



What You Should Know About Lead and Children

*Janie Burney
Associate Professor
Family and Consumer Sciences*

Did you know—

- One out of six children may have too much lead in his or her blood?
- Even low doses of lead in children can lower intelligence and affect behavior?
- Babies can be exposed to lead before birth?
- You can prevent lead poisoning?

Who is at the greatest risk for lead poisoning?

Lead poisoning occurs most often among inner-city, low-income children. However, children from any income level can be at risk for lead poisoning.

Why are children at the greatest risk?

- Young children often put their hands and other objects in their mouths. When dirt and dust containing lead is swallowed, the lead is absorbed into the blood. Blood carries lead through the body where it goes to organs like the brain and heart.
- Children's growing bodies absorb lead easily.
- Children's brains and nervous systems are very sensitive to the damaging effects of lead.

The greatest risk of lead poisoning is among children, 6 months to 6 years, who:

- live in or often visit houses built before 1978.
- live in housing built before 1978 with recent or ongoing renovation or remodeling.
- are siblings, housemates or playmates of children known to have lead poisoning.
- have parent or household members who participate in a lead-related occupation or hobby.
- live near highways or roads, active lead smelters, battery recycling plants or other industries likely to result in release of lead into the air.

Why is lead a problem?

Lead can damage the brain, nervous system and other organs of the body. It affects growth and behavior.

How do you know if your child has lead poisoning?

Lead poisoning can be difficult to detect. The best way to find out if your child has lead poisoning is to have a blood test at the health department or doctor's office.

The symptoms of lead poisoning depend on the level of lead in the blood. A very high level (70 micrograms or more) may cause seizures, coma and death.

Children with blood lead levels of 20 micrograms or more may:

- feel tired,
- be less likely to play,
- lose their appetites,
- vomit,
- sometimes complain of stomach pain or
- become constipated.

Many children may have very low blood lead levels (10 micrograms or less) with no obvious symptoms of lead poisoning. These children may have:

- decreased intelligence,
- behavior and learning problems,
- slow growth or
- poor hearing.

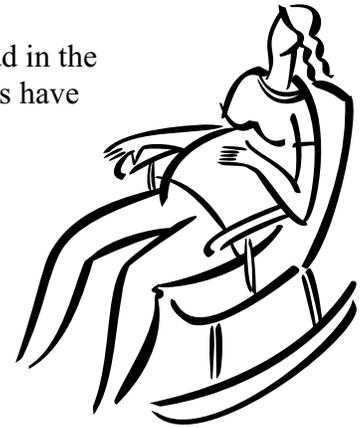
In many cases, children with no obvious symptoms are never diagnosed or treated.



How are babies exposed to lead before birth?

Babies are exposed to lead in the womb when their mothers have lead in their blood.

Over a lifetime, women can store lead in their bodies. Some of that lead can be passed to the unborn baby through the placenta.



The transfer of lead to the baby is greatest during the last three months of pregnancy when the baby's growth is most rapid.

What can a mother with lead in her blood do to protect her baby?

She can eat plenty of calcium-rich foods during pregnancy. Much of the lead in her body may be stored in her bones. Like calcium, lead can leave bones and travel in the blood. If she gets plenty of calcium during pregnancy, she is less likely to lose calcium and lead from her bones than if she does not get enough calcium.

Good Sources of Calcium

Milk
Yogurt
Cheese
Greens
Dry beans
Salmon and sardines
Cream soups
Pancakes, waffles, cornbread
and biscuits
Macaroni and cheese
Casseroles with milk and cheese
Tacos
Pizza



How can you protect your child from lead poisoning?

Know the Sources of Lead

Lead may be found in many areas in and around your home. Lead can be found in dust, paint and soil. Other sources of lead include drinking water and food.



Children develop lead poisoning by swallowing lead if they put their fingers or toys in their mouths after being in the dust or dirt. Children also can swallow lead if they do not wash their hands before eating. Breathing lead contaminated dust is

another way to get lead poisoning. Do not allow your child to play in areas where dust or soil with lead can be found.

Take Your Clothes and Shoes Off at the Door

Adults who work in jobs that involve lead or have hobbies that expose them to lead can bring lead home on their shoes and clothes.

