

Supplemental material

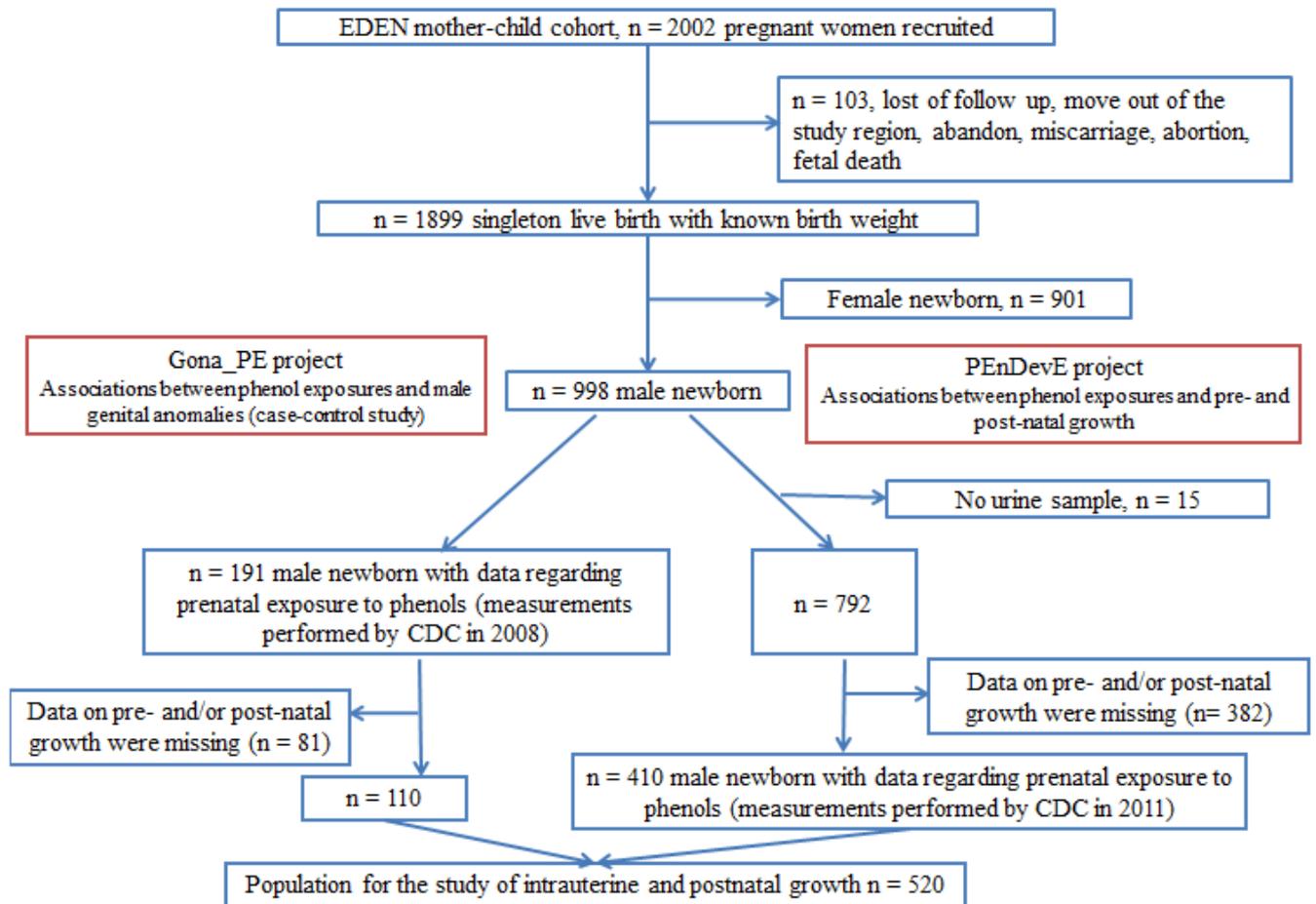
Prenatal Exposures to Phenols and Growth in Boys.

