

Supplemental Material

Childhood Exposure to Phthalates - Associations with Thyroid Function, Insulin-like Growth Factor I (IGF-I) and Growth.

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Supplemental Material, Table 1.

Regression coefficients (B) with 95% confidence intervals and *p*-values for associations between phthalate metabolites and total T4, free T4, total F3 and free T3 in 4-9 years old prepubertal children (n=758). All analyses adjusted for age and gender. *: *P*<0.05.

	Crude analysis						Creatinine-corrected analysis					
	All		Boys		Girls		All		Boys		Girls	
	B (95% CI)	<i>p</i>	B (95% CI)	<i>p</i>	B (95% CI)	<i>p</i>	B (95% CI)	<i>p</i>	B (95% CI)	<i>p</i>	B (95% CI)	<i>p</i>
<i>Total T4</i>												
MEP	-1.49 (-4.28 - 1.29)	0.293	1.72 (-2.08 - 5.52)	0.375	-5.19 (-9.28 - -1.10)	0.013*	-1.18 (-4.93 - 2.58)	0.538	3.56 (-1.37 - 8.50)	0.156	-7.58 (-13.34 - -1.82)	0.010*
MBP	-2.18 (-5.82 - 1.46)	0.241	-0.59 (-5.36 - 4.18)	0.808	-4.34 (-10.01 - 1.33)	0.133	-1.64 (-7.08 - 3.80)	0.554	0.06 (-6.88 - 6.99)	0.987	-4.28 (-13.22 - 4.66)	0.347
MBzP	-2.34 (-4.39 - -0.28)	0.026*	-2.02 (-4.72 - 0.67)	0.141	-2.78 (-5.99 - 0.43)	0.090	-2.90 (-5.46 - -0.34)	0.027*	-2.74 (-6.04 - 0.56)	0.104	-3.13 (-7.22 - 0.96)	0.133
MEHP	-1.47 (-4.55 - 1.61)	0.348	0.66 (-3.42 - 4.74)	0.751	-4.27 (-8.98 - 0.45)	0.076	-0.65 (-4.37 - 3.07)	0.733	1.63 (-3.31 - 6.57)	0.517	-3.58 (-9.29 - 2.13)	0.218
MEHHHP	0.36 (-2.66 - 3.39)	0.815	3.04 (-0.85 - 6.93)	0.126	-3.63 (-8.44 - 1.18)	0.139	2.52 (-1.60 - 6.64)	0.230	6.24 (1.02 - 11.45)	0.019*	-3.42 (-10.17 - 3.32)	0.319
MEOHP	-0.12 (-3.34 - 3.09)	0.939	2.38 (-1.78 - 6.54)	0.261	-3.79 (-8.88 - 1.31)	0.145	1.86 (-2.53 - 6.24)	0.406	5.27 (-0.37 - 10.91)	0.067	-3.18 (-10.21 - 3.85)	0.374
MECPP	-0.77 (-4.07 - 2.53)	0.647	1.45 (-2.94 - 5.83)	0.517	-3.61 (-8.63 - 1.42)	0.159	0.77 (-3.75 - 5.29)	0.738	3.40 (-2.36 - 9.15)	0.247	-3.34 (-10.73 - 4.05)	0.374
MHiNP	-0.54 (-5.35 - 4.26)	0.824	-3.73 (-10.25 - 2.80)	0.260	2.36 (-4.78 - 9.50)	0.514	2.48 (-4.11 - 9.06)	0.460	-2.20 (-11.43 - 7.03)	0.638	6.36 (-3.20 - 15.92)	0.190
MOiNP	-0.60 (-5.61 - 4.40)	0.812	-2.88 (-9.46 - 3.70)	0.388	1.78 (-5.93 - 9.49)	0.649	2.59 (-4.18 - 9.36)	0.451	-0.41 (-9.31 - 8.48)	0.927	5.79 (-4.68 - 16.26)	0.276
MCiOP	-0.31 (-3.34 - 2.72)	0.841	-0.40 (-4.31 - 3.51)	0.840	-0.17 (-5.00 - 4.66)	0.944	1.14 (-2.76 - 5.05)	0.566	0.02 (-4.74 - 4.78)	0.994	3.47 (-3.40 - 10.34)	0.321
Σ DEHP-met.	-0.17 (-3.43 - 3.09)	0.918	2.53 (-1.72 - 6.78)	0.243	-3.94 (-9.02 - 1.14)	0.128	1.91 (-2.64 - 6.46)	0.410	5.65 (-0.15 - 11.45)	0.056	-3.85 (-11.21 - 3.52)	0.305
Phthalate score	-0.17 (-0.46 - 0.13)	0.273	0.07 (-0.32 - 0.47)	0.710	-0.48 (-0.94 - -0.03)	0.037*	-0.13 (-0.52 - 0.27)	0.531	0.24 (-0.27 - 0.76)	0.351	-0.67 (-1.30 - -0.04)	0.037*
<i>Free T4</i>												
MEP	-0.01 (-0.28 - 0.26)	0.926	0.05 (-0.31 - 0.42)	0.772	-0.09 (-0.49 - 0.31)	0.662	-0.07 (-0.43 - 0.29)	0.706	0.15 (-0.33 - 0.63)	0.535	-0.37 (-0.94 - 0.20)	0.201
MBP	-0.04 (-0.39 - 0.31)	0.822	-0.11 (-0.57 - 0.35)	0.647	0.05 (-0.51 - 0.61)	0.861	-0.19 (-0.72 - 0.34)	0.483	-0.11 (-0.78 - 0.56)	0.744	-0.33 (-1.20 - 0.54)	0.458
MBzP	-0.19 (-0.39 - 0.01)	0.059	-0.19 (-0.45 - 0.07)	0.152	-0.20 (-0.51 - 0.12)	0.220	-0.32 (-0.57 - -0.07)	0.012*	-0.26 (-0.58 - 0.06)	0.112	-0.41 (-0.81 - -0.01)	0.042*
MEHP	-0.01 (-0.31 - 0.29)	0.954	0.06 (-0.33 - 0.45)	0.757	-0.10 (-0.57 - 0.36)	0.662	-0.06 (-0.42 - 0.30)	0.749	0.15 (-0.33 - 0.62)	0.537	-0.33 (-0.89 - 0.22)	0.238
MEHHHP	0.11 (-0.18 - 0.41)	0.449	0.28 (-0.10 - 0.65)	0.147	-0.13 (-0.60 - 0.34)	0.581	0.15 (-0.25 - 0.55)	0.449	0.57 (0.06 - 1.07)	0.027*	-0.52 (-1.17 - 0.14)	0.123
MEOHP	0.06 (-0.25 - 0.37)	0.710	0.19 (-0.21 - 0.59)	0.349	-0.14 (-0.64 - 0.36)	0.591	0.05 (-0.38 - 0.47)	0.832	0.43 (-0.11 - 0.97)	0.121	-0.54 (-1.22 - 0.15)	0.123
MECPP	-0.01 (-0.33 - 0.31)	0.963	0.07 (-0.35 - 0.50)	0.733	-0.11 (-0.61 - 0.38)	0.652	-0.08 (-0.52 - 0.36)	0.713	0.21 (-0.35 - 0.76)	0.465	-0.55 (-1.27 - 0.17)	0.132
MHiNP	0.17 (-0.28 - 0.62)	0.450	0.05 (-0.60 - 0.70)	0.870	0.29 (-0.34 - 0.92)	0.360	0.32 (-0.29 - 0.93)	0.303	0.19 (-0.72 - 1.11)	0.676	0.45 (-0.39 - 1.29)	0.289
MOiNP	0.08 (-0.39 - 0.54)	0.750	0.15 (-0.50 - 0.81)	0.644	0.00 (-0.68 - 0.68)	0.996	0.14 (-0.50 - 0.77)	0.673	0.36 (-0.52 - 1.24)	0.422	-0.08 (-1.01 - 0.84)	0.856
MCiOP	0.03 (-0.27 - 0.32)	0.860	-0.10 (-0.47 - 0.28)	0.605	0.21 (-0.26 - 0.68)	0.374	-0.01 (-0.38 - 0.37)	0.972	-0.09 (-0.55 - 0.37)	0.691	0.17 (-0.51 - 0.84)	0.628
Σ DEHP-met.	0.06 (-0.26 - 0.37)	0.716	0.20 (-0.21 - 0.61)	0.339	-0.14 (-0.64 - 0.36)	0.580	0.05 (-0.40 - 0.49)	0.840	0.45 (-0.10 - 1.01)	0.111	-0.60 (-1.32 - 0.12)	0.101
Phthalate score	-0.01 (-0.04 - 0.02)	0.604	0.00 (-0.04 - 0.03)	0.880	-0.01 (-0.06 - 0.03)	0.542	-0.03 (-0.06 - 0.01)	0.186	0.01 (-0.04 - 0.06)	0.820	-0.07 (-0.13 - -0.01)	0.019*

