

Online Appendix Table A1: Characteristics of mothers and their offspring at birth

		Control	Mothers with type 1 Diabetes	P*
N		45	100	
Age (years)		30.4 ± 5.1	30.0 ± 4.9	0.68
Duration of diabetes (years)		-	13.0 ± 8.1	-
Parity	0	24 (53%)	51 (51%)	0.76
	1	14 (31%)	36 (36%)	
	>1	7 (16%)	13 (13%)	
Children (male/ female)		21 M/ 24 F	47 M/ 53F	0.97
Gestational age at delivery (weeks)		39.9 ± 1.4	37.4 ± 2.1	<0.001
Maternal smoking history (%)	Current	11 (24%)	18 (18%)	0.47
	ex-smoker	8 (18%)	13 (13%)	
	non-smoker	26 (58%)	67 (68%)	
Delivery	Vaginal	30 (67%)	34 (34%)	<0.001
	Emergency Caesarean	13 (29%)	33 (33%)	
	Elective Caesarean	2 (4%)	33 (33%)	
Birth weight (kg)	Males	3.44 ± 0.54	3.74 ± 0.74	0.02 [†]
	females	3.44 ± 0.39	3.55 ± 0.76	0.01 [†]
Z weight of offspring[‡]		0.22 ± 1.01	1.78 ± 1.68 ^α	<0.001
Cord Insulin		22 [14 -58] (n=14)	127 [61- 258] (n=56)	0.0002
Cord Leptin		10.6 [4.9-18.5] (n=21)	31.6 [12.9-54.1] (n=75)	0.005
Cord haematocrit		0.52 ± 0.06	0.54 ± 0.06	0.30
Cord Adiponectin		22.9 ± 4.6 (n=12)	19.2 ± 6.1 (n=55)	0.33
Cord CRP (mg/l)		0.15 (0.13-0.20)	0.18 (0.14-0.22)	0.13

Characteristics of mothers with type 1 diabetes and their singleton offspring vs. control mothers and children. Values are given as mean ± standard deviation or median [interquartile range]. [†] Birth weights given as unadjusted, P value for difference dependent on maternal diabetes status, adjusted for gestational age at delivery. [‡] Z weight is standard deviation score compared to standard values for gestational age, gender and maternal parity. ^α n=133: 1 child (gestation at delivery 29 weeks) not included as standardized birth weight not available. P= value of significance in unpaired *t*-test, wilcoxon or χ^2 as appropriate.

Online Appendix Table A2: Relationship of measures at birth to adiposity at 7 years in offspring of mothers with type 1 diabetes

		Measures at birth					
		Birth weight (n=100)	Skinfolds (n=38)	Cord insulin (n=61)	Cord leptin (n=75)	Haematocrit (n=50)	CRP(n=73)
Measures of adiposity and glucose tolerance at age 7	BMI	0.19 (P=0.06)	0.22 (P=0.18)	-0.08 (P=0.53)	0.25 (P=0.03)	0.25(P=0.07)	0.01 (P=0.91)
	Height	0.31 (P=0.002)	0.04 (P=0.81)	-0.07 (P=0.58)	0.23 (P=0.046)	0.24(P=0.10)	0.04 (P=0.71)
	Weight	0.30 (P=0.003)	0.17 (P=0.32)	-0.05 (P=0.69)	0.26 (P=0.02)	0.30 (P=0.04)	0.03 (P=0.83)
	Skin folds	0.08 (P=0.47)	0.14 (P=0.44)	-0.13 (P=0.35)	0.21 (P=0.09)	0.33 (P=0.02)	0.02 (P=0.86)
	Waist circumference	0.14 (P=0.16)	0.16 (P=0.33)	-0.10 (P=0.43)	0.19 (P=0.09)	0.28 (P=0.049)	0.02 (P=0.87)

Spearman correlation between measures at birth and age 7. Where available data are standardised using standard deviation scores (Birth weight; BMI, height and weight at age 7) or expressed as log transformed variables (cord insulin, leptin).