Supplementary Table. Agreement between each hip-worn ActiGraph cut-point and each wrist-worn GENEActiv ENMO threshold by epoch length in the total sample (N = 238)

| HIP | WRIST | ActiGraph <5 s epoch | ActiGraph 15 s epoch | ActiGraph 60 s epoch |
| --- | --- | --- | --- | --- |
| ActiGraphcut-point | GENEActiv ENMOe(m*g*) | ICCf(95% CIg) | Mean bias(G-AG, min) | 95% LoAh (+/- min) | ICCf(95% CIg) | Mean bias(G-AG, min) | 95% LoAg (+/- min) | ICCf(95% CIg) | Mean bias(G-AG, min) | 95% LoAh (+/- min) |
| Very lowa | 100+ | 0.27 (-0.09, 0.60) | 57.5 | 59.6 | 0.36 (-0.10, 0.68) | 44.5 | 57.1 | 0.44 (-0.09, 0.73) | 43.0 | 59.6 |
|  | **150+** | **0.70** **(0.63, 0.76)** | **0.4** | **43.4** | **0.68** **(0.57, 0.76)** | **-12.6** | **43.4** | **0.67** **(0.45, 0.79)** | **-14.1** | **48.5** |
|  | 200+ | 0.39 (-0.10, 0.70) | -30.5 | 38.6 | 0.34 (-0.10, 0.66) | -43.5 | 40.9 | 0.33 (-0.09, 0.66) | -45.0 | 48.0 |
|  | 250+ | 0.19 (-0.06, 0.51) | -48.4 | 38.0 | 0.18 (-0.06, 0.48) | -61.4 | 42.2 | 0.18 (-0.06, 0.49) | -62.9 | 50.4 |
|  | 300+ | 0.12 (-0.04, 0.39) | -59.4 | 38.5 | 0.12 (-0.05, 0.37) | -72.4 | 44.0 | 0.12 (-0.05, 0.37) | -73.9 | 52.8 |
|  | 350+ | 0.09 (-0.04, 0.29) | -66.8 | 39.3 | 0.08 (-0.04, 0.29) | -79.8 | 45.7 | 0.09 (-0.04, 0.30) | -81.3 | 54.8 |
|  | 400+ | 0.064 (-0.03, 0.24) | -72.0 | 40.2 | 0.07 (-0.04, 0.24) | -85.0 | 47.3 | 0.07 (-0.04, 0.25) | -86.5 | 56.6 |
| Lowb | 100+ | 0.15 (-0.06, 0.43) | 79.9 | 80.0 | 0.16(-0.06, 0.46) | 79.9 | 59.5 | 0.16 (-0.05, 0.45) | 87.1 | 61.1 |
|  | 150+ | 0.50 (-0.02, 0.75) | 22.9 | 41.1 | 0.54 (-0.01, 0.78) | 22.8 | 40.5 | 0.48 (-0.09, 0.76) | 29.9 | 42.6 |
|  | **200+** | **0.68** **(0.51, 0.78)** | **-8.0** | **32.7** | **0.71** **(0.54, 0.80)** | **-8.2** | **33.4** | **0.74** **(0.68, 0.80)** | **-1.0** | **36.3** |
|  | 250+ | 0.39 (-0.10, 0.71) | -25.9 | 29.7 | 0.42 (-0.10, 0.73) | -26.0 | 32.1 | 0.54 (0.01, 0.77) | -18.9 | 35.6 |
|  | 300+ | 0.23 (-0.06, 0.56) | -36.9 | 29.0 | 0.25 (-0.07, 0.59) | -37.1 | 32.6 | 0.35 (-0.10, 0.67) | -29.9 | 36.6 |
|  | 350+ | 0.15 (-0.05, 0.45) | -44.3 | 29.2 | 0.18 (-0.06, 0.48) | -44.4 | 33.7 | 0.25 (-0.09, 0.57) | -37.3 | 37.9 |
|  | 400+ | 0.11 (-0.04, 0.37) | -49.5 | 29.7 | 0.13 (-0.05, 0.40) | -49.7 | 34.9 | 0.19 (-0.08, 0.49) | -42.5 | 39.3 |
