Severe lead poisoning in children: Causes and risk factors

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Although national and local policies have reduced the prevalence of lead poisoning in the United States, severe cases still occur. Whereas, exposures at blood lead levels (BLLs) as low as 5 μg/dL have been associated with long-term irreversible cognitive deficits, more severe exposures at BLLs ?45 μg/dL can result in organ damage and death. In a new study scheduled for publication in *The Journal of Pediatrics*, researchers identified sources of exposure and assessed outcomes for children with severe lead poisoning.

Dr. Jacqueline Ehrlich and researchers from the New York City Department of Health and Mental Hygiene collected data from children under 18 years of age who were found to have BLLs ?45 μg/dL. Risk assessment questionnaires provided information on the children's behaviors, recent home improvements, and use of imported products. During home visits, inspectors measured the lead content of painted surfaces and healthcare providers were advised to obtain abdominal X-rays to check for recent ingestion of leaded material before starting treatments. According to Dr. Ehrlich, "Understanding the incidence, sources, and treatment outcomes can promote timely identification of cases, as well as help inform clinical practice and public health policy."

Between 2004 and 2010, a total of 145 children in New York City were identified with BLLs ?45 μg/dL. The median age at identification was 3.8 years, and it took a median of 3.2 years for the BLLs to decline to