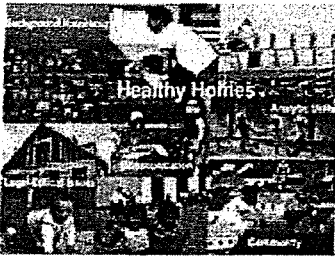




[Home](#) › Healthy Homes Initiative

## Healthy Homes Initiative



substandard occupied housing units throughout the United States.

Housing conditions can significantly affect public health. Childhood lead poisoning, injuries, respiratory diseases such as asthma, and quality of life issues have been linked to the more than 6 million substandard housing units nationwide. Residents of these units are also at increased risk for fire, electrical injuries, falls, rodent bites, and other illnesses and injuries. Other issues of concern include exposure to pesticide residues, indoor toxicants, tobacco smoke, and combustion gases. The burning of oil, gas, and kerosene can release a variety of combustion products, including carbon monoxide, a known cause of illness and death. In its Healthy People 2010 goals, the U.S. Department of Health and Human Services calls for a 52% reduction in the number of

Most public health efforts take a categorical approach to health and safety hazards in the home, focusing narrowly on one issue, even in the presence of multiple issues. A Healthy Homes approach is holistic and comprehensive and provides public health professionals, including environmental public health practitioners, public health nurses, and housing specialists, the requisite training and tools necessary to address the broad range of housing deficiencies and hazards associated with unhealthy and unsafe homes.

### What Is CDC's Healthy Homes Initiative?

CDC's Healthy Homes Initiative is a coordinated, comprehensive, and holistic approach to preventing diseases and injuries that result from housing-related hazards and deficiencies. The focus of the initiative is to identify health, safety, and quality-of-life issues in the home environment and to act systematically to eliminate or mitigate problems.

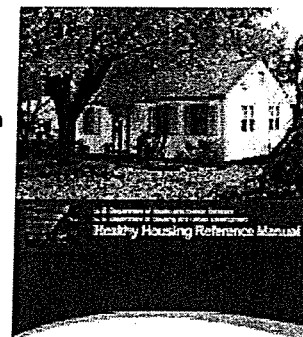
The Healthy Homes Initiative seeks to

- Broaden the scope of single-issue public health programs, such as childhood lead poisoning prevention and asthma programs, to address multiple housing deficiencies that affect health and safety.
- Build capacity and competency among environmental public health practitioners, public health nurses, housing specialists, managers, and others who work in the community, to develop and manage comprehensive and effective healthy homes programs.
- Promote, develop, and implement cross-disciplinary activities at the federal, state, tribal, and community levels to address the problem of unhealthy and unsafe housing through surveillance, research, and comprehensive prevention programs.
- Facilitate the collection of local data and monitor progress toward reducing or eliminating housing deficiencies and hazards.
- Expand collaborations with the U.S. Department of Housing and Urban Development, national associations and organizations, academia, community-based organizations, and others, including the American Public Health Association, National Environmental Health Association, and the World Health Organization.
- Promote research to determine causal relations between substandard housing and adverse health effects.
- Develop guidelines to assess, reduce, and eliminate health and safety risks.
- Identify and implement low-cost, reliable, and practical methods to reduce health and safety risks in

substandard housing.

**CDC Products Related to the Healthy Homes Initiative**

- **Healthy Housing Reference Manual**  
 Housing conditions have an important impact on public health. The *Healthy Housing Reference Manual* provides a comprehensive guide to the relation among housing construction, housing systems, and health. In the 30 years since the first edition (*Basic Housing Inspection*) was published, we have begun to learn more about how specific housing conditions are related to disease and injury. This new edition, written by the Centers for Disease Control and Prevention (CDC) and the U.S. Department of Housing and Urban Development (HUD), gives public health and housing professionals the tools necessary to ensure that housing stock is safe, decent, affordable, and healthy for our citizens, particularly children and the elderly, who are often most vulnerable and spend more time in the home.



