

New EPA study finds no low-dose effects of BPA on reproductive function or behaviour

In a comprehensive peer-reviewed study on Bisphenol A (BPA) funded and conducted by the US Environmental Protection Agency (EPA), researchers exposed female rodents to both BPA and ethinyl estradiol (EE2) in utero in a wide range of doses. The study finds that low-dose exposures to BPA showed no effects on the range of reproductive functions and behavioural activities measured. The results have been published online 28.10.2009 in the journal Toxicological Sciences.

<http://toxsci.oxfordjournals.org/cgi/content/abstract/kfp266>

The question of reproductive and behavioural effects had been identified as an area of scientific interest needing further research in the EU Risk Assessment on BPA and in a 2008 report on BPA from the US National Toxicology Program. The results of this new EPA-funded, well-conducted study is a significant development in better understanding the safety of BPA. The study adds to the existing amount of evidence that led regulatory agencies from around the world conclude that science supports the safety of BPA for people of all ages in its current uses. "Sound scientific review must continue to be the foundation of regulatory assessments and political decisions", said Jasmin Bird, PC/BPA-group of PlasticsEurope.

Background on the study

The study is titled "In Utero and Lactational Exposure to Bisphenol A, in contrast to Ethinyl Estradiol, Does not Alter Sexually Dimorphic Behavior, Puberty, Fertility and Anatomy of Female LE Rats," (Bryce C. Ryan, et al.). In the study, researchers fed BPA to female rats during pregnancy and lactation at dosage levels approximately 40 to 4,000 times above estimated median human consumption, and the female offspring were studied for effects on behaviour and reproductive function. No effects from exposure to BPA were found in this study. In contrast, the well-known estrogen ethinyl estradiol (EE2) had significant effects on the rodents, demonstrating the sensitivity of the study and the validity of the results for BPA.

The study conclusion states: "The lack of effect of BPA on female and male rat offspring after oral exposure to low doses in our studies is consistent with the lack of adverse effects on growth, vaginal opening, fertility and fecundity of low doses of BPA in several other robust, well designed, properly analyzed multigenerational studies (Cagen, et al., 1999; Ema, et al., 2001; Tinwell, et al., 2002; Tyl, et al., 2002)."

BPA-based materials such as polycarbonate and epoxy resin are safe in their intended uses

The EPA's new data provides further support for recent assessments from regulatory bodies around the world that determined BPA is safe for its intended uses in materials for food contact applications. These regulatory bodies include the European Food Safety Authority, the Food safety authorities from Germany, the UK, France, Denmark, Switzerland, Belgium, The Netherlands, as well as from Australia-New Zealand. Over 50 years of research and

extensive use throughout the world provide evidence that products made from materials based on BPA, like polycarbonate and epoxy resin, are safe for their intended uses.

Polycarbonate plastic and epoxy resins are widely used in food packaging to protect the safety and integrity of foods and beverages. Clear, shatter-resistant polycarbonate water cooler bottles are lightweight and reusable over many cycles. Epoxy resin coatings prevent corrosion of metal cans and lids and contamination of foods and beverages.

For more information on BPA, please visit the industry information website on BPA at www.bisphenol-a-europe.org.

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