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**Full text below:**

### **Adverse Health Effects of Bisphenol A in Early Life**

In their paper "Parent Bisphenol A (BPA) Accumulation in the Human Maternal–Fetal–Placental Unit," Schönfelder et al. (2002) suggested that "long-term follow-up studies are needed to assess the adverse effects of BPA exposure in early life." Two long-term exposure studies (multigenerational reproductive and developmental studies) have recently been published (Ema et al. 2001; Tyl et al. 2002). Neither provides evidence of any effect of BPA at the levels reported by Schönfelder et al. (2002).

In the long-term study by Ema et al. (2001), conducted by the Chemical Compound Safety Research Institute of Japan, Crj:CD (SD) IGS rats were dosed each day with BPA (0, 0.2, 2.0, 20, or 200 µg/kg/day) by stomach tube over two generations. Assessments included parental growth rate, food intake, reproductive performance, sperm production and motility, gross pathology and histopathology, organ weight, litter size, pup survival and growth, and anogenital distance. In addition, Ema et al. measured levels of several hormones related to reproduction, reflex development, and maze performance. Upon analysis of the data for all of these end points for the parental generation and the F1 and F2 generations, no consistent evidence of a low dose effect of BPA was found.

In the study by Tyl et al. (2002), conducted by the Research Triangle Institute in the United States, Sprague-Dawley rats were fed a diet containing BPA at levels from 0 to 7,500 ppm, yielding approximate intakes of 0, 1, 20, 300, 5,000, 50,000, and 500,000 µg/kg/day. Exposures were continued until adulthood of the third-generation offspring. The end points evaluated included parental growth rate, food intake, reproductive performance, sperm production and motility, gross pathology and histopathology, organ weights, litter size, pup survival and growth, and anogenital distance. In addition Tyl et al. measured the day of vaginal opening, preputial separation, and in males, the presence or absence of retained nipples. The lowest observed adverse effect level (LOAEL) in this study was 50,000 µg/kg/day, and the effects observed at the LOAEL were weight loss or reduction in weight gain. No effects were observed at lower doses.

Reassuringly, the results of the two available long-term studies provide no evidence—despite the exceptional power of the studies—of any effect of BPA exposure at levels near or orders of magnitude higher than those reported by Schönfelder et al. (2002).

*The author declares he has no conflict of interest.*

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