Supplemental Table 1. Characteristics of study participants, by strata according to subclinical cardiac damage and PA time.

	Total	No subclinical cardiac damage[a]		Subclinical cardiac damage[a]	
		Low PA time[b]	High PA time[b]	Low PA time[b]	High PA time[b]
	n=1939	n=438	n=452	n=532	n=517
Sex, No. (%)					
Men	860 (44.4)	267 (61.0)	234 (51.8)	190 (35.7)	169 (32.7)
Women	1070 (55.7)	171 (39.0)	218 (48.2)	342 (64.3)	348 (67.3)*
Age (years)	71.45 (4.24)	71.77 (4.51)	69.98 (3.74)	72.88 (4.50)	71.00 (3.59)*
Educational level, No. (%)					
≤ Primary	1232 (63.5)	248 (56.6)	289 (63.9)	343 (64.5)	352 (68.1)
Secondary	359 (18.5)	97 (22.2)	83 (18.4)	90 (16.9)	89 (17.2)
University	348 (18.0)	93 (21.2)	80 (17.7)	99 (18.6)	76 (15.7)*
Tobacco smoking, No. (%)					
Non-smoker	1043 (53.8)	202 (46.1)	215 (47.6)	316 (59.4)	310 (60.0)
Former smoker	713 (36.8)	180 (41.1)	200 (44.2)	165 (31.0)	169 (32.5)
Current smoker	183 (9.4)	56 (12.8)	37 (8.2)	51 (9.6)	39 (7.5)*
Alcohol consumption, No. (%)					
Non-drinker	377 (19.4)	76 (17.4)	66 (14.6)	132 (24.8)	103 (19.9)
Former drinker	115 (5.9)	21 (4.8)	22 (4.9)	39 (7.3)	33 (6.4)
Moderate drinker[c]	1010 (52.1)	103 (23.5)	124 (27.4)	93 (17.5)	117 (22.6)
Heavy drinker	437 (22.5)	238 (54.3)	240 (53.1)	268 (50.4)	264 (51.1)*
MEDAS score (0-14)	7.16 (1.72)	7.02 (1.73)	7.39 (1.78)	7.06 (1.67)	7.18 (1.69)*
Energy intake (kcal/day)	1936 (345)	1965 (330)	2015 (375)	1880 (347)	1899 (309)*
BMI (kg/m^2), No. (%)					
<25	540 (27.8)	103 (23.5)	139 (30.5)	127 (23.9)	172 (33.3)
25-30	934 (48.2)	227 (51.8)	237 (52.4)	232 (43.6)	238 (46.0)
≥30	465 (24.0)	108 (24.7)	77 (17.1)	173 (32.5)	107 (20.7)*
SBP (mmHg)	134.6 (18.2)	134.1 (16.1)	132.5 (16.1)	136.9 (19.5)	134.1 (19.0)*
Serum glucose (mg/dL)	98.6 (22.7)	101.8 (24.0)	98.2 (21.6)	100.4 (27.0)	94.4 (16.2)*
Serum LDL-cholesterol (mmol/L)	1.32 (0.47)	1.27 (0.45)	1.37 (0.48)	1.28 (0.45)	1.34 (0.48)*

Values are means (standard deviations) unless indicated. * p<0.05 for differences across strata. BMI: body mass index; eGFR: Estimated Glomerular Filtration Rate; MEDAS Mediterranean Diet Adherence Screener; PA: physical activity; SBP: systolic blood pressure.

[a]Subclinical cardiac damage: hs-cTnT >p99 (16.8pg/mL in men and 9.0pg/mL in women) and/or NT-proBNP >cutoff (75 pg/mL if aged 50-75 years, 250 pg/mL if age >75 years).

[b]Low PA time: total PA time ≤3.53 h/day; high PA time: total PA time >3.53 h/day.

[c]Moderate drinker: <10 g/day in women and <20 g/day in men.

[d]Estimated Glomerular Filtration Rate by the CKD-EPI (Chronic Kidney Disease Epidemiology Collaboration) equation.

Supplemental Table 2. Time spent in each movement behavior in men and women, stratified by subclinical cardiac damage and total PA time. Values are means (standard deviations).