- **Integrated Pest Management: Conducting Urban Rodent Surveys** [PDF, 626KB] Updates the 1974 CDC *Urban Rat Surveys* manual to include information about integrated pest management (IPM). The updated manual provides public health and housing professionals with comprehensive information for implementing IPM as a systems approach in the management of pests and vectors.



- The **Healthy Housing Inspection Manual** is a model reference tool that takes environmental health, public health, housing, and other professionals through the elements of a holistic home inspection. The manual presents



recommendations for a complete assessment that can be modified based on local policies and needs. . This new manual contains a visual assessment and definitions for housing deficiencies; a voluntary health assessment; and links to additional information about environmental sampling methods, hazards, and issues related to healthy housing.

The *Healthy Housing Inspection Manual* is an adjunct to, and complements, the revised CDC/HUD *Healthy Housing Reference Manual* described above.

- **The National Healthy Homes Training Center and Network (HHTC)** has been established. HHTC addresses the training needs of environmental public health practitioners, public health nurses, housing specialists, and others through formal on-site training programs and Internet-based instruction and operates through the National Center for Healthy Housing.



**Next Steps**

HHTC will adapt the training for distance learning, offer on-site classes in four additional locations, and begin the development and operation of a National Healthy Homes Clearinghouse. The center and network will also expand its operation to include six additional regional academic centers.

For more information about CDC's Healthy Homes Initiative, please contact M. Deborah Millette, Division of Emergency and Environmental Health Services, at (770)-488-4024 or [mdm2@cdc.gov](mailto:mdm2@cdc.gov).

# A Guide To Cleaning Up Lead Paint Chips and Dust

## Step 5 – Wipe Floors



Misting with the soap solution and then wiping with towels is the best way to remove lead dust.

## Step 6 – Mop Floors



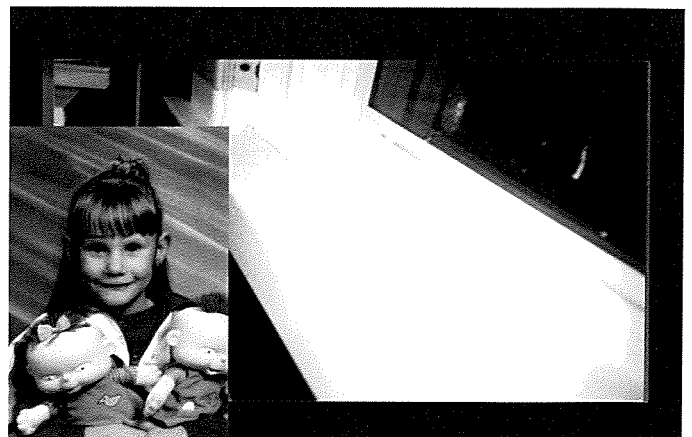
A second choice is to damp mop vinyl and wood floors with the soap solution. Start at the back of the room and work toward the exit door. This way is not as good as Step 5.

## Step 7 – Bag It



Change towels often until no paint chips or dirt can be seen. Put them in a garbage bag, and seal with tape or a knot. The bag can be put out for normal trash pickup.

## Step 8 – Clean Often



Do these steps often to protect your children from lead poisoning. They count on you for a lead-safe home to grow up healthy and smart.

Special acknowledgement to the Field Neurosciences Institute/Saint Mary's Hospital, Saginaw, Michigan for their contribution in the development of this cleaning guide.

January 2005

# A Guide To Cleaning Up Lead Paint Chips and Dust

## Step 1 - Supplies



Gloves, absorbent throw-away wipes or towels, garbage bags, spray bottle with liquid detergent and water, disposable towels and mop. Children should not be present while cleaning.

## Step 2 – HEPA Vacuum



HEPA vacuum obtained from your local health department. A regular vacuum is NOT recommended. CAUTION: Do not open, change bag, or empty contents inside the home.

