



What is lead poisoning?

Lead poisoning damages the brain, especially in children under 6 years of age. Lead exposure can lower a child's intelligence and put them at high risk for behavioral problems. Each year, more than 2,000 Hoosier children have high levels of lead in their blood. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2721877/>
<https://www.mayoclinic.org/diseases-conditions/lead-poisoning/symptoms-causes/syc-20354717>

No known safe levels of lead in children's blood exist.

The Environmental Protection Agency (EPA) and the Centers for Disease Control and Prevention (CDC) agree that no known safe lead level exists in a child's blood. Therefore, reducing exposure to lead can improve outcomes. Lead is harmful to health, especially for children.

<https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water>

What is the source of lead?

- **Lead paint** is the most common source. Houses or apartments built before 1978 can have lead paint that peels or breaks down and becomes part of household dust. Children eat the paint chips, which are sweet, or get dust on their hands or toys and then stick them in their mouths.
- **Dust** is a major source of exposure in children, in part because dust is on the floor, in windowsills, or on children's toys. Hand-to-mouth behavior is a primary route of exposure.
- **Contaminated soil** from deteriorated lead paint or from industrial activity.
See a map illustrating where soil has been tested by Indiana University and partner institutions.
<https://www.mapmyenvironment.com/>
- **Drinking water**, but lead does not come from the water company. Lead can enter the water if it sits in leaded pipes or plumbing fixtures. Buildings constructed before 1950 might have what is known as a "lead service line." Homes built before 1986 could have lead in plumbing fixtures.
- **Work or hobbies** that involve lead, such as making stained glass, ceramics, working in battery recycling or construction, or handling leaded bullets or fishing weights.
- **Some imported foods, cosmetics, and remedies** have been known to contain lead.

Lead poisoning poses a lifetime burden on families and communities.

According to research supported by the Robert Wood Johnson Foundation*, the "lifetime economic burden of childhood lead exposure in Indiana" for children born in 2019 is \$1.6 billion. The cost to state and local budgets is \$227.7 million, and the cost to the private sector and households is \$903.8 million. Those costs include "reduced lifetime productivity; increased health care, education, and social assistance spending; and premature mortality." <http://valueofleadprevention.org/calculations.php?state=Indiana>
Thus, one can argue that lead poisoning can impede workforce development. Moreover, research has linked early childhood lead poisoning to truancy, crime, and even incarceration.

Lead poisoning is preventable.

According to standard practices, health department officials conduct a Lead Inspection and Risk Assessment (LIRA) when a child's blood lead level (BLL) indicates that lead poisoning has occurred. A licensed risk assessor performs the inspection to identify the lead source in and around the home. While testing the child to find the lead source can help locate children who are being exposed and stop the damage, it is even more beneficial to find lead sources *before* children are exposed.

Lead poisoning is an environmental justice issue.

In Marion County, a map of children with elevated blood lead levels (BLLs) suggests that low-income children and minority children are disproportionately burdened with lead exposure. The CDC states that "children can be exposed to lead if they swallow or breathe in chipped pieces of lead paint or lead dust."



EPA Environmental Justice Screening and Mapping Tool: <https://www.epa.gov/ejscreen>

CDC Environmental Justice Index: <https://www.atsdr.cdc.gov/placeandhealth/eji/index.html>

Lead contamination persists.

Sales of lead paint were banned in 1978, but contamination from legacy lead persists. In Indianapolis, approximately 92,000 homes (22%) were constructed before 1950, and 263,000 (62%) before 1980. Testing for home environmental lead hazards before a child moves in would circumvent the current “canary in the coalmine” approach of waiting for lead-poisoned children to identify lead hazards.

A Reuters examination of lead testing results across the country found almost 3,000 areas with higher poisoning rates than in Flint, Mich. Yet these lead hotspots receive little attention.

<https://www.reuters.com/investigates/special-report/usa-lead-testing/>

Policies make a difference.

- Embrace Marion County Public Health Department’s Lead-Free Communities initiative!
- Screen rental properties for potential lead hazards.
- Abate rental properties for lead hazards to eliminate poisoning risks by encouraging landlords to participate in grant-funded lead remediation.
<https://www.in.gov/ihcda/homeowners-and-renters/lead-protection-program/>
- Create a rental occupancy program that enforces safe, habitable housing for tenants.
- Make accessible in-home screenings available to homeowners, especially in pre-1980 housing.
- Require contractors to comply with the EPA Renovation, Repair, and Painting (RRP) rule that requires lead-safe practices.
- Remove lead paint hazards from low-income housing built before 1960 and other places children spend time.
- Clean up, and if necessary, remove contaminated soil.

Marion County lead resources are free unless otherwise indicated.

- Blood testing for residents (Walk-ins welcome); Thursdays, noon to 4:30 pm
Marion County Public Health Department; 3901 Meadows Dr., Indianapolis 46205
- Map My Environment
<https://www.mapmyenvironment.com/>
- Lead inspection/Risk Assessment
Marion County Public Health Department (317) 221-2155
- DIY Lead Screenings for Soil and Dust
<https://urbanhealth.indianapolis.iu.edu/projects>
- Water testing
Citizens Energy Group (317) 924-3311
 - Multi-year project to replace lead service lines in Indianapolis:
<https://www.citizensenergygroup.com/Our-Company/Our-Projects/Lead-Service-Line-Replacement-Program>

Additional information

- Marion County Public Health Department (317) 221-2155
- IU Indianapolis Center for Urban Health
<https://urbanhealth.indianapolis.iu.edu/contact-us>