Abuse in childhood and cardiometabolic health in early adulthood: evidence from the Avon Longitudinal Study of Parents and Children

Supplementary material

Supplementary methods

Childhood abuse

Participants were asked about experiences occurring in childhood (before 11 years), and during adolescence (11-17 years). For the sexual abuse questions (2 items), participants responded with either "No, this did not happen", "Yes, this happened once" or "Yes, this happened more than once". Sexual abuse was coded as 1 if the abuse was reported once or more frequently to at least one question and 0 if reported "no, this did not happen" for both questions. For the physical abuse (4 items) and psychological abuse questions (4 items), participants responded with either: "Never", "Rarely", "Sometimes", "Often", or "Very Often". Responses of "often" and "very often" to questions describing physical and psychological abuse were coded as 1 and responses of "never", "rarely" and "sometimes" were coded as 0.

For sensitivity analysis, childhood abuse was recategorised as "never", "rarely/sometimes" and "often/very often". For sexual abuse, "rarely/sometimes" was defined as sexual abuse that occurred once, and "often/very often" if it occurred more than once. For each type of abuse, if different frequencies were reported for each item, the highest frequency was considered to classify the frequency of abuse occurrence.

Imputation

Analyses were restricted to individuals with data on at least one type of childhood abuse and at least one cardiovascular measure at 18 or 25 years. Multivariate multiple imputation using chained equations was used to impute missing data on childhood abuse, outcomes and covariates. We used 20 imputed data sets and included in the imputation models all variables included in the analysis models. Data on cardiovascular measures at 15 years were also used to inform the imputation.

Supplementary Table 1. Summary of variable distributions for observed and imputed data (N = 3,223)

	Number of participants with observed values	% missing data	Observed data Mean (SE) for continuous variables, N (%) for categorical variables	Imputed data Mean (SE) for continuous variables, % for categorical variables*
Maternal education, N (%)	2,954	8.3		
CSE			258 (8.7)	8.9
Vocational			209 (7.1)	7.1
O level			1,000 (33.9)	33.8
A level			849 (28.7)	28.7
University degree			638 (21.6)	21.5
Paternal education, N (%)	2,900	10.0		
CSE			436 (15.0)	15.6
Vocational			181 (6.2)	6.3
O level			610 (21.0)	21.0
A level			853 (29.5)	29.2
University degree			820 (28.3)	27.9
Social Class	2,746	14.8		
I			144 (5.2)	5.1
II			804 (29.3)	28.7
III (non-manual)			770 (28.0)	27.6
III (manual)			658 (24.0)	24.0
IV			308 (11.2)	11.9
V			62 (2.3)	2.7
Ethnicity	2,923	9.3		
White			2,818 (96.4)	96.1
Non-white			105 (3.6)	3.9
18-year assessment				
BMI, kg/m^2	2,716	15.7	22.63 (0.08)	22.64 (0.07)
Heart rate, bpm	2,147	33.4	70.06 (0.23)	70.06 (0.23)
SBP, mmHg	2,147	33.4	115.72 (0.25)	115.71 (0.24)
DBP, mmHg	2,147	33.4	64.67 (0.16)	64.65 (0.17)
Total Cholesterol, mmol/L	1,814	43.7	3.78 (0.02)	3.80 (0.01)
HDL, mmol/L	1,814	43.7	1.29 (0.01)	1.30 (0.01)
LDL, mmol/L	1,814	43.7	2.11 (0.01)	2.13 (0.01)
Triglycerides, mmol/L	1,814	43.7	0.83 (0.01)	0.83 (0.01)
Glucose, mmol/L	1,814	43.7	5.03 (0.01)	5.01 (0.01)
Insulin, mg/dL	1,783	44.7	8.07 (0.19)	8.22 (0.15)
CRP, mg/l	1,814	43.7	1.53 (0.09)	1.54 (0.10)
25-year assessment				
BMI, kg/m^2	2,636	18.2	24.75 (0.10)	24.78 (0.09)
Heart rate, bpm	2,147	33.4	70.06 (0.23)	70.19 (0.25)
SBP, mmHg	2,649	17.8	115.45 (0.22)	115.60 (0.21)
DBP, mmHg	2,649	17.8	67.09 (0.15)	67.16 (0.15)

Total Cholesterol, mmol/L	2,157	33.1	4.40 (0.02)	4.40 (0.02)
HDL, mmol/L	2,157	33.1	1.56 (0.01)	1.55 (0.01)
LDL, mmol/L	2,157	33.1	2.41 (0.02)	2.41 (0.02)
Triglycerides, mmol/L	2,157	33.1	0.95 (0.01)	0.96 (0.01)
Glucose, mmol/L	2,157	33.1	5.25 (0.01)	5.25 (0.01)
Insulin, mg/dL	2,157	33.1	9.63 (0.20)	9.85 (0.21)
CRP, mg/l	1,989	38.3	2.22 (0.12)	2.28 (0.29)

*Multivariate multiple imputed data including all participants with information for at least one type of childhood abuse and one cardiometabolic health measure
BMI: body mass index, Cholesterol: total cholesterol, CRP: C-reactive protein, DBP: diastolic blood pressure; HDL: high-density lipoprotein cholesterol; LDL: low-density lipoprotein cholesterol; SBP: systolic blood pressure

Supplementary Table 2. Frequency of childhood abuse occurrence (N = 3,223)

	Never % (95% CI)	Rarely/sometimes % (95% CI)	Often/very often % (95% CI)
Males *(n = 1,080)*			
Physical abuse	29.3 (26.5, 32.0)	65.8 (62.9, 68.7)	4.9 (3.5, 6.3)
Sexual abuse	96.6 (95.4, 97.7)	1.1 (0.5, 1.8)	2.3 (1.3, 3.2)
Psychological abuse	12.8 (10.8, 14.8)	77.0 (74.5, 79.6)	10.1 (8.3, 12.0)
Females *(n = 2,143)*			
Physical abuse	38.7 (36.6, 40.7)	56.2 (54.1, 58.3)	5.1 (4.1, 6.1)
Sexual abuse	88.0 (86.6, 89.4)	6.7 (5.6, 7.8)	5.3 (4.3, 6.2)
Psychological abuse	12.9 (11.5, 14.4)	73.3 (71.5, 75.2)	13.7 (12.2, 15.2)
All *(n = 3,223)*			
Physical abuse	35.5 (33.9, 37.2)	59.4 (57.7, 61,1)	5.0 (4.3, 5.8)
Sexual abuse	90.9 (89.9, 91.9)	4.8 (4.1, 5.6)	4.3 (3.5, 5.0)
Psychological abuse	12.9 (11.7, 14.0)	74.6 (73.1, 76.1)	12.5 (11.4, 13.7)

Supplementary Table 3. Adjusted association between abuse in childhood and cardiometabolic health outcomes at age 18 by age at exposure (N = 3,223)

Type of abuse/ Outcome	Abuse < 11 years β (95% CI)	p	Abuse 11-17 years β (95% CI)	p	p*
Physical abuse					
BMI, kg/m^2	1.32 (0.62, 2.02)	<0.001	1.99 (0.04, 3.94)	0.046	0.528
Heart rate, bpm	1.36 (-0.86, 3.58)	0.229	10.50 (3.97, 17.04)	0.002	0.002
SBP, mmHg	0.62 (-1.35, 2.60)	0.534	1.18 (-5.14, 7.50)	0.712	0.863
DBP, mmHg	1.42 (-0.28, 3.12)	0.100	2.43 (-2.17, 7.04)	0.297	0.663
Cholesterol, mmol/L	-0.10 (-0.24, 0.03)	0.140	-0.26 (-0.63, 0.10)	0.156	0.385
HDL, mmol/L	-0.07 (-0.13, -0.01)	0.026	-0.06 (-0.21, 0.09)	0.428	0.925
LDL, mmol/L	-0.02 (-0.15, 0.10)	0.724	-0.18 (-0.52, 0.15)	0.284	0.353
Triglycerides, mmol/L [a]	0.96 (0.89, 1.03)	0.242	0.94 (0.77, 1.15)	0.542	0.868
Glucose, mmol/L [a]	1.00 (0.98, 1.02)	0.705	1.06 (1.00, 1.12)	0.033	0.044
Insulin, mg/dL [a]	0.92 (0.82, 1.03)	0.165	1.23 (0.84, 1.79)	0.281	0.143
CRP, mg/l [a]	1.29 (1.00, 1.66)	0.053	2.19 (1.14, 4.19)	0.018	0.133
Sexual abuse					
BMI, kg/m^2	0.65 (-0.12, 1.43)	0.096	0.64 (0.01, 1.26)	0.046	0.969
Heart rate, bpm	1.91 (-0.64, 4.45)	0.141	1.40 (-0.45, 3.25)	0.137	0.740
SBP, mmHg	1.36 (-1.20, 3.92)	0.293	-0.37 (-2.13, 1.39)	0.680	0.203
DBP, mmHg	0.69 (-1.36, 2.74)	0.502	0.46 (-0.81, 1.73)	0.472	0.844
Cholesterol, mmol/L	0.03 (-0.13, 0.20)	0.694	-0.01 (-0.15, 0.12)	0.844	0.631
HDL, mmol/L	-0.04 (-0.10, 0.02)	0.230	0.01 (-0.05, 0.08)	0.685	0.248
LDL, mmol/L	0.09 (-0.06, 0.25)	0.223	-0.03 (-0.14, 0.08)	0.627	0.166
Triglycerides, mmol/L [a]	0.95 (0.86, 1.06)	0.373	0.99 (0.91, 1.07)	0.810	0.520
Glucose, mmol/L [a]	0.99 (0.97, 1.02)	0.479	1.00 (0.98, 1.01)	0.603	0.753
Insulin, mg/dL [a]	0.95 (0.84, 1.08)	0.418	0.97 (0.87, 1.07)	0.539	0.769
CRP, mg/l [a]	1.19 (0.87, 1.63)	0.266	0.96 (0.73, 1.27)	0.790	0.309
Psychological abuse					
BMI, kg/m^2	0.77 (-0.76, 2.30)	0.324	0.48 (0.03, 0.93)	0.036	0.693
Heart rate, bpm	3.66 (-0.72, 8.04)	0.101	0.53 (-0.83, 1.89)	0.447	0.218
SBP, mmHg	-0.12 (-4.40, 4.15)	0.955	-0.23 (-1.57, 1.11)	0.734	0.960
DBP, mmHg	-0.06 (-3.13, 3.00)	0.967	-0.10 (-1.09, 0.88)	0.836	0.978
Cholesterol, mmol/L	-0.12 (-0.42, 0.19)	0.461	-0.04 (-0.13, 0.05)	0.363	0.636
HDL, mmol/L	-0.05 (-0.17, 0.08)	0.479	-0.01 (-0.05, 0.03)	0.686	0.541
LDL, mmol/L	-0.05 (-0.33, 0.23)	0.728	-0.02 (-0.10, 0.06)	0.540	0.862
Triglycerides, mmol/L [a]	0.98 (0.84, 1.15)	0.838	0.98 (0.94, 1.02)	0.321	0.950
Glucose, mmol/L [a]	1.04 (1.00, 1.09)	0.059	1.01 (1.00, 1.02)	0.258	0.140
Insulin, mg/dL [a]	1.05 (0.81, 1.37)	0.707	1.04 (0.96, 1.13)	0.308	0.951
CRP, mg/l [a]	1.02 (0.62, 1.69)	0.931	1.18 (0.99, 1.39)	0.059	0.617

