pennsylvania
DEPARTMENT OF HEALTH

LEAD POISONING

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 child 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 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 five µg/dL is considered elevated and indicates that additional follow-up is needed. Even low BLLs can affect children's IQ scores, the 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 contractors who are certified to perform the 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.
- 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[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[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[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 children under 5 who live in poverty and on housing by year built on the EDDIE – two risk factors for lead exposure.

If you have any questions, contact us at env.health.concern@pa.gov.

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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