



# Study Links Childhood Lead Exposure To Later Gun Violence

Link Increases Pressure On Milwaukee's Lead Abatement Program

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<https://www.wpr.org/study-links-childhood-lead-exposure-later-gun-violence>

For the first time, [a study from the University of Wisconsin-Milwaukee](#) links a child's exposure to lead to later gun violence.

By connecting the two, there is an even greater urgency placed on the city of Milwaukee to tackle childhood lead exposure, researchers said.

Milwaukee has been working on lead abatement, but problems in the city program came to light in 2018, when a report by the Wisconsin Department of Health Services showed several deficiencies in the Milwaukee Health Department's Childhood Lead Poisoning Prevention Program.

Lindsay Emer, the primary author of the study, said there is no safe level of lead.

"This research provides further urgency to fully support these efforts with the resources that are needed," Emer said.

The study, completed at UW-Milwaukee's Joseph J. Zilber School of Public Health, used public health, education and criminal justice data sets covering more than 89,000 people born in Milwaukee between June 1, 1986, and Dec. 31, 2003, with a valid blood lead test before they were 6 years old.

Researchers found that as childhood blood lead levels increased, the risk for becoming a perpetrator or victim of gun violence increased, even after controlling for temporal trends, gender, race and neighborhood socioeconomic status.

The link was so strong that about half of gun violence perpetration and victimization was attributable to blood lead levels of 5 micrograms of lead per deciliter of blood, which is the current reference level for elevated lead.

That means that in Milwaukee, during a period of high lead exposure, childhood blood lead levels might have substantially contributed to later adult gun violence — although the study wasn't able to definitively prove cause and effect.

Lead is particularly harmful to children. Research suggests lead exposure can cause irreversible, long-term damage to a child's brain.



Earlier this month, the U.S. Department of Housing and Urban Development (HUD) awarded Milwaukee \$5.6 million to assist with lead abatement.

Emer said the award is a good start, but more money is needed to address the problem.

"You can see the effects of already what has happened through these public health interventions," Emer said. "But we think this study just provides further urgency to continue to support these efforts."

Emer said people tested at the beginning of her study had higher lead levels than those tested at the end, because of efforts that were underway during the time of her study.

"Individuals born between 1986 and 1990 had an average lead level of 12.5," Emer said. "Individuals born between 2001 and 2003 had an average lead level of 4."

Milwaukee Mayor Tom Barrett has proposed more than \$21 million in lead abatement and reduction funding in his 2020 budget.

In 2016, HUD granted Milwaukee \$4 million for their Childhood Lead Poisoning Prevention Program, which helped replace windows with paint chips and other lead hazards in homes.

Milwaukee Health Department officials couldn't immediately be reached for this story.

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## Comments



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This Emer et al (2020) study has some important conclusions which certainly justify expenditure on primary lead poisoning prevention (eg banning leaded gasoline or leaded brass plumbing fixtures) and secondary lead poisoning prevention (eg replacing lead-painted windows or cleaning up leaded dust in homes where children already have notified blood lead levels), namely: "If causal, the proportion of firearm violence attributed to lead exposure

in these data is substantial: 56% for perpetration and 51% for victimization. These numbers are consistent with prior research that estimated that the decline in lead in gasoline was responsible for a 56% drop in violent crime between 1992 and 2002 (Reyes, 2007)."

But I've long been concerned for more funding (including research efforts) to go into getting the lead out of people BEFORE they turn to firearm violence or suffer hypertension (causing heart attacks and strokes) - in other words, who is doing research into detox foods, supplements, regimes (such as sauna) or other detox products or processes so all of us who've been exposed to lead can prevent tertiary lead poisoning (being poisoned again when our bone stores of lead leach back into our blood stream) - which is now associated with an increased risk of early death (see "Low-level lead exposure



and mortality in US adults: a population-based cohort study" by Lanphear et al, The Lancet, March 2018).

Elizabeth O'Brien, Australia



[KickapooViking](#) · [22 days ago](#)

This link is not new. I heard of a similar study outcome over a decade ago.

Where's the War On Lead Pipes?

Mayor Barrett's measly \$22 Million commitment won't make much of a dent.

[Tom Wisco](#) · [22 days ago](#)

Weird. So there actually real tangible things we can do to reduce senseless gun violence. We can improve the lives of everyone around us now and for future generations by moving our water delivery methods into the 21st century? Or we could call that kind of thinking socialism and instead give tax breaks to the wealthy and pretend these things are out of our hands and only offer thoughts and prayers to victims of gun violence.

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