

What Every Parent Should Know About Lead Poisoning

Lead is a soft, pale gray metal found naturally in the earth. It is used in paint for bridges, boats, and factories, in making batteries, and in many other products such as pottery glazes and printing inks. When lead gets into the body, it enters the bloodstream and the soft tissues and organs such as the liver, kidneys, and even the brain. In time, it settles in the bones and teeth. As the amount of lead builds up, lead poisoning occurs. Lead usually does not cause symptoms until the poisoning becomes very dangerous. Although lead poisoning can affect every part of the body, damage to the brain and nervous system is of most concern. Young children are more likely to be hurt by lead than older children or adults, because their brains are still developing. A child with severe lead poisoning may complain of stomach aches or headaches, act tired or be overactive, not play as much as she used to, sleep more or less than usual, eat less, or vomit, but most children with lead poisoning show no symptoms at all. In the worst cases, the brains of children with lead poisoning can swell, causing lack of coordination, vomiting, loss of consciousness, seizures, and--if they don't get the right treatment in time--some children can die.

Even small amounts of lead in the body are harmful. Sometimes, children who are exposed to lead, especially when they are very young, may have a hard time controlling their behavior, and when they get to school they may have trouble keeping up with their classmates.

How do children get lead poisoning?

Children sometimes swallow paint chips, soil, water, or food that has lead in it, but usually they swallow dust that contains lead. If they live in a building that is being rebuilt, or where lead paint is being scraped, sanded, or burned, they may breathe in tiny lead paint particles or fumes. If a pregnant woman is exposed to lead dust or fumes, the lead in her body may pass through the placenta into her unborn baby's body.

The way young children behave adds to the problem. Little children crawl on the floor, get dust and dirt on their hands, and put their hands in their mouths. They suck on toys, pacifiers, and thumbs, and chew their fingernails. Sometimes they eat things that aren't food--paint chips, or soil from the backyard or playground.



Paint. Most of the lead children are exposed to comes from peeling lead-based paint. Most paint made before 1960 and many paints made before 1979 were made with lead. This paint was used outside and inside of houses. Since 1979 the amount of lead in paints has decreased significantly. Paints with unsafe levels of lead are no longer available except for boats and industrial and military use. Unfortunately, these paints still occasionally end up being used in homes.

Severe poisoning can occur quickly if children eat chips of peeling lead paint, the kind you sometimes see in window wells or along baseboards. Lead-based paints break down as they age into smaller and smaller pieces that eventually become particles of dust. This dust alone is most often the cause of lead poisoning.

Soil. Leaded gasoline fumes from automobile exhaust used to be another major source of lead in the environment. These days, leaded gas has been almost completely phased out of use in the US (only very old cars and some farm equipment still use it), but the lead particles that have settled out of the air onto the ground are still there. Unlike some other kinds of pollution, lead never breaks down into something less dangerous. It's poisonous for all time. Concentrations are especially high alongside busy roadways.



Water. In the last century, the pipes that brought water into the house were often made of lead. Lead pipes are still found occasionally in places where water pipes haven't been replaced since the early 1900s. More recently, solder containing lead was used to seal water pipes and cans of food. Licensed plumbers are no longer allowed to use leaded solder in household pipes, but people who do their own repairs or fix up their own houses may be using lead solder without realizing that it's dangerous.

Food. Food cans in the US are no longer made with lead solder, but cans made in some other countries may still contain lead. Commercially made pottery and ceramic dishes that have not been glazed correctly may also be a source of lead, and storing food or beverages in china patterned with lead glazes or in lead crystal can also be a danger. Antique pewter dishes or mugs often contain lead.

Dye. Dyes on newspapers, comic books, and magazines that have been printed with red, yellow, or orange ink may be a source of lead. Don't burn these papers in fireplaces or allow children to chew on them. Lettering on plastic wrappers should be kept away from contact with food since the dye may contain lead.

Objects made of lead. Fishing sinkers, bullets, old printing type, some toy soldiers, battery casings, and curtain weights may contain lead.

Work. Factories that process lead (lead smelters and battery manufacturers, for example) may pollute the air and soil, and adults who work in industries that use or process lead may carry lead dust home on their clothes and shoes. Workers can be exposed to lead in aircraft factories, brass foundries, brass and copper manufacturing, radiator repair, construction, bridge repair, painting contracting, mining, and working at firing ranges.