	Men			
	No subclinical cardiac damage[a]		**Subclinical cardiac damage[a]**	
	Low PA time[b]	**High PA time[b]**	**Low PA time[b]**	**High PA time[b]**
	n=267	n=234	n=190	n=169
Sleep (hours/day)	7.74 (1.09)	7.42 (0.92)	7.80 (1.25)	7.32 (0.91)
SB (hours/day)	13.48 (1.20)	11.97 (1.13)	13.55 (1.35)	11.92 (1.18)
LPA (min/day)	111.83 (27.53)	171.06 (31.22)	107.09 (29.95)	179.39 (35.94)†
MVPA (min/day)	44.66 (19.53)	95.75 (32.67)	42.71 (22.93)	96.13 (32.74)
	Women			
	No subclinical cardiac damage[a]		**Subclinical cardiac damage[a]**	
	Low PA time[b]	**High PA time[b]**	Low PA time[b]	**High PA time[b]**
	n=171	n=218	n=342	n=348
Sleep (hours/day)	7.93 (1.10)	7.44 (0.85)	8.01 (1.13)*	7.57 (0.95)*
SB (hours/day)	13.24 (1.08)*	11.65 (1.14)*	13.27 (1.23)*	11.68 (1.14)*
LPA (min/day)	125.44 (30.84)*	198.19 (36.81)*	122.63 (31.20)*	199.14 (36.72)*
MVPA (min/day)	34.40 (17.64)*	85.77 (35.05)*	31.31 (15.95)*	77.19 (29.82)*†

*p<0.05 for differences between men and women in the same stratum. †p<0.05 for differences between participants with and without subclinical cardiac damage in the same category of PA time. LPA = light physical activity; MVPA = moderate-to-vigorous physical activity; PA = physical activity; SB = sedentary behavior.

[a] Subclinical cardiac damage: cTnT-hs > p99 (16.8 pg/mL in men and 9.0 pg/mL in women) and/or NT-proBNP > cutoff (75 pg/mL if age ≤ 75 years, 250 pg/mL if age > 75 years).

[b] Low PA time: total PA time ≤3.53 h/day; high PA time: total PA time >3.53 h/day.

Supplemental Table 3. Association of other accelerometry variables with cardiac biomarkers in men and women, stratified by subclinical cardiac damage and PA time. Values are mean percentage differences[a] (95% CI) in each cardiac biomarker per 30 min/day increment in time spent in bouts of movement behaviors or per 1-SD increment in the number of sedentary breaks and mean movement intensity in each stratum.

	Men				Women			
	No subclinical cardiac damage[b]		Subclinical cardiac damage[b]		No subclinical cardiac damage[b]		Subclinical cardiac damage[b]	
	Low PA time[c] n=267	High PA time[c] n=234	Low PA time[c] n=190	High PA time[c] n=169	Low PA time[c] n=171	High PA time[c] n=218	Low PA time[c] n=342	High PA time[c] n=348
hs-cTnT								
Time in sedentary bouts ≥30 min	-0.2 (-1.3, 0.8)	-0.5 (-1.8, 0.8)	2.7 (1.5, 3.9)*	-1.1 (-2.4, 0.3)	-0.7 (-2.1, 0.6)	-0.6 (-1.9, 0.7)	1.6 (0.6, 2.5)*	-0.1 (-1.1, 0.9)
Number of sedentary breaks	4.3 (-1.1, 10.0)	3.1 (-3.1, 9.7)	-2.7 (-8.9, 3.9)	5.3 (-1.7, 12.7)	1.7 (-4.8, 8.8)	1.3 (-4.6, 7.6)	-4.8 (-9.3, -0.1)	9.4 (4.5, 14.6)*
Time in MVPA bouts ≥10 min	-3.4 (-14.1, 8.7)	1.3 (-4.0, 6.9)	-6.8 (-17.2, 5.0)	2.0 (-4.5, 8.8)	14.3 (-4.9, 37.4)	1.2 (-5.5, 8.4)	-28.4 (-41.1, -13.0)*	-4.6 (-11.7, 3.0)
Mean movement intensity (mg)	-0.3 (-6.2, 6.0)	1.1 (-3.8, 6.1)	-7.0 (-13.5, -0.0)	4.2 (-1.7, 10.4)	7.2 (-2.6, 18.0)	4.0 (-2.0, 10.4)	-16.0 (-22.2, -9.4)*	-1.6 (-6.4, 3.5)
NT-proBNP								
Time in sedentary bouts ≥30 min	-1.4 (-3.1, 0.3)	0.4 (-1.7, 2.6)	5.6 (3.6, 7.7)*	-1.0 (-3.2, 1.3)	0.2 (-2.1, 2.5)	0.7 (-1.5, 2.8)	0.7 (-0.8, 2.3)	-1.2 (-2.9, 0.6)
Number of sedentary breaks	7.1 (-1.9, 17.1)	-2.4 (-11.9, 8.1)	-25.4 (-33.1, -16.8)*	2.5 (-8.4, 14.7)	-3.5 (-13.6, 7.8)	-1.0 (-10.3, 9.4)	-5.8 (-13.0, 2.0)	2.8 (-4.8, 10.9)
Time in MVPA bouts ≥10 min	-16.2 (-31.0, 1.9)	-7.2 (-15.1, 1.5)	-23.6 (-37.2, -7.0)*	4.4 (-6.3, 16.3)	-1.7 (-27.6, 33.5)	1.2 (-9.6, 13.5)	-8.0 (-33.4, 27.2)	4.0 (-8.5, 18.1)
Mean movement intensity (mg)	-7.4 (-16.3, 2.4)	-4.5 (-11.9, 3.6)	-27.8 (-35.9, -18.6)*	4.1 (-5.5, 14.6)	-7.3 (-21.0, 8.7)	-0.6 (-10.0, 9.7)	-14.2 (-24.3, -2.6)	2.1 (-6.1, 11.0)

