

Lead is a naturally occurring element in the Earth's crust and can be found in the air, soil, and water. Lead poisoning is a serious environmental public health issue, particularly for children. A major cause of childhood lead poisoning is breathing in or eating dust or chips from lead-based paint. Lead-based paint was used in homes until 1978, and as of 2017, 68% of homes in Pennsylvania were built before 1978. For adults, occupational exposure to lead is the main cause of lead poisoning. Workers in lead smelters, battery manufacturing, and automobile repair, to name a few, may be exposed to lead and bring it home on their clothes. Lead has been detected in consumer products, such as cookware and dinnerware, cosmetics, metallic or painted jewelry and toys.

LEAD EXPOSURE AND HEALTH

Lead is toxic. There is no known safe blood lead level (BLL), the measure of lead in a person's body. Lead is particularly dangerous for children because their small, growing bodies absorb more lead than adults do, and their brains and nervous systems are more sensitive to damage from lead exposure. While there is no safe BLL, a BLL of 3.5 µg/dL in children is considered elevated and indicates that additional follow-up is needed. Even low BLLs can affect children's IQ scores, ability to pay attention, and academic achievement. In adults, lead can cause high blood pressure and kidney damage. More serious effects, such as aggression, convulsions, coma, and even death, have been reported.



HOW TO PREVENT LEAD EXPOSURE

- Test paint and dust in the home for lead if you live in a home that was built before 1978.
- Wash children's hands and toys often, and clean floors and window areas of dust and paint chips.
- If you are planning renovations in housing built before 1978, use certified contractors to perform renovations safely.
- Cover soil in areas where children play, and use raised beds and store-bought soil for gardens.
- Test drinking water for lead and use only cold water from the tap for drinking and cooking.
- Lead has been detected in imported aluminum cookware and can leach into food while cooking. Stainless steel cookware is likely a safer substitute for aluminum cookware.
- Shower and change clothes before going home from an occupation that exposes workers to lead.
- Wear a respirator and other protective gear when workplace exposure to lead is possible.
- Visit a health care provider for blood lead testing and more strategies to reduce lead exposure.

MONITORING LEAD POISONING IN PENNSYLVANIA

The [Childhood Lead Surveillance Program](https://www.health.pa.gov/topics/disease/Lead%20Poisoning/Pages/Lead%20poisoning.aspx)¹ tracks childhood lead exposure in the state. The program publishes yearly reports on the number of children tested for lead and their blood lead levels. Additionally, the [Adult Blood Lead Epidemiology and Surveillance](https://www.health.pa.gov/topics/envirohealth/Pages/Lead.aspx)² program tracks adult lead exposure in the state. Data on child and adult blood lead levels in Pennsylvania are on the [Enterprise Data Dissemination Informatics Exchange](https://www.health.pa.gov/topics/HealthStatistics/EDDIE/Pages/EDDIE.aspx)³ (EDDIE). Child lead levels are displayed by county and age, while adult lead levels are shown by health district, sex, and age.

Pennsylvania also tracks county-level data on two risk factors for lead exposure— children under 5 who live in poverty and housing by year built. These data are available on the EDDIE.

If you have questions or concerns about lead poisoning, please contact the Division of Environmental Health Epidemiology at dehe@pa.gov or 717-787-3350.

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¹ <https://www.health.pa.gov/topics/disease/Lead%20Poisoning/Pages/Lead%20poisoning.aspx>

² <https://www.health.pa.gov/topics/envirohealth/Pages/Lead.aspx>

³ <https://www.health.pa.gov/topics/HealthStatistics/EDDIE/Pages/EDDIE.aspx>