



# Learning Disabilities Association of *Maine*

## **Learning Disabilities Association of Maine Toxic Chemicals and Our Children's Health**

The Learning Disabilities Association of Maine (LDA) is a non-profit organization with over 400 members statewide made up of teachers, professionals, families, and individuals with learning and attention disabilities. We are also affiliates of the Learning Disabilities Association of America and are participating in their Healthy Children's Project which seeks to build public awareness of the hazards of chemical exposures to children. We believe that the education, children's health, and developmental and learning disabilities communities can benefit from information about the effects of toxic exposures on children in order to help eliminate those exposures. Why is environmental health so important to LDA?

Learning disabilities are prevalent and increasing in our society:

- Twelve million American children, or 1 in 6 children under the age of 18, have one or more developmental, learning or behavioral disabilities;
- 127,000 adults and children in Mainers are identified as having learning disabilities;
- About 1.5 million Americans are autistic. In the 1970s, autism was estimated to have affected about 1 in 2,500 to 5,000 children; studies show it occurs today in 1 in 150 to 500 children;
- 37% of the children receiving special education services in our public school system have learning or attention disabilities.

While there are several factors—genetics, social environment, nutrition--that lie behind the large numbers of children with these problems, the National Academy of Sciences has estimated that toxic exposures cause three percent of the incidences and play a role in at least another 25%. Further, we likely know only the tip of the iceberg about the size of the role these toxic exposures play. Fetal exposure occurs when toxic chemicals cross the placenta. As infants, children take in more toxic chemicals because, pound for pound, they eat, drink and breathe more than adults do. Their bodies are still growing and changing so chemicals are more dangerous for them.

Children today are exposed to thousands of newly developed synthetic chemicals. Approximately 80,000 chemicals are used in commerce today—about 2000 more are newly released every year. Fewer than 10% are tested at all for their impact on human health; only 12 of those 80,000 chemicals have been fully tested for their affect on children's neurological development. More studies emerge each year pointing to connections between exposure to toxic chemicals and damage to the immune, neurological, or reproductive systems of developing fetuses and young children. In addition, heavy metals long known to have detrimental effects to human health and finally regulated (though not enough to be safe) are still in products and the environment where they continue to damage the health of our children.

For example, scientists have found that exposure to mercury pollution can impair learning and memory capabilities in developing children. The U.S. EPA reports that one in six women of childbearing age has enough mercury in her blood to pose a risk to an unborn child. According to the Maine Bureau of Health (Bureau), twenty percent of Maine women are exposed to mercury in the fish they eat at levels that can harm a baby's growing brain. Mercury levels are now so high in Maine waters that the Bureau recommends that women who are pregnant, nursing or of child-bearing age, as well as children under eight years of age, should not eat any fresh water fish (except 1 meal a month of landlocked salmon or brook trout). This group should not eat swordfish, shark, king mackerel or tilefish from the ocean.

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Children and women of childbearing age should even limit the amount of canned tuna they eat to “light” tuna, not white. A 60-pound child should eat no more than three ounces (half of a can) of tuna per week; a 20-pound child no more than 1 ounce per week. A 140-pound woman of childbearing age should eat no more than one can a week.

Meanwhile, a 2003 study at the University of Pittsburgh shows that children exposed to lead have significantly greater odds of developing delinquent behavior. There is a growing body of evidence linking lead exposure to cognitive and behavioral problems in children. Increases in blood lead levels during infancy and childhood are associated with attention deficits, increased impulsiveness, reduced school performance, and aggression. The single biggest source of lead exposure in Maine is the dust from lead paint in older homes; Maine has a very old housing stock (most homes built well before 1978) and this puts many of our children at risk.

*Joining Together to Address the Problem:* Since January 2003, LDA and nine other public health and environmental organizations to establish the Alliance for a Clean and Healthy Maine (Alliance). With a combined membership of over 40,000 Maine people, the Alliance’s mission is to protect citizens from exposure to persistent toxic chemicals. The groups in the Alliance represent children with health problems, parents, workers, doctors, public health professionals, environmentalists and communities in rural and urban Maine.

*Legislative Successes:* From 2003 to 2005, the Alliance has worked for successful passage of many different legislative initiatives to reduce exposure to toxic chemicals in Maine. These bills phased out switches and devices which use mercury; required dentists to separate out and dispose safely of mercury amalgam used in their procedures; banned the sale of mercury-containing thermostats; and ended use of arsenic in pressure-treated wood; created a right-to-know for arsenic levels in private drinking water wells whenever homes are sold. Other bills banned the disposal of cathode ray tubes (CRTs) and set up a process to recycle computer parts in order to prevent exposure to such toxic chemicals as cadmium, mercury and lead and banned several types of toxic flame retardants in consumer products. Bills were passed to establish a collection and recycling program for electronic waste to complete the 2003 ban and set up a program for creating collection points for the banned thermostats with a goal of recycling 90% of the products by the end of 2005. A most recent effort established a fund for lead poisoning prevention education by assessing a fee on paint manufacturers—the industry which with its lead paint of previous decades contributed mightily to Maine’s current childhood lead poisoning crisis.

*Sharing Information Around the State:* LDA and the Alliance accomplish a variety of educational projects each year--a first ever environmental health conference for advocates, policy-makers and the medical and scientific community, an annual “Environmental Health Day” at the State House to distribute information about important environmental health issues, train activists and influence legislators. Member organizations of the Alliance hold workshops and small meetings, attend conferences, and distribute materials explaining the hazards of these chemicals to many organizations and communities. We hope to expand the Alliance and strengthen the voices calling for elimination of toxic exposures for our children by working with groups and individuals around the state.

*Questions?* We can run presentations of any length from a half hour to two hours focusing on the connection between exposure to toxic chemicals, the effects on children’s health and the incidences of learning and developmental disabilities. For more information, contact Evelyn deFrees, Project Director (342-5909 or [bradev@zwi.net](mailto:bradev@zwi.net)) or Sandra Cort, Past-President and Board Member (892-5442 or [sjcort@roadrunner.com](mailto:sjcort@roadrunner.com)). More information about LDAME at [www.ldame.org](http://www.ldame.org); and about the Alliance for a Clean and Healthy Maine at [www.preventharm.org](http://www.preventharm.org).

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