CHILDHOOD LEAD POISONING PREVENTION

INSIDE:
The McKinney-Vento Act
Preserving Elders’ Housing Rights
New Style of Advocacy in Harlem
Childhood Lead Poisoning Prevention

By Greg Spiegel

Editor’s note: The following article is abridged from two chapters of Western Center on Law and Poverty’s The Lead Guide: A Community Resource for Lead Poisoning Prevention in California (2003).

Lead poisoning is one of the most serious environmental health threats confronting children. Lead is highly toxic, that is, even small amounts can cause serious, irreversible health problems ranging from learning disabilities to death. Lead poisoning is also pervasive; according to the U.S. Centers for Disease Control and Prevention (CDC), nationwide more than 430,000 children aged 1 to 5 have elevated blood lead levels based on current health standards.

But even these figures underestimate how many children are harmed by lead. Current poisoning standards do not include children damaged from the lowest levels of exposure. A study published in April 2003 shows that exposure levels far below current health standards cause children to lose more than seven IQ (intelligence quotient) points. If health standards were amended to include these children, the number of children with elevated blood levels would increase nine times.

Young children and infants are the most vulnerable to the effects of lead poisoning, the most likely source of which being lead paint in housing. Workers in industries exposed to lead, including painting and remodeling, are at risk of lead poisoning and so are their children. A pregnant woman exposed to lead can pass it to her fetus. While poor children are at the highest risk, any child living in a poorly maintained home or one that is being painted or remodeled without safe work practices can be poisoned.


4 Bruce Lanphear, Subclinical Lead Toxicity in U.S. Children and Adolescents, www.ems.org/lead/lanphear_report.pdf (unpublished study estimates that only 10 percent of the children with lead in their blood have levels over 10 ug/dl).
A study published in July 2002 estimated that the health care costs from lead poisoning in the United States totaled $43.3 billion per year.5 Despite all this spending, no treatment can reverse the effects of lead poisoning. Screening, education, medical treatment, environmental investigations, and good nutrition, however, can help limit damage to the poisoned child.

In this article I look at lead as a housing problem with health consequences. In the first section I focus on such health issues as the main sources of, the health effects of, screening for, and treating lead poisoning. In the second section I look at laws regulating lead and how they can be used to prevent lead poisoning, specifically poisoning from lead-based paint in the home.

I. Lead—a Housing Problem with Health Consequences

The good news is that lead poisoning is preventable. If the source of lead is controlled or eliminated from the environment, poisoning can be prevented. Since the effects of lead poisoning are permanent, prevention is essential. The principal source of lead poisoning is lead-based paint in the home. By controlling lead-based paint in the home before it poisons children, most incidence of childhood lead poisoning could be eliminated.

A. Sources of Poisoning

The sources of lead poisoning include lead-contaminated soil and water; industries that use lead; lead-based paint in toys, cookware, and tableware; and breast milk. More than all other sources, lead-based paint and dust from the paint poison children, recent studies confirm.6

1. Lead-Based Paint and Lead-Contaminated Dust

Lead-based paint and lead-contaminated dust are the most significant sources of childhood lead poisoning.7 When children’s hands touch lead-contaminated dust on floors, windowsills, toys, rugs, furniture, or clothing, children ingest the lead when they put their hands in their mouths. Children breathe lead-contaminated dust; they are poisoned when they chew lead paint on windowsills, doors, or other surfaces. Lead paint is not known to be absorbed through the skin, although other kinds of lead can be so absorbed.

The source of lead-based paint most likely to poison children is in the home.8 In 1978 Congress banned the addition of lead to residential paint.9 About two-thirds of American homes (about 75,000,000 units) were built before the ban.10 Moreover, one-third of American homes were built before 1960, when lead concentrations in paint were highest.11 Of those built before 1960, the U.S. Department of Housing and Urban Development (HUD) estimates that 78 percent contain lead-based paint and 58 percent have significant lead-based paint hazards.12


8See supra note 6.


102000 U.S. Census Bureau, http://factfinder.census.gov/servlet/QTTable?_ts=87146404020.

11Id.

Even houses built after 1978 may contain lead-based paint because prohibited lead-based paint was available and illegally sold after the ban. Even today paints sold for commercial and industrial buildings, cars, and boats still contain high levels of lead. Lead-based paint is also present in most schools because it was not banned in most jurisdictions until much later than 1978. Because it is bright and durable, on occasion it is mistakenly used on homes and playground equipment. Toys and furniture made before 1978 or in other countries also may have lead-paint coatings.

Lead dust arises when lead-based paint peels, flakes, chips, or is rubbed off surfaces, especially windows, doorframes, or porches—conditions most likely in older housing in poor condition. Even homes in good condition have lead-contaminated dust where friction surfaces such as windows and doors covered in lead-based paint rub and create lead dust. Unsafe work practices in renovations or repairs create lead dust. Workers generate lead-contaminated dust when they disturb lead-based paint without containment or with such other unsafe practices as dry scraping, sanding, sandblasting, or using heat guns or chemical strippers to prepare surfaces and remove paint. Sweeping and vacuuming with a regular vacuum cleaner can stir up lead dust from carpets or floors.

2. Lead-Contaminated Soil
Children are poisoned, as with lead-based paint, when they play in lead-contaminated soil or when the soil is tracked into their homes or when they eat vegetables grown in it. Lead can be present in soil around homes, fences, garages, and other buildings with lead-based paint. Soil near roadways can have high lead levels from years of leaded gasoline use. Soil near industries with smelters or incinerators is often contaminated with lead.

