

## No link between childhood lead levels, later criminality

December 27 2017



(HealthDay)— Exposure to higher levels of lead during early childhood



can affect neurological development—but does that mean affected kids are doomed to delinquency?

No, according to a new study that tracked the lives of hundreds of New Zealand children born in the early 1970s.

The researchers noted that New Zealanders are particularly appropriate to study regarding this issue because high exposure to lead has been observed among children of all levels of family income. That would help eliminate economic class as a mitigating factor.

In the end, the new research "failed to support" the notion that a child's risk for later criminal activity rises in tandem with their exposure to lead in the environment, according to the team led by Amber Beckley, of Duke University in Durham, N.C.

The investigators pointed out that prior studies that had suggested such a link were unable to account for poverty. In the United States, for example, kids from poorer households are more vulnerable to exposure to lead.

"It is most commonly found in lead-based paint used in old homes, particularly those built before 1978," said Dr. Sophia Jan, who directs pediatrics at Cohen Children's Medical Center in New Hyde Park, N.Y. "However, lead can be found in the water pipes of old homes, gasoline and many other environmental sources," she added.

And one physician who reviewed the New Zealand findings believes they still must be interpreted with caution.

The study's "greater value lies in its ability to remove socioeconomic class as a variable," said Dr. Robert Glatter, an emergency physician at Lenox Hill Hospital in New York City.



But he said that, regardless of whether lead exposure in childhood is tied to criminal behavior later, "adverse neurological effects related to learning and memory have been clearly established."

For the new study, the researchers tracked outcomes for more than 550 New Zealanders born between 1972 and 1973.

Beckley's team first looked at blood lead level readings that had been taken when the study participants were just 11 years old. The team then looked at any history of criminal behavior nearly four decades later—by the time each individual had turned 38.

The researchers found no indication that those who had been exposed to high levels of lead at age 11 were more likely to have an adult criminal record or to have reported having engaged in recurring criminal activity and/or violent behavior.

This means that "previously detected associations between <u>blood lead</u> <u>levels</u> and criminal offending may be owing to the toxic effect of lead disproportionately affecting disadvantaged groups," the study authors concluded in the report.

The findings were published online Dec. 26 in JAMA Pediatrics.

**More information:** Sophia Jan, M.D., director, general pediatrics, Cohen Children's Medical Center, New Hyde Park, N.Y.; Robert Glatter, M.D., emergency physician, Lenox Hill Hospital, New York City; Dec. 26, 2017, *JAMA Pediatrics*, online

There's more about lead exposure and children at the <u>U.S. National</u> <u>Institutes of Health</u>.



Copyright © 2017 <u>HealthDay</u>. All rights reserved.



Citation: No link between childhood lead levels, later criminality (2017, December 27) retrieved 13 May 2024 from <u>https://medicalxpress.com/news/2017-12-link-childhood-criminality.html</u>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.