

Supplementary Material for the paper:

Differing associations for sport versus occupational physical activity and cardiovascular risk

Assessment of cardiovascular risk factors at baseline

Height and weight were measured on subjects without shoes and wearing light clothing during the clinical examination. Individuals were classified as normal weight (Body Mass Index, BMI, <25 kg/m²); overweight (BMI between 25 and 29.9) and obese (BMI ≥30 kg/m²). The number of years of schooling (“How many years have you spent at school or in full time study?”), daily cigarette smoking and alcohol intake were investigated using self-reported questionnaires. As year of schooling are subject to modifications across different birth cohorts, we derived three categories of education (high, intermediate and low) from sex- and birth cohort-specific tertiles of the distribution of years of schooling, according to a published method (Karvanen et al., *Eur J Epidemiol* 2007). The study variable for smoking habit is current vs. non-current smoker. Self-reported daily alcohol intake (in grams) was categorized as abstainers, less than 50 grams/day and more than 50 grams per day. Blood pressure was measured on sitting subjects at rest for at least 10 minutes, using a standard mercury sphygmomanometer equipped with larger cuff bladders, if needed. The study variable for systolic blood pressure is the average of two measurements taken 5 min. apart. Venous blood specimens were taken from the ante-cubital vein in fasting subjects (12h or more). Serum total cholesterol and HDL-cholesterol were measured by an enzymatic method. Blood glucose was determined on the same samples by an enzymatic method. Diabetes was defined as either blood glucose >126 mg/dl, or positive anamnestic information self-reported by the subject.

Table S1. Risk factors-adjusted hazard ratios (with 95% confidence intervals) for incident CHD and CVD events for intermediate and recommended SpPA levels (poor SpPA as reference), among workers in different OPA categories. The MONICA-Brianza, PAMELA and SEMM pooled cohorts Study. Men, 25-64 years old, free of CHD and currently employed at baseline (n=3574).

OPA	SpPA	N	CHD events (n=135)			CVD events (n=174)		
			Ev no.	Rate	HR (95% CI)	Ev no.	Rate	HR (95% CI)
Low	Poor	799	58	4.91	REF	69	5.83	REF
Low	Intermediate	310	9	2.51	0.57 (0.28; 1.16)	9	2.52	0.48 (0.24; 0.97)
Low	Recommended	234	2	0.86	0.24 (0.06; 0.98)	4	1.76	0.39 (0.14; 1.07)
Intermediate	Poor	673	20	1.80	REF	30	2.79	REF
Intermediate	Intermediate	242	6	2.28	1.33 (0.52; 3.35)	6	2.43	1.04 (0.43; 2.52)
Intermediate	Recommended	212	3	1.48	1.00 (0.29; 3.42)	3	1.60	0.77 (0.23; 2.54)
High	Poor	759	27	1.98	REF	40	2.91	REF
High	Intermediate	185	5	2.64	1.43 (0.54; 3.77)	8	4.72	1.59 (0.73; 3.45)
High	Recommended	160	5	3.73	2.54 (0.96; 6.75)	5	3.98	1.77 (0.69; 4.56)
<i>Heterogeneity test p-value</i> [†]		-	-	-	0.05	-	-	0.07

Rates (x1000 person years) are age-adjusted and estimated at the sample mean age. HR: Hazard Ratio, adjusted for: age, cohort type (population-based vs. factory-based), educational level, body mass index, total cholesterol, HDL-cholesterol, systolic blood pressure, current smoking, diabetes and alcohol intake.

[†]: Wald chi-square test (8 df).

Table S2. Risk factors-adjusted hazard ratios (with 95% confidence intervals) for incident CHD and CVD events for SpPA among workers in different OPA categories, according to daily commuting physical activity (walking or cycling). The MONICA-Brianza, PAMELA and SEMM pooled cohorts Study. Men, 25-64 years old, free of CHD and currently employed at baseline (n=3574).

OPA	SpPA	CHD events (n=135)						CVD events (n=174)					
		Commuting PA ≤30 min/day			Commuting PA >30 min/day			Commuting PA ≤30 min/day			Commuting PA >30 min/day		
		N	Ev no.	HR (95% CI)	N	Ev no.	HR (95% CI)	N	Ev no.	HR (95% CI)	N	Ev no.	HR (95% CI)
Low	Poor	542	31	REF	214	21	REF	542	38	REF	214	24	REF
Low	Intermediate /recommended	368	5	0.36 (0.14; 0.95)	165	5	0.49 (0.18; 1.33)	368	5	0.30 (0.12; 0.77)	165	7	0.56 (0.24; 1.35)
Intermediate	Poor	410	12	REF	225	6	REF	410	17	REF	225	9	REF
Intermediate	Intermediate /recommended	266	3	0.63 (0.17; 2.28)	174	6	2.14 (0.67; 6.84)	266	3	0.54 (0.15; 1.88)	174	6	1.64 (0.57; 4.75)
High	Poor	395	10	REF	312	15	REF	395	17	REF	312	19	REF
High	Intermediate /recommended	188	3	1.37 (0.37; 5.13)	142	6	1.78 (0.66; 4.78)	188	3	0.93 (0.27; 3.27)	142	9	2.05 (0.89; 4.72)
<i>Heterogeneity test p-value</i> [†]		-	-	0.31	-	-	0.08	-	-	0.15	-	-	0.04

Rates (x1000 person years) are age-adjusted and estimated at the sample mean age. HR: Hazard Ratio, adjusted for: age, cohort type (population-based vs. factory-based), educational level, body mass index, total cholesterol, HDL-cholesterol, systolic blood pressure, current smoking, diabetes and alcohol intake.

†: Wald chi-square test (5 df).