3. Other Sources of Lead
In industries that work with lead, such as construction, painting, plumbing, battery manufacturing, and smelting, workers are at risk of lead poisoning. When they go home, they may expose their children to lead. Water accounts for a very small percentage of lead-poisoning cases. Lead in drinking water results primarily from corrosion of lead-containing materials installed in plumbing. Federal and state laws now regulate plumbing products to limit lead exposure. A pregnant woman can pass lead to her fetus, and a mother can pass lead to her newborn baby through breast-feeding.

Other sources of poisoning include:
- Certain home remedies such as Arzacon, Alhayalde, Greta, and Paylooah and imported medicines;
- Ceramic dishes and tableware with glazes that contain lead;
- Lead solder on imported food cans;
- Lead-poisoned fish;
- Certain home remedies such as Arzacon, Alhayalde, Greta, and Paylooah and imported medicines;
- Ceramic dishes and tableware with glazes that contain lead;
- Lead solder on imported food cans;
- Lead-poisoned fish;

---

14 In California, however, less than 1 percent of childhood lead poisoning cases have been linked to contaminated water, according to the California Department of Health Services Childhood Lead Poisoning Prevention Branch’s Answer to Data Request (Dec. 10, 2002) (on file with Greg Spiegel).
16 Federal law now requires the use of “lead-free” pipes, solder, and other parts used in public water systems, drinking fountains, and residential and nonresidential plumbing. 42 U.S.C. § 300g (2003); 40 C.F.R. § 1417(a)(1) (2003).
■ vinyl toys and vinyl miniblinds from China, Indonesia, Taiwan, and Mexico;\(^{20}\)
■ bullets;\(^{21}\)
■ beauty products such as surma and kohl;
■ candies and candy wrappers imported from Mexico;\(^{22}\)
■ some candle wicks;\(^{23}\) and
■ crayons imported from China.

**B. How Lead Harms the Body**

Lead enters the body largely through eating or breathing and then enters the bloodstream. It circulates throughout the body for two to three days before it deposits in soft tissues such as the brain, heart, lungs, liver, spleen, kidneys, and muscles, where it remains for a few months.\(^{24}\) Lead stays in the soft tissues for thirty to seventy days until it leaves the body through urination or is retained in the body.\(^{25}\) Of the retained lead, more than 95 percent is ultimately stored in the bones where it can remain for many years or slowly be released into the bloodstream to resume its attack on soft body tissues.\(^{26}\) The lead burden stored in the bones is not evaluated in blood samples.

As exposures to lead add up over time, the health effects become more significant. When the body’s demand for calcium increases, such as during pregnancy or breast-feeding, or in old age when loss of bone mass begins, even more lead is released from the bones into the blood.

Individual susceptibility to lead poisoning varies widely. The milder symptoms of lead poisoning include fatigue, sleeplessness, loss of appetite, irritability or other sudden behavior changes. More severe symptoms include weakness, abdominal pain, constipation, persistent vomiting, clumsiness, extreme dizziness, and other signs of nerve damage including paralysis and swelling of the brain.\(^{27}\) Generally the number and severity of symptoms worsen with increased blood lead levels.

For several reasons, lead harms children more than adults.\(^{28}\) In young and unborn children, lead poisoning affects virtually every system in the body, especially the brain and nervous system.\(^{29}\) Children are more vulnerable because their brains, immune systems, and other organs are not yet fully developed. Children also are more likely than adults to lack important vitamins and minerals such as calcium, zinc, iron, and protein that may limit lead absorption. Due to their more rapid res-

---


\(^{24}\) CHRISTIAN WARREN, BRUSH WITH DEATH 13 (2000).

\(^{25}\) Presentation by Dr. Valerie Charlton of the California Lead Poisoning Prevention Branch to the Pacific Southwest Regional Conference on Mold, Lead, Healthy Homes, and Children’s Environmental Health (Feb. 26, 2003).

\(^{26}\) WARREN, supra note 24, at 16.

\(^{27}\) Id. at 14.

\(^{28}\) For chart summarizing health effects at various exposure levels, see CDC, MANAGING ELEVATED BLOOD LEAD LEVELS AMONG YOUNG CHILDREN: RECOMMENDATIONS FROM THE ADVISORY COMMITTEE ON CHILDHOOD LEAD POISONING PREVENTION 58 (2002), available at www.cdc.gov/nceh/lead/CaseManagement/caseManage_main.htm.

\(^{29}\) For effects on the fetus during pregnancy, see LEAD POISONING IN CHILDHOOD (Siegfried M. Pueschel et al. eds., 1996); Kim Dietrich, Low-Level Lead Exposure During Pregnancy and Its Consequences for Fetal and Child Development, in id.
piration and metabolism, children also retain a higher percentage of ingested lead than do adults. Moreover, because our bodies mistakenly absorb lead when they mean to absorb calcium or iron, and because a child needs more calcium and iron for growth, children's bodies are more likely to absorb lead mistakenly.31

Lead in blood is measured in micrograms of lead per deciliter (µg/dL). Five µg/dL is equivalent in volume to 1/40 of a drop of water. The national average blood lead level for children 1 to 5 years old for the 1999–2000 period was 2.2 µg/dL. 32

Even very low levels of lead can cause severe effects. With lead levels as low as 2.5 µg/dL, children show reduced reading and math ability.33 When blood lead levels increase from 1 microgram per deciliter to 10 micrograms per deciliter, IQ declines 7.4 points.34 Levels as low as 10 µg/dL can cause attention and behavior problems and negatively affect hearing and growth.35 Early lead exposure also has been linked to violent behavior.36 Recent studies also show a link between the presence of lead and ADHD (attention deficit hyperactivity disorder).37 At higher levels, lead poisoning can cause brain damage, seizures, coma, and even death.38

