Supplemental Figure 1: Outline of steps performed for calibration of the ActGraph 7164 and ActiGraph wGT3X-BT

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 7164 |  | wGT3X-BT |  | |
|  |  |  |  | |
| **Step 1.** Compare 7164 and wGT3X-BT count-based estimates | | | No calibration necessary, process ends | |
| Significant Difference? | | |
|  | | |
| **Step 2.** Linear regression of the wGT3X-BT counts/min/day on the 7164 counts/min/day, use slope as the calibration proportionality (1.088) | | |  | |
|  |  | |  | |
|  |  |  |  | |
|  |  | **Step 3.** Divide GT3X-BT counts/min/day by calibration proportionality (1.088) |  | |
| 7164 counts/min/day |
|  |
|  |  |  |  | |
|  |  |  |  | |
| **Step 4.** Apply Freedson cut points to define activity intensity categories  (sedentary <100, LPA 100–1951, MPA 1952–5724, VPA ≥5725 counts/min) | | |  | |
|  |  |  |  | |
| **Step 5.** Compare original 7164 and calibrated wGT3X-BT values in count-based estimates and average min/day in each intensity category | | |  |  |

Abbreviations: LPA = light intensity physical activity, MPA = moderate intensity physical activity, VPA = vigorous intensity physical activity