

FactSheet

Para Su Información

Lead Poisoning

What is lead poisoning?

Lead poisoning occurs only when too much lead accumulates in the body. Lead is a metallic element that can be absorbed by the body, primarily through the lungs and stomach. Generally, lead poisoning occurs slowly, resulting from the gradual accumulation of lead in bone and tissue after repeated exposure. It is important to note that young children absorb lead far more easily and rapidly than adults.

The developing nervous systems of young children are more susceptible to the adverse effects of lead. However, lead poisoning can affect nearly every system in the body. It can cause learning disabilities, behavioral problems and at very high levels, seizures, coma and even death.

Lead is listed as a known carcinogen (i.e., a cancer causing substance) in the U.S. Environmental Protection Agency's (EPA) Toxic Release Inventory. The Centers for Disease Control and Prevention (CDC) has determined that nearly 900,000 children in the U.S. between the ages of 1 and 5 years still have elevated blood lead levels. From January through July of 2004, there were nine known cases of elevated blood lead levels in residents of Clark County. Six of the cases occurred in school-age children under the age of 14 years. The other two cases occurred in adults over the age of 65 years.

Efforts are currently underway to monitor lead poisoning and to minimize exposures resulting in lead poisoning of school-age children in Clark County.

How can a person get exposed?

Sources of Lead

A person may become exposed to lead from a variety of sources. The following is a listing of

sources of exposure that may result in a significant elevation in blood lead levels:

- Lead-based paint chips, interior and exterior paint (before 1977)
- Old window glaze
- Soil, especially in dense urban areas and at playgrounds
- Household dust, and debris from older building renovation
- Contaminated drinking water (especially water boiled in leaded pots and pans)
- Some imported products (e.g., cosmetics, cold medicines, candies, etc.)
- Leaded gasoline fumes
- Soldering fumes
- Leaded foil wine bottle caps
- Heroin
- Certain inks
- Bootleg whiskey
- Bone meal or dolomite supplements
- Auto battery storage casings
- Home smelting of lead shot and bullets

Recently, it was discovered that certain candy products imported from Mexico tested positive for lead contamination. This discovery was made after several school-age children were found to have elevated levels of lead in their blood. Upon further investigation, it was determined that these children had eaten candies imported from Mexico containing chili peppers contaminated with lead.

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Routes of Entry

The primary routes of entry of lead into the body are through ingestion and inhalation. A person typically eats foods or puts other items contaminated with lead into his mouth or breathes in dust or fumes containing lead.

Who is affected the most?

Children under the age of 3 years are at greater risk of elevated blood lead levels because of normal hand to mouth activity in areas or with items potentially contaminated with lead. Additionally, because certain parts of their nervous system are in the early stages of development, they are more susceptible to the toxic effects of lead. However, because of the effect lead poisoning has on learning ability and IQ (particularly at early ages), children between the ages of 3 and 13 years old are also considered an at risk group.

What are the symptoms?

Symptoms in children and adults are generally not the same. Table 1 is a comparison of lead poisoning symptoms as seen in children and adults.

Table 1. Symptoms of Lead Poisoning

CHILDREN	ADULTS
Anemia	Anemia
Abdominal pain	Abdominal pain
Constipation	Depression
Decreased appetite	Fatigue
Diarreah	Gout
Learning problems	Heart failure
Lowered IQ	High blood pressure
Sleeplessness	Kidney failure
Tiredness	Reproductive problems
Vomiting	Wrist or foot weakness

Can a person experiencing lead poison effect another person?

No, a person suffering from lead poisoning cannot transmit this ailment to another person.

What is the treatment?

Some doctors stress the importance of a sensible diet to aid in the reduction of lead in the body. Most

doctors familiar with lead poisoning prescribe chelation therapy if blood lead levels become excessively high, to help extract lead from the soft tissue and flush it from the body. Chelation therapy uses agents to bind to lead stored in the bones and organs. The agent and bound lead are disposed of through normal elimination. Consult your doctor for further information and methods of treatment.

What are the health effects associated with lead poisoning?

Table 2 shows some health effects resulting from lead poisoning.

Table 2. Health Effects of Lead Poisoning

CHILDREN	ADULTS
Behavioral problems	Hypertension (high blood pressure)
Damage to kidneys, nervous system and brain	Reproductive complications (e.g., infertility in males; miscarriages in females)
Learning disabilities	Cancer
Loss of visual and motor skills	
Slowed or stunted growth	

How can lead poisoning risk be reduced or prevented?

- Do not eat imported goods that are suspected of containing lead.
- If lead paint has been found in your house, eliminate contaminated dust by using a solution of TSP (tri-sodium phosphate) and water. Damp-mop floors and clean other surfaces with a cloth or sponge that will not be re-used on dishes, eating, drinking or cooking utensils.
- Block painted window sills and moldings with heavy furniture to keep children away.
- Install vinyl siding over exterior lead painted surfaces.
- Plant grass to control dust.
- Reduce children's contact with soil if your house was built before 1978 or is near a major highway.

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- Plant bushes near exterior walls to keep children away.
- Test your water for lead content and assure that it is within recommended limits.
- Run tap water for 60 seconds before using it whenever the water may have been standing awhile.
- Use cold water for drinking, cooking and making infant formula because it carries less lead. (Boiling the water concentrates the lead.)
- Check pottery, china and leaded glassware for lead content.

What should I do if I, or someone I know, begin to show symptoms?

Seek the advice of a doctor.

Where should I go for screenings, periodic monitoring and treatment?

Visit your doctor’s office.

Where can I get more information?

Contact your doctor or the Southern Nevada Health District, Office of Epidemiology at (702) 759-1300.

National Contacts

Call the Lead Clearinghouse for lead-related information and lead testing and laboratory information at (800) 424-5323.

The National Lead Information Center Hotline (www.nsc.org/ehc/lead.htm) can send you the publications “Lead and Your Children” and “Lead in Your Home: A Parent’s Reference Guide.” Call (800) LEAD-FYI (532-3394) to request information in English or Spanish. Or call the Lead Clearinghouse at (800) 424-LEAD to speak with an information specialist in English or Spanish about health problems associated with lead poisoning.

The Consumer Products Safety Commission (www.cpsc.gov) has information on lead contained in popular consumer products, including toys and household goods. Call (800) 638-2772.

The Alliance to End Childhood Lead Poisoning (www.aeclp.org) is a national advocacy organization that supports nationwide policies to fight lead poisoning. Call (202) 543-1147 for more information.

The CDC Lead Poisoning Prevention Branch can be reached at (404) 498-1420.



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