

Supplementary Table 2. The interaction of time spent sedentary, MVPA and PAEE with cardiorespiratory fitness on subcomponents of metabolic risk and clustered metabolic risk in the *ADDITION-Plus* trial cohort (n=291)

	Sedentary time (h/day), β (95% CI)			MVPA (h/day), β (95% CI)			PAEE (kJ kg ⁻¹ day ⁻¹), β (95% CI)		
	Below median VO _{2max,pred}	Above median VO _{2max,pred}	<i>P</i> -interaction	Below median VO _{2max,pred}	Above median VO _{2max,pred}	<i>P</i> -interaction	Below median VO _{2max,pred}	Above median VO _{2max,pred}	<i>P</i> -interaction
Waist (cm)	0.98 (-0.14, 2.11)	0.66 (-0.30, 1.63)	0.18	2.14 (-0.76, 5.03)	-0.96 (-2.85, 0.93)	0.39	-0.14 (-0.28, 0.01)	-0.23 (-0.33, -0.13) *	0.72
Systolic blood pressure (mmHg)	-1.51 (-3.22, 0.19)	-0.18 (-1.41, 1.05)	0.76	-4.85 (-9.22, -0.48) *	-1.91 (-4.31, 0.49)	0.86	-0.07 (-0.30, 0.15)	-0.09 (-0.23, 0.05)	0.57
HbA_{1c} (%)	0.08 (-0.01, 0.17)	0.01 (-0.06, 0.08)	0.26	-0.01 (-0.24, 0.23)	0.00 (-0.14, 0.15)	0.07	-0.01 (-0.02, -0.001) *	0.00 (-0.01, 0.01)	0.03
Logged triacylglycerol (mmol/l (ln))	0.07 (0.01, 0.12) *	-0.01 (-0.05, 0.04)	0.70	0.13 (-0.01, 0.27)	-0.01 (-0.09, 0.08)	0.52	0.00 (-0.01, 0.004)	0.00 (-0.003, 0.01)	0.88
HDL-cholesterol (mmol/l)	-0.03 (-0.05, -0.003) *	-0.01 (-0.03, 0.02)	0.90	-0.04 (-0.11, 0.02)	-0.01 (-0.05, 0.04)	0.13	0.00 (-0.001, 0.01)	0.00 (-0.002, 0.002)	0.14
zMS	0.30 (0.07, 0.53) *	0.08 (-0.13, 0.29)	0.98	0.31 (-0.29, 0.90)	-0.19 (-0.59, 0.22)	0.58	-0.04 (-0.07, -0.01) *	-0.03 (-0.05, -0.004) *	0.82
zMS^a	0.78 (0.18, 1.38) *	0.21 (-0.33, 0.75)	0.98	0.34 (-0.32, 1.01)	-0.21 (-0.66, 0.25)	0.58	-0.72 (-1.25, -0.20) *	-0.46 (-0.85, -0.08) *	0.82

Values for sedentary time and MVPA use individualised RMR [21] as definition for 1 MET.
Median VO_{2max,pred} is sex specific; for men and women median VO_{2max,pred} = 33.4 ml O₂ kg⁻¹ min⁻¹ and 25.2 ml O₂ kg⁻¹ min⁻¹, respectively.
All coefficients are adjusted for age, sex, intervention group, occupational socio-economic class, smoking status, sleep duration, total energy intake, percentage of energy from fat, and alcohol intake. All outcomes except zMS and waist circumference are additionally adjusted for waist circumference. Systolic and diastolic blood pressure are additionally adjusted for use of anti-hypertensive drugs (yes/no); HbA_{1c} is additionally adjusted for use of glucose lowering drugs (yes/no); triglycerides are additionally adjusted for use of lipid-lowering drugs (yes/no); HDL-cholesterol is additionally adjusted for use of lipid-lowering drugs (yes/no); and zMS is additionally adjusted for use of anti-hypertensive drugs (yes/no), glucose lowering drugs (yes/no), and lipid-lowering drugs (yes/no).
zMS is a continuously distributed variable for clustered metabolic risk calculated by summing standardised values for waist circumference, triglycerides, HbA_{1c}, systolic blood pressure and the inverse of HDL-cholesterol.
^a Difference in zMS per SD difference in PAEE, sedentary time or MVPA
P-interaction calculated using VO_{2max,pred} as a continuous variable
* *p*<0.05.