

### Supplemental Material

**Table S1.** Characteristics of study cohort ( $N = 84$ )

	<i>M</i>	<i>SD</i>
Maternal Age at Delivery	35.6	5.1
Annual household income (USD)	78,303	49,540
Child Age at Assessment	5.1	0.2
Child Gestational Age at Birth	39.4	1.3
Child SCQ Score	6.6	3.9
	<b><i>N</i></b>	<b>%</b>
Maternal Race		
Latina	23	27.7
Non-Hispanic White	43	50.6
Asian	8	9.6
Other	10	12
Maternal Education		
High school or less	11	13.4
Associates or vocational degree	27	32.9
4-year college	28	34.1
Graduate degree	16	19.5
Cohabitation with child's father (% yes)	74	88.1
Child birth order (% first born)	42	50
Child sex (% female)	43	51.2

Note: Socioeconomic status was computed by standardizing and then averaging maternal years of education completed and annual household income.

**Table S2.** Bivariate correlations between maternal prenatal cortisol, child ASD symptoms, and potential covariates

	<i>Maternal prenatal cortisol</i>	<i>Child ASD symptoms</i>
Maternal Age at Delivery	-.14	-.15
Maternal Race/Ethnicity: Caucasian, Non-Hispanic	-.01	-.28*
Maternal Race/Ethnicity: Hispanic/Latina	.03	.21 <sup>†</sup>
Cohabitation with Child's Father	.01	.00
Socioeconomic Status	.03	-.35**
Obstetric Risk	-.08	.22*
Gestational Age at Birth	.04	-.19 <sup>†</sup>
Child Age	-.01	.21 <sup>†</sup>
Child Sex: Male	.02	.04
Child Birth Order	-.10	.09

*Note:* Associations between maternal race/ethnicity and child ASD symptoms did not persist after adjusting for socioeconomic status. \*\*p < .01; \* p < .05; <sup>†</sup>p < .10

**Table S3.** Multiple regression model predicting child ASD symptoms including child with clinical diagnosis of ASD

	<i>B (SE)</i>	$\beta$	Partial <i>r</i>
Gestational Age at Birth	-0.53 (0.34)	-.16	-.18
Obstetric Risk	1.61 (0.78)	.21*	.23
SES	-1.16 (0.49)	-.24*	-.26
Prenatal Cortisol	0.11 (0.14)	.10	.09
Child Sex	0.58 (0.87)	.07	.08
Prenatal Maternal Cortisol x Child Sex	-0.69 (0.24)	-.36**	-.31

*Note:* Child sex coded 0 = female. \*  $p < .05$ , \*\*  $p < .01$ .

### Analyses Including Child with Clinical Diagnosis of ASD

Results were similar when including the child with a clinical diagnosis of ASD (SCQ score = 27) in analyses. In the regression model predicting child ASD symptoms, there was no main effect of maternal prenatal cortisol levels, but an interaction between prenatal maternal cortisol and child sex (Table S3). Simple slope analyses indicated that higher maternal prenatal cortisol levels were associated with lower ASD symptoms in male children (slope = - 0.58,  $t = -3.12$ ,  $p = .003$ ), whereas maternal prenatal cortisol levels did not predict ASD symptoms in female children (slope = 0.11,  $t = 0.78$ ,  $p = .44$ ). Again, multilevel modeling indicated that the association between prenatal maternal cortisol levels on ASD symptoms in male children did not differ as a function of gestational timing, with statistically significant differences in cortisol levels apparent over the course of gestation (Coefficient: -0.28,  $SE = 0.10$ ,  $t = -2.75$ ,  $p = .01$ ).

### **Analyses of Medication Use**

Examination of medications taken during gestation revealed only one group large enough to allow incorporation into analyses – 25 women in the sample used antibiotic medications during the course of gestation. Use of antibiotics was not associated either with prenatal cortisol, or with SCQ scores (both  $p$ 's  $>.2$ ). Not surprisingly then, repeating the primary regression with antibiotic use in the model did not alter conclusions about the relation between cortisol and SCQ scores. Other medications in the sample taken with any regularity included: antidepressants (4 women), narcotics (1 woman with two 2-week courses), insulin (4 women), prednisone (1 woman with a 3 week course), estrogen/progesterone (first trimester, 8 women), synthroid (1 woman) and albuterol (8 women). In addition, two women were prescribed betamethasone for preterm labor and eight were prescribed tocolytics. Because these numbers were too low to allow similar analyses as with antibiotics above, we repeated the primary regression analyses excluding participants who fell into each subgroup, thus repeating the analyses nine times, once for each of the medication groups. In no case did it change the findings linking prenatal cortisol to ASD symptoms.

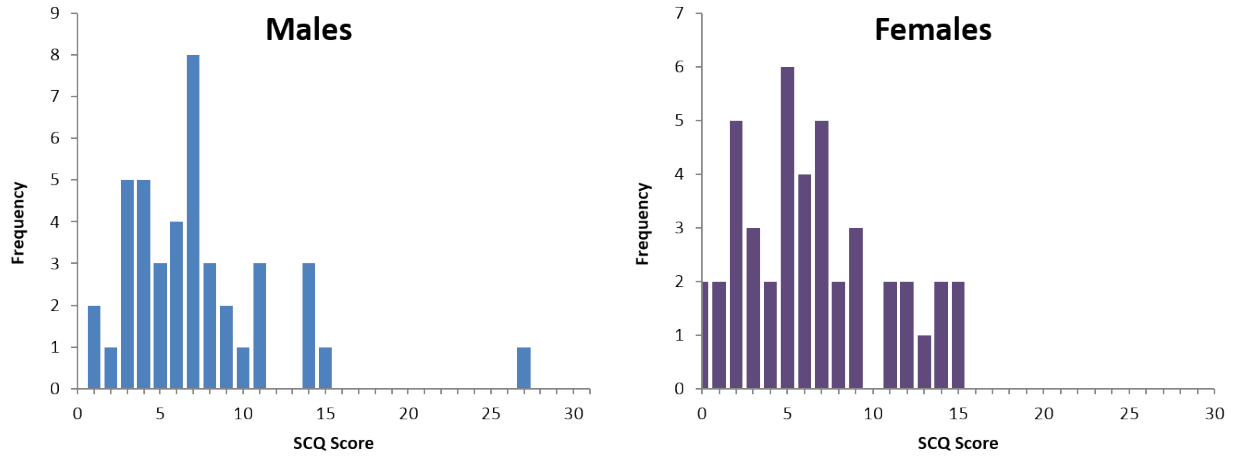


Figure S1. Distribution of SCQ scores for males and females. Note: A score of 15 or greater is used as an indication of possible ASD.