(Table 1)

	Crude analysis						Creatinine-corrected analysis					
	All		Boys		Girls		All		Boys		Girls	
	B (95% CI)	p	B (95% CI)	p	B (95% CI)	p	B (95% CI)	p	B (95% CI)	p	B (95% CI)	p
<i>Total T3</i>												
MEP	-0.06 (-0.11 - -0.01)	0.015*	-0.01 (-0.08 - 0.06)	0.829	-0.12 (-0.19 - -0.05)	0.001*	-0.02 (-0.08 - 0.05)	0.605	0.05 (-0.04 - 0.14)	0.262	-0.11 (-0.21 - -0.01)	0.026*
MBP	-0.09 (-0.16 - -0.03)	0.005*	-0.06 (-0.15 - 0.02)	0.143	-0.14 (-0.23 - -0.04)	0.007*	-0.01 (-0.10 - 0.09)	0.873	-0.01 (-0.14 - 0.12)	0.875	-0.02 (-0.18 - 0.13)	0.780
MBzP	-0.05 (-0.08 - -0.01)	0.016*	-0.04 (-0.08 - 0.01)	0.150	-0.06 (-0.11 - 0.00)	0.041*	-0.03 (-0.07 - 0.02)	0.266	-0.03 (-0.08 - 0.03)	0.412	-0.03 (-0.10 - 0.04)	0.436
MEHP	-0.05 (-0.11 - 0.00)	0.066	-0.01 (-0.09 - 0.06)	0.754	-0.11 (-0.19 - -0.02)	0.011*	0.02 (-0.05 - 0.08)	0.606	0.05 (-0.04 - 0.14)	0.307	-0.03 (-0.13 - 0.07)	0.605
MEHHP	-0.03 (-0.09 - 0.02)	0.248	0.01 (-0.06 - 0.08)	0.769	-0.10 (-0.18 - -0.01)	0.024*	0.05 (-0.02 - 0.13)	0.145	0.09 (0.00 - 0.19)	0.059	-0.01 (-0.13 - 0.11)	0.864
MEOHP	-0.04 (-0.10 - 0.02)	0.174	0.00 (-0.07 - 0.08)	0.958	-0.10 (-0.19 - -0.02)	0.021*	0.05 (-0.02 - 0.13)	0.171	0.09 (-0.01 - 0.19)	0.093	0.00 (-0.13 - 0.12)	0.953
MECPP	-0.04 (-0.10 - 0.01)	0.140	-0.01 (-0.09 - 0.07)	0.846	-0.09 (-0.18 - -0.01)	0.035*	0.05 (-0.03 - 0.13)	0.193	0.07 (-0.03 - 0.18)	0.167	0.01 (-0.12 - 0.14)	0.854
MHiNP	-0.03 (-0.12 - 0.05)	0.445	-0.05 (-0.17 - 0.08)	0.451	-0.02 (-0.14 - 0.09)	0.680	0.02 (-0.09 - 0.14)	0.687	-0.04 (-0.21 - 0.14)	0.693	0.06 (-0.10 - 0.22)	0.429
MOiNP	-0.06 (-0.15 - 0.03)	0.191	-0.05 (-0.18 - 0.07)	0.397	-0.07 (-0.20 - 0.06)	0.281	-0.02 (-0.14 - 0.10)	0.784	-0.04 (-0.21 - 0.13)	0.617	0.00 (-0.17 - 0.17)	0.997
MCiOP	-0.07 (-0.12 - -0.01)	0.017*	-0.07 (-0.14 - 0.00)	0.060	-0.06 (-0.15 - 0.02)	0.142	-0.01 (-0.08 - 0.06)	0.837	-0.04 (-0.13 - 0.04)	0.347	0.06 (-0.06 - 0.18)	0.345
Σ DEHP-met.	-0.04 (-0.10 - 0.02)	0.170	0.00 (-0.07 - 0.08)	0.950	-0.10 (-0.19 - -0.01)	0.022*	0.06 (-0.02 - 0.14)	0.153	0.09 (-0.01 - 0.20)	0.082	0.00 (-0.13 - 0.13)	0.965
Phthalate score	-0.01 (-0.01 - 0.00)	0.018*	0.00 (-0.01 - 0.00)	0.518	-0.01 (-0.02 - 0.00)	0.003*	0.00 (-0.01 - 0.01)	0.769	0.00 (-0.01 - 0.01)	0.630	0.00 (-0.01 - 0.01)	0.773
<i>Free T3</i>												
MEP	-0.13 (-0.23 - -0.03)	0.013*	-0.08 (-0.22 - 0.06)	0.253	-0.18 (-0.32 - -0.04)	0.013*	0.00 (-0.14 - 0.14)	0.986	0.10 (-0.09 - 0.28)	0.310	-0.14 (-0.34 - 0.06)	0.179
MBP	-0.21 (-0.34 - -0.07)	0.002*	-0.26 (-0.44 - -0.08)	0.004*	-0.15 (-0.34 - 0.05)	0.141	0.03 (-0.17 - 0.23)	0.785	-0.09 (-0.34 - 0.17)	0.517	0.15 (-0.15 - 0.46)	0.325
MBzP	-0.08 (-0.16 - -0.01)	0.032*	-0.08 (-0.18 - 0.02)	0.137	-0.09 (-0.20 - 0.02)	0.120	-0.02 (-0.11 - 0.08)	0.710	-0.01 (-0.13 - 0.11)	0.883	-0.03 (-0.18 - 0.11)	0.643
MEHP	-0.13 (-0.24 - -0.01)	0.027*	-0.13 (-0.28 - 0.03)	0.106	-0.13 (-0.30 - 0.03)	0.106	0.04 (-0.09 - 0.18)	0.525	0.05 (-0.13 - 0.24)	0.588	0.02 (-0.18 - 0.21)	0.873
MEHHP	-0.13 (-0.24 - -0.02)	0.024*	-0.10 (-0.24 - 0.05)	0.199	-0.18 (-0.34 - -0.01)	0.036*	0.05 (-0.11 - 0.20)	0.556	0.09 (-0.10 - 0.29)	0.356	-0.05 (-0.29 - 0.18)	0.660
MEOHP	-0.15 (-0.27 - -0.03)	0.012*	-0.13 (-0.29 - 0.02)	0.092	-0.18 (-0.36 - -0.01)	0.040*	0.04 (-0.12 - 0.20)	0.636	0.06 (-0.15 - 0.27)	0.565	-0.03 (-0.27 - 0.22)	0.823
MECPP	-0.17 (-0.29 - -0.05)	0.004*	-0.16 (-0.32 - 0.00)	0.053	-0.20 (-0.37 - -0.03)	0.025*	0.01 (-0.15 - 0.17)	0.902	0.04 (-0.17 - 0.26)	0.711	-0.07 (-0.33 - 0.18)	0.579
MHiNP	-0.09 (-0.25 - 0.07)	0.274*	-0.19 (-0.44 - 0.06)	0.130	0.00 (-0.22 - 0.22)	0.987	-0.08 (-0.30 - 0.15)	0.496	-0.24 (-0.59 - 0.11)	0.180	0.05 (-0.24 - 0.34)	0.732
MOiNP	-0.17 (-0.33 - 0.00)	0.054	-0.21 (-0.46 - 0.04)	0.093	-0.12 (-0.35 - 0.11)	0.309	-0.21 (-0.43 - 0.02)	0.079	-0.26 (-0.59 - 0.08)	0.134	-0.16 (-0.48 - 0.16)	0.323
MCiOP	-0.18 (-0.28 - -0.07)	0.002*	-0.21 (-0.35 - -0.07)	0.005*	-0.12 (-0.29 - 0.04)	0.144	-0.04 (-0.18 - 0.10)	0.580	-0.09 (-0.27 - 0.08)	0.300	0.06 (-0.18 - 0.29)	0.648
Σ DEHP-met.	-0.15 (-0.27 - -0.04)	0.011*	-0.13 (-0.29 - 0.03)	0.107	-0.19 (-0.37 - -0.02)	0.030*	0.04 (-0.12 - 0.21)	0.626	0.08 (-0.14 - 0.30)	0.460	-0.05 (-0.31 - 0.20)	0.689
Phthalate score	-0.01 (-0.03 - 0.00)	0.006*	-0.01 (-0.03 - 0.00)	0.061	-0.02 (-0.03 - 0.00)	0.038*	0.00 (-0.01 - 0.02)	0.562	0.00 (-0.02 - 0.02)	0.844	0.00 (-0.02 - 0.03)	0.662

Supplemental Material, Table 2.

Regression coefficients (B) with 95% confidence intervals and *p*-values for associations between phthalate metabolites and TSH, IGF-I and IGFBP-3 in 4-9 years old prepubertal children (n=758). All analyses adjusted for age and gender. *: *P*<0.05.

