

**Table S1.** Pearson correlation coefficients between hormones.

	<b>Cortisol</b>	<b>DHEA</b>	<b>Testosterone</b>	<b>Estradiol</b>
<b>Boys</b>				
<b>Cortisol</b>	1	0.18 <sup>a</sup>	0.25 <sup>a</sup>	0.09
<b>DHEA</b>		1	0.61 <sup>a</sup>	0.29 <sup>a</sup>
<b>Testosterone</b>			1	0.37 <sup>a</sup>
<b>Estradiol</b>				1
<b>Girls</b>				
<b>Cortisol</b>	1	0.36 <sup>a</sup>	0.41 <sup>a</sup>	-
<b>DHEA</b>		1	0.66 <sup>a</sup>	-
<b>Testosterone</b>			1	-

DHEA = dehydroepiandrosterone

<sup>a</sup> p<0.05

**Table S2.** Median hormone concentrations across tertiles of cortisol and associations of cortisol with estradiol, testosterone and DHEA.

	<b>Crude median concentrations of hormones by cortisol tertiles</b>			<b>Adjusted <math>\beta^a</math> (95% CI)</b>
	<b>1<sup>st</sup> Tertile (0.002 – 0.14 <math>\mu\text{g/mL}</math>)</b>	<b>2<sup>nd</sup> Tertile (0.15 – 0.26 <math>\mu\text{g/mL}</math>)</b>	<b>3<sup>rd</sup> Tertile (0.27 – 1.17 <math>\mu\text{g/mL}</math>)</b>	
<b>Boys</b>				
<b>Estradiol, pg/mL</b>	0.43 (0.29 - 0.64)	0.39 (0.29 - 0.49)	0.45 (0.32 - 0.64)	1.73% (-0.14%, 3.63%)
<b>Testosterone, pg/mL</b>	48.93 (24.9 - 87.6)	68.8 (36.4 - 100.8)	74.4 (43.9 - 114.7)	15.7% (8.8%, 23.2%) <sup>b</sup>
<b>DHEA, pg/mL</b>	34.0 (15.74 - 66.9)	45.8 (24.36 - 89.3)	54.1 (26.9 - 77.6)	16.3% (4.8%, 29.1%) <sup>b</sup>
<b>Girls</b>				
<b>Testosterone, pg/mL</b>	25.6 (16.8 - 32.6)	33.2 (24.4 - 42.9)	37.5 (31.2 - 52.3)	17.2% (12.1%, 22.5%) <sup>b</sup>
<b>DHEA, pg/mL</b>	51.4 (32.9 – 86.8)	85.5 (46.7 - 165.3)	112.8 (80.8 - 194.6)	26.1% (17.4%, 35.5%) <sup>b</sup>

Values presented are median (25th - 75th percentile). DHEA = dehydroepiandrosterone

<sup>a</sup> For every 10% increase in cortisol concentration, our dependent variable increases by  $\beta$  percent. Models adjusted for age, BMI-for-age z-score, parental education, household income, hemoglobin concentration, awakening time, saliva collection time, and sexual maturation.

<sup>b</sup>  $p < 0.05$

**Table S3.** Median hormone levels across tertiles of testosterone and associations of testosterone with estradiol, cortisol and DHEA (dehydroepiandrosterone).

	<b>Crude Median Levels of Hormones by Testosterone Tertiles</b>			<b>Adjusted <math>\beta^a</math> (95% CI)</b>
	<b>1<sup>st</sup> Tertile (1.28 – 3.77 pg/mL)</b>	<b>2<sup>nd</sup> Tertile (3.78 – 4.48 pg/mL)</b>	<b>3<sup>rd</sup> Tertile (4.49 – 6.45 pg/mL)</b>	
<b>Boys</b>				
<b>Estradiol, pg/mL</b>	0.38 (0.25 - 0.48)	0.39 (0.25 - 0.52)	0.55 (0.42 - 0.68)	0.90% (0.57%, 1.23%) <sup>b</sup>
<b>Cortisol, <math>\mu</math>g/dL</b>	0.16 (0.11 - 0.265)	0.22 (0.14 - 0.32)	0.24 (0.15 - 0.32)	0.50% (0.29%, 0.71%) <sup>b</sup>
<b>DHEA, pg/mL</b>	21.73 (11.7 - 39.7)	39.00 (22.33 - 59.3)	79.00 (56.1 - 122.3)	8.96% (3.97%, 10.98%) <sup>b</sup>
<b>Girls</b>				
	<b>1<sup>st</sup> Tertile (2.01 – 3.31 pg/mL)</b>	<b>2<sup>nd</sup> Tertile (3.32 – 3.69 pg/mL)</b>	<b>3<sup>rd</sup> Tertile (3.67 – 4.96 pg/mL)</b>	
<b>Cortisol, <math>\mu</math>g/dL</b>	0.14 (0.10 - 0.23)	0.22 (0.16 - 0.32)	0.23 (0.18 - 0.35)	0.95% (0.68%, 1.20%) <sup>b</sup>
<b>DHEA, pg/mL</b>	42.8 (23.3 - 63.1)	87.4 (62.2 - 147.4)	128.5 (86.8 - 223.5)	10.1% (8.5%, 11.7%) <sup>b</sup>

Values presented are median (25th - 75th percentile). DHEA = dehydroepiandrosterone

<sup>a</sup> For every 10% increase in cortisol concentration, our dependent variable increases by  $\beta$  percent. Models adjusted for age, BMI-for-age z-score, parental education, household income, hemoglobin concentration, awakening time, saliva collection time, and sexual maturation.

<sup>b</sup>  $p < 0.05$