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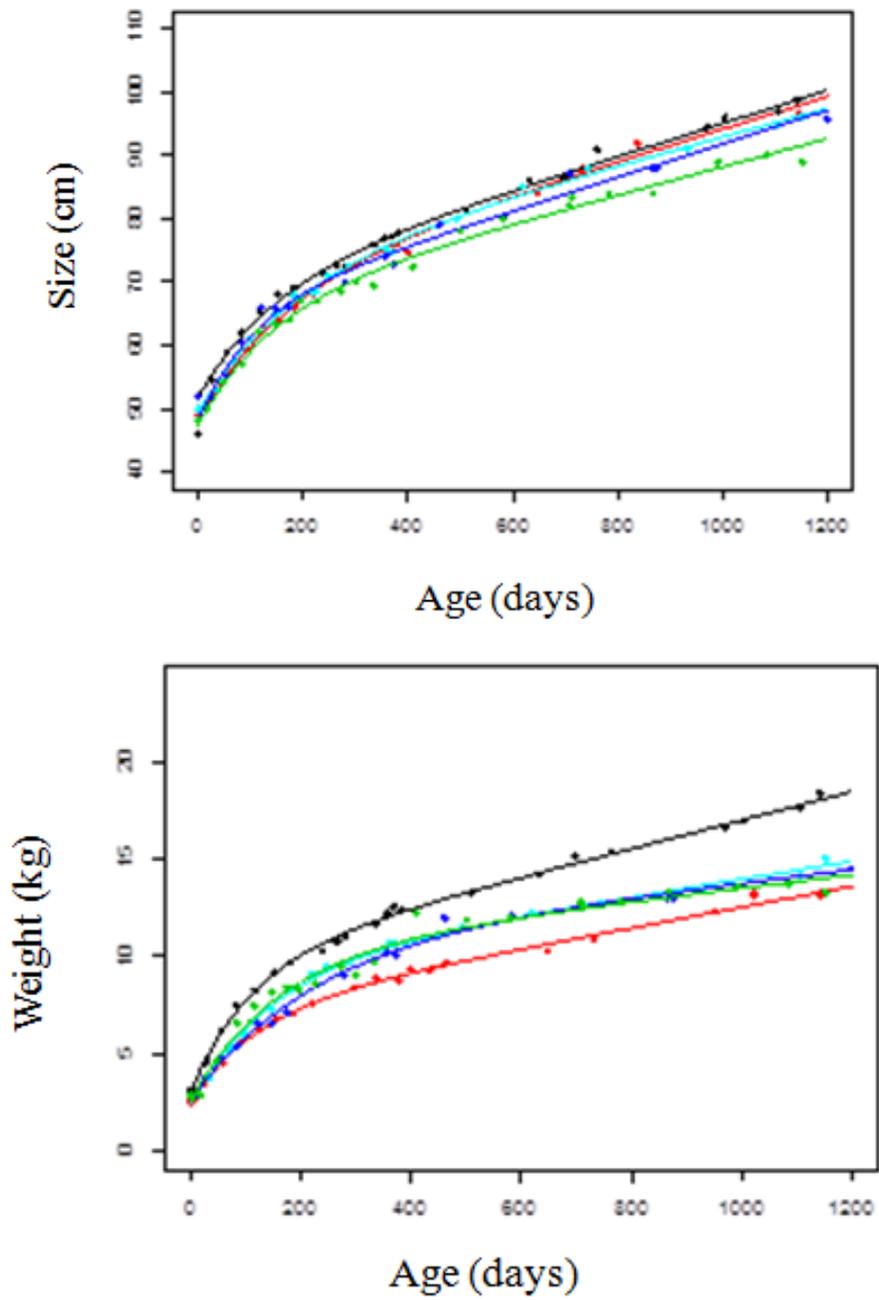
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eFigure 1: Selection of the study population (n = 520 mother-child pairs from the EDEN cohort).



eFigure 2: Fitted weight and height growth curves between birth and three years for five randomly selected children of the EDEN cohort (*points correspond to observations, lines to modeled curves*).



eTable1: Crude associations^a between phenol maternal urinary concentrations and pre- and post-natal size (transversal analyses, Eden cohort, 2003-2006, 520 male newborns).