	Crude analysis				Creatinine-corrected analysis							
	All		Boys		Girls		All		Boys		Girls	
	B (95% CI)	<i>p</i>	B (95% CI)	<i>p</i>	B (95% CI)	<i>p</i>	B (95% CI)	<i>p</i>	B (95% CI)	<i>p</i>	B (95% CI)	<i>p</i>
<i>TSH</i>												
MEP	0.02 (-0.01 - 0.04)	0.299	0.02 (-0.02 - 0.05)	0.410	0.01 (-0.03 - 0.06)	0.527	0.06 (0.02 - 0.10)	0.005*	0.06 (0.01 - 0.11)	0.028*	0.06 (-0.01 - 0.12)	0.087
MBP	0.00 (-0.04 - 0.03)	0.826	-0.01 (-0.06 - 0.03)	0.564	0.01 (-0.05 - 0.07)	0.786	0.05 (-0.01 - 0.11)	0.092	0.03 (-0.04 - 0.10)	0.468	0.08 (-0.01 - 0.18)	0.092
MBzP	-0.01 (-0.03 - 0.01)	0.471	0.00 (-0.03 - 0.03)	0.914	-0.02 (-0.06 - 0.01)	0.245	0.00 (-0.03 - 0.03)	0.956	0.02 (-0.02 - 0.05)	0.380	-0.02 (-0.07 - 0.02)	0.366
MEHP	0.00 (-0.03 - 0.04)	0.872	-0.02 (-0.06 - 0.02)	0.424	0.03 (-0.02 - 0.08)	0.293	0.03 (-0.01 - 0.07)	0.116	0.00 (-0.05 - 0.05)	0.884	0.07 (0.00 - 0.13)	0.038*
MEHHP	0.00 (-0.03 - 0.03)	0.974	-0.01 (-0.05 - 0.03)	0.568	0.02 (-0.03 - 0.07)	0.499	0.03 (-0.01 - 0.08)	0.116	0.01 (-0.04 - 0.06)	0.679	0.07 (0.00 - 0.15)	0.058
MEOHP	0.00 (-0.03 - 0.04)	0.865	0.00 (-0.05 - 0.04)	0.861	0.01 (-0.04 - 0.07)	0.668	0.04 (0.00 - 0.09)	0.063	0.03 (-0.03 - 0.09)	0.299	0.06 (-0.02 - 0.14)	0.114
MECPP	-0.01 (-0.04 - 0.03)	0.657	-0.01 (-0.06 - 0.03)	0.597	0.00 (-0.06 - 0.05)	0.917	0.03 (-0.02 - 0.07)	0.287	0.02 (-0.04 - 0.08)	0.546	0.04 (-0.04 - 0.12)	0.377
MHiNP	-0.02 (-0.07 - 0.03)	0.436	0.03 (-0.04 - 0.11)	0.390	-0.07 (-0.14 - 0.00)	0.061	-0.02 (-0.09 - 0.05)	0.626	0.10 (-0.01 - 0.20)	0.074	-0.11 (-0.21 - 0.01)	0.025*
MOINP	-0.01 (-0.07 - 0.04)	0.687	0.04 (-0.04 - 0.11)	0.320	-0.06 (-0.14 - 0.02)	0.117	0.00 (-0.07 - 0.08)	0.960	0.10 (0.00 - 0.20)	0.058	-0.10 (-0.21 - 0.01)	0.067
MCiOP	-0.02 (-0.05 - 0.01)	0.247	0.01 (-0.03 - 0.05)	0.762	-0.06 (-0.11 - 0.00)	0.039*	0.00 (-0.04 - 0.04)	0.963	0.04 (-0.01 - 0.08)	0.149	-0.08 (-0.15 - 0.00)	0.048*
Σ DEHP-met.	0.00 (-0.04 - 0.03)	0.879	-0.01 (-0.06 - 0.03)	0.561	0.01 (-0.05 - 0.07)	0.697	0.04 (-0.01 - 0.08)	0.141	0.02 (-0.04 - 0.07)	0.605	0.07 (-0.02 - 0.15)	0.110
Phthalate score	0.00 (0.00 - 0.00)	0.889	0.00 (0.00 - 0.00)	0.865	0.00 (-0.01 - 0.00)	0.700	0.00 (0.00 - 0.01)	0.061	0.00 (0.00 - 0.01)	0.139	0.00 (0.00 - 0.01)	0.269
<i>IGF-I</i>												
MEP	-0.01 (-0.04 - 0.01)	0.213	-0.01 (-0.04 - 0.02)	0.479	-0.02 (-0.05 - 0.02)	0.292	-0.01 (-0.04 - 0.02)	0.559	0.00 (-0.04 - 0.04)	0.921	-0.02 (-0.07 - 0.02)	0.309
MBP	-0.01 (-0.04 - 0.02)	0.671	-0.01 (-0.05 - 0.03)	0.536	0.00 (-0.05 - 0.05)	0.961	0.02 (-0.02 - 0.07)	0.336	0.02 (-0.04 - 0.07)	0.574	0.03 (-0.04 - 0.10)	0.427
MBzP	-0.01 (-0.02 - 0.01)	0.383	-0.02 (-0.04 - 0.01)	0.170	0.00 (-0.02 - 0.03)	0.796	0.00 (-0.02 - 0.02)	0.737	-0.01 (-0.04 - 0.01)	0.321	0.01 (-0.02 - 0.05)	0.510
MEHP	-0.02 (-0.04 - 0.01)	0.164	-0.05 (-0.08 - 0.02)	0.003*	0.02 (-0.01 - 0.06)	0.222	-0.01 (-0.04 - 0.02)	0.550	-0.05 (-0.09 - 0.01)	0.010*	0.05 (0.00 - 0.09)	0.053
MEHHP	-0.02 (-0.05 - 0.00)	0.072	-0.04 (-0.07 - 0.01)	0.012*	0.00 (-0.04 - 0.04)	0.856	-0.02 (-0.06 - 0.01)	0.212	-0.05 (-0.09 - 0.01)	0.023*	0.02 (-0.03 - 0.08)	0.426
MEOHP	-0.04 (-0.06 - 0.01)	0.009*	-0.05 (-0.09 - 0.02)	0.002*	-0.01 (-0.05 - 0.03)	0.697	-0.04 (-0.08 - 0.01)	0.021*	-0.07 (-0.12 - 0.03)	0.002*	0.00 (-0.06 - 0.06)	0.977