No level of exposure is safe for an infant or young child. Generally the effects of lead poisoning cannot be undone. While medical treatments can reduce the lead levels in the bloodstream, studies show that current treatments do not reverse the effects of the poisoning.39

Infants and toddlers are at highest risk because they frequently put their hands in their mouths after playing on floors or in soil contaminated with lead dust. They are more likely to eat paint chips or chew on painted surfaces. Children with anemia have an increased risk of lead poisoning.40

30Warren, supra note 24, at 15–16.
31Irene Kesler & John T. O’Connor, Getting the Lead Out: The Complete Resource on How to Prevent and Cope with Lead Poisoning 11 (1997). Fifty percent of lead ingested by an infant is absorbed, whereas adults absorb only 5 percent to 15 percent.
32CDC, Second National Report on Human Exposure to Environmental Chemicals (2003); see CDC, supra note 2.
37R.W. Tuthill, Hair Lead Levels Related to Children’s Classroom Attention Deficit Behavior, 51 ARCHIVES ENVTL. HEALTH 214–20 (1996); Dietrich, supra note 36, at 511–18 (children identified as creating behavior problems in class or diagnosed with attention deficit hyperactivity disorder had higher lead levels in hair samples than other children).
38CDC, Fatal Pediatric Lead Poisoning—New Hampshire, 2000, 50 MORBIDITY & MORTALITY WKLY. REP. 455–59 (June 8, 2001) (the most recently reported lead poisoning death occurred in April 2000 to a 2-year old girl in Manchester, New Hampshire).
39Walter J. Rogan et al., The Effect of Chelation Therapy with Succimer on Neuropsychological Development in Children Exposed to Lead, 344 NEW ENG. J. MED. 1421–26 (2001). Recent research, however, indicates that an enriched environment may be effective in treating lead-poisoned rats. See Tomas R. Gultarte, Environmental Enrichment Reverses Cognitive and Molecular Deficits Induced by Development Lead Exposure, 53 ANNALS OF NEUROLOGY 50–56 (2003).
While lead poisoning affects children of all races and socioeconomic levels, the most likely victims are low-income children, disproportionately ethnic minorities, who are more likely to live in older housing in poor condition, lack good nutrition, and lack access to health care. Low-income children are eight times more likely to be lead-poisoned than children from affluent families (four times more likely than all children), and African American children are five times more likely to be poisoned than white children.41

C. Testing Blood for Lead
Lead poisoning has been called a “silent epidemic” because people with lead poisoning often show no obvious symptoms until serious irreversible damage has occurred. The most common way to find the presence of lead in the body is through a blood analysis.

1. Screening Children
At the federal level the CDC sets screening and treatment standards that call for targeted screening of “at risk” children.42 At-risk children include

- children living in zip codes where more than 27 percent of housing was built before 1950;
- children receiving services from public assistance programs such as Medicaid; Supplemental Nutrition Program for Women, Infants, and Children; and Temporary Assistance for Needy Families; and
- children whose parents answer “yes” or “don’t know” to one of the following questions: Does the child live in or regularly visit a house built before 1950? Does the child live in or regularly visit a house built before 1978 with recent (within the last six months) or ongoing renovations or remodeling? Does the child have a sibling or playmate who has or had lead poisoning?

If the child meets one of the above criteria, the child is screened and evaluated at 1 year old and 2 years old and when the child has not been previously screened (up to age 6). States and local governments must follow CDC standards to be eligible for federal funding. States may adopt stricter standards.

Under federal law, all children receiving Medicaid as part of the Early and Periodic Screening, Diagnostic, and Treatment must be screened for lead at least twice, at 12 months and 24 months of age.43 In spite of these requirements, only 20 percent of Medicaid children are screened.

The lack of screening is due, for one, to many doctors being unaware of the dangers and prevalence of lead poisoning.44 For another, doctors, not thinking that lead poisoning is a problem, do not make lead screening a priority when conducting an examination and so parents are not aware that lead poisoning is still one of the most severe environmental threats to their children’s health.

Advocates are litigating to increase screening. In a case settled in 2003, the State of Idaho was forced to enter into a consent decree to address its abysmally low Medicaid screening rates.45 In other litigation, the State of Missouri

---

44 Susan C. Ferguson & Tracy A. Lieu, Blood Lead Testing by Pediatricians: Practice, Attitudes, and Demographics, 87 Am. J. Pub. Health 1349–51 (1997). This survey of primary care physicians in the San Francisco Bay area showed that only 46 percent knew the content of the CDC guidelines and only 27 percent adhered to them.
45 Guerrero v. Idaho, No. CIV 00-578-S-MHW (D. Idaho filed Oct. 4, 2000). For a copy of the consent decree, e-mail gsiegel@wclp.org or call 213.487.7211.
successfully sued a health maintenance organization over screening rates. Missouri contracted with Healthcare USA to provide health care coverage, including conducting lead screening, for children on Medicaid. Missouri’s suit alleged that HealthCare USA screened only 29 percent of 12-month-olds and 17 percent of 24-month-olds. In December 2002 Healthcare agreed to pay a $1.1 million settlement.46

2. Screening Methods, Results, and Payments

Blood screens may be either venous or finger stick. In the venous method blood is drawn from a vein and sent to a laboratory for analysis. The finger-stick method requires a smaller blood sample (50 microliters or 2 drops) taken by pricking the finger. Finger-stick samples can be taken in a doctor’s office, clinic, or other locations by a community outreach worker. If the finger stick is positive, it should be confirmed by a venous test because finger-stick samples are prone to external contamination causing false positives.

