

Table S1. Descriptive statistics of the study sample and the overall HOME Study cohort, according to selected participant covariates (The HOME Study, 2003-2006)

	Study Sample N (%)	HOME Study Cohort N (%)
Overall	271	389
Maternal age (years)		
18-25	53 (20)	96 (25)
>25-35	176 (65)	231 (59)
>35	42 (15)	62 (16)
Maternal race		
Non-Hispanic White	183 (67)	237 (61)
Non-Hispanic Black	70 (26)	121 (31)
Other	18 (7)	26 (7)
Missing		5 (1)
Maternal education		
High school or less	55 (20)	95 (24)
Tech school or some college	67 (25)	98 (25)
Bachelors or more	149 (55)	191 (50)
Missing		5 (1)
Income		
< \$20,000	79 (29)	88 (23)
\$20-40,000	99 (37)	65 (17)
\$40-80,000	44 (16)	128 (33)
> \$80,000	49 (18)	103 (26)
Missing		5 (1)
Parity		
0	120 (44)	171 (44)
1	89 (33)	122 (31)
2+	62 (23)	92 (24)
Missing		4 (1)
Maternal Body Mass Index (kg/m²)		
< 25 (normal)	119 (44)	165 (42)
25-30 (overweight)	91 (34)	127 (33)
>30 (obese)	61 (22)	95 (24)
Missing		2 (1)
Maternal serum cotinine (ng/mL)		
< 0.015 (unexposed)	107 (40)	139 (36)
0.015-3 (secondhand)	137 (50)	204 (52)
> 3 (active)	27 (10)	44 (11)
Missing		2 (1)
Delivery Type		
< 37 (preterm)	198 (73)	278 (72)
≥ 37 (term)	73 (27)	111 (28)

Table S1. Descriptive statistics of the study sample and the overall HOME Study cohort, according to selected participant covariates, continued (The HOME Study, 2003-2006)

	Study Sample	HOME Study Cohort
	N (%)	N (%)
Overall	271	389
Infant sex		
Female	148 (55)	208 (54)
Male	123 (45)	181 (46)
Gestational age (weeks)		
< 37 (preterm)	15 (5)	37 (9)
≥ 37 (term)	256 (95)	352 (91)
Birthweight z-score (percentile)		
< 10 th (small for gestational age)	20 (7)	33 (9)
10 th – 90 th (appropriate for gestational age)	210 (78)	304 (78)
> 90 th (large for gestational age)	41 (15)	52 (13)

Table S2. Adjusted differences in childhood body mass index z-scores between age 4 weeks and 8 years by neonatal serum leptin concentration terciles: Stratified by child sex (N = 257) (The HOME Study, 2003-2006)

Leptin Tercile	Primary Model β (95% CI)^a	Stratified Analysis¹ β (95% CI)^b	
		Boys (N = 120)	Girls (N = 137)
Lowest	Reference	Reference	Reference
Middle	0.19 (-0.06, 0.44)	0.27 (-0.06, 0.59)	0.10 (-0.28, 0.48)
Highest	0.38 (0.11, 0.64)	0.47 (0.09, 0.85)	0.25 (-0.11, 0.62)

Legend:

Abbreviations: CI (confidence interval), BMI (body mass index)

^a Model adjusted for maternal age, race, income, parity, maternal BMI, cotinine concentrations, child age, and child sex

^b Model adjusted for maternal age, race, income, parity, maternal BMI, child age, and cotinine concentrations

¹ Leptin x sex interaction term P-value = 0.85

Table S3. Adjusted annual change in childhood body mass index z-scores between age 4 weeks and 8 years by neonatal serum adiponectin concentration terciles: Stratified by child sex (N = 271) (The HOME Study, 2003-2006)

Adiponectin Tercile	Primary Model β (95% CI) ^a	Stratified Analysis ¹ β (95% CI) ^b	
		Boys (N = 123) ²	Girls (N = 148) ³
Lowest	0.10 (0.08, 0.13)	0.07 (0.04, 0.11)	0.13 (0.09, 0.17)
Middle	0.07 (0.04, 0.09)	0.04 (-0.002, 0.07)	0.09 (0.05, 0.12)
Highest	0.02 (-0.001, 0.05)	0.04 (0.00, 0.07)	0.01 (-0.02, 0.05)

Legend:

Abbreviations: CI (confidence interval), BMI (body mass index)

^a Model adjusted for maternal age, race, income, parity, maternal BMI, cotinine concentrations, child age, child sex, and adiponectin x age interaction term (adiponectin x age interaction term P-value < 0.001)