Crafts and hobbies. Artists working with stained glass and jewelry may use lead solder, and some of the glazes used in making ceramics contain lead.

Medicines and cosmetics. Many traditional medicines such as greta and azarcon, which some Mexican families use for children's stomach upsets, and some cosmetics used in the Middle East, Asia, and Africa (surma, kohl) are made with lead.

How can you prevent lead poisoning?

The best way to prevent lead poisoning is to learn about lead hazards and keep your child away from them. Here are some specific actions you can take:



- Find out whether your house contains lead paint (usually found in houses built before 1960, but may be found in homes built as late as 1979), especially if the paint is peeling or breaking down. You can find out when your house was built by looking at the tax records in the municipal office of your city or town. Your local health department can tell you where to get paint, water, and soil samples tested for lead and how you can get your home inspected.
- If your house has lead-based paint in it, don't vacuum or sweep windowsills or uncarpeted floors; that just spreads the lead dust. Instead, wash or wet-mop all hard surfaces once or twice a week with a high-phosphate cleaner. You can find one called TSP in paint and hardware stores, or use an automatic dishwasher detergent that contains 5% to 8% phosphate. Follow the directions on the package to make the cleaning solution. Usually, about 1/4 cup of high phosphate cleaner in a gallon of warm water is the right mixture. If you find loose paint chips on windowsills or wells, use a cloth soaked with the high phosphate cleaning solution to pick them up. Dispose of the chips in a safe place where the children can't get at it; down the toilet, for example. The used cleaning solution can go down the toilet, too. Wash the rags and mops used for lead cleanup separately from other laundry, or use disposable rags.
- Be careful about any remodeling, renovation, or work on the house. Sanding, scraping, or burning lead-based paint will contaminate the air in your house as well as the neighborhood.
- If you find peeling lead paint, take immediate steps to keep your children away from it. Check places your child visits as well, such as day care or a relative's house. You can cover small areas temporarily with sticky-backed contact paper, and block off access to larger areas with furniture or partitions.
- Don't try to remove lead paint yourself. That's a job for a professional. Call your local or state health department for advice. Have peeling lead paint removed or covered by someone specially trained to do so in a nonhazardous and effective way. Children and pregnant women must stay out of the house until the work is finished and the house has been thoroughly cleaned of lead dust. Wash your child's toys frequently with mild soap and water, and rinse and dry them well (dampness attracts dust). Pacifiers should be rinsed and dried even more frequently than toys. Help your children wash their hands with soap and water after playing outside and before eating (snacks included), or do it for them. Wash their faces also. Be certain to dry well.
- Supervise your children's play to stop them from swallowing lead-contaminated dirt or paint chips. Don't let children play in soil next to the house, where peeling paint chips may have fallen. Encourage play in grassy areas away from the house.
- Find out whether your job or hobby involves work with items that contain lead. If you work with lead, leave your work clothes or shoes at work; don't bring them into the house.
- Always use cold water for drinking or cooking, especially for mixing infant formula. If you haven't run the water for several hours, flush the pipes by letting the cold water run until it's as cold as it gets. You can also have your water tested for lead.
- Nutrition affects how much of the lead a child swallows gets taken into the body. Empty stomachs absorb more lead, so don't let children go too long between meals. Calcium and iron decrease the body's absorption of lead. Give your child lots of foods containing calcium (milk, cheese, ice cream, yogurt, dark green leafy

vegetables like turnip greens and collards, broccoli, salmon or sardines canned with bones, molasses, and rhubarb) and iron (red meats, pork, liver, chicken, turkey, canned tuna fish, dried beans-black, kidney, pinto, or baked, peanut butter, iron-fortified cereals, and egg yolks). Eating a lot of fat makes it easier for lead to be absorbed by the body. Avoid fried foods and other high fat foods. Young children should drink whole or 2% milk, however, not skim or nonfat.

- Because lead is so prevalent in the environment and even small amounts are hazardous to children, have your child's blood tested for lead when he or she is 9 to 12 months of age, and again at about age 2-sooner and more often if you live in a house or a community with hazards from lead-based paint or contaminated water or soil.
- If your child's test shows a high lead level, don't be frightened. If a retest confirms the first result, your doctor will help you find out where the lead is coming from, put you in touch with governmental agencies that can help you deal with the problem, and-in the small number of cases where the amount of lead is a serious danger-help you get treatment to remove the lead from your child's body.



This information provided courtesy of:

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