Parents should insist that doctors tell them the specific level of lead in the child’s blood in µg/dL (micrograms per deciliter). Often doctors will simply tell parents that the levels are “normal” or below medical significance. Parents should learn their children’s lead levels since even very low levels can harm a child.

For children without health insurance, the cost of a blood lead screen varies by region and provider but ranges from $20 to $50. State law may require the child’s health insurance plan or Medicaid to cover the cost of blood lead screens.47

D. Case Management of Lead Poisoning

No “treatment” for lead poisoning can reverse its effects.48 The recommended course of action for poisoned children is to avoid further exposure. Parents should take some action to improve their child’s nutrition and hygiene to limit absorption of lead, but first they should remove or control the lead hazard in the child’s environment to avoid further exposure. The benefits of reducing exposure to lead are considerable. In a study published in 2002, researchers estimated that the career lifetime earnings of the approximately 3.8 million children born in the United States in 1999, as a result of reduced exposure to lead (and the resulting increased IQ), would be $110 billion to $318 billion greater than their counterparts of the mid-1970s (measured in 2000 dollars).49

No blood lead level is “safe” for children. However, the CDC recommends careful monitoring children with blood lead levels 10 µg/dL or above. If a child’s blood lead level is 20 µg/dL, or two tests within thirty days show a blood lead level at 15 µg/dL or higher, the CDC recommends case management by local health professionals.50 Case management includes referrals for medical care, public health assessments, environmental assessments, and education and outreach. To pay for their lead screening and case management programs, some states assess fees on industries that emit lead into the environment.51


47See, e.g., CAL. HEALTH & SAFETY CODE § 1367.35 (West 2003).

48Recent published research, however, indicates that an enriched environment may be effective in treating lead-poisoned rats. See Guilarte, supra note 39.


50See CDC, supra note 28.

51See, e.g., CAL. HEALTH & SAFETY CODE §§ 105305, 105310 (West 2003).
1. Controlling Lead Exposure After Poisoning

CDC recommends that when children are identified with blood lead levels of 20 µg/dL or higher or two tests at 15 µg/dl or higher, the source of the child’s lead exposure should be found and removed or controlled. Local health departments typically are responsible for conducting an environmental investigation to identify the source of the child’s exposure and visiting the family to educate it about lead poisoning prevention (nutrition, housekeeping measures, etc.). In many cases, the source of lead poisoning is a lead hazard in the home. If the local health department identifies a lead hazard, the department should notify the property owner of the hazard and require specific steps to reduce or eliminate it. Several cities have enacted “lead-poisoned child” ordinances that give agencies express enforcement authority to address a child’s environment after a lead-poisoned child is identified. Ordinances typically require owners to make safe any lead hazards in the presence of a poisoned child. Some make it illegal for dangerous levels of lead to be in the presence of a child, whether poisoned or not.

2. Chelation

Chelation is a medical procedure in which drugs are administered to the patient to reduce the amount of lead in the blood. Because the procedure has serious side effects, the CDC recommends it only for children with blood lead levels of 45 µg/dl or greater. While chelation does reduce lead levels, it does not reverse the negative effects that have already occurred.

3. Nutrition

To limit lead absorption, a child should eat a diet low in fat and high in iron, calcium, zinc, and vitamins. Fatty foods allow the body to absorb lead faster. Diets low in iron, calcium, and zinc will cause the body to absorb lead as a substitute for these needed minerals.

II. Laws to Prevent Childhood Lead Poisoning in Housing

Lead is regulated at the federal, state, and local levels and by a variety of regulatory agencies. The initial regulatory approach to lead poisoning was a health care approach—identify who has been poisoned and then treat the poisoning. Federal laws employing the health care approach set forth blood screening guidelines, case management requirements, and laboratory accreditation standards. State statutes and regulations provide more specific details for screenings including setting blood lead levels for various kinds of interventions and treatments. Local laws sometimes provide stricter standards for intervention than the state standards. A variety of other federal, state, and local laws address air, food, and water quality and consumer safety.


53The following localities have lead ordinances which make it a misdemeanor to permit dangerous levels of lead on interior and exterior surfaces and households in the presence of a lead-poisoned child: Los Angeles (L.A. HEALTH & SAFETY CODE § 11.28.030 (2002)); Long Beach (LONG BEACH HEALTH & SAFETY CODE § 8.27 (2002)); and Pasadena (PASADENA HEALTH & SAFETY § 8.79 (2002)). San Francisco requires the control of lead hazards and payment of relocation compensation when there is a poisoned child. S.F., CAL., HEALTH CODE § 1600 (West 2002).

54LONG BEACH HEALTH & SAFETY CODE § 8.27.060 (West 2002); S.F. HEALTH CODE § 1628(f) (West 2002).

55L.A. HEALTH and SAFETY CODE § 11.28.010 (West 2002).

56CDC, supra note 28, at 49-50.

57Rogan et al., supra note 39.

58CDC, supra note 28.

A. Overview of Lead Laws

The first major effort to prevent (rather than merely treat) poisoning occurred in 1978 when the federal government prohibited lead-based paint in housing (and manufactured items such as toys and furniture). In 1992 federal legislation went much further with Title X, which attempts to prevent lead poisoning by identifying and controlling lead-based paint hazards in the home before children are poisoned. Title X sets out broad principles and calls for federal agencies to supply the details in specific regulations. States must adopt Title X standards in order to qualify for federal funding.