Growth parameter	2,4-dichlorophenol		2,5- dichlorophenol		Bisphenol A		Benzophenone-3		Triclosan		Methylparaben		Ethylparaben		Propylparaben		Butylparaben	
	β	(95% CI)	β	(95% CI)	β	(95% CI)	β	(95% CI)	β	(95% CI)	β	(95% CI)	β	(95% CI)	β	(95% CI)	β	(95% CI)
Biparietal diameter																		
1 st ultrasound	-0.09	[-0.28 to 0.10]	-0.11	[-0.34 to 0.13]	-0.08	[-0.23 to 0.15]	-0.03	[-0.22 to 0.16]	0.22	[-0.08 to 0.51]	0.16	[-0.10 to 0.42]	0.05	[-0.23 to 0.33]	0.12	[-0.17 to 0.39]	0.04	[-0.25 to 0.33]
2 nd ultrasound	-0.02	[-0.28 to 0.23]	-0.04	[-0.35 to 0.27]	-0.08	[-0.39 to 0.23]	-0.03	[-0.28 to 0.23]	-0.02	[-0.41 to 0.37]	0.12	[-0.23 to 0.46]	0.15	[-0.22 to 0.52]	0.14	[-0.23 to 0.50]	0.33	[-0.06 to 0.72]
3 rd ultrasound	0.02	[-0.28 to 0.31]	0.24	[-0.11 to 0.60]	-0.31	[-0.67 to 0.05]	0.07	[-0.22 to 0.36]	-0.29	[-0.74 to 0.16]	-0.07	[-0.47 to 0.33]	0.04	[-0.39 to 0.48]	-0.04	[-0.46 to 0.38]	0.40	[-0.05 to 0.85]
Head circumference																		
2 nd ultrasound	-0.21	[-1.0 to 0.57]	0.13	[-0.8 to 1.08]	0.04	[-0.9 to 1.00]	-0.03	[-0.8 to 0.75]	0.24	[-1.0 to 1.43]	0.45	[-0.6 to 1.50]	0.93	[-0.2 to 2.08]	0.06	[-1.1 to 1.18]	1.09	[-0.1 to 2.28]
3 rd ultrasound	0.19	[-0.8 to 1.15]	1.08	[-0.1 to 2.25]	-0.85	[-2.0 to 0.33]	0.41	[-0.5 to 1.37]	-0.55	[-2.0 to 0.92]	-0.02	[-1.3 to 1.28]	0.80	[-0.6 to 2.22]	0.52	[-0.9 to 1.90]	1.49	[0.0 to 2.96]
Birth	-0.21	[-1.2 to 0.76]	0.25	[-0.9 to 1.43]	-0.19	[-1.4 to 1.00]	0.62	[-0.3 to 1.58]	-1.07	[-2.6 to 0.42]	0.06	[-1.3 to 1.38]	0.13	[-1.3 to 1.57]	0.56	[-0.8 to 1.98]	0.36	[-1.1 to 1.85]
36 months	-0.13	[-1.3 to 1.04]	0.31	[-1.1 to 1.75]	-0.33	[-1.8 to 1.11]	0.03	[-1.1 to 1.20]	-0.71	[-2.5 to 1.09]	0.63	[-1.0 to 2.22]	-0.26	[-2.0 to 1.47]	0.48	[-1.2 to 2.17]	0.62	[-1.2 to 2.43]
Femoral length																		
2 nd ultrasound	-0.02	[-0.2 to 0.16]	0.10	[-0.1 to 0.32]	0.04	[-0.2 to 0.26]	0.03	[-0.1 to 0.21]	0.01	[-0.3 to 0.28]	0.03	[-0.2 to 0.27]	0.07	[-0.2 to 0.33]	-0.01	[-0.3 to 0.25]	0.09	[-0.2 to 0.37]
3 rd ultrasound	-0.13	[-0.3 to 0.09]	-0.04	[-0.3 to 0.22]	-0.23	[-0.5 to 0.04]	0.09	[-0.1 to 0.30]	-0.16	[-0.5 to 0.17]	-0.03	[-0.3 to 0.26]	0.12	[-0.2 to 0.44]	-0.12	[-0.4 to 0.19]	0.19	[-0.1 to 0.52]
Length																		
Birth	-1.08	[-2.7 to 0.56]	-0.81	[-2.8 to 1.20]	1.80	[-0.22 to 3.82]	0.76	[-0.9 to 2.40]	-0.93	[-3.5 to 1.62]	1.16	[-1.1 to 3.41]	-0.78	[-3.2 to 1.66]	0.40	[-2.0 to 2.80]	1.05	[-1.5 to 3.59]
6 months ^a	-0.05	[-1.9 to 1.77]	0.50	[-1.7 to 2.73]	-0.81	[-3.1 to 1.43]	1.25	[-0.6 to 3.05]	0.35	[-2.4 to 3.13]	2.03	[-0.4 to 4.49]	0.09	[-2.6 to 2.77]	1.20	[-1.4 to 3.81]	1.81	[-1.0 to 4.60]