MECPP	-0.04 (-0.07 - 0.01)	0.002*	-0.06 (-0.10 - 0.03)	0.001*	-0.02 (-0.06 - 0.03)	0.449	-0.05 (-0.09 - 0.02)	0.004*	-0.08 (-0.12 - 0.03)	0.001*	-0.02 (-0.08 - 0.05)	0.605
MHiNP	-0.03 (-0.07 - 0.00)	0.085*	-0.07 (-0.13 - 0.02)	0.013*	0.00 (-0.05 - 0.05)	0.932	-0.04 (-0.10 - 0.01)	0.100	-0.10 (-0.18 - 0.02)	0.016*	0.00 (-0.07 - 0.07)	0.956
MOINP	-0.04 (-0.08 - 0.00)	0.030*	-0.07 (-0.13 - 0.01)	0.019*	-0.02 (-0.07 - 0.04)	0.539	-0.06 (-0.12 - 0.01)	0.028*	-0.08 (-0.16 - 0.01)	0.034*	-0.04 (-0.11 - 0.04)	0.366
MCiOP	-0.04 (-0.06 - 0.01)	0.003*	-0.04 (-0.08 - 0.01)	0.006*	-0.03 (-0.07 - 0.01)	0.153	-0.04 (-0.08 - 0.01)	0.006*	-0.05 (-0.08 - 0.01)	0.020*	-0.04 (-0.10 - 0.01)	0.137
Σ DEHP-met.	-0.03 (-0.06 - 0.01)	0.014*	-0.05 (-0.09 - 0.02)	0.002*	0.00 (-0.05 - 0.04)	0.816	-0.04 (-0.08 - 0.00)	0.034*	-0.07 (-0.12 - 0.02)	0.003*	0.01 (-0.05 - 0.07)	0.798
Phthalate score	0.00 (-0.01 - 0.00)	0.027*	0.00 (-0.01 - 0.00)	0.011*	0.00 (0.00 - 0.00)	0.639	0.00 (0.00 - 0.00)	0.307	0.00 (-0.01 - 0.00)	0.106	0.00 (0.00 - 0.01)	0.769
<i>IGFBP-3</i>												
MEP	0.00 (-0.02 - 0.01)	0.880	0.00 (-0.02 - 0.02)	0.642	-0.01 (-0.03 - 0.01)	0.458	0.02 (0.00 - 0.04)	0.105	0.03 (0.00 - 0.05)	0.050*	0.00 (-0.03 - 0.03)	0.845
MBP	-0.02 (-0.04 - 0.00)	0.020*	-0.02 (-0.05 - 0.01)	0.143	-0.03 (-0.06 - 0.00)	0.063	-0.01 (-0.04 - 0.02)	0.426	0.00 (-0.04 - 0.03)	0.861	-0.02 (-0.07 - 0.02)	0.309
MBzP	-0.01 (-0.02 - 0.00)	0.271	-0.01 (-0.02 - 0.01)	0.315	0.00 (-0.02 - 0.01)	0.606	0.00 (-0.01 - 0.01)	0.909	0.00 (-0.02 - 0.01)	0.753	0.00 (-0.02 - 0.02)	0.827
MEHP	-0.02 (-0.04 - 0.01)	0.003*	-0.03 (-0.05 - 0.01)	0.003*	-0.01 (-0.04 - 0.01)	0.262	-0.02 (-0.04 - 0.00)	0.079	-0.03 (-0.06 - 0.00)	0.030*	0.00 (-0.03 - 0.03)	0.888
MEHHP	-0.02 (-0.04 - 0.01)	0.010*	-0.02 (-0.04 - 0.00)	0.052	-0.02 (-0.05 - 0.00)	0.088	-0.02 (-0.04 - 0.01)	0.132	-0.02 (-0.04 - 0.01)	0.251	-0.02 (-0.05 - 0.02)	0.343
MEOHP	-0.03 (-0.05 - 0.01)	0.001*	-0.03 (-0.05 - 0.01)	0.011*	-0.03 (-0.06 - 0.00)	0.029*	-0.03 (-0.05 - 0.01)	0.015	-0.03 (-0.06 - 0.00)	0.061	-0.03 (-0.06 - 0.01)	0.132
MECPP	-0.03 (-0.04 - 0.01)	0.002*	-0.02 (-0.05 - 0.00)	0.038*	-0.03 (-0.06 - 0.00)	0.021*	-0.02 (-0.05 - 0.00)	0.046	-0.02 (-0.05 - 0.01)	0.268	-0.03 (-0.07 - 0.00)	0.074
MHiNP	-0.02 (-0.05 - 0.01)	0.119	-0.03 (-0.07 - 0.01)	0.152	-0.01 (-0.05 - 0.02)	0.482	-0.03 (-0.06 - 0.01)	0.149	-0.04 (-0.09 - 0.02)	0.181	-0.02 (-0.07 - 0.04)	0.557
MOINP	-0.03 (-0.05 - 0.00)	0.065	-0.03 (-0.07 - 0.01)	0.106	-0.02 (-0.06 - 0.02)	0.359	-0.03 (-0.07 - 0.00)	0.075	-0.04 (-0.09 - 0.01)	0.127	-0.02 (-0.08 - 0.03)	0.392
MCiOP	-0.02 (-0.04 - 0.01)	0.009*	-0.02 (-0.04 - 0.00)	0.088	-0.03 (-0.05 - 0.00)	0.041*	-0.02 (-0.04 - 0.01)	0.148	-0.01 (-0.04 - 0.02)	0.456	-0.03 (-0.06 - 0.01)	0.149
Σ DEHP-met.	-0.03 (-0.04 - 0.01)	0.002*	-0.03 (-0.05 - 0.00)	0.023*	-0.03 (-0.05 - 0.00)	0.041*	-0.03 (-0.05 - 0.00)	0.040*	-0.02 (-0.05 - 0.01)	0.135	-0.03 (-0.06 - 0.01)	0.168
Phthalate score	0.00 (0.00 - 0.00)	0.020*	0.00 (0.00 - 0.00)	0.068	0.00 (0.00 - 0.00)	0.146	0.00 (0.00 - 0.00)	0.673	0.00 (0.00 - 0.00)	0.737	0.00 (0.00 - 0.00)	0.832

