

Table S1 Associations of LTPA (MET-min/week) with cardiovascular parameters.

Outcome	Men			Women		
	β	95% CI	p-value	β	95% CI	p-value
<i>Cardiac morphology</i>						
LV mass (g)						
Crude	0.09	0.02, 0.17	0.015	0.09	0.02, 0.17	0.018
Adjusted	0.11	0.03, 0.19	0.010	0.10	0.02, 0.18	0.010
LV mass index						
Crude	0.15	0.07, 0.23	<0.001	0.17	0.07, 0.27	0.001
Adjusted	0.16	0.07, 0.42	<0.001	0.17	0.27, 3.18	0.002
<i>Cardiac hemodynamics</i>						
LV end-systolic volume (ml)						
Crude	0.14	0.03, 0.24	0.010	0.07	-0.01, 0.14	0.078
Adjusted	0.15	0.03, 0.26	0.011	0.10	0.02, 0.18	0.019
LV end-diastolic volume (ml)						
Crude	0.18	0.08, 0.28	<0.001	0.08	-0.02, 0.17	0.119
Adjusted	0.21	0.15, 0.38	<0.001	0.11	0.02, 0.22	0.025
LV stroke volume (ml)						
Crude	0.17	0.07, 0.27	0.001	0.07	-0.05, 0.18	0.264
Adjusted	0.21	0.10, 0.31	<0.001	0.10	-0.02, 0.22	0.090
Ejection Fraction (%)						
Crude	-0.02	-0.12, 0.08	0.746	-0.05	-0.15, 0.06	0.384
Adjusted	0.02	-0.11, 0.14	0.814	-0.06	-0.17, 0.05	0.290
Cardiac output (L/min)						
Crude	0.09	0.01, 0.18	0.036	0.03	-0.10, 0.15	0.677
Adjusted	0.11	0.03, 0.20	0.012	0.03	-0.10, 0.15	0.643

Numbers represents linear regression coefficients and 95% confidence intervals, weighted toward the BMI distribution of the general population. Regression coefficients reflects the change in outcome per 1 SD of leisure time physical activity (LTPA) in MET-minutes/week: 1999 min in men/1870 min in women. Crude models were adjusted for age, sex, smoking, ethnicity and education. SD = standard deviation, LV = left ventricle. Unadjusted values for multiple comparisons with $p < 0.05$ were considered significant. *Italic depicted values meet the Bonferroni corrected significance level of $p < 0.002$.*

Table S2 Sensitivity analyses of the associations of LTPA (MET-min/week) with diastolic function after exclusion of participants with diabetes mellitus.

Outcome	Men			Women		
	β	95% CI	p-value	β	95% CI	p-value
<i>Diastolic function</i>						
E/A ratio						
Crude	0.091	-0.04, 0.23	0.184	0.03	-0.20, 0.26	0.795
Adjusted	0.024	0.02, 0.33	0.024	0.15	-0.02, 0.33	0.083
E-DT (ms)						
Crude	0.09	-0.01, 0.19	0.089	0.10	-0.01, 0.21	0.075
Adjusted	0.11	0.00, 0.22	0.057	0.16	0.04, 0.28	0.010

Results represents linear regression coefficients and 95% confidence intervals, weighted toward the BMI distribution of the general population. β , regression coefficients reflect the difference in outcome per 1 SD of leisure time physical activity (LTPA) in MET-minutes/week: 2014 min in men/1874 min in women. Crude models were adjusted for age, sex, smoking, ethnicity and education. E-DT = E-wave deceleration time, ms = milliseconds, LV = left ventricle. Unadjusted values for multiple comparisons with $p < 0.05$ were considered significant. *Italic depicted values meet the Bonferroni corrected significance level of $p < 0.004$.*

Table S3 Mediation by metabolic load on cardiovascular parameters.

Outcome	Men				Women			
	Indirect effect	95% CI	Proportion mediated (%)	p-value	Indirect effect	95% CI	Proportion mediated (%)	p-value
<i>Cardiac morphology</i>								
LV mass (g)	-0.020	-0.037;- 0.004	18	0.017	-0.018	-0.035;-0.001	18	0.033
LV mass index (g/m ²)	0.003	-0.011;0.017	0	0.663	0.026	0.00; 0.053	0	0.052
<i>Cardiac hemodynamics</i>								
LV end-systolic volume (ml)	0.001	-0.015;0.017	0	0.914	-0.009	-0.029;0.011	0	0.368
LV end-diastolic volume (ml)	-0.004	-0.020;0.010	0	0.663	-0.003	-0.025;0.019	0	0.807
LV stroke volume (ml)	-0.007	-0.024;0.011	0	0.454	0.003	-0.021;0.028	-	0.777
Ejection Fraction (%)	-0.006	- 0.024: 0.011	-	0.470	0.013	-0.016: 0.041	-	0.382
Cardiac output (L/min)	-0.021	-0.039;-0.002	19	0.027	-0.028	-0.053: -0.003	-	0.026

Numbers represents the percentage mediation on the total effect, weighted toward the BMI distribution of the general population in the adjusted models. The model was adjusted for age, sex, smoking, ethnicity and education. CI = confidence interval, LV = left ventricle. Unadjusted values for multiple comparisons with $p < 0.05$ were considered significant. *Italic depicted values meet the Bonferroni corrected significance level of $p < 0.007$.*