p* p-value for the difference between estimates for abuse <11 years and abuse 11-17 years.
Adjusted for age, sex, ethnicity, maternal education, paternal education, and parental social class
BMI: body mass index, Cholesterol: total cholesterol, CRP: C-reactive protein, DBP: diastolic blood pressure;
HDL: high-density lipoprotein cholesterol; LDL: low-density lipoprotein cholesterol; SBP: systolic blood pressure
[a] these results should be interpreted as percent change

Supplementary Table 4. Adjusted association between timing of abuse in childhood and cardiometabolic health outcomes at age 25 by age at exposure (N = 3,223)

Type of abuse/ Outcome	Abuse < 11 years		Abuse 11-17 years		
	β (95% CI)	p	β (95% CI)	p	p*
Physical abuse					
BMI, kg/m²	1.43 (0.56, 2.29)	0.001	4.43 (1.57, 7.28)	0.003	0.049
Heart rate, bpm	1.24 (-1.20, 3.67)	0.314	9.59 (3.28, 15.90)	0.003	0.006
SBP, mmHg	0.02 (-1.88, 1.92)	0.983	2.02 (-4.15, 8.20)	0.517	0.500
DBP, mmHg	1.19 (-0.25, 2.64)	0.105	4.20 (-0.91, 9.30)	0.105	0.230
Cholesterol, mmol/L	-0.12 (-0.28, 0.04)	0.144	-0.25 (-0.77, 0.27)	0.352	0.644
HDL, mmol/L	-0.09 (-0.17, 0.00)	0.039	-0.28 (-0.57, 0.01)	0.058	0.170
LDL, mmol/L	-0.05 (-0.18, 0.08)	0.425	0.05 (-0.37, 0.47)	0.820	0.662
Triglycerides, mmol/L [a]	1.01 (0.93, 1.11)	0.753	0.89 (0.69, 1.14)	0.336	0.271
Glucose, mmol/L [a]	1.01 (0.99, 1.03)	0.251	1.06 (0.99, 1.14)	0.096	0.186
Insulin, mg/dL [a]	1.25 (1.12, 1.41)	<0.001	1.75 (1.14, 2.69)	0.011	0.118
CRP, mg/l [a]	1.20 (0.95, 1.52)	0.123	1.96 (0.85, 4.49)	0.110	0.296
Sexual abuse					
BMI, kg/m²	1.03 (0.11, 1.96)	0.028	0.93 (0.18, 1.68)	0.015	0.871
Heart rate, bpm	0.99 (-1.58, 3.57)	0.445	1.58 (-0.22, 3.38)	0.086	0.702
SBP, mmHg	0.89 (-1.03, 2.81)	0.363	0.32 (-1.27, 1.91)	0.693	0.593
DBP, mmHg	1.31 (-0.22, 2.85)	0.093	0.45 (-0.85, 1.76)	0.493	0.381
Cholesterol, mmol/L	-0.10 (-0.27, 0.08)	0.274	-0.13 (-0.28, 0.02)	0.087	0.717
HDL, mmol/L	-0.09 (-0.18, 0.00)	0.060	-0.04 (-0.12, 0.04)	0.336	0.305
LDL, mmol/L	0.01 (-0.14, 0.16)	0.884	-0.10 (-0.23, 0.03)	0.144	0.207
Triglycerides, mmol/L [a]	0.98 (0.90, 1.07)	0.629	1.04 (0.97, 1.13)	0.269	0.185
Glucose, mmol/L [a]	1.00 (0.98, 1.02)	0.777	1.00 (0.98, 1.02)	0.825	0.925
Insulin, mg/dL [a]	1.14 (1.00, 1.30)	0.051	1.12 (1.01, 1.23)	0.027	0.790
CRP, mg/l [a]	1.14 (0.87, 1.50)	0.349	1.06 (0.87, 1.29)	0.571	0.650
Psychological abuse					
BMI, kg/m²	1.62 (-0.39, 3.64)	0.114	0.83 (0.26, 1.39)	0.004	0.463
Heart rate, bpm	3.44 (-1.31, 8.20)	0.155	0.52 (-0.98, 2.02)	0.495	0.234
SBP, mmHg	1.24 (-2.75, 5.24)	0.541	0.03 (-1.16, 1.23)	0.954	0.546
DBP, mmHg	1.27 (-2.00, 4.54)	0.444	0.42 (-0.47, 1.32)	0.353	0.643
Cholesterol, mmol/L	-0.15 (-0.52, 0.23)	0.438	-0.05 (-0.16, 0.05)	0.311	0.633
HDL, mmol/L	-0.19 (-0.38, 0.00)	0.051	-0.05 (-0.10, 0.00)	0.071	0.130
LDL, mmol/L	0.02 (-0.34, 0.39)	0.897	-0.05 (-0.14, 0.04)	0.244	0.683
Triglycerides, mmol/L [a]	1.04 (0.86, 1.26)	0.695	1.02 (0.96, 1.07)	0.582	0.826
Glucose, mmol/L [a]	1.06 (1.01, 1.11)	0.016	1.01 (1.00, 1.03)	0.102	0.049
Insulin, mg/dL [a]	1.51 (1.15, 1.97)	0.003	1.09 (1.00, 1.19)	0.051	0.011
CRP, mg/l [a]	1.03 (0.56, 1.90)	0.929	0.90 (0.77, 1.05)	0.170	0.674

p* p-value for the difference between estimates for abuse <11 years and abuse 11-17 years.
Adjusted for age, sex, ethnicity, maternal education, paternal education, and parental social class
BMI: body mass index, Cholesterol: total cholesterol, CRP: C-reactive protein, DBP: diastolic blood pressure;
HDL: high-density lipoprotein cholesterol; LDL: low-density lipoprotein cholesterol; SBP: systolic blood pressure
[a] these results should be interpreted as percent change

Supplementary Table 5. Unadjusted association between child abuse and cardiometabolic outcomes at 18 and 25 years (N = 3,223)

	18 years		25 years	
	β (95% CI)	p-value	β (95% CI)	p-value
Physical abuse				
BMI, kg/m^2	1.46 (0.77, 2.16)	<0.001	1.71 (0.85, 2.57)	<0.001
Heart rate, bpm	1.23 (-1.02, 3.48)	0.284	1.48 (-0.95, 3.92)	0.228
SBP, mmHg	0.83 (-1.26, 2.91)	0.437	-0.09 (-2.11, 1.94)	0.932
DBP, mmHg	1.66 (0.01, 3.31)	0.049	1.28 (-0.15, 2.71)	0.079
Cholesterol, mmol/L	-0.10 (-0.24, 0.04)	0.150	-0.11 (-0.27, 0.05)	0.179
HDL, mmol/L	-0.07 (-0.13, -0.01)	0.019	-0.09 (-0.18, -0.01)	0.030
LDL, mmol/L	-0.02 (-0.15, 0.11)	0.764	-0.04 (-0.17, 0.09)	0.520
Triglycerides, mmol/L [a]	0.96 (0.89, 1.03)	0.296	1.01 (0.93, 1.11)	0.759
Glucose, mmol/L [a]	1.00 (0.98, 1.02)	0.774	1.01 (0.99, 1.04)	0.218
Insulin, mg/dL [a]	0.95 (0.85, 1.06)	0.343	1.28 (1.14, 1.44)	<0.001
CRP, mg/l [a]	1.34 (1.03, 1.73)	0.028	1.27 (1.01, 1.60)	0.043
Sexual abuse				
BMI, kg/m^2	0.72 (0.19, 1.25)	0.008	1.03 (0.38, 1.67)	0.002
Heart rate, bpm	3.31 (1.66, 4.97)	<0.001	2.75 (1.17, 4.32)	0.001
SBP, mmHg	-2.07 (-3.82, -0.32)	0.021	-1.98 (-3.45, -0.50)	0.009
DBP, mmHg	0.77 (-0.40, 1.95)	0.193	0.70 (-0.38, 1.79)	0.204
Cholesterol, mmol/L	0.11 (-0.01, 0.23)	0.080	-0.09 (-0.21, 0.04)	0.173
HDL, mmol/L	0.03 (-0.01, 0.07)	0.179	0.01 (-0.06, 0.08)	0.859
LDL, mmol/L	0.08 (-0.02, 0.18)	0.125	-0.06 (-0.16, 0.04)	0.236
Triglycerides, mmol/L [a]	0.99 (0.92, 1.06)	0.746	1.00 (0.94, 1.07)	0.943
Glucose, mmol/L [a]	0.98 (0.97, 1.00)	0.036	0.99 (0.97, 1.00)	0.061
Insulin, mg/dL [a]	1.02 (0.93, 1.12)	0.663	1.17 (1.08, 1.28)	<0.001
CRP, mg/l [a]	1.14 (0.93, 1.40)	0.204	1.27 (1.06, 1.52)	0.009
Psychological abuse				
BMI, kg/m^2	0.57 (0.12, 1.02)	0.013	0.93 (0.37, 1.49)	0.001
Heart rate, bpm	0.89 (-0.50, 2.27)	0.209	0.90 (-0.65, 2.44)	0.251
SBP, mmHg	-0.90 (-2.34, 0.55)	0.222	-0.74 (-2.05, 0.57)	0.268
DBP, mmHg	-0.03 (-1.01, 0.95)	0.955	0.40 (-0.48, 1.29)	0.372
Cholesterol, mmol/L	-0.02 (-0.11, 0.08)	0.724	-0.05 (-0.16, 0.05)	0.321
HDL, mmol/L	0.00 (-0.04, 0.04)	0.972	-0.03 (-0.09, 0.02)	0.212
LDL, mmol/L	-0.01 (-0.09, 0.07)	0.811	-0.05 (-0.14, 0.04)	0.272
Triglycerides, mmol/L [a]	0.98 (0.94, 1.03)	0.422	1.01 (0.96, 1.07)	0.691
Glucose, mmol/L [a]	1.00 (0.99, 1.01)	0.523	1.01 (0.99, 1.02)	0.219
Insulin, mg/dL [a]	1.06 (0.98, 1.16)	0.132	1.11 (1.02, 1.21)	0.015
CRP, mg/l [a]	1.22 (1.03, 1.44)	0.022	0.95 (0.81, 1.11)	0.488