## Step 3 – Wet Surfaces



HEPA\* vacuum windows, floors, and porches, and then mist lightly with the soap solution. If a HEPA is not available, carefully remove dirt and paint chips with a wet towel. Replace towels until the surface is clean.

## Step 4 – Clean Surfaces



Wipe surfaces clean by applying pressure. This has proven to be effective in removing lead dust.

\* A HEPA vacuum has a high efficiency particulate air filter built in that catches fine lead dust. This filter catches up to 99% of the dust and dirt sucked into the vacuum. The HEPA vacuum should meet ANSI Z9.2 standards and OSHA and EPA regulations. Check the vacuum or owner's manual.

## LEAD POISONING'S IMPACT ON EDUCATION OF MICHIGAN CHILDREN

Every year thousands of Michigan children learn less because of lead poisoning. Youngsters who are lead poisoned prior to school entry may suffer from permanent brain damage. This leads to poorer performance on math and reading tests and increased risk of aggressive behavior, greater delinquency and higher school dropout rates.

Our schools and all of Michigan society pay a high price for this totally preventable environmental health disease. Children poisoned over the next few decades will continue to underperform unless Michigan acts to end this continuing travesty. And all Michigianians are burdened by the economic cost of childhood lead poisoning estimated to be nearly \$1 billion each year.

**Childhood Lead Poisoning in Michigan:** Every day in 2007 an average of five to six children under age six were found to be lead poisoned: i.e., blood lead levels of 10 micrograms per deciliter (ug/dL) or greater.<sup>1</sup> Despite declining childhood lead poisoning rates in recent years:<sup>2</sup>

- More than 2,000 children were poisoned in 2007,<sup>1</sup> including as many as ten percent in some older neighborhoods in Grand Rapids.<sup>3</sup>
- An additional 16,566 were found to have potentially damaging blood lead levels of 5 to 9 ug/dL.<sup>4</sup>
- Only 19 percent of children under age six were tested for lead poisoning.<sup>1</sup>

### **Consequences for Individual Children:**

- Reduced Intellectual Functioning: "Of primary importance is that children's intellectual functioning at three to five years of age is inversely associated with blood lead concentrations, even when their peak concentrations remain below the CDC and WHO level of concern."<sup>4</sup>
- Lowered Intelligence Quotient: Lead poisoning has a devastating impact on the IQ of children. There is an average of 5.5 or more IQ point reduction for each 10 ug/dl increase in blood lead level.<sup>5</sup>
- Diminished Capacity to Learn: "...children who have lead poisoned brains have a vastly diminished capacity to learn. A diminished capacity not from lack of effort, or lack of instruction, but simply because the tissues in the brain lack the physiological ability to perform the chemically based process necessary for learning."<sup>6</sup>
- Increased Educational Deficits: Children with even very low blood lead levels, below current CDC Guidelines, show poorer performance on tests of arithmetic skills, reading skills, nonverbal reasoning and short term memory.<sup>7</sup>
- Increased Antisocial Behavior: Lead exposure is linked to antisocial behavior in children and adolescents. "Females and males were equally likely to self-report antisocial/delinquent behavior events (including violence against others), have police contact, appear in court, be adjudicated delinquent and sentenced to institutional placement."<sup>8</sup>
- Higher Drop Out Rates: Early lead exposure is associated with a sevenfold increase in risk of failing to graduate from high school and six-fold increase in a student's having a reading disability.<sup>9</sup>
- Possible Permanent Damage: It is very difficult to reverse the impacts of lead poisoning. While it may be possible to rehabilitate the brain to partially reverse the damage caused by lead poisoning, more often than not this rehabilitation is not available to most children who are lead poisoned. Thus a large population of children is permanently damaged by this completely preventable cause of brain injury.<sup>10</sup>

