

Supplementary Table SVI Longitudinal associations of bisphenol and phthalate concentrations and placental hemodynamic function markers^a.

| | Umbilical artery pulsatility index, SD (95% CI) (n = 1217) | | Uterine artery resistance index, SD (95% CI) (n = 1134) | |
|---------------------------|--|------------------------|---|---------------------|
| | Intercept ^b | Slope ^c | Intercept ^b | Slope ^c |
| Total bisphenols | 0.16 (0.02, 0.31)* | -0.01 (-0.01, -0.00)* | -1.77 (-2.93, -0.60)*† | 0.09 (0.03, 0.14)*† |
| Bisphenol A | 0.15 (0.03, 0.26)*† | -0.01 (-0.01, -0.00)*† | -1.28 (-2.24, -0.33)*† | 0.06 (0.02, 0.11)*† |
| Bisphenol S | 0.04 (-0.07, 0.15) | -0.00 (-0.01, 0.00) | -0.62 (-1.50, 0.26) | 0.03 (-0.01, 0.07) |
| Phthalic acid | 0.08 (-0.08, 0.24) | -0.00 (-0.01, 0.00) | -0.49 (-1.89, 0.91) | 0.03 (-0.04, 0.09) |
| LMW phthalate metabolites | 0.04 (-0.09, 0.17) | -0.00 (-0.01, 0.00) | 0.04 (-1.10, 1.19) | -0.00 (-0.06, 0.06) |
| HMW phthalate metabolites | 0.16 (-0.02, 0.34) | -0.01 (-0.01, -0.01)* | 0.30 (-1.04, 1.63) | -0.01 (-0.08, 0.05) |
| DEHP metabolites | 0.15 (-0.03, 0.32) | -0.01 (-0.01, -0.00)* | 0.31 (-0.98, 1.59) | -0.01 (-0.08, 0.05) |
| DNOP metabolites | 0.10 (-0.07, 0.27) | -0.00 (-0.01, 0.00) | 0.32 (-1.06, 1.70) | -0.01 (-0.08, 0.05) |

^aChange in umbilical artery pulsatility index and uterine artery resistance index per natural log unit increase of Total bisphenols/BPA/BPS/Phthalic acid/LMW/HMW/DEHP/DNOP metabolite concentrations based on repeated measurement analysis (hemodynamic function marker Z-score = $\beta_0 + \beta_1 \times \log \text{ unit compound} + \beta_2 \times \text{gestational age} + \beta_3 \times \log \text{ unit compound} \times \text{gestational age} + \beta_4 \times \text{additional covariates}$).

^bValues are regression coefficients (95% CI) from multivariable unbalanced repeated measurement regression models that reflect the change in hemodynamic function marker per natural log unit increase of Total bisphenols/BPA/BPS/Phthalic acid/LMW/HMW/DEHP/DNOP metabolite concentrations (β_2).

^cValues are regression coefficients (95% CI) from multivariable unbalanced repeated measurement regression models that reflect the change in hemodynamic function marker in mmHg per natural log unit increase of Total bisphenols/BPA/BPS/Phthalic acid/LMW/HMW/DEHP/DNOP metabolite concentrations per gestational age in weeks (β_4).

Models were adjusted for maternal age, maternal pre-pregnancy BMI, parity, ethnicity, education, maternal smoking, maternal alcohol, folic acid supplementation and urinary creatinine.

*P-value <0.05. †Significant with Bonferroni correction.