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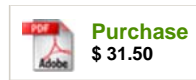
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(8)**Short Communication****GerES IV: Phthalate metabolites and bisphenol A in urine of German children**Kerstin Becker^a, Thomas Güen^b,
Margarete Seiwert^a, Andre Conrad^a, Helga Pick-
Fuß^a, Johannes Müller^b, Matthias Wittassek^b,
Christine Schulz^a and Marike Kolossa-Gehring^a^aFederal Environment Agency (UBA), Dessau-Roßlau/Berlin, Germany^bInstitute and Outpatient Clinic of Occupational, Social and Environmental
Medicine, University of Erlangen – Nuremberg, Erlangen, Germany

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Abstract

Urine samples from GerES IV were analysed for concentrations of the metabolites of DEHP (MEHP, 5OH-MEHP, 5oxo-MEHP, 5cx-MEPP, and 2cx-MMHP), DnBP and DiBP (MnBP and MiBP), BBzP (MBzP), DiNP (7OH-MMeOP, 7oxo-MMeOP and 7cx-MMeHP), and bisphenol A (BPA) to assess the exposure of German children on a representative basis. 600 morning urine samples had been randomly chosen from stored 1800 GerES IV samples originating from 3 to 14 year old children living in Germany.

All metabolites could be detected in nearly all urine samples (N=599).

Descriptive data analysis leads to mean concentrations of 5-OH-MEHP and 5-oxo-MEHP of 48 µg/l and 37 µg/l, respectively. The mean concentration of 7OH-MMeOP was 11 µg/l. MnBP, MiNP, MBzP showed mean levels of 96 µg/l, 94 µg/l, and 18 µg/l, respectively. The concentrations of the phthalate metabolites decreased with increasing age. Compared to German adults all children showed three to five fold higher urine concentrations than adults analysed in the same decade.

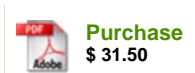
For some children the levels of the sum of 5OH-MEHP and 5oxo-MEHP in urine were higher than the German human biomonitoring value (HBM I) of 500 µg/l, which indicates that adverse health effects cannot be excluded for these subjects with sufficient certainty.

The mean concentration of BPA in urine was 2.7 µg/l. A rough calculation of the daily intakes on the basis of the measured concentrations in urine resulted in daily intakes two orders of magnitude lower than the current EFSA reference dose of 50 µg/kg bw/d.

Keywords: Phthalates; Bisphenol A; Children; Urine**Article Outline**[Introduction](#)**Methods**[Chemical analysis](#)[Statistical analysis](#)[Results and discussion](#)[Conclusions](#)[Acknowledgements](#)[References](#)

Corresponding author. Tel.: +49 30 8903 1229; fax: +49 30 8903 1830.





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