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Lead Is a Health Hazard We Live with Every Day

The water crisis in Flint, Mich., and the potential health hazards of lead have dominated media headlines for weeks now. Residents of East Helena may empathize; they've lived with elevated lead levels from the Asarco smelter for years.

But lead exposure is not just an East Helena or Flint, Mich., problem. All of us live with lead everyday. Lead is a common environmental contaminant, and exposure to lead is a preventable risk that exists in all areas of Montana and the nation.

We know elevated blood lead levels in adults can produce a wide range of adverse health effects: high blood pressure, fertility problems, nerve disorders, muscle and joint pain, irritability, and memory and concentration problems.

But those most vulnerable to lead's harmful effects are children up to age 6. Their brains and central nervous systems are still being formed. And they tend to put their hands or other objects, which may be contaminated with lead dust, into their mouths.

According to the Centers for Disease Control (CDC), there is no safe blood lead level in children. Even low levels can negatively affect hearing, intelligence, and neurological behavior. Lead can stunt growth and cause kidney damage. And the effects of lead exposure cannot be corrected.

At lower lead exposure levels, the health effects are subtle and not easy to detect, but they may have irreversible, long-term impacts.

Where the Lead Is

Lead is naturally found in minimal amounts in the earth's surface. It does not break down or leach out of soil over time. It stays in the environment.

When lead is released into the air from auto emissions, mining, or manufacturing, it may travel long distances before settling to the ground. Once lead falls onto soil, it sticks to soil particles. These remnants from the "leaded gasoline days" are a hazard even today. That lead is still in the soil where it was deposited years ago, especially near well-traveled roads and highways. Kids (and pets) who play in these areas can easily bring lead-contaminated soil home – in their clothing and hair, under fingernails, wedged in shoe treads, and on toys.

Lead is also found in household dust, deteriorating lead-based paint (lead paint tastes sweet, an easy target for young children), food, imported lead-glazed ceramics, air, contaminated drinking water from older plumbing fixtures/pipe solder, household furniture, printed materials, fishing sinkers, folk remedies (azarcon and paylooh), some cosmetics (kohl and kajal), home remodeling, ammunition reloaders, and certain hobbies and professions.

Of greatest concern are lead-based hazards likely to be present in older homes. The CDC warns that all homes built before 1978 should be presumed either to have a lead-based hazard or contain intact lead-based paint unless a licensed lead inspector has determined otherwise. The Lead-Based Paint Hazard Reduction Act of 1992 requires disclosure of known lead hazards at the time of signing a lease or sale of a home built before 1978. Landlords and sellers must also provide an EPA-approved pamphlet, *“Protect Your Family from Lead in Your Home.”*

Reduce the Risks

The Lead Education and Assistance Program (LEAP) at Lewis and Clark Public Health plays an active role in prevention and reduction of elevated blood lead levels in children, in addition to remediation efforts, long-term planning, and managing lead risks in East Helena. According to program staff, families can reduce their exposure to lead by following a few common-sense prevention tips:

- Encourage children to wash their hands regularly with soapy water, especially before eating and after playing outside. Wash their clothes and toys often.
- Do not allow kids to chew or mouth surfaces.
- Maintain the paint in your home, and clean up any lead dust or chips with a wet mop or cloth.
- Don't remove lead paint yourself. Hire a certified lead abatement contractor.
- Take safety precautions when remodeling a house. Follow EPA safety guidelines. When cleaning up from remodeling, use TSP cleanser (trisodium phosphate) because it attracts lead particles better than water.
- Eat right. Foods rich in iron, vitamin C, and calcium reduce lead absorption and help protect the body from harmful effects of lead. An empty stomach absorbs more lead than a full one.
- Check your ceramic ware. Pottery made in Mexico, Latin America, or Asia may contain lead.
- Teach your kids to avoid dusty streets and bare soil areas. Encourage them to play on grass or other covered areas.
- If you suspect your child may have been exposed to lead, get his or her blood lead level tested, even if he or she seems healthy.

For more information, visit www.epa.gov/lead or call the National Lead Information Center at 1-800-424-LEAD (5323). East Helena residents can contact Debb Tillo or Jan Williams at the East Helena Lead Education and Assistance Program, 406-457-8583.

Melanie Reynolds is the Health Officer at Lewis and Clark Public Health. The health department's mission is to improve and protect the health of all Lewis and Clark County residents.