*Statistically significant association when using a false discovery rate of 5%. hs-cTnT: high-sensitivity cardiac troponin T; MVPA: moderate-to-vigorous physical activity; NT-proBNP: N-terminal pro-B-type natriuretic peptide; PA: physical activity.

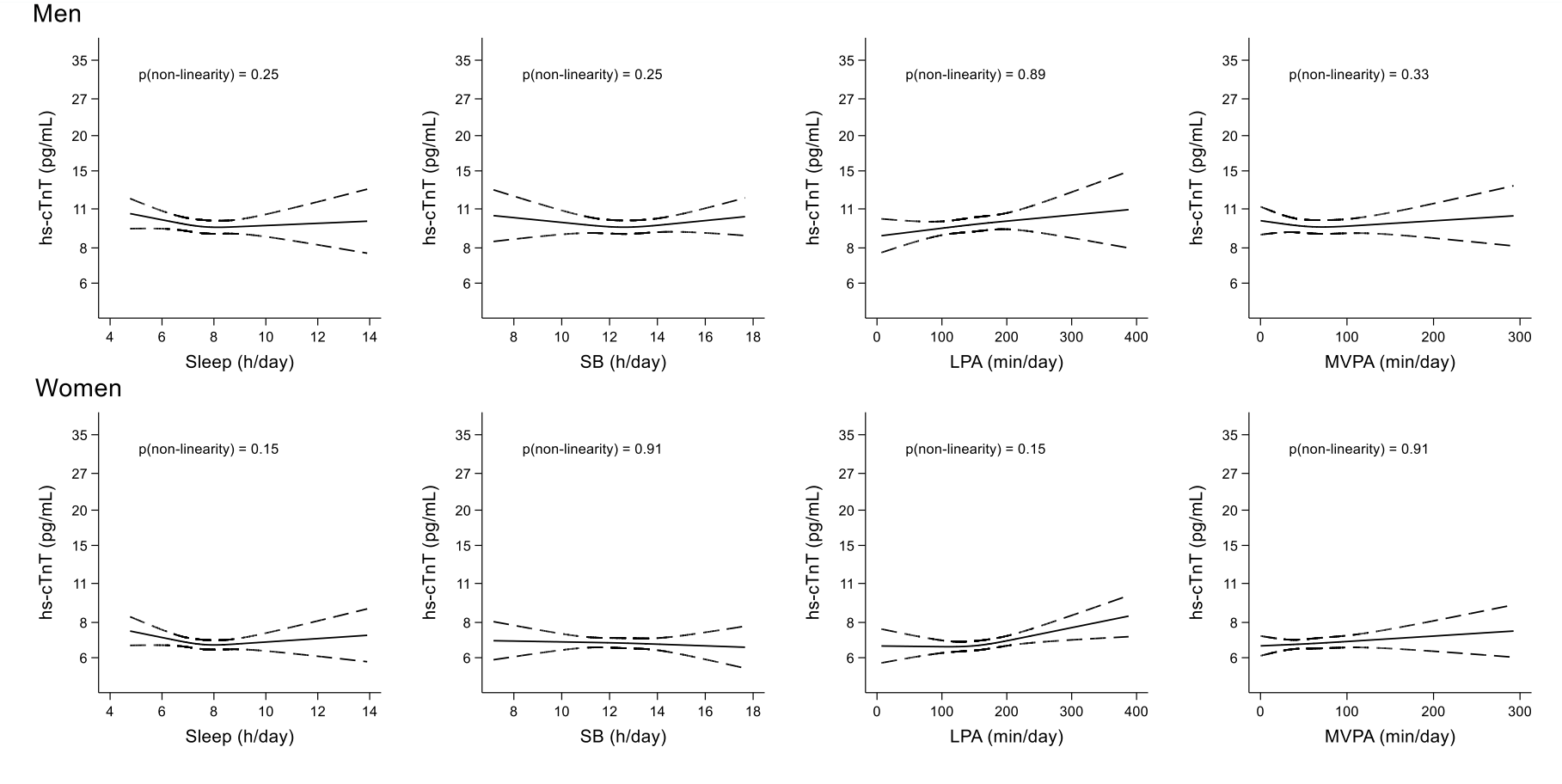
[a]Mean percentage differences were calculated by subtracting 1 from the exponentiated β-coefficients in the regression models with log-transformed values of cardiac biomarkers and multiplying the result by 100.