12 months ^a	-0.59	[-2.6 to 1.42]	-0.13	[-2.6 to 2.34]	-1.72	[-4.2 to 0.76]	1.33	[-0.7 to 3.33]	0.12	[-3.0 to 3.20]	1.68	[-1.0 to 4.40]	-0.35	[-3.3 to 2.62]	0.57	[-2.3 to 3.47]	1.94	[-1.2 to 5.04]
24 months ^a	-0.71	[-3.2 to 1.80]	-0.13	[-3.2 to 2.95]	-2.39	[-5.5 to 0.69]	1.69	[-0.8 to 4.18]	0.17	[-3.7 to 4.00]	2.25	[-1.1 to 5.64]	0.15	[-3.5 to 3.84]	0.64	[-3.0 to 4.25]	3.18	[-0.7 to 7.03]
36 months ^a	-0.18	[-3.1 to 2.69]	0.35	[-3.2 to 3.87]	-2.36	[-5.9 to 1.18]	1.86	[-1.0 to 4.72]	0.54	[-3.9 to 4.93]	3.29	[-0.6 to 7.17]	0.80	[-3.4 to 5.03]	1.10	[-3.0 to 5.22]	3.99	[-0.4 to 8.39]
Abdominal circumference																		
2 nd ultrasound	0.06	[-0.8 to 0.93]	0.24	[-0.8 to 1.31]	0.19	[-0.9 to 1.27]	0.47	[-0.4 to 1.35]	0.39	[-0.9 to 1.73]	0.31	[-0.9 to 1.49]	0.29	[-1.0 to 1.58]	0.24	[-1.0 to 1.49]	0.69	[-0.7 to 2.04]
3 rd ultrasound	-1.35	[-2.7 to -0.03]	-0.28	[-1.9 to 1.35]	0.71	[-0.9 to 2.34]	0.36	[-1.0 to 1.68]	-1.83	[-3.9 to 0.20]	-0.08	[-1.9 to 1.72]	0.66	[-1.3 to 2.62]	0.20	[-1.7 to 2.11]	1.58	[-0.5 to 3.62]
36 months	1.85	[-0.7 to 4.42]	2.02	[-1.1 to 5.16]	1.34	[-1.8 to 4.50]	1.43	[-1.1 to 3.99]	2.26	[-1.7 to 6.20]	3.13	[-0.3 to 6.59]	0.71	[-3.1 to 4.50]	2.11	[-1.6 to 5.80]	3.04	[-0.9 to 6.98]
Weight																		
2 nd ultrasound	-0.04	[-5.6 to 5.55]	2.01	[-4.8 to 8.86]	1.58	[-5.3 to 8.46]	2.50	[-3.1 to 8.07]	2.43	[-6.1 to 10.97]	1.70	[-5.9 to 9.25]	3.29	[-4.9 to 11.5]	1.08	[-6.9 to 9.11]	5.61	[-3.0 to 14.18]
3 rd ultrasound	-19.0	[-40.5 to 2.60]	1.17	[-25.3 to 27.7]	-3.07	[-29.7 to 23.6]	8.94	[-12.6 to 30.5]	-29.6	[-62.7 to 3.57]	-9.26	[-38.7 to 20.2]	7.09	[-25.0 to 39.2]	-6.70	[-37.9 to 24.5]	27.1	[-6.2 to 60.41]
Birth	-9.96	[-45.5 to 25.6]	5.76	[-37.9 to 49.4]	-3.56	[-47.5 to 40.3]	23.1	[-12.3 to 58.5]	0.60	[-54.4 to 55.6]	21.1	[-27.5 to 69.6]	31.3	[-21.4 to 84.0]	32.7	[-19.2 to 84.6]	44.7	[-10.1 to 99.5]
6 months ^a	-27.4	[-92.5 to 37.8]	-22.0	[-102 to 57.9]	11.1	[-69.2 to 91.4]	30.6	[-34.4 to 95.5]	-7.67	[-107 to 92.0]	54.5	[-33.6 to 143]	-18.0	[-114 to 78.1]	57.8	[-35.8 to 151]	35.1	[-65.2 to 135]
12 months ^a	-51.5	[-133 to 30.1]	-39.4	[-140 to 60.8]	42.0	[-58.6 to 143]	51.8	[-29.6 to 133]	-3.26	[-128 to 122]	50.4	[-60.2 to 161]	-33.2	[-154 to 87.3]	56.8	[-60.6 to 174]	33.8	[-92.1 to 160]
24 months ^a	-31.9	[-138 to 73.8]	-9.3	[-139 to 120]	56.8	[-73.3 to 187]	51.8	[-53.5 to 157]	40.4	[-121 to 202]	96.8	[-46.0 to 240]	9.6	[-146 to 165]	93.5	[-58.1 to 245]	90.9	[-71.7 to 253]
36 months ^a	20.9	[-111 to 152]	51.4	[-110 to 212]	53.3	[-109 to 215]	31.8	[-99.2 to 163]	93.4	[-107 to 294]	162	[-15.4 to 339]	77.3	[-116 to 271]	137	[-51.6 to 325]	159	[-43.2 to 361]

