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Supplemental Material

Prenatal Exposure to Phthalates and the Development of Eczema Phenotypes in Male Children: Results from the EDEN Mother–Child Cohort Study

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Table of Contents

Figure S1. Directed acyclic graph (DAG) for evaluation of covariate selection in the analysis of phthalates and eczema. Green nodes: Variables associated to phthalates levels, Blue nodes: Variables associated to eczema occurrence, Red nodes: Variables associated to phthalates and eczema outcomes.

Table S1. Spearman correlation between ln-transformed standardized urinary concentrations of phthalate metabolites.

Table S2. Association between maternal urinary concentrations of phthalate metabolites and occurrence of ever eczema in boys according to atopic status as assessed by Total IgE.

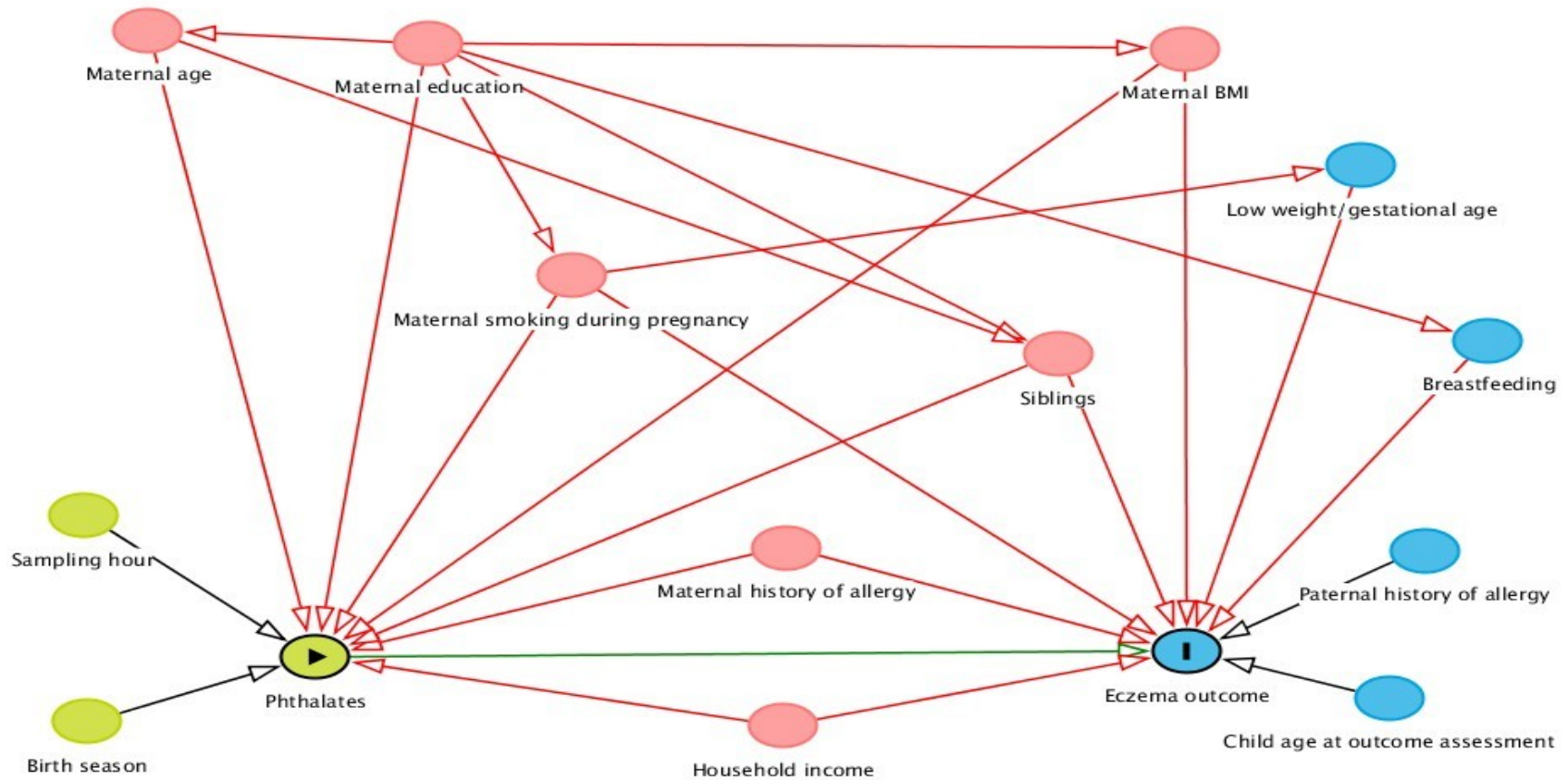


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Table S1. Spearman correlation between ln-transformed standardized[‡] urinary concentrations of phthalate metabolites.