| Mediumc | 100+ | 0.08 (-0.04, 0.28) | 99.9 | 66.1 | 0.08(-0.04, 0.29) | 104.6 | 64.0 | 0.07 (-0.03, 0.26) | 114.4 | 65.5 |
|  | 150+ | 0.25 (-0.09, 0.57) | 42.8 | 42.9 | 0.25 (-0.08, 0.58) | 47.4 | 42.1 | 0.19 (-0.06, 0.51) | 57.3 | 43.4 |
|  | 200+ | 0.60 (0.25, 0.77) | 11.8 | 31.7 | 0.59 (0.10, 0.79) | 16.5 | 33.4 | 0.43 (-0.10, 0.74) | 26.3 | 32.5 |
|  | **250+** | **0.68** **(0.53, 0.78)** | **-6.1** | **26.4** | **0.74** **(0.67, 0.79)** | **-1.4** | **26.7** | 0.69 (0.45, 0.81) | 8.5 | 27.9 |
|  | **300+** | 0.47 (-0.09, 0.75) | -17.1 | 24.0 | 0.55 (-0.02, 0.79) | -12.4 | 25.3 | **0.73** **(0.66, 0.78)** | **-2.6** | **26.5** |
|  | 350+ | 0.31 (-0.08, 0.65) | -24.5 | 23.2 | 0.38 (0.10, 0.71) | -19.8 | 25.2 | 0.61 (0.25, 0.78) | -9.9 | 26.5 |
|  | 400+ | 0.22 (-0.06, 0.55) | -29.7 | 23.1 | 0.28 (-0.08, 0.61) | -24.9 | 25.7 | 0.48 (-0.03, 0.73) | -15.2 | 27.0 |
| Highd | 100+ | 0.04 (-0.03, 0.17) | 119.1 | 71.4 | 0.04 (-0.03, 0.15) | 128.0 | 70.5 | 0.03 (-0.02, 0.12) | 137.1 | 72.7 |
|  | 150+ | 0.11 (-0.05, 0.36) | 62.0 | 46.5 | 0.10 (-0.05, 0.31) | 70.9 | 47.3 | 0.07 (-0.04, 0.24) | 79.9 | 49.5 |
|  | 200+ | 0.26 (-0.09, 0.58) | 31.1 | 33.3 | 0.21 (-0.08, 0.52) | 39.9 | 33.4 | 0.13 (-0.05, 0.40) | 49.0 | 36.0 |
|  | 250+ | 0.51 (0.02, 0.75) | 13.2 | 25.7 | 0.40 (-0.09, 0.69) | 22.1 | 26.3 | 0.23 (-0.08, 0.55) | 31.1 | 28.0 |
|  | **300+** | **0.71** **(0.64, 0.77)** | **2.1** | **21.5** | 0.60 (0.30, 0.76) | 11.0 | 22.1 | 0.35 (-0.10, 0.67) | 20.1 | 23.4 |
|  | **350+** | 0.68 (0.48, 0.79) | -5.2 | 19.2 | **0.70** **(0.63, 0.76)** | **3.7** | **19.9** | 0.48 (-0.06, 0.75) | 12.7 | 20.8 |
|  | **400+** | 0.54 (-0.03, 0.78) | -10.5 | 18.1 | 0.65 (0.48, 0.76) | -1.6 | 18.7 | **0.59** **(0.22, 0.36)** | **7.5** | **19.3** |

aVery low = 1100 cpm, approximately equivalent to the 3 MET cut-point, age 11 y, age-specific criteria of the Freedson group, published by Trost et al. (31)

bLow = 1680 cpm, Pate et al. (23)

cMedium = 2296 cpm, Evenson et al. (11)

dHigh = 3200 cpm, Puyau et al. (24)

eENMO = Euclidean Norm Minus One, the vector magnitude of acceleration corrected for gravity

fICC = Intra-class correlation coefficient

g95% CI = 95% confidence interval

hLoA = Limits of agreement

The ENMO threshold with the highest agreement for each ActiGraph count cut-point / epoch combination in the test sample is highlighted in bold.