



DATA TRENDS Alert: June 2000 #10

Summaries of research on mental health services for children and adolescents and their families



Toxic Threats to Child Development

Source: Schettler, T, Stein, J, Reich, F, Valenti, M, & Wallinga, D (2000). In harms way: Toxic threats to child development. *Greater Boston Physicians for Social Responsibility*.

Toxins in our environment such as lead, nicotine, dioxins, pesticides, and solvents may strongly contribute to disabilities in children, according to a report released by the Greater Boston Physicians for Social Responsibility (GBPSR). Massive amounts of neurotoxins are released in the U.S. each year—these include ammonia, toluene, chlorine, lead, and over 1.2 billion pounds of pesticide products. The majority of high production and high volume chemicals have undergone little or no testing for toxicity.

The authors present evidence from studies showing that a variety of commonly encountered chemicals can contribute to developmental, learning, and behavioral disabilities such as ADHD, mental retardation, attention and memory impairment, and other disabilities. Current exposure levels of some chemicals have been shown to be harmful—for instance, the EPA estimates that every year 1.16 million women of childbearing years in the U.S. eat enough mercury-contaminated fish to put their child's brain development at risk. Residue from the pesticide chlorpyrifos can be found in the urine of over 80% of adults and 90% of children. Breast-fed infants are exposed to dioxins in levels that exceed adult exposures by as much as a factor of 50.

Combinations of neurotoxins have been shown to be even more damaging. With our current scientific understandings, we do not know the full extent of effects of all possible combinations of chemicals, as well as the added complexity of genetic susceptibility in some individuals to toxic environmental “triggers.” Even when chemicals do undergo testing for toxicity, the GBPSR reports that animal studies often underestimate their impact on humans. The report calls for reduction or elimination of exposure and further scientific investigation of neurotoxicity.

The full report can be downloaded in PDF format at
<http://www.preventingharm.org/harmswayreadmore.html>.

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