^a Analyses were only adjusted for age at measurement

^b Parameter individually predicted by Jemss growth curve model from repeated measures

^c Estimated fetal weight

eTable 2: Associations between phenol concentrations and postnatal weight additionally adjusted for birthweight (Eden cohort, 2003-2006, n = 520 male newborn).

Weight ^a	2,4-dichlorophenol		2,5-dichlorophenol		Bisphenol A		Benzophenone-3		Triclosan		Methylparaben		Ethylparaben		Propylparaben		Butylparaben	
	β	(95% CI)	β	(95% CI)	β	(95% CI)	β	(95% CI)	β	(95% CI)	β	(95% CI)	β	(95% CI)	β	(95% CI)	β	(95% CI)
At 6 months	-3.56	[-73.3 to 66.2]	-7.87	[-93.2 to 77.4]	-15.1	[-103 to 72.4]	29.9	[-39.9 to 99.7]	1.17	[-105 to 108]	50.6	[-45.5 to 147]	-11.8	[-116 to 92.5]	23.7	[-78.3 to 126]	26.3	[-84.7 to 137]
At 12 months	-27.7	[-117 to 61.3]	-25.3	[-134 to 83.7]	15.8	[-95.2 to 127]	51.2	[-37.8 to 140]	5.58	[-130 to 142]	46.5	[-75.2 to 168]	-27.0	[-159 to 105]	22.7	[-107 to 152]	25.0	[-115 to 165]
At 24 months	-8.12	[-122 to 106]	4.87	[-135 to 145]	30.6	[-111 to 172]	51.2	[-62.9 to 165]	49.3	[-125 to 224]	93.0	[-62.4 to 248]	15.8	[-153 to 185]	59.5	[-106 to 224]	82.0	[-95.7 to 260]
At 36 months	44.7	[-97.4 to 187]	65.6	[-109 to 240]	27.1	[-149 to 203]	31.1	[-111 to 173]	102	[-115 to 319]	158	[-34.8 to 351]	83.5	[-127 to 294]	103	[-102 to 308]	150	[-70.4 to 370]

^aParameter individually predicted by Jenss growth curve model from repeated measures.

Adjustment factors: maternal and paternal height, pre-pregnancy weight, maternal active and passive smoking during pregnancy, maternal education level, recruitment center, breastfeeding duration, parity and birthweight.

eTable 3: Associations between phenol concentrations and postnatal weight additionally adjusted for child height (Eden cohort, 2003-2006, n = 520 male newborns).

Weight ^a	2,4-dichlorophenol		2,5- dichlorophenol		Bisphenol A		Benzophenone-3		Triclosan		Methylparaben		Ethylparaben		Propylparaben		Butylparaben	
	β	(95% CI)	β	(95% CI)	β	(95% CI)	β	(95% CI)	β	(95% CI)	β	(95% CI)	β	(95% CI)	β	(95% CI)	β	(95% CI)
at 6 months	-9.79	[-69.6 to 50.0]	-13.8	[-87.0 to 59.3]	-3.93	[-79.0 to 71.2]	16.9	[-43.0 to 76.9]	16.4	[-75.0 to 108]	35.3	[-47.0 to 118]	10.3	[-79.1 to 99.8]	51.1	[-35.8 to 138]	32.6	[-62.6 to 128]
At 12 months	-22.2	[-95.6 to 51.2]	-17.7	[-108 to 72.2]	46.9	[-44.7 to 138]	36.5	[-37.0 to 110]	25.7	[-86.4 to 138]	38.8	[-61.6 to 139]	4.73	[-104.6 to 114]	63.8	[-42.4 to 170]	28.4	[-87.3 to 144]
At 24 months	-0.05	[-91.8 to 91.7]	12.5	[-99.8 to 125]	76.3	[-37.5 to 190]	28.5	[-63.2 to 120]	68.4	[-71.6 to 208]	72.8	[-52.2 to 198]	36.8	[-99.3 to 173]	99.0	[-33.3 to 231]	58.5	[-84.8 to 202]
At 36 months	41.3	[-71.2 to 154]	62.9	[-74.8 to 201]	72.1	[-67.0 to 211]	4.87	[-108 to 117]	113	[-58.4 to 285]	115	[-37.6 to 268]	90.2	[-76.2 to 257]	132	[-29.4 to 294]	109	[-66.0 to 284]

^a Parameter individually predicted by Jenss growth curve model from repeated measures.

Adjustment factors: maternal and paternal height, pre-pregnancy weight, maternal active and passive smoking during pregnancy, maternal education level, recruitment center, breastfeeding duration, parity and child height.

eTable 4: Adjusted associations^a between non-standardized phenol concentrations and pre- and post-natal size (Eden cohort, 2003-2006, 520 male newborns).