Supplemental Material, Table 3.

Regression coefficients (B) with 95% confidence intervals and *p*-values for associations between phthalate metabolites and height SDS (HSDS) (n=815), difference from midparental height SDS (DiffHSDS_{midpar}) (n=565), change in height SDS since the age of 1.5 years (Δ HSDS_{childhood}) (n=794), change in height SDS between 0 and 3 years (Δ HSDS₀₋₃) (n=661) in 4-9 years old prepubertal children. Analyses of HSDS, Δ HSDS_{childhood}, and Δ HSDS₀₋₃ adjusted for age, gender, birth length and midparental height SDS. Analyses of DiffHSDS_{midpar} adjusted for age, gender and birth length. *: *P*<0.05.

	Crude analysis						Creatinine-corrected analysis											
	All		Boys		Girls		All		Boys		Girls							
	B	(95% CI)	B	(95% CI)	<i>p</i>	B	(95% CI)	<i>p</i>	B	(95% CI)	<i>p</i>	B	(95% CI)	<i>p</i>				
<i>HSDS</i>																		
MEP	-0.07	(-0.23 - 0.08)	0.369	-0.04	(-0.24 - 0.16)	0.711	-0.10	(-0.35 - 0.15)	0.427	-0.11	(-0.31 - 0.10)	0.299	-0.15	(-0.41 - 0.10)	0.239	0.00	(-0.35 - 0.34)	0.984
MBP	-0.14	(-0.34 - 0.06)	0.179	0.02	(-0.24 - 0.27)	0.905	-0.35	(-0.67 - -0.03)	0.033*	-0.26	(-0.55 - 0.03)	0.082	-0.16	(-0.52 - 0.21)	0.405	-0.40	(-0.87 - 0.08)	0.100
MBzP	-0.07	(-0.18 - 0.05)	0.250	0.01	(-0.14 - 0.15)	0.927	-0.16	(-0.34 - 0.02)	0.077	-0.09	(-0.23 - 0.05)	0.194	-0.03	(-0.21 - 0.14)	0.714	-0.17	(-0.39 - 0.05)	0.138
MEHP	-0.18	(-0.34 - -0.01)	0.035*	-0.11	(-0.32 - 0.10)	0.297	-0.28	(-0.56 - -0.01)	0.041*	-0.24	(-0.44 - -0.04)	0.017*	-0.25	(-0.50 - 0.00)	0.051	-0.23	(-0.56 - 0.10)	0.164
MEHHP	-0.16	(-0.32 - 0.01)	0.059	-0.07	(-0.27 - 0.13)	0.468	-0.30	(-0.58 - -0.02)	0.033*	-0.26	(-0.48 - -0.05)	0.017*	-0.23	(-0.49 - 0.04)	0.090	-0.34	(-0.72 - 0.05)	0.087
MEOHP	-0.18	(-0.36 - -0.01)	0.037*	-0.10	(-0.32 - 0.11)	0.338	-0.32	(-0.61 - -0.02)	0.036*	-0.31	(-0.54 - -0.08)	0.009*	-0.30	(-0.59 - -0.02)	0.038*	-0.32	(-0.72 - 0.09)	0.124
MECPP	-0.21	(-0.39 - -0.03)	0.022*	-0.11	(-0.34 - 0.12)	0.350	-0.36	(-0.66 - -0.07)	0.017*	-0.37	(-0.62 - -0.12)	0.003*	-0.32	(-0.62 - -0.01)	0.040*	-0.47	(-0.90 - -0.04)	0.034*
MHiNP	-0.17	(-0.44 - 0.10)	0.213	0.05	(-0.35 - 0.45)	0.818	-0.38	(-0.74 - -0.02)	0.041*	-0.23	(-0.60 - 0.13)	0.213	-0.02	(-0.57 - 0.53)	0.936	-0.39	(-0.88 - 0.11)	0.124
MOiNP	-0.17	(-0.45 - 0.11)	0.237	0.09	(-0.30 - 0.48)	0.649	-0.52	(-0.92 - -0.12)	0.011*	-0.22	(-0.60 - 0.16)	0.254	0.06	(-0.46 - 0.58)	0.821	-0.63	(-1.20 - -0.06)	0.031*
MCiOP	-0.15	(-0.32 - 0.02)	0.083	-0.07	(-0.28 - 0.14)	0.518	-0.30	(-0.58 - -0.01)	0.044*	-0.23	(-0.44 - -0.01)	0.039*	-0.19	(-0.44 - 0.06)	0.142	-0.35	(-0.77 - 0.08)	0.108