BMI: body mass index, Cholesterol: total cholesterol, CRP: C-reactive protein, DBP: diastolic blood pressure; HDL: high-density lipoprotein cholesterol; LDL: low-density lipoprotein cholesterol; SBP: systolic blood pressure
[a] these results should be interpreted as percent change

Supplementary Table 6. Adjusted association between child abuse and cardiometabolic outcomes at 18 and 25 years (N = 3,223)

	18 years		25 years	
	β (95% CI)	p-value	β (95% CI)	p-value
Physical abuse				
BMI, kg/m^2	1.35 (0.66, 2.05)	<0.001	1.47 (0.61, 2.33)	0.001
Heart rate, bpm	1.37 (-0.85, 3.58)	0.226	1.35 (-1.03, 3.73)	0.262
SBP, mmHg	0.66 (-1.34, 2.65)	0.517	-0.05 (-1.98, 1.88)	0.960
DBP, mmHg	1.41 (-0.24, 3.06)	0.093	1.17 (-0.27, 2.61)	0.111
Cholesterol, mmol/L	-0.11 (-0.24, 0.03)	0.126	-0.14 (-0.30, 0.02)	0.097
HDL, mmol/L	-0.07 (-0.13, -0.01)	0.024	-0.09 (-0.17, -0.01)	0.036
LDL, mmol/L	-0.03 (-0.15, 0.10)	0.678	-0.06 (-0.19, 0.06)	0.340
Triglycerides, mmol/L [a]	0.96 (0.89, 1.03)	0.252	1.01 (0.93, 1.10)	0.853
Glucose, mmol/L [a]	1.00 (0.98, 1.02)	0.747	1.01 (0.99, 1.03)	0.237
Insulin, mg/dL [a]	0.93 (0.83, 1.04)	0.187	1.26 (1.12, 1.41)	<0.001
CRP, mg/l [a]	1.31 (1.01, 1.69)	0.041	1.22 (0.97, 1.53)	0.088
Sexual abuse				
BMI, kg/m^2	0.57 (0.04, 1.11)	0.036	0.89 (0.24, 1.54)	0.008
Heart rate, bpm	1.92 (0.26, 3.58)	0.023	1.62 (0.04, 3.20)	0.044
SBP, mmHg	0.39 (-1.25, 2.03)	0.636	0.50 (-0.83, 1.84)	0.459
DBP, mmHg	0.70 (-0.47, 1.87)	0.242	0.89 (-0.20, 1.98)	0.109
Cholesterol, mmol/L	0.02 (-0.10, 0.15)	0.728	-0.14 (-0.26, -0.01)	0.032
HDL, mmol/L	0.00 (-0.05, 0.04)	0.870	-0.05 (-0.12, 0.02)	0.150
LDL, mmol/L	0.03 (-0.07, 0.13)	0.562	-0.07 (-0.18, 0.03)	0.171
Triglycerides, mmol/L [a]	0.98 (0.92, 1.05)	0.609	1.03 (0.96, 1.09)	0.432
Glucose, mmol/L [a]	0.99 (0.98, 1.01)	0.366	1.00 (0.98, 1.01)	0.652
Insulin, mg/dL [a]	0.97 (0.89, 1.06)	0.481	1.13 (1.03, 1.23)	0.007
CRP, mg/l [a]	1.04 (0.84, 1.27)	0.736	1.12 (0.93, 1.34)	0.230
Psychological abuse				
BMI, kg/m^2	0.47 (0.01, 0.92)	0.043	0.80 (0.24, 1.37)	0.005
Heart rate, bpm	0.49 (-0.86, 1.85)	0.477	0.51 (-1.02, 2.04)	0.511
SBP, mmHg	-0.27 (-1.60, 1.07)	0.693	-0.02 (-1.21, 1.17)	0.974
DBP, mmHg	-0.11 (-1.09, 0.86)	0.820	0.39 (-0.50, 1.28)	0.394
Cholesterol, mmol/L	-0.04 (-0.14, 0.05)	0.352	-0.06 (-0.17, 0.04)	0.241
HDL, mmol/L	-0.01 (-0.05, 0.03)	0.695	-0.05 (-0.10, 0.01)	0.079
LDL, mmol/L	-0.03 (-0.11, 0.05)	0.522	-0.06 (-0.15, 0.03)	0.191
Triglycerides, mmol/L [a]	0.98 (0.94, 1.02)	0.310	1.02 (0.96, 1.07)	0.597
Glucose, mmol/L [a]	1.01 (1.00, 1.02)	0.264	1.01 (1.00, 1.03)	0.099
Insulin, mg/dL [a]	1.04 (0.96, 1.13)	0.325	1.09 (1.00, 1.19)	0.048
CRP, mg/l [a]	1.17 (0.99, 1.38)	0.069	0.90 (0.77, 1.05)	0.164

Adjusted for age, sex, ethnicity, maternal education, paternal education, and parental social class
BMI: body mass index, Cholesterol: total cholesterol, CRP: C-reactive protein, DBP: diastolic blood pressure;
HDL: high-density lipoprotein cholesterol; LDL: low-density lipoprotein cholesterol; SBP: systolic blood pressure
[a] these results should be interpreted as percent change

Supplementary Table 7. Adjusted association between child abuse and cardiometabolic outcomes at 18 and 25 years in males and females (N = 3,223)

| | 18 years | | | 25 years | | |
	Males β (95% CI)	Females β (95% CI)	p-value sex interaction	Males β (95% CI)	Females β (95% CI)	p-value sex interaction
Physical abuse						
BMI, kg/m^2	0.70 (-0.35, 1.75)	1.66 (0.76, 2.57)	0.193	1.07 (-0.35, 2.49)	1.68 (0.60, 2.76)	0.412
Heart rate, bpm	1.31 (-2.44, 5.06)	1.36 (-1.45, 4.17)	0.867	0.94 (-2.58, 4.46)	1.53 (-1.72, 4.77)	0.701
SBP, mmHg	-0.25 (-3.99, 3.49)	1.10 (-1.70, 3.90)	0.635	-1.61 (-5.52, 2.31)	0.73 (-1.29, 2.76)	0.219
DBP, mmHg	0.34 (-2.25, 2.93)	1.89 (-0.18, 3.95)	0.329	0.13 (-2.55, 2.80)	1.70 (0.09, 3.31)	0.256
Cholesterol, mmol/L	-0.13 (-0.34, 0.08)	-0.09 (-0.27, 0.09)	0.736	-0.16 (-0.45, 0.13)	-0.12 (-0.31, 0.07)	0.807
HDL, mmol/L	-0.11 (-0.20, -0.01)	-0.05 (-0.13, 0.02)	0.531	-0.12 (-0.26, 0.02)	-0.07 (-0.18, 0.03)	0.723
LDL, mmol/L	0.00 (-0.18, 0.18)	-0.03 (-0.20, 0.13)	0.917	-0.04 (-0.29, 0.21)	-0.07 (-0.23, 0.09)	0.942
Triglycerides, mmol/L [a]	0.92 (0.81, 1.04)	0.98 (0.89, 1.07)	0.370	1.03 (0.87, 1.22)	1.00 (0.92, 1.10)	0.965
Glucose, mmol/L [a]	1.00 (0.96, 1.03)	1.00 (0.97, 1.02)	0.961	1.01 (0.97, 1.05)	1.01 (0.99, 1.04)	0.846
Insulin, mg/dL [a]	0.91 (0.77, 1.09)	0.94 (0.82, 1.07)	0.690	1.25 (0.98, 1.59)	1.28 (1.12, 1.45)	0.679
CRP, mg/l [a]	1.13 (0.76, 1.69)	1.41 (1.01, 1.97)	0.395	1.05 (0.70, 1.59)	1.31 (0.99, 1.72)	0.459
Sexual abuse						
BMI, kg/m^2	2.15 (0.62, 3.68)	0.33 (-0.26, 0.93)	0.052	1.43 (-0.15, 3.01)	0.78 (0.05, 1.51)	0.629
Heart rate, bpm	8.07 (2.02, 14.12)	1.25 (-0.43, 2.93)	0.033	4.28 (-2.15, 10.72)	1.14 (-0.42, 2.69)	0.372
SBP, mmHg	2.46 (-4.26, 9.18)	0.05 (-1.66, 1.76)	0.443	0.91 (-3.25, 5.06)	0.42 (-0.94, 1.77)	0.936
DBP, mmHg	4.45 (-0.07, 8.96)	0.09 (-1.08, 1.26)	0.073	2.58 (-0.54, 5.71)	0.62 (-0.52, 1.76)	0.319
Cholesterol, mmol/L	0.15 (-0.12, 0.43)	0.00 (-0.13, 0.13)	0.355	-0.09 (-0.42, 0.25)	-0.15 (-0.28, -0.01)	0.761
HDL, mmol/L	-0.11 (-0.24, 0.03)	0.02 (-0.04, 0.07)	0.110	-0.06 (-0.20, 0.07)	-0.04 (-0.12, 0.03)	0.797
LDL, mmol/L	0.17 (-0.09, 0.43)	0.01 (-0.11, 0.12)	0.286	0.04 (-0.26, 0.33)	-0.09 (-0.21, 0.02)	0.451
Triglycerides, mmol/L [a]	1.10 (0.87, 1.39)	0.96 (0.90, 1.03)	0.281	1.02 (0.84, 1.23)	1.02 (0.96, 1.09)	0.974
Glucose, mmol/L [a]	0.98 (0.92, 1.03)	1.00 (0.98, 1.01)	0.462	0.99 (0.95, 1.04)	1.00 (0.98, 1.01)	0.781
Insulin, mg/dL [a]	1.25 (0.93, 1.66)	0.93 (0.85, 1.02)	0.083	1.12 (0.88, 1.44)	1.12 (1.02, 1.23)	0.911
CRP, mg/l [a]	1.35 (0.69, 2.63)	0.99 (0.79, 1.24)	0.443	1.43 (0.90, 2.30)	1.08 (0.89, 1.31)	0.339
Psychological abuse						
BMI, kg/m^2	0.80 (0.04, 1.56)	0.31 (-0.24, 0.86)	0.314	1.25 (0.35, 2.16)	0.63 (-0.08, 1.33)	0.378
Heart rate, bpm	1.39 (-1.24, 4.02)	0.08 (-1.50, 1.67)	0.412	1.77 (-0.96, 4.49)	-0.01 (-1.70, 1.68)	0.281
SBP, mmHg	0.49 (-2.25, 3.23)	-0.62 (-2.17, 0.94)	0.386	-0.26 (-2.54, 2.03)	0.06 (-1.29, 1.41)	0.762
DBP, mmHg	-0.21 (-2.16, 1.73)	-0.15 (-1.25, 0.95)	0.996	0.43 (-1.40, 2.26)	0.34 (-0.69, 1.36)	0.941