Growth parameter	2,4-dichlorophenol		2,5-dichlorophenol		Bisphenol A		Benzophenone-3		Triclosan		Methylparaben		Ethylparaben		Propylparaben		Butylparaben	
	β	(95% CI)	β	(95% CI)	β	(95% CI)	β	(95% CI)	β	(95% CI)	β	(95% CI)	β	(95% CI)	β	(95% CI)	β	(95% CI)
Biparietal diameter (mm)																		
1 st ultrasound	-0.09	[-0.3 to 0.14]	-0.10	[-0.4 to 0.15]	-0.04	[-0.3 to 0.26]	0.01	[-0.2 to 0.23]	0.18	[-0.1 to 0.49]	0.10	[-0.2 to 0.40]	0.01	[-0.3 to 0.33]	0.05	[-0.3 to 0.36]	0.05	[-0.3 to 0.39]
2 nd ultrasound	-0.03	[-0.3 to 0.24]	0.02	[-0.3 to 0.31]	0.05	[-0.3 to 0.39]	-0.15	[-0.4 to 0.11]	-0.10	[-0.5 to 0.27]	0.13	[-0.2 to 0.47]	0.17	[-0.2 to 0.54]	0.07	[-0.3 to 0.42]	0.40	[0.0 to 0.80]
3 rd ultrasound	0.04	[-0.3 to 0.36]	0.30	[-0.1 to 0.65]	-0.07	[-0.5 to 0.33]	0.14	[-0.2 to 0.45]	-0.38	[-0.8 to 0.08]	0.02	[-0.4 to 0.42]	0.18	[-0.3 to 0.62]	-0.02	[-0.5 to 0.41]	0.47	[-0.0 to 0.95]
Head circumference (mm)																		
2 nd ultrasound	-0.28	[-1.2 to 0.62]	0.19	[-0.8 to 1.17]	0.52	[-0.7 to 1.69]	-0.34	[-1.2 to 0.54]	0.10	[-1.2 to 1.36]	0.31	[-0.8 to 1.46]	0.98	[-0.3 to 2.25]	-0.06	[-1.3 to 1.15]	1.17	[-0.2 to 2.55]
3 rd ultrasound	0.08	[-1.0 to 1.13]	1.11	[-0.0 to 2.25]	-0.57	[-1.9 to 0.75]	0.25	[-0.8 to 1.27]	-1.17	[-2.6 to 0.28]	0.00	[-1.3 to 1.31]	0.75	[-0.7 to 2.20]	0.31	[-1.1 to 1.72]	1.17	[-0.4 to 2.72]
At birth	-0.23	[-1.3 to 0.83]	0.05	[-1.1 to 1.20]	0.30	[-1.1 to 1.70]	0.31	[-0.7 to 1.32]	-1.10	[-2.6 to 0.34]	0.18	[-1.2 to 1.53]	0.18	[-1.3 to 1.65]	0.67	[-0.8 to 2.10]	0.21	[-1.4 to 1.80]
At 36 months	-0.13	[-1.4 to 1.15]	0.14	[-1.3 to 1.53]	0.36	[-1.3 to 2.05]	-0.38	[-1.6 to 0.84]	-0.95	[-2.7 to 0.79]	0.40	[-1.2 to 2.01]	-0.57	[-2.3 to 1.20]	0.31	[-1.4 to 1.99]	-0.43	[-2.3 to 1.48]
Femoral length (mm)																		
2 nd ultrasound	-0.05	[-0.3 to 0.15]	0.06	[-0.2 to 0.28]	0.11	[-0.2 to 0.37]	-0.03	[-0.2 to 0.16]	0.01	[-0.3 to 0.29]	0.04	[-0.2 to 0.30]	0.05	[-0.2 to 0.34]	0.01	[-0.3 to 0.29]	0.12	[-0.2 to 0.43]
3 rd ultrasound	-0.12	[-0.4 to 0.12]	0.02	[-0.2 to 0.27]	-0.15	[-0.4 to 0.14]	0.07	[-0.2 to 0.30]	-0.31	[-0.6 to 0.01]	-0.03	[-0.3 to 0.27]	0.17	[-0.2 to 0.50]	-0.17	[-0.5 to 0.14]	0.13	[-0.2 to 0.48]
Length (mm)																		
At birth	-0.98	[-2.7 to 0.75]	-0.84	[-2.7 to 1.04]	0.75	[-1.5 to 3.04]	0.43	[-1.2 to 2.09]	-0.18	[-2.6 to 2.20]	1.76	[-0.5 to 3.97]	0.39	[-2.0 to 2.80]	1.32	[-1.0 to 3.66]	1.54	[-1.1 to 4.15]
At 6 months	-0.24	[-2.2 to 1.71]	0.17	[-2.0 to 2.29]	-0.43	[-3.0 to 2.11]	0.52	[-1.3 to 2.38]	0.02	[-2.6 to 2.68]	2.03	[-0.4 to 4.48]	0.02	[-2.7 to 2.71]	1.15	[-1.4 to 3.72]	0.63	[-2.3 to 3.54]
At 12 months	-0.70	[-3.0 to 1.56]	-0.33	[-2.8 to 2.13]	-1.15	[-4.0 to 1.72]	0.71	[-1.5 to 2.87]	-0.19	[-3.3 to 2.92]	1.83	[-1.0 to 4.66]	-0.22	[-3.3 to 2.88]	0.69	[-2.3 to 3.67]	0.70	[-2.7 to 4.06]
At 24 months	-0.93	[-3.6 to 1.76]	-0.44	[-3.4 to 2.51]	-2.04	[-5.4 to 1.30]	0.94	[-1.7 to 3.54]	-0.20	[-3.9 to 3.54]	2.20	[-1.2 to 5.57]	0.03	[-3.7 to 3.73]	0.60	[-3.0 to 4.17]	1.59	[-2.4 to 5.59]
At 36 months	-0.59	[-3.8 to 2.61]	-0.16	[-3.7 to 3.35]	-2.34	[-6.2 to 1.55]	0.91	[-2.2 to 4.02]	0.09	[-4.4 to 4.58]	2.89	[-1.1 to 6.90]	0.30	[-4.1 to 4.69]	0.77	[-3.5 to 5.03]	2.00	[-2.8 to 6.76]
Abdominal circumference (mm)																		
2 nd ultrasound	-0.18	[-1.3 to 0.94]	0.14	[-1.1 to 1.37]	0.67	[-0.8 to 2.15]	0.00	[-1.1 to 1.09]	0.26	[-1.3 to 1.82]	-0.16	[-1.6 to 1.28]	-0.16	[-1.7 to 1.42]	-0.24	[-1.8 to 1.27]	0.61	[-1.1 to 2.33]
3 rd ultrasound	-1.20	[-2.6 to 0.15]	0.01	[-1.5 to 1.49]	1.54	[-0.2 to 3.25]	0.42	[-0.9 to 1.74]	-2.28	[-4.2 to -0.41]	0.16	[-1.6 to 1.87]	0.94	[-0.9 to 2.82]	0.01	[-1.8 to 1.83]	1.52	[-0.5 to 3.54]
At 36 months	2.36	[-0.4 to 5.14]	1.91	[-1.1 to 4.93]	0.25	[-3.4 to 3.93]	1.16	[-1.5 to 3.81]	2.41	[-1.4 to 6.20]	3.91	[0.4 to 7.40]	1.59	[-2.3 to 5.45]	3.10	[-0.6 to 6.77]	3.17	[-1.0 to 7.33]
Weight (g)																		
2 nd ultrasound	-2.09	[-17.6 to 13.4]	1.17	[-15.8 to 18.1]	8.29	[-12.3 to 28.9]	-1.93	[-17.0 to 13.1]	-0.59	[-22.1 to 21.0]	-1.85	[-21.7 to 18.0]	-1.60	[-23.5 to 20.3]	-1.84	[-22.7 to 19.1]	4.47	[-19.4 to 28.3]
3 rd ultrasound	-17.62	[-36.4 to 1.17]	2.40	[-18.1 to 22.9]	4.19	[-19.6 to 27.9]	5.84	[-12.5 to 24.2]	-34.4	[-60.4 to -8.45]	-5.03	[-28.8 to 18.7]	12.1	[-14.1 to 38.2]	-6.93	[-32.2 to 18.3]	24.5	[-3.6 to 52.5]
At birth	-4.52	[-42.7 to 33.6]	4.54	[-36.9 to 46.0]	4.59	[-46.0 to 55.2]	17.4	[-19.2 to 54.0]	5.57	[-46.9 to 58.0]	38.7	[-10.1 to 87.4]	53.6	[0.7 to 107]	50.0	[-1.4 to 101]	61.0	[3.7 to 118]
At 6 months	-21.2	[-102 to 59.5]	-14.7	[-103 to 73.3]	-18.6	[-124 to 86.4]	23.6	[-53.4 to 100]	16.2	[-94.1 to 127]	72.9	[-28.8 to 175]	3.31	[-108 to 115]	68.9	[-37.7 to 175]	38.1	[-82.4 to 159]
At 12 months	-41.6	[-141 to 57.9]	-27.4	[-137 to 81.6]	12.2	[-113 to 137]	47.0	[-48.9 to 143]	21.2	[-117 to 159]	73.7	[-51.3 to 199]	-5.24	[-142 to 132]	71.9	[-60.1 to 204]	34.7	[-114 to 183]
At 24 months	-22.3	[-147 to 102]	-0.03	[-137 to 137]	20.9	[-132 to 174]	42.6	[-78.5 to 164]	62.6	[-112 to 237]	115	[-41.3 to 271]	31.3	[-140 to 203]	104	[-62.2 to 270]	84.6	[-101 to 270]
At 36 months	27.2	[-126 to 180]	52.9	[-116 to 222]	8.56	[-176 to 193]	15.9	[-134 to 165]	112	[-104 to 328]	170	[-21.8 to 362]	86.4	[-124 to 297]	139	[-65.6 to 343]	144	[-83.3 to 372]