Title X requires

- lead-safe work practices to protect workers and their families;
- housing contractors to distribute, before undertaking renovations, lead information to occupants;
- strict evaluations and repairs of federally assisted housing;
- landlord and owner disclosure of lead-based paint and lead hazards; and
- lead contractor certification, definitions for lead hazards from paint, dust and soil, and guidelines for lead-related construction practices.

Before Title X, most state laws addressed only lead screening and treatment. After Title X, many states have taken more ambitious approaches. Rhode Island, Vermont, Indiana, and California have all adopted laws that go beyond Title X requirements. On the local level, some cities and counties such as New Orleans and San Francisco have adopted aggressive ordinances that go further than both Title X and state legislation.

B. Housing Issues

Lead paint in the home is the principal source of childhood lead poisoning. In addition to prohibiting lead-based paint in housing in 1978, federal, state, and local laws regulate lead in housing in a variety of other contexts.

1. Notice of Possible Lead Hazards

Tenants and home buyers are entitled to receive notice of possible lead hazards. Federal, state, and local laws set forth the various requirements.

Notice Prior to Lease or Sale (Disclosure Law). Owners of housing built before 1978 are required to disclose to tenants and buyers all known information about lead-based paint and lead hazards, including any available records. The disclosure

---

63 EPA regulations are at 40 C.F.R. § 745.80–.88 (2003).
64 HUD regulations are at 24 C.F.R. § 35.100 (2003).
65 HUD regulations are at id. § 35.80; EPA regulations are at 40 C.F.R. § 745.80 (2003).
66 EPA regulations are at 40 C.F.R. § 745.65 (2003) and § 745.220 (2003); HUD regulations are at 24 C.F.R. § 35.1300 (2003); For HUD’s guidelines, see HUD, Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (June 1995), www.hud.gov/offices/lead/Guidelns/Intro.pdf.
68 24 C.F.R. § 35.80 (2003); 40 C.F.R. § 745 (Subpart F) (2003). All pre-1978 property is covered, except “zero bedroom units” (studios) and rental property that has been tested by a certified risk assessor or inspector and proven to contain no lead-based paint. Disclosure is still required on sale of pre-1978 property that contains no lead-based paint. 40 C.F.R. § 745.101 (2003). (1978 was when the Consumer Products Safety Commission restricted the use of lead in residential paint to 600 parts per million. 16 C.F.R. §§ 1303.1, 1500.17 (2003).)
must occur before the owner can accept the tenant’s or buyer’s offer. Owners must attach a “lead hazard warning statement” to or in the contract for lease or sale. Owners must distribute to tenants and buyers the U.S. Environmental Protection Agency (EPA) lead hazard information pamphlet “Protect Your Family from Lead in Your Home.” Owners must document compliance with the disclosure law by keeping tenant signatures on file for three years.

In home sales, the buyer is allowed ten days to conduct a risk assessment or lead-based paint inspection before having to agree to the deal. The parties may adjust the sales contract based on the findings of the inspection. Real estate agents share the property owner’s duty to disclose known lead-based paint and lead hazards.

The disclosure, however, is limited to lead that the owner knows about. The owner is not required to test the property for lead. In fact, the notice requirement actually creates a disincentive to test—if the owner does not know whether the paint contains lead, the owner has nothing to disclose.

Despite its shortcomings, the disclosure rule carries heavy penalties for violators. While failure to disclose does not cancel the sales contract or lease, owners who do not comply face civil and criminal fines up to $11,000 per violation and imprisonment up to one year. While landlords still largely ignore or overlook the disclosure rule, HUD and the EPA have undertaken aggressive enforcement over the last couple of years. Leveraging potentially heavy fines to extract favorable settlements involving lead hazard controls, the two agencies have focused enforcement on large buildings where fines of $11,000 per unit add up.

Besides facing federal agency enforcement, owners violating the disclosure requirement are, in any civil action for damages brought under the disclosure statute, jointly and severally liable to the tenant or buyer for three times the damages incurred. Court costs and reasonable attorney fees also may be awarded to a prevailing party. Private causes of action, however, may not collect the fines; only government enforcement agencies have the authority to collect the fines.

Tenant lawsuits may seek injunctive relief, however. The Environmental Law Foundation and the Legal Aid Foundation of Los Angeles have sued landlords over a variety of slum conditions on behalf of tenants. Along with other habitability claims, they have won injunctive relief under California’s criminal law.
Unfair Business Practices Act for violations of the disclosure requirement.\textsuperscript{79} Other groups are seeking to enforce the disclosure requirement through community action. Community groups throughout the United States are working with the Community Environmental Health Research Center to promote compliance with the disclosure requirement.\textsuperscript{80}

States may have similar disclosure requirements. For example, Rhode Island has a comprehensive lead poisoning prevention statute requiring owners to notify buyers about lead-based paint before the sale of residential property.\textsuperscript{81}

**Notice Prior to Renovation (Prerenovation Law).** Before commencing renovations, each paid renovator of pre-1978 buildings must distribute a lead hazard information pamphlet to owners and occupants within sixty days of the renovation.\textsuperscript{82} The renovator must prepare, sign, and date a statement describing the steps taken to distribute the pamphlet and get a written acknowledgment that the pamphlet was delivered.\textsuperscript{83} Contractors must retain the records for three years.\textsuperscript{84}