Cholesterol, mmol/L	0.05 (-0.09, 0.18)	-0.08 (-0.2, 0.04)	0.231	0.13 (-0.06, 0.32)	-0.14 (-0.27, -0.02)	0.028
HDL, mmol/L	-0.03 (-0.09, 0.04)	0.00 (-0.05, 0.05)	0.596	-0.08 (-0.16, -0.01)	-0.03 (-0.10, 0.03)	0.360
LDL, mmol/L	0.09 (-0.04, 0.21)	-0.07 (-0.17, 0.03)	0.091	0.08 (-0.10, 0.26)	-0.11 (-0.22, 0.00)	0.118
Triglycerides, mmol/L [a]	0.96 (0.88, 1.05)	0.98 (0.93, 1.04)	0.748	1.18 (1.06, 1.31)	0.96 (0.90, 1.03)	0.002
Glucose, mmol/L [a]	1.01 (0.99, 1.04)	1.00 (0.99, 1.02)	0.627	1.02 (1.00, 1.05)	1.01 (0.99, 1.02)	0.242
Insulin, mg/dL [a]	0.95 (0.83, 1.08)	1.08 (0.98, 1.18)	0.083	1.15 (0.99, 1.33)	1.07 (0.97, 1.19)	0.512
CRP, mg/l [a]	1.25 (0.96, 1.63)	1.14 (0.92, 1.40)	0.612	1.31 (1.00, 1.72)	0.76 (0.64, 0.91)	0.001

Adjusted for age, sex, ethnicity, maternal education, paternal education, and parental social class

BMI: body mass index, Cholesterol: total cholesterol, CRP: C-reactive protein

[a] these results should be interpreted as percent change

Supplementary Table 8. Adjusted association between child abuse and cardiometabolic outcomes at 18 and 25 years, with types of abuse mutually adjusted (N = 3,223)

	18 years		25 years	
	β (95% CI)	P-value	β (95% CI)	P-value
Physical abuse				
BMI, kg/m^2	1.22 (0.47, 1.97)	0.001	1.11 (0.17, 2.06)	0.021
Heart rate, bpm	1.10 (-1.27, 3.46)	0.364	1.09 (-1.42, 3.60)	0.390
SBP, mmHg	0.89 (-1.18, 2.96)	0.397	-0.09 (-2.36, 2.17)	0.935
DBP, mmHg	1.64 (-0.11, 3.39)	0.066	1.03 (-0.56, 2.61)	0.203
Cholesterol, mmol/L	-0.10 (-0.24, 0.04)	0.177	-0.10 (-0.28, 0.07)	0.244
HDL, mmol/L	-0.07 (-0.14, -0.01)	0.020	-0.07 (-0.16, 0.02)	0.142
LDL, mmol/L	-0.02 (-0.15, 0.12)	0.799	-0.03 (-0.17, 0.12)	0.719
Triglycerides, mmol/L [a]	0.97 (0.89, 1.05)	0.414	1.00 (0.91, 1.09)	0.957
Glucose, mmol/L [a]	0.99 (0.97, 1.01)	0.498	1.01 (0.99, 1.03)	0.519
Insulin, mg/dL [a]	0.90 (0.79, 1.02)	0.099	1.22 (1.08, 1.39)	0.002
CRP, mg/l [a]	1.23 (0.93, 1.63)	0.137	1.33 (1.04, 1.71)	0.025
Sexual abuse				
BMI, kg/m^2	0.46 (-0.08, 1.00)	0.097	0.73 (0.07, 1.39)	0.029
Heart rate, bpm	1.83 (0.15, 3.52)	0.033	1.52 (-0.11, 3.14)	0.067
SBP, mmHg	0.39 (-1.23, 2.01)	0.634	0.52 (-0.83, 1.86)	0.450
DBP, mmHg	0.64 (-0.54, 1.82)	0.287	0.80 (-0.30, 1.90)	0.153
Cholesterol, mmol/L	0.03 (-0.09, 0.16)	0.597	-0.12 (-0.25, 0.00)	0.052
HDL, mmol/L	0.00 (-0.04, 0.05)	0.965	-0.04 (-0.11, 0.03)	0.240
LDL, mmol/L	0.04 (-0.07, 0.14)	0.500	-0.07 (-0.17, 0.04)	0.231
Triglycerides, mmol/L [a]	0.99 (0.92, 1.06)	0.705	1.02 (0.96, 1.09)	0.461
Glucose, mmol/L [a]	0.99 (0.97, 1.01)	0.326	0.99 (0.98, 1.01)	0.477
Insulin, mg/dL [a]	0.97 (0.89, 1.06)	0.468	1.10 (1.01, 1.21)	0.027
CRP, mg/l [a]	1.00 (0.82, 1.23)	0.973	1.12 (0.93, 1.34)	0.226
Psychological abuse				
BMI, kg/m^2	0.13 (-0.36, 0.62)	0.616	0.46 (-0.16, 1.08)	0.144
Heart rate, bpm	0.05 (-1.40, 1.50)	0.949	0.09 (-1.51, 1.70)	0.909
SBP, mmHg	-0.52 (-1.92, 0.88)	0.463	-0.05 (-1.46, 1.36)	0.945
DBP, mmHg	-0.57 (-1.60, 0.46)	0.275	0.06 (-0.93, 1.05)	0.904
Cholesterol, mmol/L	-0.02 (-0.12, 0.07)	0.636	-0.02 (-0.14, 0.09)	0.719
HDL, mmol/L	0.01 (-0.03, 0.05)	0.639	-0.03 (-0.08, 0.03)	0.382
LDL, mmol/L	-0.03 (-0.11, 0.06)	0.559	-0.05 (-0.15, 0.05)	0.354
Triglycerides, mmol/L [a]	0.99 (0.94, 1.03)	0.584	1.01 (0.96, 1.08)	0.658
Glucose, mmol/L [a]	1.01 (1.00, 1.02)	0.125	1.01 (1.00, 1.03)	0.165
Insulin, mg/dL [a]	1.07 (0.98, 1.17)	0.131	1.03 (0.94, 1.14)	0.538
CRP, mg/l [a]	1.11 (0.92, 1.34)	0.273	0.83 (0.70, 0.98)	0.029

Adjusted for age, sex, ethnicity, maternal education, paternal education, parental social class, and other types of abuse

BMI: body mass index, Cholesterol: total cholesterol, CRP: C-reactive protein, DBP: diastolic blood pressure; HDL: high-density lipoprotein cholesterol; LDL: low-density lipoprotein cholesterol; SBP: systolic blood pressure

[a] these results should be interpreted as percent change

Supplementary Table 9. Adjusted association (including depression) between child abuse and cardiometabolic outcomes at 18 and 25 years

