



LETTER TO THE EDITOR

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Phthalates - another reason to reduce fast food consumption

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Owing to its widespread availability, fast foods have managed to attract people from all social and economic backgrounds. This growing menace is causing widespread destruction in terms of human health. A recent study published in Environmental Health Perspectives suggests that fast food may be a significant source of noxious chemicals that may damage the reproductive system and cause infertility [1]. These chemicals are phthalates, which are currently a hot topic of discussion. Phthalates which are mainly used as plasticizers are known to have many perverse health impacts. Procedures like food processing and packaging require equipment that contains phthalates which may leach into food [2].

In this recent study, researchers at the Milken Institute School of Public Health, at the George Washington University conducted a survey in which 8,877 participants were asked about their diet details in the previous 24 hours, and urine samples were taken to analyze for the presence of urinary breakdown products of two specific phthalates, Diethylhexyl-phthalate (DEHP) and Diisononyl phthalate (DiNP). The results showed that people who had eaten more fast food were found to have higher levels of phthalates. High quantity consumers had 23.8% higher levels of DEHP and 40% higher levels of DiNP compared to non-consumers who reported no fast food intake in the previous 24 hours. **Hata! Yer işareti tanımlanmamış.** This study also revealed that grains and meat items are the major sources of exposure to these potentially harmful chemicals. 1 Grain category contained bread, pizza, cake, rice dishes, burritos and noodles.

Various researches conducted in the past concluded that phthalates notably DEHP have negative effects on child behavior and neurological development [3] They have also been linked with harmful effects on the reproductive and respiratory system in children [4]. Moreover, adult exposure to DEHP is said to be associated with an increased risk of metabolic syndrome [5].

After the publication of this study, the US Food and Drug Administration (FDA) is reconsidering phthalate safety by accepting public comments on a petition created by 10 non-governmental organizations. Comments will be accepted until September 19. It is assumed that if this petition becomes successful then it could ban the selling of phthalate-contaminated food. We would like to conclude by suggesting that fast food should be avoided to help reduce the hazardous effects of phthalates and organic foods should be preferred instead. Furthermore, after the success of this petition there should be a new rule making it illegal to sell phthalate-contaminated food.



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References

1. Zota A, Phillips C, Mitro S. Recent Fast Food Consumption and Bisphenol A and Phthalates Exposures among the U.S. Population in NHANES, 2003–2010. *EHP. Environ Health Perspect.* 2016;124(10):1521-8.
2. Serrano S, Braun J, Trasande L, Dills R, Sathyanarayana S. Phthalates and diet: a review of the food monitoring and epidemiology data. *Environmental Health.* 2014;13(1):43.
3. Ejaredar M, Nyanza E, Ten Eycke K, Dewey D. Phthalate exposure and childrens neurodevelopment: A systematic review. *Environ Res.* 2015;142:51-60.
4. Braun J, Sathyanarayana S, Hauser R. Phthalate exposure and children's health. *Cur Opin Pediatr.* 2013;25(2):247-54.
5. James-Todd T, Stahlhut R, Meeker J, Powell S, Hauser R, Huang T, Rich-Edwards J. Urinary Phthalate Metabolite Concentrations and Diabetes among Women in the National Health and Nutrition Examination Survey (NHANES) 2001–2008. *Environ Health Perspect.* 2012;120(9):1307-13.