

Low Lead Levels Could Pose Risk

*Government Likely to Overhaul Guidelines
On How Much Is Safe for Kids; Testing Your Home*

BY GARDINER HARRIS

THE FIRST SIGN that Nancy Pavur's home-renovation project had gone horribly awry came when her five-year-old Labrador retriever, Hero, died five weeks into the project. An autopsy showed a chilling cause: lead poisoning.

Mrs. Pavur rushed her children to the hospital. All of them had lead poisoning, too. Three years later, her daughter Elisabeth has developed a short-term memory deficit and her other two children are showing troubling symptoms. "There's no doubt that my children have changed-and not for the better," she says.

Scientists have long known that high lead levels, like those found in the Pavurs, can hinder cognitive development in children. But new research shows that children with small amounts of lead in their blood-levels that pediatricians routinely ignore—may be at risk as well. As a result, a federal panel is considering sharply reducing the amount of lead considered safe under U.S. guidelines. It is likely to recommend by early next year that the acceptable blood-lead levels for children be cut in half, people familiar with the panel's deliberations say.

The panel, an advisory committee of the U.S. Centers for Disease Control and Prevention, was driven to reconsider its standards in part by a study done by researchers at Cornell University, the University of Rochester and Cincinnati Children's Hospital Medical Center. The study, which traced more than 200 children for six years, found effects on intelligence even in children with fairly low levels of lead. In fact, lead's effect on intelligence was strongest at the lowest end of the scale: slight amounts of lead actually had a proportionally greater effect.

The research, funded by the National Institutes of Health, suggests the scope of the lead problem may be far bigger than suspected. "These new data mean that there's a lot more houses out there that are hazardous than previously thought, and there's a lot more kids out there seriously effected by lead than we thought," said Nick Farr, executive director of the National Center for Healthy Housing.

Many middle class and affluent parents dismiss lead poisoning as a problem of crumbling inner-city neighborhoods. But the most common source for lead poisoning as a problem of crumbling inner-city lead exposure-paint chips sometimes in the form of nearly invisible dust-is found inside most homes built before 1978. Surveys by the U.S. Department of Housing and Urban Development estimate that 38 million had hazardous conditions. Nearly two-thirds of those with hazardous conditions housed middle-income or upper-income families. And 5.6 million homes with hazardous lead had children under the age of six living inside.

Children are particularly vulnerable to lead. Their growing brains and nervous systems are sensitive to its impact, and they are more likely to put hands with lead dust on them into their mouths. The effects of lead can include damage to the brain and nervous system, behavior and learning problems such as hyperactivity, as well as slowed growth and hearing problems. Lead exposure can affect adults as well, causing reproductive problems, high blood pressure and digestive troubles.

But how much lead it takes to cause problems remains controversial. Some researchers believe the growing new concern over small amounts of lead-and the resulting small declines in IQ-is overblown. "If you woke up tomorrow and had two less IQ points, you wouldn't notice it," said Hail Wasserman, a lead researcher at Columbia University.

Industry representatives fiercely dispute the recent study's findings. "It's a very small group of scientists who have this opinion," Says Barbara Shepard, vice president of Doe Run Resources Corp., the nation's primary lead smelter. "Lead is on the periodic chart and cannot be eliminated or brought to zero." Doe Run is buying homes around its lead smelter in Herculaneum, Mo., after tests showed that most children in the area had blood-lead levels considered dangerous even under present federal standards.

The study, which may soon be published in a major medical journal, followed children born in five hospitals around Rochester, N.Y., for six years. Researchers repeatedly tested their blood-lead and intelligence levels.

At the lowest blood-lead levels, "we see about three-quarters of a point of IQ lost for every increase of one microgram per deciliter of blood," said Richard Canfield, one of the researchers who oversaw the study. Lead's effect seemed to plateau or decline slightly between 10 micrograms per deciliter. Other recent studies suggests lead's effect accelerates after 20 micrograms.

The CDC now advises intervention when blood-lead levels exceed 10 micrograms of lead per deciliter of blood. Nearly 8% of American children, or about 900,000 kids, have blood-lead levels exceeding that level. If the CDC's lead panel lowers the levels at which lead is considered safe, millions more will be added to the risk list.

Anyone who suspects they have lead in their home can contact a certified lead inspector or buy a home lead test. Windows with old paint often shed lead when opened. The soil surrounding older homes is often poisoned with lead sloughed off after numerous re-paintings. Especially troublesome are renovations, which can stir up dangerous levels of dust.

Painting over old lead paint will sharply reduce the risk of lead exposure. But on surfaces that rub together, such as door jams and window sills, this treatment won't suffice. It's best to replace window frames, sills and door moldings. Such prevention measures can be expensive. Making homes with lead in them safe would cost between \$18 billion for temporary fixes to \$160 for a permanent solution, according to government estimates. The benefits of such fixes in the form of costs avoided for medical care, special education and lost earnings range from \$112 billion to \$377 billion, the government also estimates.

More than 40 municipalities, hospitals and school systems have sued lead-paint manufactures to collect some of the costs of lead-paint abatement, but the industry has so far won them all. Cases are continuing in New Jersey and Rhode Island.

There's no question the u.s. has taken huge steps toward reducing the lead problem in the past 25 years. Wide-spread use of leaded gasoline once sent millions of tons of lead into the atmosphere that got absorbed by plants, foods, soil and eventually, children. Leaded gasoline is now banned in the U.S. House paints once contained up to 50% lead. The paint industry reduced lead levels in interior paint in 1955, and legislation banned lead from all paints in 1978. As a result of these measures, average childhood blood levels have dropped 80% since the late 1970's. The federal government has gradually reduced acceptable lead levels for more than 30 years.

Still Mrs. Pavur isn't taking any chances. Pregnant with her fourth child, she has painted her entire 77-year-old home in New Orleans to cover up what remains of the lead paint on the walls. She threw out much of her furniture, drapes and clothing since much of it might have been contaminated with lead during renovations. She is gradually digging up the soil around her home, and she mops the floors obsessively. "This new research scares me," she says.