	18 years		25 years	
	β (95% CI)	P-value	β (95% CI)	P-value
Physical abuse				
BMI, kg/m^2	1.20 (0.50, 1.90)	0.001	1.16 (0.29, 2.03)	0.009
Heart rate, bpm	1.14 (-1.11, 3.39)	0.320	1.09 (-1.26, 3.44)	0.359
SBP, mmHg	0.76 (-1.26, 2.79)	0.458	-0.08 (-2.04, 1.89)	0.938
DBP, mmHg	1.50 (-0.19, 3.19)	0.081	0.91 (-0.53, 2.36)	0.215
Cholesterol, mmol/L	-0.10 (-0.25, 0.04)	0.159	-0.12 (-0.28, 0.04)	0.151
HDL, mmol/L	-0.06 (-0.12, 0.00)	0.045	-0.07 (-0.15, 0.01)	0.100
LDL, mmol/L	-0.03 (-0.16, 0.10)	0.644	-0.06 (-0.19, 0.07)	0.351
Triglycerides, mmol/L [a]	0.95 (0.89, 1.03)	0.209	1.01 (0.92, 1.10)	0.882
Glucose, mmol/L [a]	1.00 (0.98, 1.02)	0.759	1.01 (0.99, 1.03)	0.314
Insulin, mg/dL [a]	0.90 (0.80, 1.01)	0.083	1.23 (1.10, 1.38)	<0.001
CRP, mg/l [a]	1.29 (0.99, 1.68)	0.056	1.23 (0.97, 1.55)	0.083
Sexual abuse				
BMI, kg/m^2	0.46 (-0.08, 1.00)	0.097	0.66 (0.00, 1.32)	0.049
Heart rate, bpm	1.79 (0.11, 3.47)	0.037	1.45 (-0.14, 3.04)	0.074
SBP, mmHg	0.46 (-1.17, 2.10)	0.577	0.49 (-0.85, 1.83)	0.471
DBP, mmHg	0.75 (-0.42, 1.91)	0.208	0.71 (-0.39, 1.81)	0.204
Cholesterol, mmol/L	0.03 (-0.10, 0.15)	0.668	-0.13 (-0.25, 0.00)	0.050
HDL, mmol/L	0.00 (-0.04, 0.05)	0.925	-0.04 (-0.10, 0.03)	0.299
LDL, mmol/L	0.03 (-0.08, 0.13)	0.594	-0.07 (-0.18, 0.03)	0.170
Triglycerides, mmol/L [a]	0.98 (0.92, 1.05)	0.549	1.02 (0.96, 1.09)	0.456
Glucose, mmol/L [a]	0.99 (0.97, 1.01)	0.364	1.00 (0.98, 1.01)	0.527
Insulin, mg/dL [a]	0.95 (0.87, 1.04)	0.269	1.11 (1.02, 1.21)	0.022
CRP, mg/l [a]	1.02 (0.83, 1.27)	0.831	1.12 (0.94, 1.34)	0.213
Psychological abuse				
BMI, kg/m^2	0.34 (-0.13, 0.81)	0.156	0.57 (0.00, 1.14)	0.052
Heart rate, bpm	0.31 (-1.08, 1.70)	0.657	0.30 (-1.22, 1.82)	0.694
SBP, mmHg	-0.21 (-1.58, 1.16)	0.763	-0.04 (-1.23, 1.15)	0.945
DBP, mmHg	-0.08 (-1.06, 0.91)	0.878	0.19 (-0.72, 1.09)	0.690
Cholesterol, mmol/L	-0.04 (-0.14, 0.06)	0.409	-0.05 (-0.16, 0.06)	0.362
HDL, mmol/L	0.00 (-0.04, 0.04)	0.937	-0.03 (-0.08, 0.02)	0.236
LDL, mmol/L	-0.03 (-0.11, 0.05)	0.484	-0.06 (-0.15, 0.03)	0.192
Triglycerides, mmol/L [a]	0.97 (0.93, 1.02)	0.250	1.01 (0.96, 1.08)	0.628
Glucose, mmol/L [a]	1.01 (1.00, 1.02)	0.261	1.01 (1.00, 1.03)	0.142
Insulin, mg/dL [a]	1.02 (0.94, 1.11)	0.606	1.07 (0.98, 1.17)	0.125
CRP, mg/l [a]	1.16 (0.97, 1.38)	0.102	0.89 (0.76, 1.05)	0.169

Adjusted for age, sex, ethnicity, maternal education, paternal education, parental social class, and depression.
BMI: body mass index, Cholesterol: total cholesterol, CRP: C-reactive protein, DBP: diastolic blood pressure;
HDL: high-density lipoprotein cholesterol; LDL: low-density lipoprotein cholesterol; SBP: systolic blood pressure
[a] these results should be interpreted as percent change

Supplementary Table 10. Adjusted association (including depression) between abuse in childhood and cardiometabolic health outcomes at age 18 by age at exposure (N = 3,223)

Type of abuse/ Outcome	Abuse < 11 years β (95% CI)	p	Abuse 11-17 years β (95% CI)	p	p*
Physical abuse					
BMI, kg/m^2	1.16 (0.45, 1.87)	0.001	1.80 (-0.17, 3.76)	0.073	0.550
Heart rate, bpm	1.13 (-1.13, 3.39)	0.326	10.26 (3.71, 16.80)	0.002	0.002
SBP, mmHg	0.73 (-1.28, 2.75)	0.473	1.28 (-5.09, 7.64)	0.692	0.867
DBP, mmHg	1.51 (-0.24, 3.26)	0.090	2.50 (-2.08, 7.07)	0.282	0.674
Cholesterol, mmol/L	-0.10 (-0.24, 0.04)	0.176	-0.26 (-0.62, 0.11)	0.165	0.390
HDL, mmol/L	-0.06 (-0.12, 0.00)	0.048	-0.05 (-0.20, 0.10)	0.496	0.904
LDL, mmol/L	-0.03 (-0.16, 0.11)	0.690	-0.19 (-0.53, 0.15)	0.277	0.354
Triglycerides, mmol/L [a]	0.95 (0.88, 1.03)	0.201	0.94 (0.76, 1.14)	0.514	0.871
Glucose, mmol/L [a]	1.00 (0.98, 1.02)	0.717	1.06 (1.00, 1.12)	0.033	0.044
Insulin, mg/dL [a]	0.90 (0.80, 1.01)	0.072	1.20 (0.82, 1.75)	0.351	0.143
CRP, mg/l [a]	1.27 (0.98, 1.65)	0.073	2.15 (1.13, 4.10)	0.021	0.140
Sexual abuse					
BMI, kg/m^2	0.54 (-0.23, 1.32)	0.169	0.50 (-0.13, 1.13)	0.117	0.931
Heart rate, bpm	1.80 (-0.75, 4.34)	0.166	1.23 (-0.64, 3.10)	0.198	0.709
SBP, mmHg	1.43 (-1.11, 3.96)	0.266	-0.31 (-2.09, 1.47)	0.735	0.209
DBP, mmHg	0.73 (-1.31, 2.76)	0.477	0.51 (-0.77, 1.80)	0.430	0.855
Cholesterol, mmol/L	0.04 (-0.13, 0.21)	0.657	-0.01 (-0.15, 0.13)	0.900	0.638
HDL, mmol/L	-0.03 (-0.10, 0.03)	0.296	0.02 (-0.04, 0.08)	0.530	0.235
LDL, mmol/L	0.09 (-0.06, 0.25)	0.236	-0.03 (-0.15, 0.08)	0.591	0.164
Triglycerides, mmol/L [a]	0.95 (0.86, 1.06)	0.344	0.99 (0.91, 1.07)	0.755	0.534
Glucose, mmol/L [a]	0.99 (0.97, 1.02)	0.479	1.00 (0.98, 1.01)	0.607	0.757
Insulin, mg/dL [a]	0.94 (0.83, 1.06)	0.283	0.95 (0.85, 1.05)	0.316	0.824
CRP, mg/l [a]	1.18 (0.86, 1.62)	0.296	0.95 (0.72, 1.26)	0.716	0.304
Psychological abuse					
BMI, kg/m^2	0.58 (-0.96, 2.12)	0.461	0.36 (-0.11, 0.82)	0.135	0.763
Heart rate, bpm	3.43 (-0.98, 7.83)	0.127	0.35 (-1.04, 1.75)	0.620	0.232
SBP, mmHg	-0.04 (-4.35, 4.27)	0.985	-0.17 (-1.54, 1.19)	0.805	0.951
DBP, mmHg	-0.02 (-3.08, 3.05)	0.991	-0.07 (-1.06, 0.93)	0.893	0.971
Cholesterol, mmol/L	-0.11 (-0.42, 0.20)	0.489	-0.04 (-0.13, 0.06)	0.421	0.650
HDL, mmol/L	-0.04 (-0.16, 0.09)	0.565	0.00 (-0.04, 0.04)	0.924	0.571
LDL, mmol/L	-0.05 (-0.34, 0.23)	0.710	-0.03 (-0.11, 0.05)	0.501	0.858
Triglycerides, mmol/L [a]	0.98 (0.83, 1.15)	0.799	0.98 (0.93, 1.02)	0.259	0.957
Glucose, mmol/L [a]	1.04 (1.00, 1.09)	0.058	1.01 (1.00, 1.02)	0.254	0.143
Insulin, mg/dL [a]	1.02 (0.78, 1.34)	0.863	1.02 (0.94, 1.11)	0.580	1.000
CRP, mg/l [a]	1.00 (0.60, 1.67)	0.993	1.16 (0.98, 1.39)	0.089	0.593

p* p-value for the difference between estimates for abuse <11 years and abuse 11-17 years.
Adjusted for age, sex, ethnicity, maternal education, paternal education, parental social class, and depression
BMI: body mass index, Cholesterol: total cholesterol, CRP: C-reactive protein, DBP: diastolic blood pressure;
HDL: high-density lipoprotein cholesterol; LDL: low-density lipoprotein cholesterol; SBP: systolic blood pressure
[a] these results should be interpreted as percent change

Supplementary Table 11. Adjusted association (including depression) between abuse in childhood and cardiometabolic health outcomes at age 25 by age at exposure (N = 3,223)

