

Supplementary Table 1: Isocaloric substitution of physical activity energy expenditure and fat mass index

Women n = 6148

PAEE (kJ/day/kg)	-0.05*** (-0.06 ; -0.04)			
	Substituted from SS	Substituted from LPA	Substituted from MPA	Substituted from VPA
Substituted to SS (% of PAEE)	<i>Dropped</i>	0.02** (0.00 ; 0.03)	0.04*** (0.02 ; 0.05)	0.11*** (0.09 ; 0.13)
Substituted to LPA (% of PAEE)	-0.02** (-0.03 ; -0.00)	<i>Dropped</i>	0.02*** (0.01 ; 0.03)	0.10*** (0.08 ; 0.11)
Substituted to MPA (% of PAEE)	-0.04*** (-0.05 ; -0.02)	-0.02*** (-0.03 ; -0.01)	<i>Dropped</i>	0.08*** (0.06 ; 0.10)
Substituted to VPA (% of PAEE)	-0.11*** (-0.13 ; -0.09)	-0.09*** (-0.11 ; -0.08)	-0.08*** (-0.10 ; -0.06)	<i>Dropped</i>

Men n = 5320

PAEE (kJ/day/kg)	-0.02*** (-0.02 ; -0.01)			
	Substituted from SS	Substituted from LPA	Substituted from MPA	Substituted from VPA
Substituted to SS (% of PAEE)	<i>Dropped</i>	-0.01 (-0.02 ; 0.01)	0.02*** (0.01 ; 0.04)	0.06*** (0.04 ; 0.07)
Substituted to LPA (% of PAEE)	0.01 (-0.01 ; 0.02)	<i>Dropped</i>	0.03*** (0.02 ; 0.03)	0.06*** (0.05 ; 0.07)
Substituted to MPA (% of PAEE)	-0.02*** (-0.04 ; -0.01)	-0.03*** (-0.03 ; -0.02)	<i>Dropped</i>	0.04*** (0.03 ; 0.04)
Substituted to VPA (% of PAEE)	-0.06*** (-0.07 ; -0.04)	-0.06*** (-0.07 ; -0.05)	-0.04*** (-0.04 ; -0.03)	<i>Dropped</i>

Note: Data are beta coefficients (95% c.i.). The unit for the PAEE result is difference in FMI per 1kJ/kg/day difference in PAEE. The unit for substitution results is difference in FMI per 1% of PAEE substituted. SS = Sedentary or sleep, LPA = Light physical activity, MPA = Moderate physical activity, VPA = Vigorous physical activity.

*** p<0.01, ** p<0.05, * p<0.1