

## **Analyses excluding the effect of radiofrequency head coil**

### **Statistical approach**

Due to an unexpected technical problem, 17 out of 35 scans from the adults' samples were acquired using a different radio frequency head coil at the time point 2. There were no significant differences between the adult groups in the number of scans acquired with this head coil ( $\chi^2= 0.485$ , p-value= 0.486).

**Supplementary Table.** Distribution of the head coils across the different samples.

<b>Pre- Post session</b>	<b>Mothers</b>	<b>Female Control</b>
<b>8ch - 8ch</b>	15	13
<b>8ch -16ch</b>	10	7

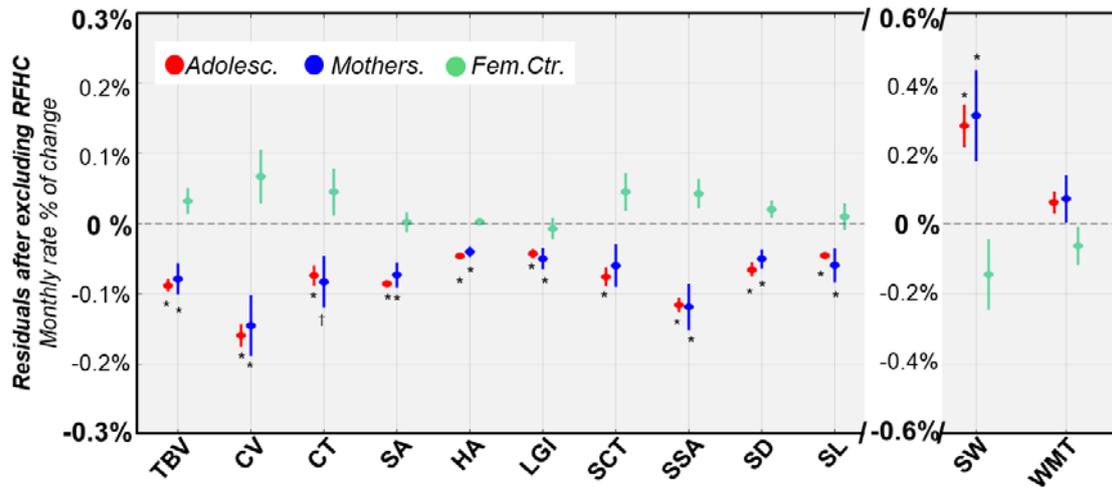
Nevertheless, to err on the side of caution, we fitted a General Linear Model using as covariate the radio frequency head coil. Then, we repeated the main analyses (one-sample T-test, ANOVA and pairwise comparisons) using the residuals of the monthly rate percentage of change.

### **Results**

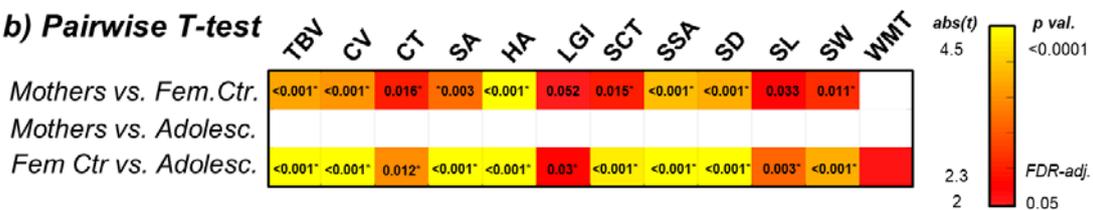
As indicated in the figure below, the p-values after excluding the effect of head coil were comparable to those obtained in the main analyses (Figure II of the manuscript).

## Whole Brain Metrics

### a) One-sample T-test



### b) Pairwise T-test



**Supplementary Figure.** Whole brain longitudinal changes for each morphological measure after excluding the effect of the radio-frequency head coil. **a)** One-sample T-test analysis of the residual of monthly rate percentage of change (y-axis). Results have different colors for each sample group (adolescents, mothers and female controls). Circles indicate the means and dispersion bars indicate the standard errors of the means. Asterisks indicate the one-sample T-test comparisons that survive the FDR adjusted threshold at  $q < 0.05$ , which corresponds to an uncorrected p-value of 0.0263 and an absolute t-value (abs(t)) of 2.37. Crosses indicate the one-sample T-test comparisons that survive the uncorrected threshold of p-value  $< 0.05$  but not the FDR-adjusted threshold of  $q < 0.05$ . **b)** Two-sample T-test pairwise comparisons: 1) mothers vs. female controls; 2) mothers vs. adolescents; and 3) adolescents vs. female controls. Reported p-values refer to the uncorrected p-values. Results have different colors for different thresholds, with p-value  $< 0.05$  uncorrected as the most lenient threshold. Asterisk indicate the two-sample T-test comparisons that survive the FDR adjusted threshold at  $q < 0.05$ , which corresponds to an uncorrected p-value of 0.0265 and an absolute t-value (abs(t)) of 2.30. Abbreviations: Adolesc: Adolescent sample; Fem.Ctr: Female control sample; RFHC: radiofrequency head coil; TBV: total brain volume; CV: gray matter cortical volume; CT: cortical thickness; SA: surface area; HA: hull area; LGI: local gyrification index; SCT: sulcal CT; SSA: sulcal SA; SD: sulcal depth; SL: sulcal length; SW: sulcal width and WMT: gyral white matter thickness.