Table S1: Linear regression analysis of the association (percentage difference with 95% confidence intervals (CI)) between the four identified joint profiles of sedentary time and physical activity with cardiometabolic biomarkers in those who met the recommendation for sleep duration (7-9 hours/night) and were without hypertension, heart diseases, and/or diabetes.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  | Sedentary light movers vs. Active couch potatoes | Sedentary exercisers vs. Active couch potatoes | Movers vs. Active couch potatoes |
| Cardiometabolic outcome | Model | n | %difference (95% CI) | p-value | %difference (95% CI) | p-value | %difference (95% CI) | p-value |
| 2-hour insulin | Unadjusted  | 1718 | -7.3 (-11.0, -3.5) | 0.06 | **-29.3 (-32.5, -26.0)** | **<0.001** | **-21.2 (-25.0, -17.2)** | **<0.001** |
|   | Partially adjusted | 1609 | **-12.2 (-15.9, -8.4)** | **0.002** | **-29.2 (-32.5, -25.7)** | **<0.001** | **-28.0 (-31.7, -24.1)** | **<0.001** |
|  | Fully adjusted | 1301 | -8.2 (-12.2, -4.1) | 0.052 | **-18.9 (-22.9, -14.8)** | **<0.001** | **-14.9 (-19.6, -10.0)** | **0.004** |
| Fasting serum insulin | Unadjusted  | 1890 | **-7.4 (-10.2, -4.6)** | **0.010** | **-20.4 (-23.0, -17.6)** | **<0.001** | **-12.3 (-15.4, -9.0)** | **<0.001** |
|  | Partially adjusted | 1767 | **-9.1 (-11.9, -6.3)** | **0.002** | **-19.5 (-22.2, -16.6)** | **<0.001** | **-14.9 (-18.1, -11.6)** | **<0.001** |
|  | Fully adjusted | 1414 | -5.8 (-8.8, -2.8) | 0.061 | **-7.3 (-10.6, -3.9)** | **0.036** | -2.7 (-6.6, 1.3) | 0.495 |
| Triglycerides | Unadjusted  | 1913 | **-6.8 (-9.1, -4.4)** | **0.006** | **-14.7 (-17.2, -12.2)** | **<0.001** | **-10.0 (-12.8, -7.2)** | **0.001** |
|  | Partially adjusted | 1788 | **-6.6 (-9.0, -4.2)** | **0.008** | **-14.1 (-16.6, -11.6)** | **<0.001** | **-13.7 (-16.4, -11.0)** | **<0.001** |
|  | Fully adjusted | 1431 | -4.2 (-6.8, -1.5) | 0.126 | **-7.2 (-10.1, -4.2)** | **0.017** | **-7.1 (-10.3, -3.7)** | **0.040** |
| Total/HDL cholesterol | Unadjusted  | 1913 | **-5.2 (-6.7, -3.8)** | **<0.001** | **-9.8 (-11.3, -8.2)** | **<0.001** | **-8.1 (-9.8, -6.4)** | **<0.001** |
|  | Partially adjusted | 1788 | **-4.3 (-5.7, -2.9)** | **0.003** | **-9.7 (-11.2, -8.2)** | **<0.001** | **-10.3 (-11.9, -8.7)** | **<0.001** |
|  | Fully adjusted | 1431 | -**3.0 (-4.6, -1.5)** | **0.051** | **-6.1 (-7.7, -4.4)** | **<0.001** | **-6.0 (-7.9, -4.1)** | **0.002** |
| LDL/HDL cholesterol | Unadjusted  | 1913 | **-6.9 (-9.0, -4.8)** | **0.002** | **-13.7 (-15.9, -11.4)** | **<0.001** | **-12.6 (-15.0, -10.1)** | **<0.001** |
|  | Partially adjusted | 1788 | **-6.0 (-8.0, -3.8)** | **0.006** | **-13.4 (-15.6, -11.3)** | **<0.001** | **-15.8 (-18.1, -13.5)** | **<0.001** |
|  | Fully adjusted | 1431 | -4.2 (-6.5, -1.9) | 0.077 | **-8.4 (-10.8, -5.8)** | **0.001** | **-10.0 (-12.8, -7.2)** | **0.001** |
| 2-hour glucose | Unadjusted  | 1716 | -1.0 (-2.4, 0.4) | 0.487 | **-6.8 (-8.3, -5.2)** | **<0.001** | -1.0 (-2.7, 0.8) | 0.566 |
|  | Partially adjusted | 1606 | -1.3 (-2.8, 0.2) | 0.402 | **-6.7 (-8.3, -5.1)** | **<0.001** | -3.2 (-5.0, -1.4) | 0.080 |
|  | Fully adjusted | 1298 | 0.8 (-0.8, 2.5) | 0.609 | -2.6 (-4.3, -0.8) | 0.156 | 1.6 (-0.5, 3.7) | 0.453 |
| Fasting plasma glucose | Unadjusted  | 1880 | **-1.5 (-2.0, -0.9)** | **0.008** | **-2.7 (-3.3, -2.0)** | **<0.001** | -0.5 (-1.2, 0.2) | 0.439 |
|  | Partially adjusted | 1757 | **-1.2 (-1.7, -0.6)** | **0.034** | **-2.5 (-3.1, -1.9)** | **<0.001** | -1.1 (-1.8, -0.4) | 0.112 |
|  | Fully adjusted | 1403 | -0.4 (-1.0, 0.2) | 0.466 | -1.1 (-1.7, -0.4) | 0.092 | 0.5 (-0.2, 1.3) | 0.488 |

Active couch potatoes were considered as the unhealthiest profile and selected as the referent group. Unadjusted models included only group membership. The partial models were adjusted for age, sex, education, employment, and marital status, and full models were further adjusted for health-related quality of life score, smoking, alcohol consumption, income, birth weight, cardiorespiratory fitness, and sleep duration. Significant associations (p < 0.05) are shown in bold.