Σ DEHP-met.	-0.20	(-0.37 - -0.02)	0.029*	-0.10	(-0.32 - 0.12)	0.352	-0.35	(-0.65 - -0.05)	0.021*	-0.35	(-0.59 - -0.11)	0.005*	-0.31	(-0.61 - -0.02)	0.038*	-0.42	(-0.85 - 0.01)	0.053
Phthalate score	-0.02	(-0.03 - 0.00)	0.039*	-0.01	(-0.03 - 0.01)	0.408	-0.03	(-0.05 - 0.00)	0.035*	-0.03	(-0.05 - -0.01)	0.006*	-0.03	(-0.05 - 0.00)	0.043*	-0.03	(-0.06 - 0.00)	0.093
<i>DiffHSDS_{midpar}</i>																		
MEP	-0.06	(-0.23 - 0.11)	0.504	-0.01	(-0.23 - 0.21)	0.933	-0.11	(-0.37 - 0.15)	0.409	-0.08	(-0.30 - 0.14)	0.492	-0.12	(-0.40 - 0.16)	0.412	0.01	(-0.36 - 0.38)	0.958
MBP	-0.14	(-0.35 - 0.08)	0.211	0.00	(-0.28 - 0.28)	0.974	-0.34	(-0.68 - 0.00)	0.050*	-0.25	(-0.56 - 0.07)	0.123	-0.20	(-0.60 - 0.20)	0.334	-0.31	(-0.82 - 0.19)	0.224
MBzP	-0.06	(-0.18 - 0.07)	0.365	0.01	(-0.15 - 0.17)	0.915	-0.14	(-0.33 - 0.05)	0.137	-0.07	(-0.22 - 0.07)	0.331	-0.03	(-0.23 - 0.16)	0.724	-0.13	(-0.36 - 0.11)	0.290
MEHP	-0.18	(-0.36 - -0.01)	0.043*	-0.14	(-0.37 - 0.09)	0.234	-0.26	(-0.55 - 0.03)	0.079	-0.24	(-0.46 - -0.03)	0.025*	-0.30	(-0.57 - -0.02)	0.033*	-0.17	(-0.51 - 0.18)	0.349
MEHHP	-0.17	(-0.35 - 0.00)	0.056	-0.09	(-0.31 - 0.13)	0.432	-0.32	(-0.62 - -0.03)	0.033*	-0.28	(-0.52 - -0.05)	0.018*	-0.26	(-0.55 - 0.03)	0.076	-0.33	(-0.74 - 0.08)	0.116
MEOHP	-0.21	(-0.40 - -0.03)	0.026*	-0.14	(-0.38 - 0.09)	0.230	-0.33	(-0.65 - -0.02)	0.039*	-0.36	(-0.61 - -0.11)	0.005*	-0.38	(-0.69 - -0.07)	0.016*	-0.30	(-0.73 - 0.13)	0.171
MECPP	-0.22	(-0.42 - -0.02)	0.030*	-0.11	(-0.36 - 0.14)	0.396	-0.38	(-0.69 - -0.07)	0.018*	-0.37	(-0.64 - -0.11)	0.006*	-0.33	(-0.66 - 0.00)	0.051	-0.46	(-0.92 - 0.01)	0.053
MHiNP	-0.23	(-0.52 - 0.06)	0.122	-0.13	(-0.57 - 0.30)	0.552	-0.35	(-0.72 - 0.03)	0.072	-0.27	(-0.67 - 0.12)	0.171	-0.29	(-0.88 - 0.31)	0.341	-0.27	(-0.79 - 0.24)	0.296
MOiNP	-0.25	(-0.55 - 0.05)	0.108	-0.08	(-0.51 - 0.35)	0.725	-0.52	(-0.93 - -0.10)	0.015*	-0.30	(-0.70 - 0.11)	0.156	-0.17	(-0.74 - 0.40)	0.553	-0.55	(-1.14 - 0.05)	0.072
MCiOP	-0.15	(-0.33 - 0.04)	0.116	-0.08	(-0.30 - 0.15)	0.507	-0.27	(-0.58 - 0.03)	0.080	-0.22	(-0.45 - 0.02)	0.070	-0.21	(-0.48 - 0.06)	0.135	-0.25	(-0.70 - 0.20)	0.283
Σ DEHP-met.	-0.21	(-0.40 - -0.02)	0.030*	-0.12	(-0.36 - 0.12)	0.328	-0.36	(-0.68 - -0.05)	0.024*	-0.37	(-0.63 - -0.11)	0.006*	-0.35	(-0.68 - -0.03)	0.032*	-0.40	(-0.85 - 0.06)	0.085
Phthalate score	-0.01	(-0.03 - 0.00)	0.094	-0.01	(-0.03 - 0.02)	0.629	-0.03	(-0.06 - 0.00)	0.049*	-0.03	(-0.05 - 0.00)	0.025*	-0.03	(-0.06 - 0.00)	0.065	-0.02	(-0.06 - 0.01)	0.234

