

Supplementary Digital Content 1. Inter-correlations between activity metrics for samples 1 and 2.

Sample	Activity metric	Average acceleration (mg)	<sup>a</sup> MVPA <sub>TOTAL</sub> (min)	<sup>b</sup> MVPA <sub>BOUTS</sub> (min)	Inactive time (min)
1. Adolescent girls N = 1669	Average acceleration (mg)	-	0.95	-	-0.88
	Intensity gradient	0.39	0.34	-	-0.14
2. Adults with type 2 diabetes N = 295	Average acceleration (mg)	-	0.93	0.48	-0.94
	Intensity gradient	0.51	0.51	0.29	-0.39

<sup>a</sup>MVPA<sub>TOTAL</sub>: Total accumulated moderate-to-vigorous physical activity (MVPA) for adolescent girls (>200 mg) and adults with type 2 diabetes (>125 mg)

<sup>b</sup>MVPA<sub>BOUTS</sub> accumulated in 10-min bouts for adults with type 2 diabetes (>100 mg).

All significant  $p < 0.001$