[b]Subclinical cardiac damage: hs-cTnT >p99 (16.8 pg/mL in men and 9.0 pg/mL in women) and/or NT-proBNP >cutoff (75 pg/mL if age ≤75 years, 250 pg/mL if age >75 years).

[c]Low PA time: total PA time ≤3.53 h/day; high PA time: total PA time >3.53 h/day.

Linear regression models adjusted for sex, age, educational level (primary or less, secondary, or university), smoking status (never, former, or current), alcohol consumption (never, moderate, heavy, or former), energy intake (kcal/day), Mediterranean Diet Adherence Screener (MEDAS) score, body mass index (kg/m^2), serum glucose (mg/dL), serum LDL-cholesterol (mg/dL), systolic blood pressure (mmHg) and glomerular filtration rate (mL/min).

Supplemental Figure 1. Association of each movement behavior with hs-cTnT in men and women without subclinical cardiac damage. Restricted cubic splines whose values are geometric means (95%-confidence interval) of hs-cTnT.



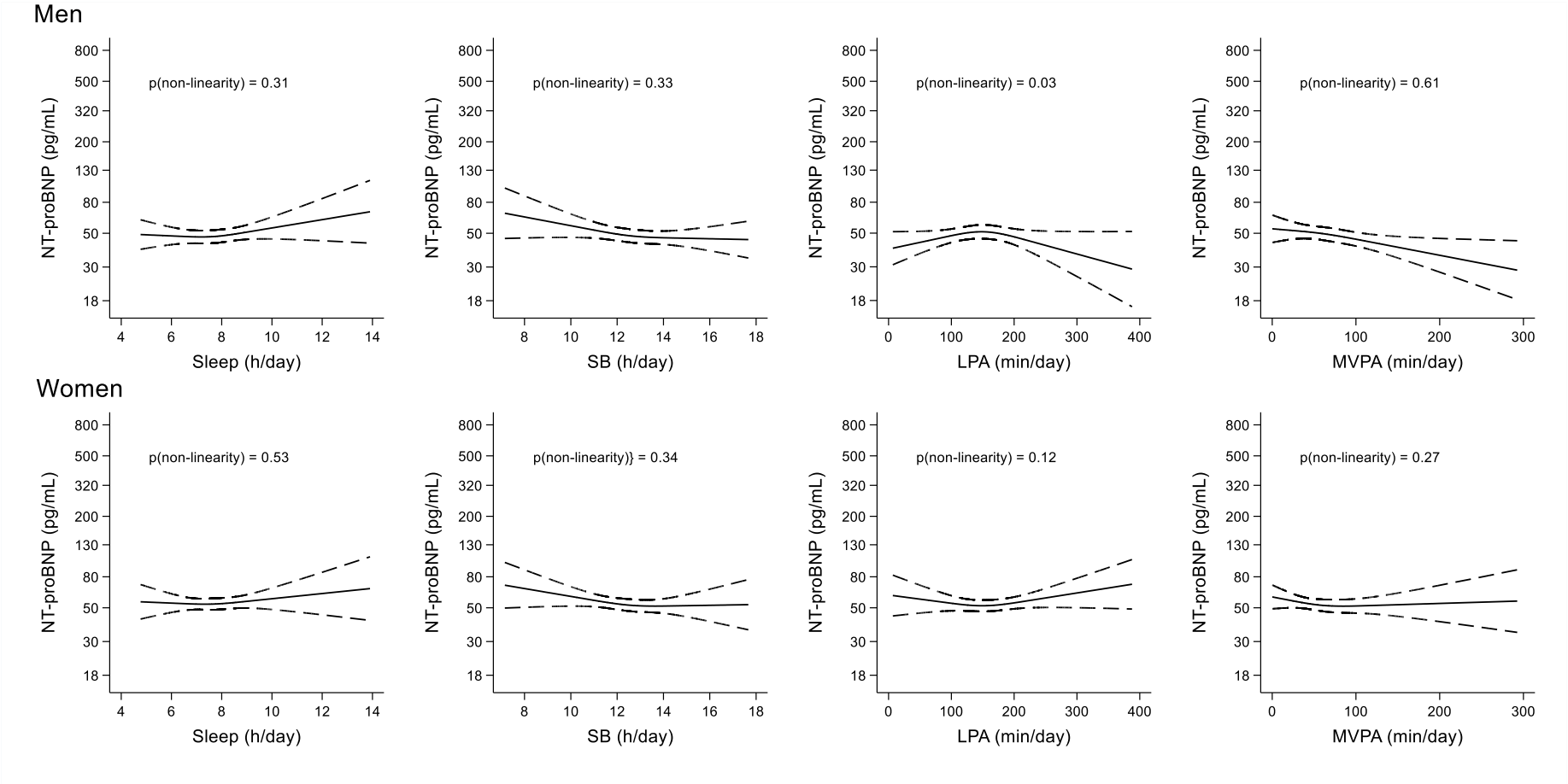
hs-cTnT: high-sensitivity cardiac troponin T; LPA: light physical activity; MVPA: moderate-to-vigorous physical activity; PA: physical activity; SB: sedentary behavior.

Subclinical cardiac damage: hs-cTnT >p99 (16.8pg/mL in men and 9.0pg/mL in women) and/or NT-proBNP >cutoff (75pg/mL if age ≤75 years, 250pg/mL if age >75 years).

