UNDERSTANDING LEAD

Lead may affect our health, the environment and cultural practices. There are numerous actions we can take to reduce potential exposure to lead.

WHAT IS LEAD AND WHAT ARE SOME POTENTIAL SOURCES OF EXPOSURE?

Lead is a naturally occurring bluish-gray metal found in small amounts in the earth's crust. Lead is mined and then used in products to make them durable and last longer. Once lead is used in a product, it is nearly impossible to identify with the naked eye. Lead does not biodegrade or disappear from the environment over time.

Much of our exposure comes from human activities involving the use of fossil fuels, past use of leaded gasoline; some types of industrial facilities (e.g., mining and manufacturing); leaded aviation fuel and past use of lead-based paint in homes. Lead has also been found in a wide variety of products found in and around our homes including paint used on farm equipment and boats, ceramicware, toys, plumbing materials and some ammunition and fishing tackle.

One of the most common ways children can be exposed to lead is through contact with lead-based paint chips and dust in older buildings and homes that have lead-based paint present when they put toys, fingers and other objects in their mouths as part of their normal behavior. Lead-based paint has a "sweet" taste, which makes it appealing to young children. Lead-based paint was banned for use in housing in 1978. Homes built before 1978 may contain lead-based paint. When lead-based paint is in good condition and is not on an impact or friction surface, like a window, the paint is usually not a hazard.

We can reduce our potential exposure with a few simple actions, such as: washing our hands several times a day, cleaning our homes using wet washing or washing daily the items our children use regularly.

WHY SHOULD WE BE CONCERNED ABOUT LEAD?

Lead exposure can cause negative health impacts, which often occur with no obvious symptoms and frequently go unrecognized. The only way to know if someone has lead in their blood is to have a blood test.

Babies and young children's exposure to lead can be higher because they often put their hands and other objects into their mouths that may be contaminated by lead from dust or soil. Lead is particularly dangerous to young children under the age of six because their growing bodies absorb more lead than adults, and their developing brains and nervous systems are more sensitive to lead's damaging effects. According to the Centers for Disease Control and Prevention, no safe blood lead level in children has been identified. Even small amounts of lead in the blood of children can result in:

- Behavior and learning problems;
- Lower IQ and hyperactivity;
- Slowed growth;
- Hearing problems; and
- Anemia.

For adults, potential exposure to lead is increased by working in certain jobs such as: renovation or repair of older homes and buildings, painting, construction, refinishing furniture, smelting, mining, auto repair and working at hazardous waste sites. Engaging in hobbies, such as making stained glass, making ammunition, shooting at a gun range or using certain folk remedies, may increase adults' potential exposure to lead.

A pregnant woman's exposure is of concern because it can result in exposure to her developing fetus causing the baby to be born too early or too small; hurting the baby's brain, kidneys and nervous system; and putting the mother at risk for miscarriage.

Like humans, ingestion of lead in the food web can also impact wildlife species. Animals can be exposed to lead from numerous sources, but research indicates the ingestion of lead fishing tackle and spent lead ammunition are two of the major sources of exposure. Lead exposure and lead poisoning can result in vomiting, diarrhea, impaired flight, behavioral changes, loss of appetite, lethargy and uncoordinated body movements. Lead exposure can also affect their reproductive systems and even result in death.

Lead, like other heavy metals, has the potential to impact cultural practices and subsistence lifeways. From the catching of fish, to the gathering of plants, to the harvesting of wild game or the collecting of wood and other life-sources, subsistence lifeways are vulnerable to heavy metal exposure because they are intricately linked to the ecological communities and processes of living landscapes. All of these life supporting links can be eroded or destroyed from exposure to heavy metals that would otherwise stay out of harm's way underground. Tribes and indigenous populations are extremely diverse in terms of lands, languages, cultures and diets, and are closely linked to the environment and natural resources. Due to their connection and dependence on the environment for the survival of their culture(s) and their subsistence practices, tribal and indigenous populations may have different potential sources of exposure to lead.

WHAT CAN I DO TO REDUCE MY FAMILY'S POTENTIAL EXPOSURE TO LEAD?

Lead exposure is preventable – we can start with a few actions at home, such as those shown below, to reduce potential exposure to lead.

WHERE CAN I LEARN MORE?

For more information, contact the National Lead Information Center (NLIC) at 1-800-424-LEAD (5323) or visit www.epa.gov/lead.