^b Model adjusted for maternal age, race, income, parity, maternal BMI, cotinine concentrations, and adiponectin x age interaction term (adiponectin x age interaction term P-value < 0.001)

¹ Age x sex x adiponectin interaction term P-value < 0.001

² Age x adiponectin x boy interaction term P-value = 0.19

³ Age x adiponectin x girl interaction term P-value < 0.001

Table S4. Adjusted differences in childhood body mass index z-scores between age 4 weeks and 8 years by neonatal serum leptin concentration terciles: Sensitivity analyses (The HOME Study, 2003-2006)

Exclusion or Adjustment	N	Leptin Tercile		
		Lowest β (95% CI)	Middle β (95% CI)	Highest β (95% CI)
Primary model ¹	257	Reference	0.19 (-0.06, 0.44)	0.38 (0.11, 0.64)
Exclude preterm births	243	Reference	0.18 (-0.09, 0.44)	0.38 (0.11, 0.66)
Exclude SGA births	238	Reference	0.09 (-0.17, 0.35)	0.30 (0.02, 0.57)
Exclude GDM mothers	247	Reference	0.19 (-0.06, 0.44)	0.38 (0.11, 0.64)
Exclude obese mothers	200	Reference	0.15 (-0.10, 0.41)	0.29 (0.02, 0.56)
Exclude 4 week measures	257	Reference	0.14 (-0.15, 0.43)	0.23 (-0.07, 0.53)
Adjust for birthweight z-score	257	Reference	-0.10 (-0.32, 0.15)	-0.08 (-0.34, 0.19)
Adjust for GWG z-score	255	Reference	0.14 (-0.11, 0.40)	0.31 (0.04, 0.58)
Adjust for OGTT	239	Reference	0.28 (0.01, 0.55)	0.36 (0.07, 0.64)

Legend:

Abbreviations: SGA (small for gestational age, defined as gestational age- and sex-standardized birthweight z-score < 10th percentile), GDM (gestational diabetes mellitus), GWG (gestational weight gain), OGTT (oral glucose tolerance test, non-fasting maternal glucose concentrations), CI (confidence interval)

¹ Model adjusted for maternal age, race, income, parity, maternal body mass index, cotinine concentrations, child age, and child sex

Table S5. Adjusted annual change in childhood body mass index z-scores between age 4 weeks and 8 years by neonatal serum adiponectin concentration tertiles: Sensitivity analyses (The HOME Study, 2003-2006)

Exclusion or Adjustment	N	Adiponectin Tertile		
		Lowest β (95% CI)	Middle β (95% CI)	Highest β (95% CI)
Primary model ¹	271	0.10 (0.08, 0.13)	0.07 (0.04, 0.09)	0.02 (-0.001, 0.05)
Exclude preterm births	256	0.09 (0.06, 0.12)	0.07 (0.04, 0.09)	0.02 (-0.004, 0.05)
Exclude SGA births	251	0.11 (0.08, 0.14)	0.06 (0.03, 0.09)	0.02 (-0.01, 0.04)
Exclude GDM mothers	259	0.10 (0.08, 0.13)	0.07 (0.04, 0.09)	0.02 (-0.001, 0.05)
Exclude obese mothers	210	0.07 (0.04, 0.10)	0.04 (0.02, 0.07)	0.03 (-0.001, 0.05)
Exclude 4 week measures	271	0.05 (0.02, 0.08)	0.04 (0.01, 0.06)	-0.01 (-0.04, 0.02)
Adjust for birthweight z-score	271	0.10 (0.08, 0.13)	0.07 (0.04, 0.09)	0.02 (-0.001, 0.05)
Adjust for GWG z-score	269	0.11 (0.08, 0.13)	0.07 (0.04, 0.09)	0.02 (-0.001, 0.05)
Adjust for OGGT	239	0.09 (0.06, 0.12)	0.07 (0.05, 0.09)	0.03 (0.001, 0.05)

Legend:

Abbreviations: SGA (small for gestational age, defined as gestational age- and sex-standardized birthweight z-score < 10th percentile), GDM (gestational diabetes mellitus), GWG (gestational weight gain), OGGT (oral glucose tolerance test, non-fasting maternal glucose concentrations), CI (confidence interval)

¹ Model adjusted for maternal age, race, income, parity, maternal body mass index, cotinine concentrations, child age, child sex, and adiponectin x age interaction term (adiponectin x age interaction term P-value < 0.001)