### Consequences for Schools:

- Lowered MEAP Scores: School districts in Michigan where there are high proportions of lead poisoned children are also likely to be those with lower MEAP scores for elementary school children.<sup>11</sup>
- Inadequate AYP: Those Grand Rapids elementary schools not achieving adequate yearly progress during school year 2001-02, tended to be in those attendance zones where more lead poisoned children resided.<sup>11</sup>
- Increased Number of Failing Schools: "...exposure to environmental lead creates the conditions of "failing schools." The fact that most "failing schools" are in low income neighborhoods where children live in housing known to be laced with a brain damaging neurotoxin is not just a coincidence."<sup>8</sup>
- Rating of Students' Behaviors: "Assessment of behavior on teachers' rating scales identified increased distractability, impulsivity, nonpersistence, inability to follow sequences of directions, and inappropriate approach to problems as hallmarks of lead exposure."<sup>12</sup>
- Increased Need for Special Education: Although a reduction of 4-5 IQ points is not exceedingly serious in a lead affected child, that IQ reduction in a population indicates 50 percent more children with subnormal intelligence.<sup>13</sup> This dramatically increases the number of children needing special education.

**Consequences for Michigan's Economy:** The total annual economic cost of childhood lead poisoning in Michigan could be some \$1 billion (based on Michigan's portion of national economic cost estimates, including costs of direct health care, rehabilitation, lower wages and diminished earnings; but not including costs of pain, deterioration of life or emotional suffering).<sup>14</sup>

**CONCLUSION: Lead poisoning presents a clear and present danger to Michigan's children; and it contributes to lower MEAP scores during elementary school years. The cost to future generations in terms of lost potential, to underperforming schools and other costs to the State can no longer be ignored. The time to act is now.**

---

### References

1. Childhood Lead Poisoning Data Facts-2007, Michigan Department of Community Health (MDCH), March 2008. [Data adapted]
2. Elevated Blood Lead levels in Michigan. 1998-2007 [Graph], MDCH, March 2008
3. Unpublished 2008 Datafile, Michigan Department of Community Health
4. "Cognitive Impairment in Children with Blood Lead Concentrations below 10 ug per Deciliter." Canfield RL et al. New England Journal of Medicine. April, 2003: 348, 1517-26
5. Press Release, Pediatric Academic Societies. April 2001
6. A Strange Ignorance. Mike Martin. Arizona School Boards Association. Phoenix, AZ 2002.
7. "Cognitive Deficits Associated with Blood Lead Concentrations <10 ug/dl in U.S. Children and Adolescents." Lanphear BP et al. Public Health Reports. Nov/Dec 2000; 115: 521-529
8. "Early exposure to lead and juvenile delinquency." Dietrich KN et al. Neurotoxicology and Teratology. 2001; 23: 511-518.
9. "Childhood Exposure to Lead: A Common Cause of School Failure." Needleman HL. Phi Delta Kappan. Sept. 1992
10. Personal Communication. Holtrop T. Children's Hospital of Michigan, Detroit, Michigan, December 10, 2002.
11. Personal Communication. Thompson L. Wayne State University, Detroit, Michigan, May 31, 2003
12. "Behavioral Effects of Lead: Commonalities between Experimental and Epidemiologic Data." Rice CR. Environmental Health Perspectives. 104, Supplement 2, April 1996 [Abstract].
13. "Risk Assessment of the Developmental Neurotoxicity of Lead." Davis JM. NeuroToxicology. 1990; 11:285-292.
14. "Environmental Pollutants and Disease in American Children: Estimates of Morbidity, Mortality, and Costs for Lead Poisoning, Asthma, Cancer, and Developmental Disabilities." Landrigan PJ et al. Environmental Health Perspectives. July 2002; 110:721-728  
[Data Adapted: \$43.4 Billion U.S. × 20,200 EBLL in MI ÷ 890,000 EBLL in U.S. = \$0.985 Billion (MI)]

**MICHIGAN LEAD SAFE PARTNERSHIP  
[December 2008]**