(Table 3)

	Crude analysis						Creatinine-corrected analysis											
	All		Boys		Girls		All		Boys		Girls							
	B	(95% CI)	B	(95% CI)	p	B	(95% CI)	p	B	(95% CI)	p	B	(95% CI)	p				
$\Delta HSDS_{childhood}$																		
MEP	-0.09	(-0.22 - 0.04)	0.176	-0.09	(-0.26 - 0.07)	0.271	-0.06	(-0.27 - 0.15)	0.581	-0.15	(-0.33 - 0.02)	0.080	-0.07	(-0.28 - 0.13)	0.488	-0.26	(-0.57 - 0.04)	0.085
MBP	-0.07	(-0.23 - 0.10)	0.440	-0.06	(-0.27 - 0.14)	0.544	-0.03	(-0.31 - 0.25)	0.845	-0.13	(-0.37 - 0.11)	0.285	0.02	(-0.28 - 0.31)	0.915	-0.33	(-0.74 - 0.08)	0.116
MBzP	-0.01	(-0.10 - 0.08)	0.832	0.00	(-0.11 - 0.12)	0.942	-0.01	(-0.17 - 0.14)	0.870	-0.01	(-0.13 - 0.10)	0.810	0.04	(-0.10 - 0.18)	0.580	-0.08	(-0.27 - 0.11)	0.424
MEHP	-0.15	(-0.29 - -0.02)	0.030*	-0.18	(-0.35 - -0.01)	0.034*	-0.10	(-0.34 - 0.14)	0.408	-0.22	(-0.38 - -0.05)	0.010*	-0.19	(-0.40 - 0.01)	0.060	-0.27	(-0.55 - 0.01)	0.061
MEHHP	-0.13	(-0.27 - 0.00)	0.057	-0.16	(-0.32 - 0.01)	0.060	-0.07	(-0.31 - 0.17)	0.567	-0.23	(-0.42 - -0.05)	0.011*	-0.19	(-0.41 - 0.02)	0.077	-0.32	(-0.65 - 0.02)	0.065
MEOHP	-0.17	(-0.31 - -0.02)	0.022*	-0.20	(-0.37 - -0.03)	0.024*	-0.08	(-0.34 - 0.17)	0.521	-0.30	(-0.49 - -0.11)	0.002*	-0.26	(-0.49 - -0.03)	0.025*	-0.35	(-0.69 - 0.00)	0.050*
MECPP	-0.15	(-0.31 - 0.00)	0.050*	-0.21	(-0.40 - -0.02)	0.030*	-0.05	(-0.31 - 0.21)	0.692	-0.28	(-0.49 - -0.07)	0.008*	-0.25	(-0.49 - 0.00)	0.047*	-0.34	(-0.72 - 0.04)	0.077
MHiNP	-0.06	(-0.29 - 0.16)	0.573	-0.23	(-0.51 - 0.06)	0.122	0.15	(-0.19 - 0.49)	0.394	-0.08	(-0.38 - 0.22)	0.616	-0.16	(-0.56 - 0.24)	0.438	0.07	(-0.39 - 0.53)	0.766
MOiNP	-0.09	(-0.32 - 0.14)	0.460	-0.18	(-0.47 - 0.10)	0.208	0.05	(-0.33 - 0.44)	0.777	-0.12	(-0.43 - 0.20)	0.467	-0.08	(-0.46 - 0.31)	0.694	-0.16	(-0.70 - 0.38)	0.550
MCiOP	-0.02	(-0.17 - 0.12)	0.773	-0.07	(-0.25 - 0.10)	0.418	0.08	(-0.17 - 0.33)	0.540	-0.03	(-0.22 - 0.15)	0.730	-0.03	(-0.25 - 0.18)	0.764	-0.05	(-0.41 - 0.32)	0.807
Σ DEHP-met.	-0.16	(-0.31 - -0.01)	0.034*	-0.19	(-0.37 - -0.02)	0.033*	-0.08	(-0.34 - 0.18)	0.544	-0.30	(-0.50 - -0.09)	0.004*	-0.25	(-0.49 - -0.01)	0.039*	-0.38	(-0.75 - -0.01)	0.042*
Phthalate score	-0.01	(-0.02 - 0.00)	0.103	-0.01	(-0.03 - 0.00)	0.116	-0.01	(-0.03 - 0.02)	0.633	-0.02	(-0.03 - 0.00)	0.053	-0.01	(-0.03 - 0.01)	0.466	-0.03	(-0.06 - 0.00)	0.054
$\Delta HSDS_{0-3}$																		
MEP	-0.10	(-0.26 - 0.07)	0.250	-0.03	(-0.24 - 0.17)	0.753	-0.19	(-0.47 - 0.10)	0.193	-0.10	(-0.32 - 0.12)	0.370	-0.14	(-0.41 - 0.12)	0.296	0.00	(-0.39 - 0.40)	0.982
MBP	-0.15	(-0.37 - 0.07)	0.176	-0.02	(-0.29 - 0.25)	0.885	-0.37	(-0.74 - 0.00)	0.052	-0.17	(-0.48 - 0.15)	0.296	-0.23	(-0.63 - 0.16)	0.246	-0.07	(-0.59 - 0.45)	0.789
MBzP	-0.03	(-0.15 - 0.09)	0.600	0.03	(-0.12 - 0.18)	0.732	-0.13	(-0.33 - 0.08)	0.217	-0.02	(-0.16 - 0.13)	0.824	0.00	(-0.18 - 0.18)	0.986	-0.04	(-0.29 - 0.20)	0.725
MEHP	-0.07	(-0.25 - 0.11)	0.439	-0.03	(-0.25 - 0.19)	0.787	-0.16	(-0.46 - 0.15)	0.318	-0.03	(-0.24 - 0.18)	0.746	-0.13	(-0.39 - 0.13)	0.340	0.09	(-0.27 - 0.45)	0.621
MEHHP	-0.04	(-0.22 - 0.13)	0.627	0.03	(-0.18 - 0.24)	0.803	-0.22	(-0.54 - 0.11)	0.184	0.00	(-0.23 - 0.24)	0.985	-0.05	(-0.33 - 0.23)	0.736	0.05	(-0.38 - 0.48)	0.805
MEOHP	-0.06	(-0.25 - 0.13)	0.530	0.00	(-0.22 - 0.23)	0.976	-0.22	(-0.56 - 0.13)	0.215	-0.02	(-0.26 - 0.23)	0.900	-0.11	(-0.41 - 0.20)	0.493	0.10	(-0.34 - 0.55)	0.642
MECPP	-0.11	(-0.30 - 0.09)	0.296	0.01	(-0.24 - 0.25)	0.959	-0.30	(-0.64 - 0.03)	0.075	-0.09	(-0.36 - 0.18)	0.517	-0.11	(-0.43 - 0.21)	0.483	-0.07	(-0.56 - 0.42)	0.771
MHiNP	-0.32	(-0.62 - -0.01)	0.043*	0.00	(-0.47 - 0.46)	0.996	-0.50	(-0.92 - -0.09)	0.019*	-0.44	(-0.87 - -0.01)	0.046*	-0.28	(-0.99 - 0.44)	0.446	-0.43	(-1.00 - 0.15)	0.142
MOiNP	-0.35	(-0.68 - -0.03)	0.035*	0.04	(-0.41 - 0.49)	0.861	-0.73	(-1.19 - -0.27)	0.003*	-0.49	(-0.96 - -0.03)	0.036*	-0.14	(-0.79 - 0.51)	0.666	-0.75	(-1.43 - -0.07)	0.032*
MCiOP	-0.15	(-0.33 - 0.04)	0.121	-0.02	(-0.25 - 0.21)	0.875	-0.40	(-0.72 - -0.08)	0.016*	-0.17	(-0.41 - 0.08)	0.181	-0.13	(-0.41 - 0.16)	0.378	-0.31	(-0.78 - 0.16)	0.198
Σ DEHP-met.	-0.07	(-0.27 - 0.12)	0.451	0.01	(-0.22 - 0.24)	0.941	-0.25	(-0.59 - 0.09)	0.144	-0.04	(-0.30 - 0.22)	0.776	-0.10	(-0.42 - 0.21)	0.515	0.05	(-0.43 - 0.52)	0.851
Phthalate score	-0.01	(-0.03 - 0.01)	0.210	0.00	(-0.02 - 0.02)	0.958	-0.03	(-0.06 - 0.00)	0.057	-0.01	(-0.04 - 0.01)	0.269	-0.02	(-0.05 - 0.01)	0.146	0.00	(-0.04 - 0.04)	0.998

