

Supplementary Tables

Table 1S. Harrell C statistics for Cox regression models predicting events during follow-up.

Outcomes	All participants		< 10 yrs		≥ 10 yrs	
	C Statistic*	95% CI	C Statistic*	95% CI	C Statistic*	95% CI
CVD morbidity	0.802	0.787–0.818	0.791	0.785–0.798	0.812	0.796–0.827
CHD morbidity	0.811	0.798–0.823	-	-	-	-
Stroke morbidity	0.780	0.763–0.796	-	-	-	-
All-cause mortality	0.743	0.736–0.749	0.765	0.737–0.750	0.751	0.744–0.758
CVD mortality	0.764	0.753–0.774	0.764	0.754–0.775	0.776	0.765–0.788
CHD mortality	0.786	0.772–0.801	-	-	-	-
Stroke mortality	0.751	0.737–0.766	-	-	-	-

*Refers to the Harrell C statistics were obtained by use of the STATA stcox postestimation command “estat concordance” and 95% CIs were obtained by use of the “somersd” package in STATA 16.0. CHD: coronary heart disease; CI: confidence interval; CVD: cardiovascular disease.

Table 2S. Association of LTPA categories and risk of CVD morbidity according to subgroups (< 10 years and ≥ 10 years).

Variables	Inactive	Insufficiently active	Sufficiently active	Highly active	Very highly active
< 10 yrs					
Events	4,569	808	895	228	91
Person-years	111,206	22,195	27,310	8,058	2,929
Incidence	41.09	36.40	32.77	28.30	31.06
Model 1	Reference	0.86 (0.80–0.93)*	0.78 (0.72–0.83)*	0.69 (0.60–0.79)*	0.75 (0.61–0.92)*
Model 2	Reference	0.89 (0.83–0.96)*	0.85 (0.79–0.92)*	0.80 (0.70–0.91)*	0.90 (0.73–1.11)*
Model 3	Reference	0.91 (0.84–0.98)*	0.87 (0.81–0.94)*	0.81 (0.71–0.93)*	0.89 (0.72–1.10)*
≥ 10 yrs					
Events	4,569	94	107	53	12
Person-years	111,206	3,007	3,779	2,266	496
Incidence	41.09	31.26	28.32	23.39	24.18
Model 1	Reference	0.71 (0.58–0.87)*	0.69 (0.57–0.83)*	0.57 (0.44–0.75)*	0.56 (0.32–0.99)*
Model 2	Reference	0.77 (0.65–0.94)*	0.72 (0.60–0.87)*	0.70 (0.53–0.92)*	0.72 (0.41–1.27)*
Model 3	Reference	0.76 (0.62–0.93)*	0.72 (0.59–0.88)*	0.70 (0.53–0.92)*	0.75 (0.42–1.33)*

Model 1: adjusted for sex and age. Model 2: adjusted for variables in Model 1 plus current smoking, alcohol consumption, BMI, medical history of T2DM, SBP, DBP, RHR, FPG, TC, TG and HDL-C. Model 3: competing-risks survival regression adjusted covariates were the same as Model 2. *Presented as HR (95% CI). BMI: body mass index; CI: confidence interval; CVD: cardiovascular disease; DBP: diastolic blood pressure; FPG: fasting plasma glucose; HDL-C: high-density lipoprotein cholesterol; HR: hazards ratio; LTPA: leisure-time physical activity; RHR: resting heart rate; SBP: systolic blood pressure; TC: total cholesterol; TG: triglyceride; T2DM: type 2 diabetes mellitus.

Table 3S. Association between LTPA and risk of all-cause and CVD mortality according to subgroups (< 10 years and ≥ 10 years).

Variables	Inactive	Insufficiently active	Sufficiently active	Highly active	Very highly active
All-cause					
< 10 yrs					
Events	4,249	767	782	193	78
Model 1	Reference	0.92 (0.85–0.99)*	0.81 (0.75–0.88)*	0.78 (0.67–0.90)*	0.81 (0.61–0.97)*
Model 2	Reference	0.92 (0.86–0.99)*	0.83 (0.76–0.89)*	0.78 (0.68–0.90)*	0.84 (0.63–0.99)*
≥ 10 yrs					
Events	4,249	95	99	51	10
Model 1	Reference	0.72 (0.59–0.88)*	0.79 (0.65–0.96)*	0.68 (0.52–0.90)*	0.56 (0.30–0.89)*
Model 2	Reference	0.75 (0.61–0.92)*	0.79 (0.65–0.96)*	0.71 (0.54–0.94)*	0.57 (0.31–0.91)*
CVD					
< 10 yrs					
Events	1,434	233	248	47	29
Model 1	Reference	0.82 (0.72–0.95)*	0.76 (0.66–0.87)*	0.55 (0.41–0.73)*	0.90 (0.63–1.31)*
Model 2	Reference	0.83 (0.72–0.95)*	0.81 (0.70–0.92)*	0.59 (0.44–0.79)*	1.03 (0.71–1.49)*
≥ 10 yrs					
Events	1,434	25	28	12	4
Model 1	Reference	0.57 (0.39–0.85)*	0.65 (0.45–0.94)*	0.47 (0.27–0.83)*	0.66 (0.25–1.76)*
Model 2	Reference	0.66 (0.45–0.98)*	0.69 (0.47–0.98)*	0.56 (0.32–0.99)*	0.77 (0.29–2.06)*

Model 1: adjusted for sex and age. Model 2: adjusted for variables in Model 1 plus current smoking, alcohol consumption, BMI, medical history of T2DM, SBP, DBP, RHR, FPG, TC, TG and HDL-C. *Presented as HR (95% CI). BMI: body mass index; CI: confidence interval; CVD: cardiovascular disease; DBP: diastolic blood pressure; FPG: fasting plasma glucose; HDL-C: high-density lipoprotein cholesterol; HR: hazards ratio; LTPA: leisure-time physical activity; RHR: resting heart rate; SBP: systolic blood pressure; TC: total cholesterol; TG: triglyceride; T2DM: type 2 diabetes mellitus.

Table 4S. Tests of non-linearity of LTPA restricted cubic splines.

Outcomes	P-value		
	All participants	< 10 yrs	≥ 10 yrs
CVD morbidity	< 0.001	0.003	0.018
CHD morbidity	0.068	-	-
Stroke morbidity	< 0.001	-	-
All-cause mortality	0.078	0.085	0.062
CVD mortality	< 0.001	< 0.001	0.045
CHD mortality	0.034	-	-
Stroke mortality	0.002	-	-

CHD: coronary heart disease; CVD: cardiovascular disease; LTPA: leisure-time physical activity.

Table 5S. Overall tests of association (likelihood ratio test) between LTPA and outcomes.

Outcomes	All participants		< 10 yrs		≥ 10 yrs	
	χ^2	P-value	χ^2	P-value	χ^2	P-value
CVD morbidity	2232.03	< 0.001	2132.88	< 0.001	1686.13	< 0.001
CHD morbidity	1806.92	< 0.001	-	-	-	-
Stroke morbidity	879.55	< 0.001	-	-	-	-
All-cause mortality	4999.68	< 0.001	4793.47	< 0.001	3769.91	< 0.001
CVD mortality	1859.30	< 0.001	1785.69	< 0.001	1473.97	< 0.001
CHD mortality	1114.74	< 0.001	-	-	-	-
Stroke mortality	839.16	< 0.001	-	-	-	-

CHD: coronary heart disease; CVD: cardiovascular disease; LTPA: leisure-time physical activity.