
LEAD POISONING PREVENTION & TREATMENT UPDATES

Volume 1, Issue 2

August 2005

Welcome

The newsletter will provide you with information from the current research literature and updates on available resources related to lead poisoning prevention. With your help we will strive to reach the goal of eliminating lead as an environmental hazard by 2010. This quarterly newsletter is a collaborative effort between the Virginia Department of Health's Lead-Safe Virginia Program and the University of Virginia's Virginia Children Division of Medical Toxicology.

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PHONE NUMBERS TO KNOW

- **Lead-Safe Virginia, Virginia Department of Health**
(877) 668-7987
- **Healthcare Lead Emergency Hotline**
(866) SOS-LEAD

Sources of Lead

Flaking, dusting, and peeling LEAD PAINT is by far the number one source of lead exposure in children. But other sources of lead in a child's environment may result in acute lead poisoning or contribute to an already elevated blood lead level:

Parent's Work Environment

Adults may bring lead dust home from their job on clothes, hands, hair, and shoes. Occupations with exposure to lead include: house painting or wallpapering, home renovation, furniture refinishing, lead smelting or mining, firearms instruction, automotive repair, battery manufacturing or recycling, or bridge/tunnel/elevated highway construction.

Parent's Hobby

Certain hobbies may contaminate the home with lead dust or fumes, or contaminate the parent's clothes, hands, hair, or shoes. Examples: melting lead for homemade musket balls or fishing tackle, target shooting, making stained glass (artists may use lead solder and solid lead *came* which wraps around pieces of glass and frames the artwork), and ceramics.

Soil

Though lead was completely phased out of gasoline by 1995, lead particles emitted in engine exhaust still persist in some soil near major roadways. Also, deteriorating exterior lead paint may contaminate the soil around old homes. Children who play in bare soil risk exposure to lead, and family members may track contaminated soil into the home on their shoes.

Ceramics

Lead is used in some ceramic glazes because it produces certain colors and helps prevent cracking. Improperly fired glazes and deteriorating glazes may leach lead into food and beverages, especially following prolonged contact or if the food is hot or acidic. The FDA has established leaching limits on commercially made or imported products, but handmade items are not regulated. Ceramics bought in foreign countries and items not intended for food use may also leach high levels of lead.

Folk Remedies

Some Hispanic, Indian, Asian, and Middle Eastern folk medicine practices consider heavy metals to be therapeutic. Certain folk remedies for digestive ailments have been found to contain very high levels of lead.

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CALENDAR OF EVENTS

Practical Strategies in the Clinical Diagnosis and Management of Childhood Lead Poisoning: A Case-Based Approach. Friday, November 4, 2005, Union Train Station, Petersburg, VA. This one-day conference targets primary care physicians, nurses, and public health officials in the Crater Health District. Earn up to 5 free category 1 CME credits. *Course Director:* Dr. Christopher P. Holstege, M.D., Director, Division of Medical Toxicology and Associate Professor of Emergency Medicine and Pediatrics at the University of Virginia. Dr. Holstege is also serving as the Medical Advisor for the Lead-Safe Virginia program. Attendance is free, thanks to a grant from the Cameron Foundation. To register, contact the Office of Continuing Medical Education at the University of Virginia School of Medicine: (434) 924-1657 or ABL3X@virginia.edu.

National Lead Poisoning Prevention Week October 23-29, 2005



RESOURCES

Download copies of the *Guidelines for Childhood Lead Poisoning Screening in Virginia*:
http://www.vahealth.org/leadsafe/Rev_Screening_04.pdf

CDC Spotlights on Lead
<http://www.cdc.gov/nceh/lead/>

U. S. Consumer Product Safety Commission
www.cpsc.gov

EPA Lead Page
www.epa.gov/opptintr/lead/index.html

HUD Office of Lead Hazard Control
www.hud.gov/offices/lead

Children's Environmental Health
<http://www.niehs.nih.gov/oc/factsheets/ceh/home.htm>

National Lead Information Center
<http://www.nsc.org/ehc/lead.htm>

National Center for Lead Safe Housing
<http://www.cehn.org/cehn/resourceguide/nclsh.html>

Names include *Azarcon, Alarcon, Coral, Pay-loo-ah, Ayurvedic*, and *Greta*. The product is likely a capsule, or an orange or yellow powder, which is ingested.

Lead Solder (Variety of uses)

Solders with varying concentrations of lead are used in the electronics industry and in making stained glass. Some tea kettles, for example, have been found to contain lead solder. Some people may use lead solder illegally to make fishing tackle or in home plumbing projects. Homemade moonshine stills may be soldered with lead, which can result in lead leaching into the drink. In 1995, the FDA banned lead-soldered food cans, but some may still occasionally be imported illegally into the U.S., especially to ethnic grocery stores. Soldering is messy and creates tiny fragments and dust-sized particles of lead, as well as lead fumes.

