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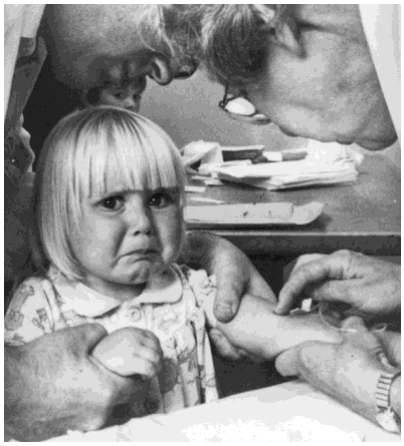
P.O. Box 6806. Falls Church, VA 22040. (703)237-2249. www.chej.org

Health Effects of Childhood Lead Exposure



Lead is a potent neurotoxin that can cause serious damage to young children and infants, even at concentrations below the level deemed safe by the government. Exposure to water containing even small levels of lead can inhibit a child's cognitive ability at a very young age, essentially burdening their path to a healthy, successful, and productive life. Infants, young children, and pregnant women are at a much higher risk of lead poisoning than adults and can be damaged by ingesting any amount of lead.[1] If a child is exposed to even very low concentrations of lead at their home, or in places like schools and day-care facilities, they can develop serious and long-lasting health problems that make them suffer both physically and mentally.

The bodies of young children and pregnant women are undergoing rapid and important changes, making these groups highly susceptible to lead. Even very low amounts of lead can lead to fatigue, kidney damage, impaired nervous system functioning, anemia (where blood loses its ability to carry enough oxygen), stunted bone and muscle growth, and even impaired vision.[2] While these adverse effects are bad enough, lead poisoning can cause **irreversible damage to a child's developing brain.** Eighty-five percent of brain development occurs before the age of five.[3] In these early years, the brain is undergoing major growth and change and is susceptible to damage from very low levels of exposure to toxins such as lead. Even at low concentrations, lead can cause significant neurologic damage to children[4] including behavior problems, hyperactivity, hearing loss, a decreased IQ, and other learning disabilities.[5]

The Environmental Protection Agency (EPA) has set a standard for lead in drinking water at 15 parts per billion (ppb). However, some experts believe this standard is too high to effectively protect children and have called for a reduction in the allowable level of lead in drinking water. **The American Academy of Pediatrics (AAP) recommends a health-protective standard of 1 ppb** or less of lead in water for any school, day-care, or other source of water a developing child might drink from.[6] Because lead exposure can be a powerful impediment to a child's development, it seems like good common sense to do everything possible to minimize the amount of lead children are exposed to in their schools. As it stands, most parents in the U.S. are required by law to send their children to school, but in most cases, they don't have the information to know whether their children may be ingesting dangerous amounts of lead that could that damage their developing minds and bodies and makes them less likely to succeed. Lead exposure can hurt kids before they even get a chance to grow up and understand the world around them. Parents, teachers, and policy-makers should do everything possible to prevent lead from reaching children through their drinking water.

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[1] https://www.mass.gov/files/documents/2016/08/wp/lead-parents-2015.pdf
[2] http://www.who.int/news-room/fact-sheets/detail/lead-poisoning-and-health
[3] http://www.rauchfoundation.org/how-we-work/what-we-support/
[4] https:// ehp www.ncbi.nlm.nih.gov/pmc/articles/PMC2717145/
[5] https://.niehs.nih.gov/wp-content/uploads/2017/09/EHP1605.alt_.pdf
[6] https://www.aap.org/en-us/about-the-aap/aap-press-room/pages/With-No-Amount-of-Lead-Exposure-Safe-for-Children,-American-Academy-of-Pediatrics-Calls-For-Stricter-Regulations.aspx