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Environment and Health – Bridging South, North, East and West Conference of ISEE, ISES and ISIAQ, Basel, Switzerland

FACTORS OF WORK ENVIRONMENT AND HEALTH STATUS OF **WORKERS IN CONDITION OF PLASTIC INDUSTRY OF SLOVAK REPUBLIC**



Kolena Branislav¹, Pilka Tomáš¹, Pucherová Zuzana², Vanková Viera², Petluš Peter², Rózová Zdenka^{2,} Jenisová Zita³, Petrovičová Ida¹

¹Constantine the Philosopher University in Nitra, Faculty of Natural Sciences, Department of Zoology and Anthropology, ²Department of Ecology and Environmentalistics, ³Department of Chemistry

Introduction

Some work environments can greatly affect human health especially in cases where workers are exposed to both detrimental conditions and noxious agents in the work-

Methods

Environmental **AQM60** Station, DustTrak DRX8533 and VaisalaWXT520 was used for the air quality detection. Urine were collected from 22 individuals and analyzed for parent phthalate compounds as well as phthalate metabolites using high performance liquid chromatographyspectrometry. tandem Personal mass questionnaire, spirometry and anthropometry were examined by standard methods.

place and also harmful environmental and lifestyle factors. Because of the potential toxicities of phthalates there was human realized a cohort study in environmentally group of individuals in plastic exposed industry.

Results

2. Exceeding of tolerable daily intake in DEHP (59 µg/kg/day)





1. Presence of phthalate (MEP, MBP, MEHP, MINP) in all urine sample

CO, NO_x, SO₂, CO₂, VOC, PM_1 , $PM_{2.5}$, PM_{10} and total dust

Symptoms of chronic mucopurulent bronchitis (50.0%) COPD (4.5%), increase of BMI (26,8; 28.2), FMI (6.2; 11.0), FFMI (20.4; 17.2) and WHR (0.96; 0.89)

IMPACT

others



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UT Other

*Except new bio-based plastics labeled as such.



Conclusions: Unsatisfactory working conditions (combination of higher temperature, low relative humidity, presence of phthalates) may have a negative impact on human health. We suppose on potential effect of phthalate exposure (part of the worker's regular job duties) as a causative factor for presence of airways diseases.

This study is the result of implementation of projects: "Environmental aspects of urban area" (ITMS: 26220220110) supported by the Research & Development Operational Programme funded by the ERDF; VEGA (I/0042/12).