

**Table S2: Correlations between the gene score for elevated BMI and potential confounders.**

Potential confounder	NFBC 1986	NFBC 1966	Cardiovascular Risk in Young Finns	FINRISK 1997
Sex	-0.025; P=0.11	0.014; P=0.32	0.019; P=0.38	-0.014; P=0.54
Age (years)	—	—	0.0076; P=0.72	0.00059; P=0.98
Smoking (yes/no)	-0.0073; P=0.65	0.0097; P=0.51	-0.0057; P=0.79	0.04; P=0.082
Alcohol usage (grams/week)	—	-0.023; P=0.12	-0.025; P=0.25	-0.027; P=0.25
Physical activity index (Metabolic equivalent)	-0.0069; P=0.66	-0.0025; P=0.86	0.016; P=0.46	0.034; P=0.14 (categorical index)
Socio-economic status (SES)	-0.03; P=0.05 (mother's SES) -0.02; P=0.16 (father's SES)	0.01; P=0.48 (own SES)	0.01; P=0.73 (own SES)	0.03; P=0.15 (years of education)

Correlations are Spearman's coefficients. Results were similar in sex-stratified analyses.