As in the federal disclosure requirement, the contractor must only warn of possible lead hazards; the contractor is not required to test for lead. Moreover, minor repairs and maintenance activities that disrupt two square feet or less, or emergency renovations, are exempt from the rule.\textsuperscript{85} No warning is required after a certified lead inspector determines in writing that lead-based paint is not present.\textsuperscript{86}

The EPA conducts inspections and issues subpoenas to enforce the rule.\textsuperscript{87} Violators are subject to civil penalties of up to $25,000 per day for each violation.\textsuperscript{88} Violators may be subject to criminal sanctions.\textsuperscript{89} Despite the heavy penalties, there has been very little enforcement of the prerenovation rule.\textsuperscript{90}

**State and Local Notice Requirements.** Landlords must comply with any state or local notice requirements.\textsuperscript{91} States may have notice requirements that require businesses to notify consumers before exposure to lead. California’s Proposition 65, a state consumer protection law, requires that tenants be notified about lead.\textsuperscript{92} If the person or business has ten or more employees, and the person or

\textsuperscript{79}CAL. BUS. & PROF. CODE § 17200 (West 2003).

\textsuperscript{80}An outgrowth of the Alliance to End Childhood Lead Poisoning, Community Environmental Health Research Center’s Web site is www.CEHR.org.

\textsuperscript{81}State of Rhode Island Lead Poisoning Prevention Act, R.I. GEN. LAWS, HEALTH & SAFETY § 23-24.6-16 (2003). See also CAL. CH. CODE § 1102.6 (West 2003).

\textsuperscript{82}40 C.F.R. §§ 745.80-745.88 (2003); EPA, PROTECT YOUR FAMILY FROM LEAD IN YOUR HOME, available at www.epa.gov/lead/leadpbed.htm#Brochures (tel. 800.424.LEAD); 40 C.F.R. § 745.80 (2003).

\textsuperscript{83}40 C.F.R. § 745.85(a)(1)-(2), (c)(3) (2003).

\textsuperscript{84}Id. § 745.86(a) (2003).

\textsuperscript{85}Id. § 745.82 (2003).

\textsuperscript{86}Id. § 745.82 (2003).

\textsuperscript{87}Id. § 745.87 (e) (2003).


\textsuperscript{89}40 C.F.R. § 745.87(d) (2003).

\textsuperscript{90}For more information on the rule, see EPA, THE LEAD-BASED PAINT PRE-RENOVATION EDUCATION RULE: A HANDBOOK FOR CONTRACTORS, PROPERTY MANAGERS, AND MAINTENANCE PERSONNEL, available at www.epa.gov/lead/interiorfinal2.pdf.

\textsuperscript{91}24 C.F.R. § 35.98 (2003).

\textsuperscript{92}CAL. HEALTH & SAFETY CODE § 25249 (West 2003), also known as the Safe Drinking Water and Toxic Enforcement Act of 1986.
business may expose the public to chemicals that cause cancer, birth defects, or reproductive harm, such as lead, then the person or business must warn consumers and members of the public about potential exposure. Proposition 65 generally does not prohibit a business from exposing people to lead; it only requires a warning.

Local ordinances may also require landlords to give notice to tenants. San Francisco requires landlords to give a copy of San Francisco’s Pre-1978 Hazard Notice to tenants within ten days of tenant occupancy and maintain affidavits as evidence of compliance. San Francisco requires property owners or contractors to notify the California Department of Health and neighbors before beginning construction that could disturb lead-based paint. Landlords are required to give tenants three days’ advance notice. In New Orleans contractors and owners are required to give notice to occupants and neighbors in a variety of contexts.

2. State Housing and Health Quality Standards

State housing and health laws may set standards to protect tenants from lead before children are poisoned. Usually local government enforcement agencies have some legal authority to address lead hazards in housing before children are poisoned, but when the authority is not specific to lead, it is rarely used. In some states recent laws provide local enforcement with specific legal authority to compel owners to ameliorate the lead hazards in their housing before children are poisoned.

**Housing Codes.** Most states have state housing laws authorizing local enforcement agencies to inspect housing to ensure that it meets habitability standards. When inspecting whether the standards are met, local enforcement agencies should consider lead hazards.

California recently amended its housing standards to make explicit that the existence of a lead hazard is a housing code violation. As a result, local enforcement agencies may cite landlords and order them to repair lead hazards; local enforcement need not identify a poisoned child before ordering the landlord to repair the lead hazard. The law also makes a lead hazard an untenable condition that must be repaired before a landlord is entitled to collect rent.

Rhode Island state law authorizes inspectors to conduct environmental inspections of housing, including rental housing, and to identify lead hazards.

Even where a lead hazard is a housing code violation, local enforcement may still be reluctant to invest resources in documenting them. For tenants, the most effective way to document a lead hazard is to hire a certified lead inspector or risk assessor. Tenants can also contact community organizations that conduct environmental sampling. These groups are trained to take dust samples to document lead hazards. When dealing with landlords and lead, howev-

---

93 Proposition 65 states that “no person in the course of doing business shall knowingly and intentionally expose any individual to a chemical known to the state to cause cancer or reproductive toxicity without first giving a clear and reasonable warning to such individual.” CAL HEALTH & SAFETY CODE § 25249.6 (West 2003).

