 0.96)\*\*\* | 0.96 (0.91, 1.00) |
| **†HOMA-%β** § | B | 0.95 (0.93, 0.97)\*\*\* | 0.96 (0.94, 0.98)\*\*\* | 0.99 (0.96, 1.01) | 0.99 (0.96, 1.01) |
| **†HOMA-%S** § | B | 1.06 (1.03, 1.09)\*\*\* | 1.06 (1.03, 1.09)\*\*\* | 1.03 (0.99, 1.08) | 1.03 (0.99, 1.07) |
| ***OGTT sample (n=851)*** |  |  |  |  |  |
| **†2hr glucose (mmol·L**-1**)** | B | 0.98 (0.95, 1.01) | 0.97 (0.94, 0.99)\* | 0.98 (0.95, 1.00) | 0.98 (0.94, 1.01) |

Data are β Coefficient (95% CI) or †Relative Rate (back-transformed from the log scale) and represent the association with cardiometabolic biomarkers (in units for β or as ratio for relative rate) per 1-SD increment in physical activity. Relative rate: >1 = positive association <1 = negative association. Adjusted for body mass index (BMI) and potential confounders (age, gender, and socio-demographic, behavioral and medical covariates retained through backwards elimination at *P<0.2*). LLPA: low-light intensity physical activity (100–759 counts·min-1); HLPA: high-light intensity physical activity (760–1951 counts·min-1); MPA: moderate-intensity physical activity (1952–5724 counts·min-1); and VPA: vigorous-intensity physical activity (≥5725 counts·min-1). OGTT: oral glucose tolerance test. § Within detectable ranges for insulin (20–400 pmol·L-1) and glucose (3–25 mmol·L-1) n=1669. Significance \**P*<0.05, \*\**P*<0.01, \*\*\**P*<0.001.