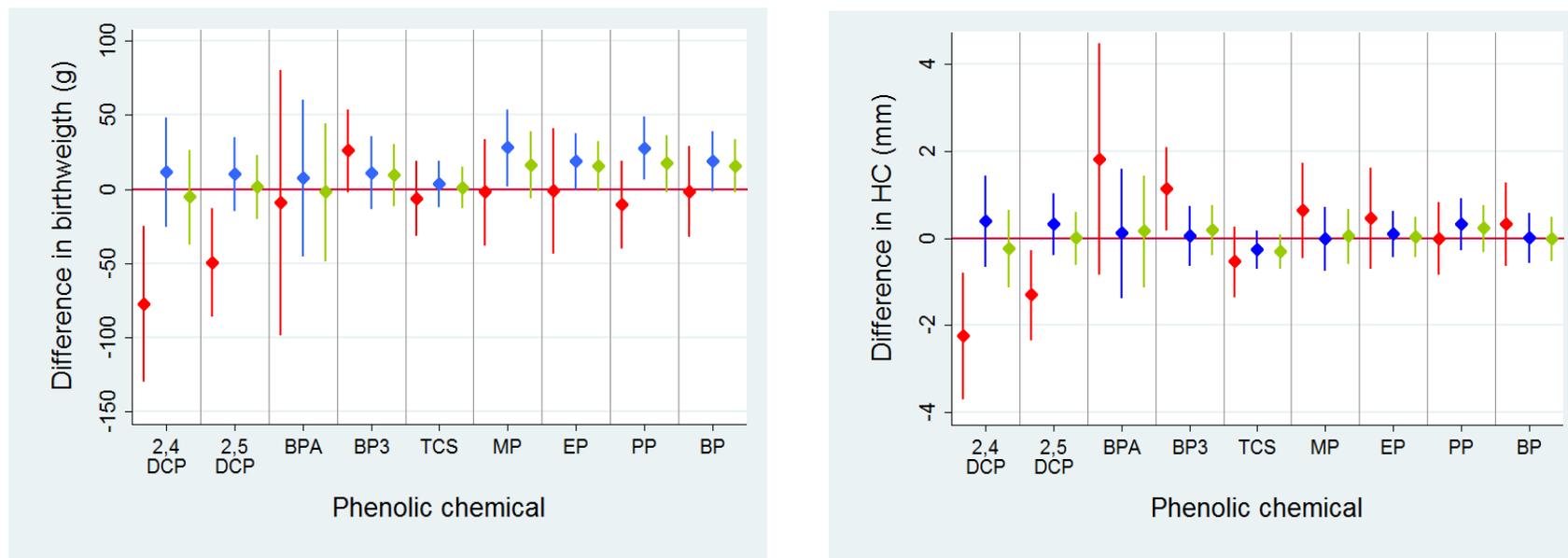
^a Models for prenatal growth were adjusted for maternal and paternal height, pre-pregnancy weight, maternal active and passive smoking during pregnancy, maternal education level, recruitment center, gestational age at measurement, creatinine concentration and parity. The model for head circumference was additionally adjusted for the number of days between birth and the assessment of head circumference.

