**S1.** Differences in mean levels of physical capability (95% confidence intervals) per one standard deviation difference in sedentary time, moderate-to-vigorous physical activity and physical activity energy expenditure at age 60-64 years using multivariable linear regression models: a complete-case analysis

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| --- | --- | --- | --- |
|  | **Sedentary (per 1 unit difference/day)\*** | **MVPA (per 1 unit difference/day)\*** | **PAEE (per 1 unit difference/day)\*** |
|  | **β (95% CI)** | **β (95% CI)** | **β (95% CI)** | **β (95% CI)** | **β (95% CI)** | **β (95% CI)** | **β (95% CI)** | **β (95% CI)** | **β (95% CI)** |
|  | **Model 1** | **Model 2** | **Model 3** | **Model 1** | **Model 2** | **Model 3** | **Model 1** | **Model 2** | **Model 3** |
| **Difference in mean grip strength (kg)**  | -0.274(-0.783, 0.235) | -0.387(-0.887, 0.112) | -0.341(-0.851, 0.169) | **0.529****(0.026, 1.033)** | **0.540****(0.054, 1.025)** | **0.497****(0.004, 0.991)** | 0.397(-0.107, 0.901) | **0.595****(0.092, 1.097)** | **0.554****(0.043, 1.065)** |
| **Difference in mean chair rise speed (stands/min)**  | -0.257(-0.630, 0.116) | -0.075(-0.449, 0.299) | 0.034(-0.336, 0.405) | **0.462****(0.099, 0.825)** | **0.467****(0.108, 0.826)** | 0.337(-0.019, 0.692) | **0.643****(0.276, 1.010)** | **0.404****(0.029, 0.778)** | 0.276(-0.094, 0.647) |
| **Difference in mean (ln) standing balance time (s)**  | -0.026(-0.055, 0.002) | -0.007(-0.036, 0.021) | -0.006(-0.034, 0.023) | 0.021(-0.007, 0.049) | 0.021(-0.006, 0.049) | 0.017(-0.011, 0.045) | **0.051****(0.023, 0.079)** | 0.026(-0.002, 0.055) | 0.023(-0.006, 0.051) |
| **Difference in mean TUG speed** **(m/s)**  | **-0.017****(-0.025, -0.009)** | **-0.013****-0.021, -0.004)** | **-0.010****(-0.018, -0.002)** | **0.022****(0.014, 0.030)** | **0.022****(0.014, 0.030)** | **0.019****(0.011, 0.027)** | **0.026****(0.018, 0.034)** | **0.020****(0.012, 0.028)** | **0.017****(0.009, 0.025)** |
| Model 1: adjusted for sex.Model 2: adjusted for sex, height and weight. Model 3: adjusted for sex, height, weight, education level, occupational class, smoking status and long-term limiting illness or disability.n=1,395 for grip strength; n=1,407 for chair rise speed; n=1,436 for standing balance time and n=1,375 for TUG speed.Associations highlighted in bold are statistically significant at p<0.05\* Each one unit (standard deviation) change equates to: 2.1 hours/day difference in time spent sedentary; a 60 min/day difference in moderate-to-vigorous physical activity and a 14.7 kJ/kg/day difference in physical activity energy expenditure.Definitions: sedentary time was defined as a MET value of <1.5 in accordance with current convention [[30](#_ENREF_30)] and MVPA as ≥3.0 METs using an individualised estimate of RMR to define one MET [[31](#_ENREF_31)] |