Type of abuse/ Outcome	Abuse < 11 years β (95% CI)	p	Abuse 11-17 years β (95% CI)	p	p*
Physical abuse					
BMI, kg/m^2	1.11 (0.23, 1.98)	0.013	4.07 (1.25, 6.90)	0.005	0.051
Heart rate, bpm	0.97 (-1.43, 3.37)	0.423	9.31 (3.04, 15.59)	0.004	0.006
SBP, mmHg	-0.01 (-1.94, 1.93)	0.994	2.01 (-4.21, 8.22)	0.523	0.498
DBP, mmHg	0.93 (-0.52, 2.38)	0.206	3.91 (-1.17, 9.00)	0.129	0.232
Cholesterol, mmol/L	-0.10 (-0.27, 0.06)	0.216	-0.22 (-0.74, 0.30)	0.401	0.664
HDL, mmol/L	-0.07 (-0.15, 0.01)	0.106	-0.26 (-0.55, 0.03)	0.076	0.171
LDL, mmol/L	-0.05 (-0.18, 0.08)	0.437	0.05 (-0.37, 0.47)	0.815	0.659
Triglycerides, mmol/L [a]	1.01 (0.93, 1.11)	0.783	0.88 (0.69, 1.13)	0.326	0.271
Glucose, mmol/L [a]	1.01 (0.99, 1.03)	0.329	1.06 (0.99, 1.13)	0.105	0.188
Insulin, mg/dL [a]	1.23 (1.09, 1.38)	0.001	1.71 (1.12, 2.61)	0.015	0.122
CRP, mg/l [a]	1.21 (0.95, 1.54)	0.116	1.97 (0.86, 4.52)	0.108	0.301
Sexual abuse					
BMI, kg/m^2	0.83 (-0.11, 1.76)	0.084	0.68 (-0.08, 1.43)	0.079	0.822
Heart rate, bpm	0.82 (-1.76, 3.40)	0.529	1.38 (-0.44, 3.20)	0.136	0.717
SBP, mmHg	0.88 (-1.04, 2.79)	0.369	0.30 (-1.30, 1.90)	0.711	0.595
DBP, mmHg	1.15 (-0.40, 2.69)	0.145	0.24 (-1.07, 1.55)	0.715	0.361
Cholesterol, mmol/L	-0.09 (-0.26, 0.09)	0.322	-0.12 (-0.27, 0.03)	0.131	0.753
HDL, mmol/L	-0.08 (-0.17, 0.02)	0.103	-0.02 (-0.11, 0.06)	0.563	0.279
LDL, mmol/L	0.01 (-0.14, 0.16)	0.873	-0.1 (-0.23, 0.03)	0.141	0.205
Triglycerides, mmol/L [a]	0.98 (0.90, 1.07)	0.613	1.04 (0.96, 1.13)	0.285	0.188
Glucose, mmol/L [a]	1.00 (0.98, 1.02)	0.687	1.00 (0.98, 1.01)	0.696	0.946
Insulin, mg/dL [a]	1.12 (0.98, 1.28)	0.086	1.10 (0.99, 1.21)	0.073	0.763
CRP, mg/l [a]	1.14 (0.87, 1.50)	0.334	1.06 (0.87, 1.30)	0.552	0.653
Psychological abuse					
BMI, kg/m^2	1.27 (-0.76, 3.31)	0.220	0.59 (0.02, 1.16)	0.042	0.537
Heart rate, bpm	3.15 (-1.57, 7.88)	0.189	0.31 (-1.18, 1.80)	0.678	0.251
SBP, mmHg	1.23 (-2.80, 5.25)	0.549	0.01 (-1.18, 1.21)	0.981	0.548
DBP, mmHg	0.99 (-2.28, 4.25)	0.553	0.22 (-0.69, 1.14)	0.631	0.675
Cholesterol, mmol/L	-0.13 (-0.50, 0.25)	0.509	-0.04 (-0.15, 0.07)	0.453	0.665
HDL, mmol/L	-0.17 (-0.36, 0.02)	0.085	-0.03 (-0.09, 0.02)	0.215	0.152
LDL, mmol/L	0.02 (-0.34, 0.39)	0.893	-0.05 (-0.15, 0.04)	0.246	0.678
Triglycerides, mmol/L [a]	1.04 (0.85, 1.26)	0.707	1.02 (0.96, 1.08)	0.613	0.832
Glucose, mmol/L [a]	1.06 (1.01, 1.11)	0.019	1.01 (1.00, 1.03)	0.146	0.054
Insulin, mg/dL [a]	1.47 (1.12, 1.92)	0.006	1.07 (0.98, 1.17)	0.131	0.014
CRP, mg/l [a]	1.03 (0.56, 1.90)	0.920	0.90 (0.77, 1.05)	0.176	0.665

p* p-value for the difference between estimates for abuse <11 years and abuse 11-17 years.
Adjusted for age, sex, ethnicity, maternal education, paternal education, parental social class, and depression
BMI: body mass index, Cholesterol: total cholesterol, CRP: C-reactive protein, DBP: diastolic blood pressure;
HDL: high-density lipoprotein cholesterol; LDL: low-density lipoprotein cholesterol; SBP: systolic blood pressure
[a] these results should be interpreted as percent change

Supplementary Table 12. Adjusted association between child abuse in 3 frequency categories and cardiometabolic outcomes at 18 years (N = 3,223)

	Rarely or sometimes vs. never		Often or very often vs. never	
	β (95% CI)	p-value	β (95% CI)	p-value
Physical abuse				
BMI, kg/m^2	0.22 (-0.09, 0.53)	0.168	1.35 (0.62, 2.08)	<0.001
Heart rate, bpm	0.25 (-0.69, 1.20)	0.599	1.28 (-1.06, 3.62)	0.284
SBP, mmHg	0.60 (-0.28, 1.49)	0.179	1.23 (-0.79, 3.25)	0.232
DBP, mmHg	-0.23 (-0.89, 0.42)	0.482	1.38 (-0.39, 3.15)	0.125
Cholesterol, mmol/L	0.02 (-0.04, 0.09)	0.428	-0.08 (-0.23, 0.06)	0.255
HDL, mmol/L	0.00 (-0.02, 0.03)	0.788	-0.06 (-0.13, 0.01)	0.082
LDL, mmol/L	0.03 (-0.03, 0.09)	0.293	-0.01 (-0.14, 0.12)	0.909
Triglycerides, mmol/L [a]	0.96 (0.93, 1.00)	0.044	0.93 (0.86, 1.01)	0.072
Glucose, mmol/L [a]	1.00 (0.99, 1.01)	0.895	1.00 (0.97, 1.02)	0.727
Insulin, mg/dL [a]	0.98 (0.93, 1.03)	0.368	0.89 (0.79, 1.00)	0.054
CRP, mg/l [a]	0.99 (0.88, 1.11)	0.851	1.28 (0.97, 1.69)	0.081
Sexual abuse				
BMI, kg/m^2	-0.11 (-0.82, 0.60)	0.759	1.10 (0.27, 1.94)	0.010
Heart rate, bpm	1.28 (-0.93, 3.49)	0.257	2.30 (-0.10, 4.71)	0.061
SBP, mmHg	0.96 (-1.06, 2.98)	0.351	-0.11 (-2.53, 2.31)	0.929
DBP, mmHg	0.70 (-0.82, 2.21)	0.366	0.77 (-0.89, 2.42)	0.363
Cholesterol, mmol/L	-0.01 (-0.15, 0.13)	0.864	0.07 (-0.11, 0.24)	0.450
HDL, mmol/L	-0.01 (-0.07, 0.04)	0.644	0.02 (-0.05, 0.09)	0.569
LDL, mmol/L	0.01 (-0.12, 0.14)	0.858	0.04 (-0.11, 0.19)	0.567
Triglycerides, mmol/L [a]	0.96 (0.89, 1.04)	0.329	1.00 (0.90, 1.11)	1.000
Glucose, mmol/L [a]	0.99 (0.97, 1.01)	0.167	1.00 (0.97, 1.02)	0.930
Insulin, mg/dL [a]	0.92 (0.82, 1.03)	0.138	0.99 (0.85, 1.16)	0.927
CRP, mg/l [a]	0.97 (0.74, 1.28)	0.831	1.10 (0.78, 1.55)	0.587
Psychological abuse				
BMI, kg/m^2	-0.15 (-0.58, 0.29)	0.510	0.21 (-0.38, 0.81)	0.488
Heart rate, bpm	-0.60 (-1.92, 0.71)	0.370	-0.24 (-2.04, 1.56)	0.794
SBP, mmHg	0.36 (-0.87, 1.58)	0.569	0.12 (-1.70, 1.94)	0.897
DBP, mmHg	0.64 (-0.32, 1.60)	0.188	0.48 (-0.81, 1.77)	0.467
Cholesterol, mmol/L	0.03 (-0.06, 0.12)	0.459	-0.01 (-0.15, 0.13)	0.881
HDL, mmol/L	-0.01 (-0.05, 0.03)	0.505	-0.01 (-0.06, 0.04)	0.634
LDL, mmol/L	0.02 (-0.06, 0.11)	0.585	-0.01 (-0.13, 0.12)	0.884
Triglycerides, mmol/L [a]	1.02 (0.97, 1.08)	0.393	0.99 (0.93, 1.06)	0.863
Glucose, mmol/L [a]	1.01 (1.00, 1.02)	0.117	1.01 (1.00, 1.03)	0.067
Insulin, mg/dL [a]	1.00 (0.93, 1.08)	0.952	1.02 (0.91, 1.15)	0.688
CRP, mg/l [a]	0.96 (0.81, 1.13)	0.611	1.11 (0.89, 1.39)	0.342

Adjusted for age, sex, ethnicity, maternal education, paternal education, and parental social class
BMI: body mass index, Cholesterol: total cholesterol, CRP: C-reactive protein, DBP: diastolic blood pressure;
HDL: high-density lipoprotein cholesterol; LDL: low-density lipoprotein cholesterol; SBP: systolic blood pressure
[a] these results should be interpreted as percent change

Supplementary Table 13. Adjusted association between child abuse in 3 frequency categories and cardiometabolic outcomes at 25 years (N = 3,223)