	MBP	MiBP	MECPP	MEHHP	MEOHP	MEHP	MBzP	MCOP	MCP	MCNP
MEP	0.13*	0.03	0.04	0.06	0.08*	0.08*	0.10*	0.07	0.02	0.01
MBP		0.37*	0.26*	0.31*	0.32*	0.24*	0.40*	0.13*	0.62*	0.13*
MiBP			0.26*	0.29*	0.30*	0.27*	0.38*	0.20*	0.24*	0.11*
MECPP				0.90*	0.92*	0.77*	0.31*	0.36*	0.31*	0.27*
MEHHP					0.97*	0.83*	0.36*	0.33*	0.35*	0.25*
MEOHP						0.84*	0.38*	0.32*	0.36*	0.24*
MEHP							0.31*	0.25*	0.27*	0.19*
MBzP								0.19*	0.28*	0.17*
MCOP									0.28*	0.42*
MCP										0.33*

MEP = Monoethyl phthalate; MBP = Mono-n-butyl phthalate; MiBP = Mono-isobutyl phthalate; MECPP = Mono(2-ethyl-5-carboxypentyl) phthalate; MEHHP = Mono(2-ethyl-5-hydroxyhexyl) phthalate; MEOHP = Mono(2-ethyl-5-oxohexyl) phthalate; MEHP = Mono(2-ethylhexyl) phthalate; MBzP = Monobenzyl phthalate; MCOP = Monocarboxy-isoocetyl phthalate; MCP = Mono(3-carboxypropyl) phthalate; MCNP = Monocarboxy-isononyl phthalate

[‡] Standardized for urine sampling conditions (creatinine level, gestational age, day and hour of sampling, storage duration at room temperature and year of analysis) as described in detail by Mortamais et al (2012)

* P<0.05

Table S2. Association between maternal urinary concentrations of phthalate metabolites and occurrence of ever eczema in boys according to atopic status as assessed by Total IgE.

Phthalate metabolite	Non-Sensitized Boys n=233/293			Sensitized Boys n=60/293		
	HR ^a	95% CI	P-Value	HR	95% CI	P-Value
MEP	1.13	0.82-01.56	0.44	1.17	0.71-1.93	0.53
MBP	0.90	0.63-1.28	0.55	1.67	1.10-2.54*	0.01
MIBP	1.32	0.86-2.01	0.19	1.87	1.01-3.48*	0.04
MECPP	1.05	0.68-1.62	0.81	2.15	1.32-3.50*	0.002
MEHHP	1.07	0.72-1.57	0.73	2.02	1.27-3.19*	0.003
MEOHP	1.08	0.73-1.62	0.68	2.02	1.26-3.25*	0.004
MEHP	1.14	0.82-1.59	0.42	2.35	1.35-4.08*	0.002
MBzP	1.13	0.80-1.60	0.48	1.47	0.98-2.20[†]	0.06
MCOP	1.20	0.76-1.77	0.49	1.51	0.85-2.67	0.16
M CPP	1.15	0.70-1.89	0.57	1.51	0.81-2.81	0.18
MCNP	1.14	0.82-1.56	0.41	1.41	0.89-2.21	0.14
ΣDEHP	1.02	0.93-1.13	0.66	1.22	1.07-1.38*	0.002

^aHR: Hazard Ratio according to the proportional cox's model.

HRadjusted for maternal smoking, maternal age, maternal BMI, education level, gestational age, number of siblings, and recruitment Centre

MEP = Monoethyl phthalate; MBP = Mono-n-butyl phthalate; MiBP = Mono-isobutyl phthalate; MECPP = Mono (2-ethyl-5-carboxypentyl) phthalate; MEHHP = Mono (2-ethyl-5-hydroxyhexyl) phthalate; MEOHP = Mono (2-ethyl-5-oxohexyl) phthalate; MEHP = Mono (2-ethylhexyl) phthalate; MBzP = Monobenzyl phthalate; MCOP = Monocarboxy-isoctyl phthalate; M CPP = Mono (3-carboxypropyl) phthalate; MCNP = Monocarboxy-isononyl phthalate; DEHP = di(2-ethylhexyl) phthalate.

*P<0.05

[†]P<0.10