* Endocrine disruptors may perturb the hypothalamic-pituitary-adrenal axis.
* We evaluated the effects of childhood exposure to multiple endocrine disruptors.
* Phenols and phthalate metabolites were associated with lower attention.
* Multiple endocrine disruptors were associated with higher levels of glucocorticoids.
* Glucocorticoids were associated with lower attention in a sex-specific manner.