	Rarely or sometimes vs. never		Often or very often vs. never	
	β (95% CI)	p-value	β (95% CI)	p-value
Physical abuse				
BMI, kg/m^2	0.10 (-0.30, 0.50)	0.635	1.22 (0.32, 2.12)	0.008
Heart rate, bpm	0.20 (-0.71, 1.11)	0.668	1.15 (-1.30, 3.61)	0.353
SBP, mmHg	0.48 (-0.31, 1.28)	0.233	0.26 (-1.67, 2.19)	0.790
DBP, mmHg	0.16 (-0.49, 0.80)	0.635	1.04 (-0.44, 2.52)	0.168
Cholesterol, mmol/L	0.00 (-0.07, 0.08)	0.936	-0.12 (-0.29, 0.05)	0.174
HDL, mmol/L	-0.02 (-0.05, 0.02)	0.303	-0.08 (-0.17, 0.00)	0.063
LDL, mmol/L	0.00 (-0.07, 0.07)	0.986	-0.06 (-0.20, 0.08)	0.414
Triglycerides, mmol/L [a]	1.01 (0.97, 1.05)	0.713	1.01 (0.92, 1.11)	0.780
Glucose, mmol/L [a]	1.01 (1.00, 1.01)	0.182	1.01 (0.99, 1.04)	0.210
Insulin, mg/dL [a]	1.00 (0.94, 1.05)	0.901	1.23 (1.09, 1.38)	0.001
CRP, mg/l [a]	0.94 (0.84, 1.06)	0.315	1.18 (0.92, 1.53)	0.188
Sexual abuse				
BMI, kg/m^2	-0.12 (-1.01, 0.76)	0.785	1.56 (0.63, 2.50)	0.001
Heart rate, bpm	1.10 (-1.09, 3.29)	0.323	1.80 (-0.65, 4.25)	0.149
SBP, mmHg	0.50 (-1.30, 2.31)	0.584	0.50 (-1.43, 2.43)	0.610
DBP, mmHg	-0.03 (-1.54, 1.48)	0.970	1.56 (0.03, 3.08)	0.046
Cholesterol, mmol/L	-0.16 (-0.32, 0.00)	0.054	-0.08 (-0.26, 0.10)	0.366
HDL, mmol/L	0.02 (-0.07, 0.11)	0.641	-0.10 (-0.19, -0.02)	0.019
LDL, mmol/L	-0.13 (-0.27, 0.00)	0.056	0.00 (-0.18, 0.17)	0.972
Triglycerides, mmol/L [a]	0.99 (0.92, 1.07)	0.858	1.06 (0.96, 1.17)	0.239
Glucose, mmol/L [a]	1.00 (0.98, 1.02)	0.886	0.99 (0.97, 1.01)	0.390
Insulin, mg/dL [a]	1.11 (0.99, 1.25)	0.081	1.10 (0.96, 1.26)	0.151
CRP, mg/l [a]	1.06 (0.84, 1.34)	0.606	1.20 (0.92, 1.55)	0.176
Psychological abuse				
BMI, kg/m^2	-0.08 (-0.62, 0.47)	0.788	0.49 (-0.25, 1.24)	0.196
Heart rate, bpm	-0.51 (-1.74, 0.71)	0.411	-0.18 (-2.10, 1.75)	0.857
SBP, mmHg	0.58 (-0.59, 1.75)	0.331	0.45 (-1.10, 2.00)	0.571
DBP, mmHg	0.16 (-0.74, 1.05)	0.728	0.33 (-0.89, 1.54)	0.600
Cholesterol, mmol/L	-0.04 (-0.15, 0.07)	0.498	-0.08 (-0.23, 0.06)	0.261
HDL, mmol/L	-0.02 (-0.08, 0.03)	0.352	-0.05 (-0.12, 0.02)	0.135
LDL, mmol/L	-0.02 (-0.12, 0.09)	0.749	-0.08 (-0.20, 0.05)	0.243
Triglycerides, mmol/L [a]	1.02 (0.96, 1.07)	0.577	1.03 (0.96, 1.10)	0.453
Glucose, mmol/L [a]	1.01 (1.00, 1.02)	0.222	1.02 (1.00, 1.04)	0.063
Insulin, mg/dL [a]	1.03 (0.96, 1.11)	0.429	1.10 (0.99, 1.22)	0.077
CRP, mg/l [a]	1.05 (0.91, 1.23)	0.495	0.94 (0.76, 1.15)	0.532

Adjusted for age, sex, ethnicity, maternal education, paternal education, and parental social class
BMI: body mass index, Cholesterol: total cholesterol, CRP: C-reactive protein, DBP: diastolic blood pressure;
HDL: high-density lipoprotein cholesterol; LDL: low-density lipoprotein cholesterol; SBP: systolic blood pressure
[a] these results should be interpreted as percent change

Supplementary Table 14. Adjusted association between score of child abuse and cardiometabolic outcomes at 18 and 25 years in males and females (N = 3,223)

	Males				Females				p-value for sex interaction
	1 type of abuse	2 types of abuse	3 types of abuse	p-value	1 type of abuse	2 types of abuse	3 types of abuse	p-value	
18-year outcomes									
BMI, kg/m^2	0.27	2.12	4.39		0.34	0.46	2.20		
	(-0.50, 1.04)	(0.89, 3.36)	(-2.80, 11.58)	0.002	(-0.16, 0.84)	(-0.53, 1.45)	(0.50, 3.91)	0.012	0.158
Heart rate, bpm	-0.13	5.50	2.12		0.48	-0.45	5.07		
	(-2.92, 2.65)	(1.27, 9.73)	(-0.22, 4.46)	0.066	(-0.94, 1.90)	(-3.32, 2.42)	(0.11, 10.02)	0.235	0.179
SBP, mmHg	0.55	0.95	0.88		0.07	-0.61	0.62		
	(-2.39, 3.49)	(-3.36, 5.26)	(-31.87, 33.63)	0.590	(-1.20, 1.34)	(-3.57, 2.35)	(-3.73, 4.97)	0.938	0.451
DBP, mmHg	0.12	2.00	-1.06		0.25	0.07	1.38		
	(-1.79, 2.04)	(-0.90, 4.90)	(-24.01, 21.89)	0.326	(-0.71, 1.21)	(-2.12, 2.26)	(-1.79, 4.54)	0.495	0.530
Cholesterol, mmol/L	0.04	-0.02	0.17		-0.02	-0.09	-0.11		
	(-0.10, 0.18)	(-0.24, 0.21)	(-1.46, 1.80)	0.784	(-0.13, 0.09)	(-0.30, 0.12)	(-0.42, 0.19)	0.303	0.461
HDL, mmol/L	-0.03	-0.12	-0.21		-0.01	0.02	-0.05		
	(-0.09, 0.04)	(-0.22, -0.02)	(-0.88, 0.47)	0.029	(-0.05, 0.03)	(-0.07, 0.10)	(-0.18, 0.09)	0.823	0.113
LDL, mmol/L	0.09	0.06	0.43		-0.01	-0.10	-0.04		
	(-0.03, 0.22)	(-0.14, 0.26)	(-1.11, 1.98)	0.155	(-0.10, 0.08)	(-0.28, 0.09)	(-0.32, 0.25)	0.440	0.145
Triglycerides, mmol/L [a]	0.95	1.01	0.94		0.98	0.96	0.93		
	(0.86, 1.05)	(0.88, 1.15)	(0.30, 2.93)	0.547	(0.93, 1.04)	(0.87, 1.07)	(0.79, 1.09)	0.277	0.914
Glucose, mmol/L [a]	1.00	1.01	0.95		1.00	1.00	1.01		
	(0.97, 1.03)	(0.97, 1.05)	(0.71, 1.28)	0.977	(0.99, 1.01)	(0.98, 1.02)	(0.97, 1.05)	0.923	0.910
Insulin, mg/dL [a]	0.97	1.00	1.17		1.00	1.00	0.95		
	(0.84, 1.13)	(0.82, 1.23)	(0.29, 4.78)	0.864	(0.93, 1.07)	(0.86, 1.17)	(0.75, 1.21)	0.834	0.799
CRP, mg/l [a]	1.11	1.44	2.38		1.04	1.19	1.46		
	(0.81, 1.51)	(0.95, 2.19)	(0.06, 97.82)	0.082	(0.89, 1.23)	(0.81, 1.74)	(0.76, 2.80)	0.200	0.500
25-year outcomes									
BMI, kg/m^2	0.27	2.70	3.46		0.62	0.95	2.66		
	(-0.61, 1.16)	(1.15, 4.24)	(-5.18, 12.09)	0.003	(0.01, 1.22)	(-0.26, 2.15)	(0.56, 4.76)	0.001	0.502
Heart rate, bpm	0.28	4.77	1.40		0.47	-0.31	4.49		
	(-2.72, 3.28)	(0.59, 8.96)	(-31.98, 34.78)	0.105	(-0.88, 1.82)	(-3.16, 2.55)	(-0.49, 9.47)	0.274	0.277
SBP, mmHg	0.00	-1.37	8.61	0.690	0.22	0.74	0.13	0.529	0.398

				p-value				p-value	p-value
	(-2.36, 2.35)	(-5.21, 2.48)	(-12.81, 30.02)		(-0.98, 1.42)	(-1.44, 2.92)	(-4.02, 4.27)		
DBP, mmHg	-0.07	1.99	1.69		0.50	1.02	1.45		
	(-1.95, 1.81)	(-0.93, 4.90)	(-14.65, 18.04)	0.326	(-0.44, 1.44)	(-0.71, 2.75)	(-1.96, 4.86)	0.094	0.958
Cholesterol, mmol/L	0.07	-0.09	0.46		-0.11	-0.10	-0.46		
	(-0.12, 0.26)	(-0.40, 0.22)	(-1.13, 2.04)	0.893	(-0.22, 0.01)	(-0.32, 0.11)	(-0.82, -0.10)	0.006	0.251
HDL, mmol/L	-0.03	-0.19	-0.26		-0.03	-0.06	-0.11		
	(-0.10, 0.05)	(-0.32, -0.05)	(-0.95, 0.42)	0.012	(-0.08, 0.02)	(-0.17, 0.05)	(-0.31, 0.08)	0.094	0.360
LDL, mmol/L	0.06	0.01	0.41		-0.08	-0.10	-0.25		
	(-0.11, 0.23)	(-0.27, 0.29)	(-1.04, 1.87)	0.602	(-0.18, 0.01)	(-0.28, 0.08)	(-0.55, 0.06)	0.023	0.230
Triglycerides, mmol/L [a]	1.04	1.20	2.01		1.01	0.99	0.91		
	(0.93, 1.15)	(0.99, 1.46)	(0.80, 5.06)	0.044	(0.96, 1.07)	(0.89, 1.09)	(0.77, 1.08)	0.708	0.071
Glucose, mmol/L [a]	1.01	1.02	0.98		1.00	1.01	1.03		
	(0.99, 1.03)	(0.98, 1.06)	(0.80, 1.20)	0.209	(0.98, 1.01)	(0.98, 1.03)	(0.99, 1.08)	0.456	0.351
Insulin, mg/dL [a]	1.00	1.49	0.97		1.07	1.13	1.50		
	(0.86, 1.17)	(1.13, 1.97)	(0.27, 3.55)	0.025	(0.99, 1.16)	(0.98, 1.31)	(1.17, 1.93)	0.001	0.616
CRP, mg/l [a]	1.24	1.38	0.53		0.91	0.91	1.24		
	(0.93, 1.67)	(0.90, 2.10)	(0.06, 4.97)	0.044	(0.76, 1.10)	(0.67, 1.24)	(0.70, 2.19)	0.563	0.021

p-value corresponds to p-value for linear trend
Adjusted for age, sex, ethnicity, maternal education, paternal education, and parental social class
BMI: body mass index, Cholesterol: total cholesterol, CRP: C-reactive protein
[a] these results should be interpreted as percent change
The reference category corresponds to 0 (no experience of abuse).