94 S.F., CAL., HEALTH CODE § 1616 (West 2003).

95 S.F., CAL., BLDG. CODE § 3606 (West 2003).

96 Id.

97 NEW ORLEANS, LA., ORDINANCE NO. 20345, § 82-316C (2003).

98 CAL. HEALTH & SAFETY CODE § 17920.10(a) (West 2003).


100 STATE OF RHODE ISLAND LEAD POISONING PREVENTION ACT, R.I. GEN. LAWS, HEALTH & SAFETY § 23-24.6-15.

er, tenants should proceed with caution. Some landlords fear lead-related lawsuits, particularly if the tenant has children living in the unit, and may retaliate against tenants by evicting them. While many states legally protect tenants who assert their rights, retaliation is common and difficult to prove.\(^\text{102}\) As a rule, before talking with a landlord about lead hazards, tenants should consult with a housing law advocate.

**Health Codes.** State health codes may provide legal authority to address lead hazards in housing before children are poisoned. California recently amended its health law so that whenever a local enforcement agency determines that a condition at a location or premises is creating or has created a lead hazard, the agency may order the owner to abate the lead hazard.\(^\text{103}\) Under the law, enforcement agencies must identify the lead hazard and then order the owner to repair it.\(^\text{104}\) If the owner does not comply with the order to repair, the owner commits a violation punishable by a $1,000 fine.\(^\text{105}\)

**Nuisance Law.** Because of its harmful effects, a lead hazard can amount to a nuisance—an activity endangering life or health.\(^\text{106}\) Public nuisances are those which affect an indefinite number of people, such as all the residents of a particular locality.\(^\text{107}\) Local governments may order property owners to abate lead nuisances.\(^\text{108}\) Some state and city governments, contending that manufacturers are responsible for the existence of lead-based paint hazards, have filed public nuisance litigation against lead-based paint manufacturers. Asserting that all lead-based paint is harmful to the health, the government plaintiffs are seeking money from the former lead-based paint manufacturers to help pay for the costs of abating lead-based paint.

The most watched lawsuit is *Rhode Island v. Lead Industries Association*, Case No. 99-5226 (R.I. Sup. Ct. Oct. 13, 1999), alleging that lead-based paint in public and private buildings constitutes a public nuisance. At trial all six jurors felt that lead-based paint was a public nuisance in housing. The jurors hung, however, on whether the nuisance extended to lead-based paint in public buildings such as hospitals. The original trial ended in mistrial, but the case is scheduled for retrial in April 2004.

Tenants and housing code enforcement agencies may use nuisance law to address lead hazards in the home. Either static lead hazards (such as accumulated dust) or lead hazards created by unsafe work practices may amount to nuisances. If the state housing law requires landlords to maintain their housing at a minimum standard of habitability, and the presence of a nuisance is a violation of that standard, a lead hazard could be a habitability violation.\(^\text{109}\)

Its significant shortcomings, however, make nuisance law a scarcely used enforcement strategy. To prove a nuisance, the enforcement agency must

---


\(^{103}\) Cal. Health & Safety Code § 105256(a) (West 2003). Here “abate” means remove or repair the lead hazard. It does not require that the lead-based paint be abated (removed).

\(^{104}\) Id. §§ 105256(b)–(c) (2003).

\(^{105}\) Id. §§ 105256(a) (West 2003).


\(^{107}\) Id.

\(^{108}\) Id.

\(^{109}\) See, e.g., Cal. Health and Safety Code §§ 17920.3(c), 17961 (West 2003).
show through documentation and testimony that the lead hazard rises to the level of a nuisance and prove the actual harm that it caused—so time-consuming as to deter prosecution. When a city lists lead hazards as nuisances in its municipal code, it may facilitate prosecution.110

HUD’s Rule on Lead-Safe Housing. HUD’s lead poisoning regulations, or rule on lead-safe housing, protect tenants in federally funded housing.111 Regulations, which differ according to the federal program, include those for

- housing owned by federal agencies other than HUD;112
- HUD-owned single family properties;113
- HUD-owned multifamily properties;114
- properties receiving project-based rental assistance;115
- properties receiving tenant-based rental assistance;116
- public housing;117
- multifamily mortgage insurance housing;118 and
- properties receiving federal rehabilitation assistance.119

Housing that is exempt from HUD regulations include zero bedroom units, housing used exclusively for the elderly, housing built after 1977, and lead-free housing.120

---

110 E.g., S.F., CAL., HEALTH CODE § 581(b)(11) (West 2003).
113 Id. § 35.500.
114 Id. § 35.800.
115 Id. § 35.700.
116 Id. § 35.1200.
117 Id. § 35.1100.
118 Id. § 35.600.
119 Id. § 35.900.
120 Id. § 35.115.
HUD estimates that 2.8 million units nationwide are covered by the regulations. Where more than one set of regulations cover a property, the most protective requirements apply. The regulations employ seven basic prevention strategies, ranging from less protective to more protective. More protective requirements generally apply as federal funding in the property increases and the age of the housing increases. Regulations governing public housing and multifamily mortgage insurance housing are the most restrictive; they require abatement of all lead-based paint. A chart summarizing the requirements for each program is available on HUD’s Web site.

Despite the regulations, enforcement is inconsistent and, in some cases, not helpful to tenants. Reduced funding for public housing authorities has decreased enforcement in many jurisdictions. When a Section 8 property owner refuses to comply with the HUD regulation, the property owner is dropped from the Section 8 program—resulting in loss of affordable housing units.

Tenants living in housing that was once but is no longer federally owned or assisted may still enforce the regulations against the agency that managed the federal program. A federal district court in Chicago ruled that a housing authority could be sued for not complying with the HUD regulations. The suit resulted in a $1.2 million settlement to be used for funding blood screening.

3. Lead-Safe Work Practices

Home repairs that disturb lead-based paint can poison children. Workers disturbing paint on pre-1978 homes frequently have little awareness of lead-based paint and lead poisoning. They sand, scrape, or disturb paint in a way that creates dust. If the paint is lead-based, the dust can be inhaled or ingested, and people can be poisoned.

