

Resolution of the Learning and Developmental Disabilities Initiative: April 2003

1. Whereas developmental disabilities, including learning, attention, emotional, and behavioral concerns among children are widespread, affecting 17% or over 12 million children under the age of 18 (Boyle C, Decouffle P, Yeargin-Allsopp M. "Prevalence and health impact of developmental disabilities in U.S. children". *Pediatrics* 93(3):399-403, 1994 and based on the 2000 United States census),
2. Whereas up to 15% or 10 million children under the age of 18 in the United States are affected by some form of learning disability (National Institute of Child Health and Human Development, 1985) and 15% to 20% of the total population have language-based learning disabilities (*Journal of Learning Disabilities*, Shaw, et. al., 1995),
3. Whereas 3% to 6% or approximately 4 million children under the age of 18 are conservatively estimated to suffer from attention deficit hyperactivity disorder (Goldman, Genal, Bezman, et. al., 1998), and a more recent study suggests the number is as high as 10% (*American Journal of Public Health*, February 2002),
4. Whereas mental retardation affects 2% or approximately 1.4 million children under the age of 18 (American Association on Intellectual and Developmental Disabilities, formerly American Association on Mental Retardation, June 2002),
5. Whereas approximately 0.7% or 450,000 children under the age of 18 are estimated to have autism spectrum disorder and autism spectrum disorder appears to be 10 times more prevalent today than it was in the 1980s (*Journal of the American Medical Association*, January 2003),
6. Whereas providing special education services to students with disabilities amounted to \$77.3 billion, or an average of \$12,474 per student in 1999-2000, which is almost 22% of the 1999-2000 total spending on all elementary and secondary educational services in the U.S. The total expenditure per regular education student is only \$6,556. (1999-2000 U.S. Department of Education, American Institutes for Research, March 2002),
7. Whereas developmental, learning, attention, and behavioral problems may have serious adverse consequences for affected children, their families, and communities, including psychological and economic costs associated with unemployment, school dropout, teen parenting, substance abuse, welfare dependency, and involvement with juvenile and adult criminal justice systems,
8. Whereas normal brain development in utero through adolescence follows a precise and delicate step-by-step sequence involving complex neurobiological processes (i.e., formation of the neural tube; cell proliferation, migration, and selection; synapse formation and pruning; and myelination),
9. Whereas brain development is influenced by heredity, genetic, social, and environmental factors and the interactions among them,

10. Whereas environmental factors capable of disrupting gene expression and normal brain development as well as altering cognitive and social ability include chemical, nutritional, physical and biological agents,

11. Whereas brain development directly affects individual capacity to learn, talk, read, calculate, memorize, conceptualize, organize, pay attention, interact socially and behave appropriately,

12. Whereas definitive research shows environmental factors such as lead, mercury, polychlorinated biphenyls (PCBs), alcohol, toluene, and tobacco smoke are capable of disrupting human brain development, resulting in permanent, negative impacts on intelligence, learning, attention, memory, comprehension, language acquisition, written and verbal communications, behavior and socialization,

13. Whereas additional environmental chemicals and pollutants, such as some pesticides, solvents, and other heavy metals have been shown to disrupt brain development in animal studies and are suspected of having similar effects in humans.

Therefore, be it resolved:

1. That given the particular concern raised by chemical interactions with biological and developmental processes described above, responsible and comprehensive efforts should be undertaken as soon as possible to reduce or eliminate human exposure and environmental releases of toxic substances known or suspected to impair normal brain development;

2. That these efforts should include, but are not limited to, reformulation of products and comprehensive labeling of products that contain neurotoxic substances;

3. That chemical manufacturers, distributors, and government regulatory agencies should support independent, comprehensive, scientific research to identify neurodevelopmental toxicants and harmful consequences of exposure to these chemicals, singularly and in combination, that place developing embryos, infants and children at risk;

4. That chemical manufacturers and government regulatory agencies should routinely examine chemicals for developmental neurotoxic properties if those chemicals are intended for use in consumer products or if they will be released at any time during the course of their chemical lifespan into the environment;

5. That if chemicals have not been tested for neurotoxicity and effects on neurodevelopment, a manufacturer will have breached its duty of care, and if a chemical has not been examined for developmental neurotoxic properties, the manufacturer of that chemical or product containing that chemical should bear the burden of demonstrating that the chemical is not associated with alleged harm, rather than the injured party having to demonstrate a causal relationship between the exposure and adverse impact;

6. That educational programs for health care professionals should regularly and explicitly address the emerging science and best practice procedures regarding neurotoxicity as part of a concentrated effort to promote routine and timely prevention, screening, and intervention to avoid or minimize harmful consequences of exposure of future parents, vulnerable embryos, fetuses, infants and adolescents to environmental neurotoxicants;

7. That health care professionals as part of local and national efforts to reduce harmful effects of exposure to environmental neurotoxicants should actively develop specific programs and procedures that include focusing attention on girls and women of reproductive age throughout their child-rearing years in addition to their young offspring;

8. That public education systems, supported by legislative initiatives, should provide essential training and resources to conduct thorough environmental health screenings to evaluate and refer as needed pre-school and school-age children for potential neurotoxic exposure that could negatively impact their health and learning capacity, giving priority to high-risk urban, industrial, low-income and agricultural environments;

9. That national and state "Right-to-Know" and clear labeling policies should be passed and implemented so that all parents and consumers are aware of exactly what ingredients are in the products on the market so they can make more informed and conscientious choices to avoid unnecessary and potentially harmful exposure to neurotoxicants.

10. That national, state, and local public policies should support and ensure the implementation of measures to reduce or eliminate the use of neurotoxic substances wherever children live, learn, play, or work, including neurotoxic construction materials, cleaning products, fertilizers, pesticides, and harmful residues found in soil, water, air and food.