Supplementary Table 15. Adjusted association between child abuse and cardiometabolic outcomes at 18 and 25 years in complete cases
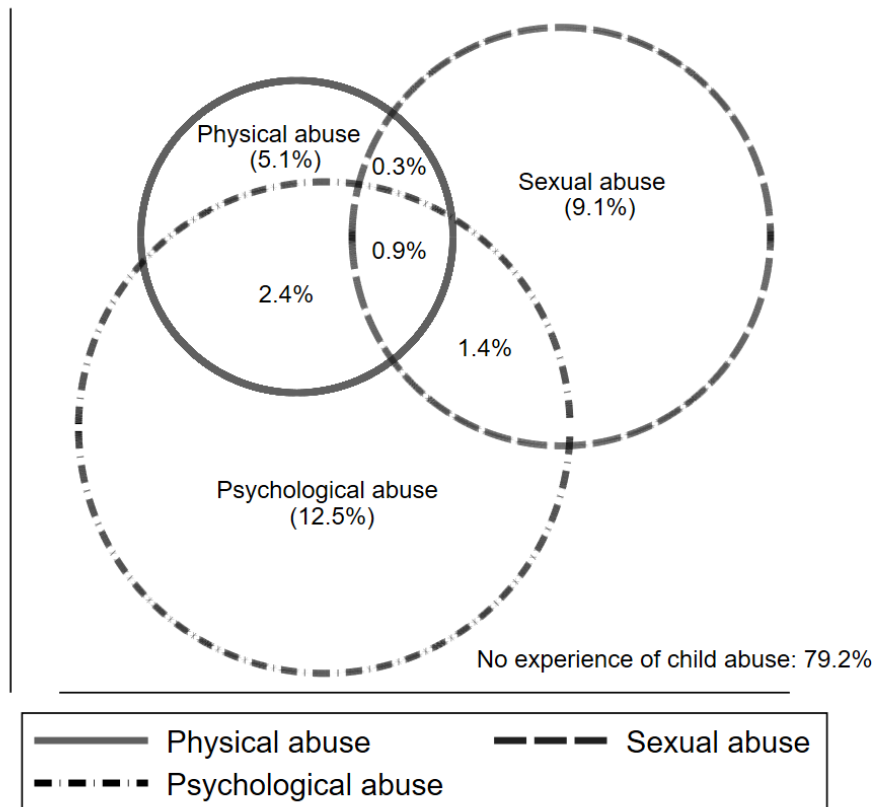
	18 years		25 years	
	β (95% CI)	P-value	β (95% CI)	p-value
Physical abuse				
BMI, kg/m^2	0.60 (-0.20, 1.41)	0.142	1.07 (0.03, 2.12)	0.045
Heart rate, bpm	0.52 (-2.02, 3.06)	0.689	0.74 (-2.09, 3.57)	0.608
SBP, mmHg	-0.47 (-2.94, 2.00)	0.709	0.05 (-2.02, 2.13)	0.959
DBP, mmHg	0.53 (-1.30, 2.37)	0.569	1.70 (0.06, 3.34)	0.042
Cholesterol, mmol/L	-0.16 (-0.32, 0.01)	0.071	-0.14 (-0.33, 0.04)	0.130
HDL, mmol/L	-0.07 (-0.14, 0.01)	0.069	-0.10 (-0.19, -0.01)	0.033
LDL, mmol/L	-0.06 (-0.21, 0.1)	0.451	-0.05 (-0.22, 0.12)	0.586
Triglycerides, mmol/L [a]	0.92 (0.84, 1.01)	0.097	1.01 (0.92, 1.11)	0.846
Glucose, mmol/L [a]	0.99 (0.97, 1.01)	0.425	1.00 (0.98, 1.03)	0.744
Insulin, mg/dL [a]	0.83 (0.73, 0.94)	0.005	1.16 (1.01, 1.33)	0.037
CRP, mg/l [a]	1.13 (0.85, 1.49)	0.395	1.11 (0.83, 1.47)	0.476
Sexual abuse				
BMI, kg/m^2	0.80 (0.19, 1.41)	0.010	1.06 (0.31, 1.82)	0.006
Heart rate, bpm	1.21 (-0.66, 3.08)	0.203	1.65 (-0.34, 3.65)	0.104
SBP, mmHg	0.29 (-1.53, 2.10)	0.759	0.95 (-0.58, 2.49)	0.222
DBP, mmHg	0.28 (-1.07, 1.63)	0.686	0.91 (-0.31, 2.12)	0.143
Cholesterol, mmol/L	0.02 (-0.12, 0.15)	0.795	-0.12 (-0.26, 0.02)	0.083
HDL, mmol/L	-0.01 (-0.07, 0.06)	0.867	-0.04 (-0.10, 0.03)	0.276
LDL, mmol/L	0.03 (-0.09, 0.16)	0.579	-0.09 (-0.21, 0.04)	0.177
Triglycerides, mmol/L [a]	0.95 (0.88, 1.02)	0.149	1.00 (0.93, 1.07)	0.998
Glucose, mmol/L [a]	0.99 (0.97, 1.00)	0.101	0.99 (0.98, 1.01)	0.497
Insulin, mg/dL [a]	0.89 (0.80, 0.99)	0.025	1.04 (0.94, 1.15)	0.428
CRP, mg/l [a]	1.14 (0.91, 1.42)	0.265	1.28 (1.04, 1.58)	0.022
Psychological abuse				
BMI, kg/m^2	0.53 (0.04, 1.02)	0.035	0.83 (0.18, 1.47)	0.012
Heart rate, bpm	-0.10 (-1.60, 1.40)	0.897	0.22 (-1.41, 1.86)	0.789
SBP, mmHg	-0.28 (-1.74, 1.17)	0.704	0.17 (-1.13, 1.46)	0.800
DBP, mmHg	-0.24 (-1.32, 0.85)	0.671	0.40 (-0.62, 1.43)	0.439
Cholesterol, mmol/L	-0.04 (-0.14, 0.07)	0.481	-0.03 (-0.15, 0.08)	0.569
HDL, mmol/L	-0.02 (-0.06, 0.03)	0.524	-0.03 (-0.09, 0.02)	0.255
LDL, mmol/L	-0.01 (-0.11, 0.08)	0.790	-0.01 (-0.12, 0.10)	0.871
Triglycerides, mmol/L [a]	0.97 (0.91, 1.02)	0.251	1.01 (0.95, 1.08)	0.642
Glucose, mmol/L [a]	1.00 (0.99, 1.02)	0.778	1.01 (1.00, 1.02)	0.164
Insulin, mg/dL [a]	1.03 (0.95, 1.11)	0.520	1.03 (0.95, 1.13)	0.452
CRP, mg/l [a]	1.13 (0.95, 1.35)	0.162	0.89 (0.74, 1.06)	0.191

Adjusted for age, sex, ethnicity, maternal education, paternal education, and parental social class.
BMI: body mass index, Cholesterol: total cholesterol, CRP: C-reactive protein, DBP: diastolic blood pressure;
HDL: high-density lipoprotein cholesterol; LDL: low-density lipoprotein cholesterol; SBP: systolic blood pressure
[a] these results should be interpreted as percent change

Supplementary Table 16. Adjusted association between child abuse and cardiometabolic outcomes at 18 and 25 years after correction for multiple testing (p<7.6 x 10^{-4})

Type of abuse	Timing of abuse	Outcome	β (95% CI)	p-value
Physical abuse	< 11 years	BMI at 18 years	1.32 (0.62, 2.02)	2.4 x 10^{-4}
Physical abuse	< 18 years	BMI at 18 years	1.35 (0.66, 2.05)	1.4 x 10^{-4}
Score of abuse	< 18 years	BMI at 18 years	0.50 (0.23, 0.76)	2.3 x 10^{-4}
Physical abuse	< 11 years	BMI at 18 years (females)	1.68 (0.77, 2.59)	3.2 x 10^{-4}
Physical abuse	< 18 years	BMI at 18 years (females)	1.66 (0.76, 2.57)	3.5 x 10^{-4}
Physical abuse	< 11 years	Insulin at 25 years	1.25 (1.12, 1.41)	1.3 x 10^{-4}
Physical abuse	< 18 years	Insulin at 25 years	1.26 (1.12, 1.41)	1.1 x 10^{-4}
Score of abuse	< 18 years	BMI at 25 years	0.71 (0.39, 1.03)	1.7 x 10^{-5}
Score of abuse	< 18 years	Insulin at 25 years	1.10 (1.05, 1.15)	5.9 x 10^{-5}
2 types of abuse	< 18 years	BMI at 25 years (males)	2.70 (1.15, 4.24)	6.6 x 10^{-4}
Physical abuse	< 18 years	Insulin at 25 years (females)	1.28 (1.12, 1.45)	2.6 x 10^{-4}
Physical abuse	< 11 years	Insulin at 25 years (females)	1.28 (1.12, 1.46)	2.3 x 10^{-4}

Supplementary Figure 1. Co-occurrence of childhood abuse types (N = 3,223)