Lead-safe work practices prevent poisoning. By using wet scraping, containment, ventilators, wet cleaning, and other methods, workers can reduce the lead-contaminated dust to prevent poisoning. Federal, state, and local laws require lead-safe work practices in a variety of situations.

Employer-Employee Relationships. The U.S. Occupational Safety and Health Administration (OSHA) regulates worker safety. OSHA’s lead regulations set forth work practices that protect workers in “all construction work where an employee may be occupationally exposed to lead.” The regulations apply to work on residential (if built before 1978), commercial, or industrial properties. State OSHA regulations typically adopt the language of the federal regulations.

OSHA standards apply only when there is an employee-employer relationship. They do not apply to construction work done by a property owner on the owner’s building. They do, however, cover workers that the owner hires. Although the work-practice standards were established to protect workers, the practices limit lead-contaminated dust and debris, thereby also protecting occupants.

OSHA’s lead standards require air monitoring in all workplaces where employees may be exposed to lead. Worker exposure levels and sometimes the type of task determine the type of protective
measure required.129 Protective measures may include ventilation systems, alternate work practices, respiratory protection, other appropriate personal protective equipment, change areas, keeping work clothes and equipment at the workplace, hand-washing facilities, and medical monitoring (blood testing).130 Workers must receive lead-specific training in hazard communication and respirator use.131

State Law Work-Practice Requirements. Some states have laws that prohibit certain types of work practices because they may create lead hazards. For instance, in work on pre-1960 housing, Indiana prohibits open-flame burning, machine sanding, sandblasting, certain high-temperature heat guns, certain kinds of dry scraping, and dry sanding.132

California law prohibits activities that create lead hazards.133 Enforcement agencies that identify activities creating the lead hazard may stop the activity and order the owner to clean the hazard.134 An owner violating the order is subject to a $1,000 fine.135

Vermont law takes a more preventive approach. In addition to prohibiting unsafe work practices as in Indiana, Vermont requires owners of rental housing to conduct essential maintenance practices to prevent lead hazards from developing in the first place.136 Vermont requires the owner to conduct an annual on-site visual inspection, clean window areas annually, promptly repair and stabilize paint, post notices about lead, attend a lead safety training, ensure that all maintenance practices are conducted by trained personnel, and conduct lead safety cleaning at each change of tenancy.137

Local Ordinances. New Orleans has a comprehensive lead poisoning prevention ordinance that prohibits any paint-disturbing interior or exterior work on pre-1979 housing unless safe work practices are used.138 The law presumes, subject to a certified inspection to the contrary, that all paint on pre-1979 buildings is lead-based.139 The law lists permitted and prohibited work practices and sets forth detailed notification requirements that must be completed before work may commence.140

San Francisco prohibits unsafe work practices on exteriors of buildings and structures built before 1978.141 Violators may be fined up to $1,000 a day.142 The ordinance also requires property owners or contractors to notify tenants, neighbors, and the California Department of Health before beginning construction that disturbs lead-based paint.143

---

129 Id. § 1926.62(d).
130 Id. § 1926.62(e)–(j).
131 Id. § 1926.62(l).
134 Id. § 105256(a).
135 Id. §§ 105256(b)–(c).
137 38 Id. §§ 1759.
138 NEW ORLEANS, LA., ORDINANCE NO. 20345, § 82-316a (2003).
139 Id. § 82-316a(2).
140 Id. § 82-316b–c.
141 S.F., CAL., BLDG. CODE §§ 3604–3605 (West 2003).
142 Id. § 3609.1.2.
143 Id. § 3606, 3606.6.
Federally Assisted Housing. As mentioned above, HUD regulations require lead-safe work practices in a variety of federal housing programs. The requirements vary with the federal program. 144 All federal programs require some kind of lead-safe work practices and clearance inspections when paint in pre-1978 units that are not lead-free is disturbed. Refer to the regulations governing the specific housing program to determine the exact requirements.

"Abatement" Projects. Due to the danger posed by abatement projects (where workers remove lead paint from a building), federal law requires training and certification for any person performing—in pre-1978 residential property—"lead–based paint activities," including abatement, risk assessment, and lead–based paint inspection. 145 States develop EPA-approved programs to implement these federal requirements on the local level.

Disposing of Lead. Lead hazard control work often generates hazardous waste—paint chips, dust, chemical stripper sludge, wastewater, rags, sponges, filters, and large debris such as doors, casements, and moldings. State environmental agencies regulate how to classify waste and how it should be disposed.

Although its effects are permanent, lead poisoning in the home is preventable. Identifying and controlling lead–based paint hazards—the source of most poisoning—can prevent poisoning or limit exposure. Federal, state, and local enforcement agencies can limit lead poisoning by enforcing existing laws such as Title X and state and local legislation. Additional legislation may be needed to give enforcement agencies sufficient authority to eliminate lead poisoning. Community organizations can be effective in winning these legislative reforms and ensuring that the reforms are implemented. Prevention, in partnership with increased blood screening, education, medical treatment, environmental investigations, and good nutrition can help overcome the costly impact of lead–based paint. Parties profiting from lead–based paint should help defray the costs of prevention and intervention.

Author’s Acknowledgments

*The Southern California Healthy Homes Collaborative helped compile this material. And I am currently working under a grant from the Wellness Foundation.*

---

144 See, e.g., 24 C.F.R. § 35.200, .500, .600, .700, .800, .900, .1100, or .1200 (2003).