



Protecting Children from Toxic Chemical Exposures *Policy Statement*

The Children's Environmental Health Network (CEHN) strives to promote safe environments where children can grow and thrive, and works to protect the developing child from environmental health hazards.

CEHN recognizes that the prenatal period and early years of life are critical to a child's healthy growth and development, and that exposure to toxic chemicals during these times can be especially harmful. In addition, children of lower socioeconomic status and children of color tend to experience greater exposures to toxic chemicals, resulting in an increase in adverse health outcomes.

CEHN calls for actions to protect all children from harmful exposure to toxic chemicals.

Toxic Chemicals and Impacts on Health

Chemicals are found in the environment (air, water, and soil) and in food and consumer goods. There are more than 84,000 industrial chemicals and more than 17,000 pesticide products presently on the market in the United States (U.S.). Families are readily exposed to many of these chemicals, some of them on a daily basis, through common household products; however, the safety of the majority of these chemicals has not been evaluated.¹ As defined by the U.S. Environmental Protection Agency (EPA), a toxic chemical is a substance that can be harmful to the environment or hazardous to one's health if ingested, inhaled, or absorbed.² Exposures to toxic chemicals have been associated with harmful effects such as premature births, birth defects, developmental and learning disabilities, behavioral problems, obesity, asthma, digestive system diseases, and cancer.^{3,4,5} As new chemicals are produced and dispersed into the environment, used in food production or added to consumer products, the risk of toxic chemical exposure increases due to the prevalence and unknown safety of these chemicals. In addition, research on the effects of multiple exposures and cumulative risk is lacking.

Children are Especially Vulnerable

Children are especially vulnerable to the harmful health impacts of chemicals due to their developing physiology, unique behavioral characteristics, and special interactions with their environment. Critical periods of human development take place in the womb and also during early childhood.

¹ Environmental Protection Agency. (2013). About the TSCA Chemical Substance Inventory. Available: <https://www.epa.gov/tsc-a-inventory/about-tsc-a-chemical-substance-inventory>.

² Environmental Protection Agency. (2016). Vocabularly Catalog. Available: https://iaspub.epa.gov/sor_internet/registry/termreg/searchandretrieve/glossariesandkeywordlists/search.do

³ Renzo GCD, et al. (2015). International Federation of Gynecology and Obstetrics opinion on reproductive health impacts of exposure to toxic environmental chemicals. *Int. J. Gynecol. Obstet.* 131:219–225; doi:10.1016/j.ijgo.2015.09.002.

⁴ DellaValle, C. (2016). The Pollution in People: Cancer-Causing Chemicals in Americans' Bodies. Environmental Working Group. Available: <https://www.ewg.org/cancer/the-pollution-in-people.php>.

⁵ Reuben SH. (2010). Reducing Environmental Cancer Risk. U.S. Department of Health and Human Services. National Cancer Institute.

Exposure to toxic chemicals during these important phases may disrupt development and cause harm, with sometimes irreversible effects and lifelong consequences to health and functional life achievement.^{6,7,8}

The origins of most childhood illnesses and developmental problems are due to the complex interplay of multiple influences, including sociodemographic, genetic, and environmental factors. Today's children are at an increased risk of developmental disorders that affect the brain and nervous system (such as autism, attention deficit hyperactivity disorder, intellectual disabilities, and learning and behavioral disabilities). The reason for these disorders are complex. However, many toxic chemicals can interfere with healthy brain development, some at extremely low levels of exposure.^{9,10}

Some children are at greater risk than others. Illness and disease rates (such as asthma) are higher among poor and minority children. These children often experience an increased and disproportionate exposure to toxic chemicals from unhealthy housing conditions (e.g., exposure to lead-based paint or mold) and unsafe environments (e.g., homes and schools that are close to highways, industry, conventional agricultural production or other sources of emitted chemical pollutants). In addition, children from these families often do not have access to quality health care, safe and affordable consumer products, and nutritious food, and their families often have limited, if any, means or resources to improve these conditions.^{11,12,13}

CEHN Calls for Prompt and Collective Action

CEHN calls for prevention of exposure to toxic chemicals that can harm the developing child.

As a leading voice for children in the nation's capital, CEHN calls for:

- Full support and enforcement of the *Frank R. Lautenberg Chemical Safety for the 21st Century Act*, to ensure current and future chemicals in the market are safe for children, their families, and the environment.
- Increased authority for agencies, including the EPA and the U.S. Consumer Product Safety Commission (CPSC), to regulate and prevent new toxic chemicals from entering the market and into children's homes, schools, and child care settings.
- Support and funding for research initiatives toward safer and healthier alternatives to known toxic chemicals.

⁶ Commission for Environmental Cooperation. (2006). Toxic Chemicals and Children's Health in North America: A Call for Efforts to Determine the Sources, Levels of Exposure, and Risks that Industrial Chemicals Pose to Children's Health.

⁷ Center on the Developing Child at Harvard University. (2016). From Best Practices to Breakthrough Impacts. Cent. Dev. Child Harv. Univ. Available: http://46y5eh11fhgw3ve3ytpwxt9r.wpengine.netdna-cdn.com/wp-content/uploads/2016/05/From_Best_Practices_to_Breakthrough_Impacts-3.pdf.

⁸ Gunier R, et al. (2016). Prenatal Residential Proximity to Agricultural Pesticide Use and IQ in 7-Year-Old Children. *Environ. Health Perspect.* 128; 10.1289/EHP504.

⁹ Centers for Disease Control and Prevention. (2016). Children's Environmental Health. Available at <https://ephtracking.cdc.gov/showChildEHMain?r=c>.

¹⁰ Bennett D, et al. (2016). Project TENDR: Targeting Environmental Neuro-Developmental Risks The TENDR Consensus Statement. *Environ. Health Perspect.* 124; doi:10.1289/EHP358.

¹¹ Raymond J., Wheeler W., & Brown M. (2011). Inadequate and Unhealthy Housing, 2007 – 2009. National Center for Environmental Health, CDC. Available: <https://www.cdc.gov/mmwr/preview/mmwrhtml/su6001a4.htm>.

¹² Council on Community Pediatrics. (2016). Poverty and Child Health in the United States. *Pediatrics* peds.2016-0339; doi:10.1542/peds.2016-0339.

¹³ Taylor S. (2015). A Day Late and A Dollar Short: Discount Retailers Are Falling Behind on Safer Chemicals. *Environ. Justice Health Alliance Chem. Policy Reform*. Available: http://ejforall.org/assets/media/documents/Report_ADayLateAndADollarShort.pdf.

- Collaboration between academia, government, and industry to integrate “green chemistry” in the chemical manufacturing process to reduce or eliminate chemical hazards.
- Training of health professionals to increase awareness of toxic chemical exposures and children’s health.
- Cooperation between manufacturers and retail businesses to adopt policies that will protect consumers by ceasing to import products, and by removing products from store shelves, including discounted retail stores, that have suspected or known hazards to children.
- Increased “eco-healthy” certification from third party government agencies and non-profit programs with rigorous standards, such as EPA’s Safer Choice label, to distinguish conventional products from those that are not only effective, but also biodegradable and least harmful to human and environmental health.
- Increased state and local government resources to raise awareness about the connection between children’s health and toxic exposures and toward prevention and protection.
- Monitoring of elected officials, government agencies, and industries to ensure implementation, enforcement, and compliance of laws that protect children’s health from toxic chemicals.
- Promotion and enforcement of regulations that decrease toxic chemical releases into the environment with particular consideration to children’s health.