Models for postnatal growth were adjusted for maternal and paternal height, pre-pregnancy weight, maternal active and passive smoking during pregnancy, maternal education level, recruitment center, breastfeeding duration, creatinine concentration and parity.

^b Parameter individually predicted by Jemss growth curve model from repeated measures

^c Estimated fetal weight

eFigure 3: Adjusted^a associations between phenols and weight and head circumference^b at birth in different subpopulations of the EDEN cohort (β given for an IQR increase in phenol concentrations).



- ◆ n = 191, population of the case-control study with phenol measurements in 2008 (Gona_PE study,¹).
- ◆ n = 520, all women delivering boys with complete data on pre- and post-natal growth (PEnDevE study)
- ◆ n = 410, PEnDevE population not in Gona_PE (phenol measurement in 2011)

Abbreviations: BP: butylparaben, BPA: bisphenol A, BP3: benzophenone-3, DCP: dichlorophenol, EP: ethylparaben, MP: methylparaben, PP, propylparaben, TCS: triclosan

^a Adjustment factors were: maternal and paternal height and weight, maternal active and passive smoking during pregnancy, maternal education level, parity, gestational duration and recruitment center. Model for head circumference was additionally adjusted for the time elapsed between birth and measurements.

^b Head circumference was assessed in duplicate within 4 days after birth.

Reference

1. Philippat C, Mortamais M, Chevrier C, et al. Exposure to phthalates and phenols during pregnancy and offspring size at birth. *Environ Health Perspect* 2012, 120(3):464-470.