Do you work in a lead smelter, battery recycling, car repair or other jobs that may expose you to lead? Do you refinish furniture, stain glass, practice at indoor firing ranges or make pottery? If you do, you may be bringing lead into your

home on your clothes or shoes. Remove clothes and shoes before entering your home and conduct these activities away from places your children live and play.

Have Your Child's Blood Checked for Lead

Your child may not show symptoms of lead poisoning. The only way to tell is by a blood test. Check with your healthcare provider or your local health department.

Clean Hard Surfaces Often

Wet mop and wet wipe hard surfaces, like floors, window sills and doors, using trisodium phosphate detergent (found at hardware stores) or automatic dishwasher soap and water. Avoid spreading the dust as much as possible.

Wash Your Child's Hands, Toys, Pacifiers and Bottles

Young children often put their hands or objects in their mouths. Keep your children's hands as clean as possible, especially when they eat and before they go to sleep.

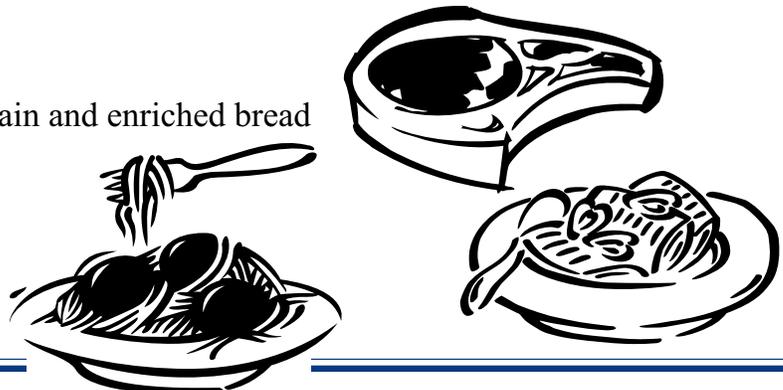
Feed Your Child Regular, Nutritious Meals and Snacks

Less lead is absorbed when a child eats regularly. More lead is absorbed when the stomach is empty.

To prevent calcium and lead from leaving bones and increasing blood lead levels, include foods with calcium every day. Include iron-rich foods every day to decrease lead absorption.

Foods With Iron

Lean beef and pork	Whole grain and enriched bread
Iron fortified cereals	Pasta
Liver	
Chicken, turkey, fish	
Green leafy vegetables	
Dry beans and peas	



Where else might you might find lead?

Tap Water

If you live in a house built before 1986, have your tap water checked for lead. If you have higher than recommended levels of lead in your water:



- Let the water run for a few minutes in the morning (or after the cold water has not been used for several hours) to flush any standing water out of your pipes.
- Use only water from fully-flushed cold-water taps for drinking and cooking.
- To store water, collect drinking water in bottles at night after water has been fully flushed from the tap.

Food and Dishes

- Do not store leftover foods in open cans, especially foods canned outside the United States.
- Use pottery made outside the United States for decoration only, unless you know it is free of lead.
- Do not use lead crystal or lead-glazed pottery or porcelain, especially with acidic foods.



Soil

If soil around the home is likely to be lead-contaminated (such as around a home built before 1978 or near a major highway):

- Plant grass or other ground cover.
- Plant bushes next to the house to keep children away.
- Make or find a sandbox with a solid bottom and top cover and clean sand for children to play and dig in.

Vinyl Miniblinds

If you have old miniblinds or miniblinds made outside the United States, throw them away. Or, contact the manufacturer about replacing them. When purchasing miniblinds, look for information about lead on the package, such as “non-lead” or “new non-lead formulation.”

Lead is also found in some fishing weights, old and imported toys, artist's paints, folk remedies and jewelry.

For more information on preventing lead poisoning, contact your county Extension office.

04-0275 SP421-10M-3/04(Rep) E12-5315-00-037-04

The Agricultural Extension Service offers its programs to all eligible persons regardless of race, color, age, national origin, sex, disability, religion or veteran status and is an Equal Opportunity Employer.
COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS.

The Institute of Agriculture, U.S. Department of Agriculture, and county governments cooperating in furtherance of May 8 and June 30, 1914.
Agricultural Extension Service, Charles Norman, Dean.