

Figure S1. Flow chart for the study population.

Table S1: Results of backward-elimination, linear regression of cross-sectional PA and SB parameters for the AGESII cohort. Covariates included age, sex, BMI, self-reported health status, day length, and temperature. Data are presented as standardized Beta. A negative standardized Beta (β) value indicates an inverse relationship.

Variables		Temperature/Day length		Age		Female		BMI		Health status	
		β	95% CI	β	95% CI	β	95% CI	β	95% CI	β	95% CI
WT-SB ^a	Temperature	-0.10	-0.17: -0.02								
	Day length			0.31	0.23; 0.38	-0.15	-0.23; -0.08	0.11	0.03; 0.19	0.10	0.01; 0.17
TPA^b	Temperature	0.10	0.03; 0.17	-0.37	-0.45; -0.30	-0.04	-0.11; 0.04				
	Day length							-0.14	-0.22; -0.06	-0.11	-0.18; -0.03
LIPA ^b	Temperature										
	Day length	0.06	-0.02; 0.13	-0.29	-0.36; -0.21	0.19	0.11; 0.26	-0.09	-0.17; -0.01	-0.09	-0.16; -0.002
LSPA ^b	Temperature	0.11	0.038; 0.19	-0.36	-0.43; -0.28	-0.08	-0.16; -0.006				
	Day length							-0.11	-0.19; -0.03	-0.12	-0.19; -0.04
MVPA ^b	Temperature	0.05	-0.02; 0.13	-0.29	-0.37; -0.21	-0.21	-0.29; -0.14				
	Day length							-0.18	-0.25; -0.10	-0.10	-0.17; -0.02

WT= Wear time; SD= standard deviation, day to day variation in each PA/SB variable; PA= Physical activity; SB= Sedentary behavior; TPA= Total PA; LIPA= Low-intensity PA (100-759 counts × min⁻¹); LSPA= Lifestyle PA (\geq 760 counts × min⁻¹); MVPA= Moderate-to-vigorous PA (\geq 2020 counts × min⁻¹); *a*= adjusted for wear time; *b*= square root transformed; Significance (*p* < 0.05) are shown in bold.