

## LEAD UPDATE

In a study reported in May, Herbert Needleman evaluated 216 delinquents and 201 nondelinquent youths and found that convicted juveniles were nearly twice as likely as control subjects to have high bone-lead levels. The findings were true for both males and females, and for both African-American and Caucasian subjects. The findings support earlier research by Needleman and colleagues (see related article, [Crime Times, 1996, Vol. 2, No. 2, Page 1](#)) showing a correlation between lead levels and aberrant behavior.

"This study provides further evidence that delinquent behavior can be caused, in part, by childhood exposure to lead," says Needleman. "Of all the causes of juvenile delinquency, lead exposure is perhaps the most preventable."

Bruce Lanphear has released a new report revealing that children's math and reading scores begin to decline at lead levels as low as 2.5 micrograms per deciliter. Saying that current lead limits are "inadequate to protect children," Lanphear called for a maximum threshold of half the current 10-microgram limit.

Rick Nevin examined the association between blood lead levels in U.S. children and IQ changes over several decades. He concluded that "long-term trends in population exposure to gasoline lead were... remarkably consistent with subsequent changes in violent crime and unwed pregnancy," and that paint and gasoline lead levels correlated with changes in murder rates. Improvements in children's IQ scores over several decades, as measured by the Cognitive Abilities Test, also showed a strong correlation with declining blood lead levels.

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Research by Herbert Needleman and Bruce Lanphear was presented at the joint conference of the American Academy of Pediatrics and Pediatric Academic Societies, May 15, 2000

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"How lead exposure relates to temporal changes in IQ, violent crime, and unwed pregnancy," Rick Nevin, *Environmental Research*, Vol. 83, No. 1, May 2000, pp. 1-22.  
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