Table SDC 8 Associations of endothelial function, arterial elasticity, and arterial stiffness with cardiorespiratory fitness, fat mass, lean mass and adiponectin for observed (non-imputed) data set

Variable	CRF (W) (n=2813)		CRF/BM$^{-0.21}$ (W·kg BM$^{-0.21}$) (n=2810)		CRF/LM$^{-0.54}$ (W·kg LM$^{-0.54}$) (n=2683)		*Adiponectin (µg/ml) (n=3767)		*Total fat mass (kg) (n=5340)		*Trunk fat mass (kg) (n=5340)		Lean mass (kg) (n=5340)	
n= 5566	*β* (95% CI)	*P*-value	*β* (95% CI)	*P*-value	*β* (95% CI)	*P*-value	*β* (95% CI)	*P*-value	*β* (95% CI)	*P*-value	*β (95% CI)*	*P*-value	*β (95% CI)*	*P*-value
Model 1														
Flow-mediated dilation (%)	-0.168 (-0.267 to -0.069)	**0.001**	-0.067 (-0.114 to -0.020)	**0.005**	-0.010 (-0.027 to 0.006)	0.223	<0.001 (-0.004 to 0.004)	0.931	0.004 (-0.001 to 0.008)	0.121	0.006 (0.001 to 0.011)	**0.031**	-0.085 (-0.111 to -0.060)	**<0.0001**
*Distensibility co-efficient (% per mmHg)	0.779 (0.062 to 1.495)	**0.033**	0.399 (0.058 to 0.739)	**0.022**	0.141 (0.023 to 0.258)	**0.019**	-0.007 (-0.037 to 0.023)	0.653	0.017 (-0,017 to 0.050)	0.329	0.024 (-0.016 to 0.063)	0.239	0.163 (-0.023 to 0.350)	0.087
Carotid-radial pulse wave velocity (m/s)	-0.347 (-0.626 to -0.069)	**0.015**	-0.037 (-0.170 to 0.095)	0.582	-0.035 (-0.080 to 0.011)	0.136	0.012 (0.001 to 0.024)	**0.033**	-0.084 (-0.096 to -0.072)	**<0.0001**	-0.098 (-0.112 to -0.083)	**<0.0001**	-0.194 (-0.264 to -0.124)	**<0.0001**
Model 2														
Flow-mediated dilation (%)	-0.132 (-0.330 to 0.066)	0.192	-0.061 (-0.154 to 0.033)	0.202	-0.018 (-0.050 to 0.015)	0.285	-0.006 (-0.013 to 0.002)	0.137	0.013 (0.003 to 0.023)	**0.012**	0.018 (0.006 to 0.030)	**0.003**	0.025 (-0.013 to 0.063)	0.204
*Distensibility co-efficient (% per mmHg)	1.148 (-0.249 to 2.545)	0.107	0.458 (-0.202 to 1.117)	0.174	0.137 (-0.092 to 0.366)	0.240	0.029 (-0.022 to 0.081)	0.267	-0.004 (-0.010 to 0.001)	0.132	-0.005 (-0.012 to 0.002)	0.131	0.209 (-0.061 to 0.479)	0.130
Carotid-radial pulse wave velocity (m/s)	-0.414 (-0.995 to 0.167)	0.162	-0.213 (-0.487 to 0.061)	0.127	-0.091 (-0.186 to 0.004)	0.061	0.012 (-0.008 to 0.032)	0.254	-0.060 (-0.089 to -0.030)	**<0.0001**	-0.068 (-0.102 to -0.034)	**<0.0001**	0.094 (-0.010 to 0.198)	0.077

BM, body mass; CI, confidence interval; CRF, cardiorespiratory fitness; LM, lean mass; W, watt. The regression coefficient (*β*) quantifies the association between dependent and independent variables. A 2-sided P-value <0.05 was considered statistically significant and is bolded.

*Logarithm transformation of skewed variables were used in analyses.

Model 1: Unadjusted associations of arterial function and structure with cardiorespiratory fitness, fat mass, lean mass and adiponectin.

Model 2: Associations were adjusted for age, sex, puberty, systolic blood pressure, mother's socio-economic status, total fat mass or cardiorespiratory fitness per lean mass, low-density lipoprotein, diameter of the brachial artery and time between measures of exposure and outcome variables.