Supplemental Material, Table 4.

Phthalate metabolite concentrations ($\mu\text{g/l}$ and $\mu\text{g/g}$ creatinine) in spot urine samples from 845 Danish children aged 4-9 years (examined 2006-2007).

Phthalate Metabolite	LOD	% >LOD	Median	GM	Min	25%	75%	Max
<i>Phthalate metabolite concentrations ($\mu\text{g/l}$)</i>								
MEP	0.24	100	21	21	0.6	11	41	731
MBP	3.94	100	126	120	9.0	70	210	6457
MBzP	1.26	86	15	12	0.0	4.5	35	4548
MEHP	0.31	99	4.3	4.0	0.0	2.0	7.5	231
MEHHp	0.60	100	34	31	1.0	17	59	1718
MEOHP	0.14	100	18	16	0.5	8.9	30	734
MECPP	0.43	100	29	28	1.0	16	51	1755
MOP	0.04	16	0.0	0.0	0.0	0.0	0.0	11
MiNP	0.62	49	0.0	0.9	0.0	0.0	1.7	1100
MHiNP ^a	0.31	98	5.8	4.9	0.0	2.8	9.8	793
MOiNP ^a	0.16	99	3.0	2.6	0.0	1.4	4.8	312
MCiOP	0.08	100	6.9	6.9	0.3	3.8	12	2063
<i>Creatinine-corrected phthalate metabolite concentrations ($\mu\text{g/g}$ creatinine)</i>								
MEP	33	36	5.7	20	57	791		
MBP	205	207	39	144	297	4940		
MBzP	23	21	0.0	9.0	47	2916		
MEHP	6.8	7.0	0.0	4.1	12	210		
MEHHp	52	54	4.9	34	83	1818		
MEOHP	27	28	2.6	18	42	794		
MECPP	46	48	6.5	30	71	1647		
MOP	0.0	0.0	0.0	0.0	0.0	11		
MiNP	1.0	1.6	0.0	0.0	2.9	1194		
MHiNP ^a	7.8	8.0	0.0	5.3	12	754		
MOiNP ^a	4.0	4.1	0.0	2.7	5.8	296		
MCiOP	11	12	1.4	7.2	18	2241		

^a: only measured in 250 randomly selected samples

LOD: limit of detection. GM: geometric mean.

Supplemental Material, Figure 1.

Regression coefficients (95% confidence intervals) for a change in free T3 associated with quintiles of crude (◆) or creatinine-corrected (■) concentrations of MBP, MCiOP and sum of DEHP metabolite concentrations. Adjusted for gender and age (n=758).