Linear regression models adjusted for sex, age, educational level (primary or less, secondary, or university), smoking status (never, former, or current), alcohol consumption (never, moderate, heavy, or former), energy intake (kcal/day), Mediterranean Diet Adherence Screener (MEDAS) score, body mass index (kg/m^2), serum glucose (mg/dL), serum LDL-cholesterol (mg/dL), systolic blood pressure (mmHg) and glomerular filtration rate. Models for sleep and SB further adjusted for MVPA time, and models for LPA and MVPA further adjusted for SB time.

Supplemental table 2. Association of each movement behavior with NT-proBNP in men and women without subclinical cardiac damage.

Restricted cubic splines whose values are geometric means (95%-confidence interval) of NT-proBNP.



LPA: light physical activity; MVPA: moderate-to-vigorous physical activity; NT-proBNP: N-terminal pro-B-type natriuretic peptide; PA: physical activity; SB: sedentary behavior.

Subclinical cardiac damage: hs-cTnT >p99 (16.8pg/mL in men and 9.0pg/mL in women) and/or NT-proBNP >cutoff (75pg/mL if age ≤75 years, 250pg/mL if age >75 years).

Linear regression models adjusted for sex, age, educational level (primary or less, secondary, or university), smoking status (never, former, or current), alcohol consumption (never, moderate, heavy, or former), energy intake (kcal/day), Mediterranean Diet Adherence Screener (MEDAS) score, body mass index (kg/m^2), serum glucose (mg/dL), serum LDL-cholesterol (mg/dL), systolic blood pressure (mmHg) and glomerular filtration rate. Models for sleep and SB further adjusted for MVPA time, and models for LPA and MVPA further adjusted for SB time.