Drinking Water

Most public water sources are routinely tested and do not exceed the EPA lead limits of 15 ppb. However, water may become contaminated if it encounters old lead-soldered pipes or lead-containing faucets inside old buildings. Lead levels are highest in water left standing in pipes for more than a few hours, and in hot or acidic water.

Fishing Tackle

Lead weights and sinkers are small and smooth and easily swallowed by curious children, especially when imitating adults who use their teeth to manipulate the tackle.

Costume/Toy Jewelry

Cheap jewelry marketed to children, often sold in vending machines, has been the source of several documented cases of acute lead poisoning. Children readily chew or suck on the items, or unintentionally swallow them. Toy jewelry containing lead is a banned hazardous substance; however such items may be on the market. Imported jewelry is especially suspect.

Curtain weights

Some are made of lead, and are of swallowable size. They are sewn into the hem of curtains or drapes.

Artist Oil Paint

One color of fine art oil paint, "flake white," contains lead carbonate. Many artists feel there is no substitute for this product, which enhances a painting's durability. They lobbied successfully for its exemption from the US Consumer Product Safety Commission's 1977 ban on lead paint.

Vinyl Mini-Blinds

Vinyl mini-blinds made before 1997 may contain lead. Over time, exposure to heat and sunlight deteriorates the vinyl and lead dust forms on the surface. Blinds made with lead were recalled and banned by the Consumer Product Safety Commission in 1997, but prior to then millions of them were sold and may still be in many U.S. homes.

Pool Cue Chalk

The use of lead as a coloring agent in pool cue chalk is often denied by the industry. Nevertheless, one study in 1996 did conclude that 3 of 23 brands of pool cue chalk tested contained lead, one as much as 7,000 ppm. [Miller MB, Curry SC, Kunkel DB et al. Pool cue chalk: a source of environmental lead. *Pediatrics* 1996;97:916-17.]

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Risk Assessor Training

The Lead Based Paint Inspector course is a prerequisite for the Lead Based Paint Risk Assessor course. The rationale for this is to enable the risk assessor to understand testing combinations and to understand a full inspection protocol which identifies the existence of all lead based paint. A Lead Base Paint Inspection may locate and identify the presence of lead based paint, but unlike a lead based paint risk assessment, a Lead Based Paint Inspection does not identify hazards or provide hazard reduction protocols for lead based paint hazards. Individuals planning on pursuing a Lead Based Paint Risk Assessor License will have to register for both the Lead Based Paint Inspector three-day course and the two-day Lead Based Paint Risk Assessor Course course. Once an individual obtains licensure, a Lead Risk Assessor Update course is required every three years. For more information on Lead Based Paint Risk Assessor licensure requirements and to view the *Virginia Board for Asbestos, Lead, and Home Inspectors, Virginia Lead-Based Paint Activities Regulations* go to the Department of Professional and Occupational Regulation (DPOR) Website at <http://www.state.va.us/dpor/>.

A list of all licensed training providers in Virginia can be obtained from DPOR at their Website or by calling (804) 367-8595.

Some 2005 Upcoming Available Trainings:

EI training company, located in Glen Allen, VA, will hold a Lead Based Paint Inspector/Risk Assessor training September 19-23, and December 19-23. They will offer a Lead Risk Assessor Update course September 13 and December 13. For more information go to EI's Website at <http://www.ei1.com/TNGhome.asp> or call (804) 320-9300.

Virginia Commonwealth Virginia (VCU), located in Richmond, VA, will hold a Lead Based Paint Inspector/Risk Assessor training October 3-7. They will offer a Lead Risk Assessor Update course October 13. For more information you can view their Website at <http://www.vcu.edu/cesweb/oldsite/training/index.html> or call (804) 828-7202.

Marine Chemist, located in Norfolk, VA, will hold a Lead Based Paint Inspector/Risk Assessor training November 11 -18. They also will be providing Lead Risk Assessor Update courses on September 8, 2005 and December 5, 2005. For information you can view their Website at <http://www.marinechemist.com/> or call (757) 873-0933.

Antique Toys

The Consumer Product Safety Commission continually screens newly produced toys for hazardous substances including lead or lead paint. Antique toys, however, may contain lead, especially toy cars, planes, or trucks, painted toys, and toy soldiers or other figurines.

Tin-Coated Lead Foil on Wine Bottles

Bottles of wine older than 1996 may use lead foil to cover the cork. Studies show that some contamination of the wine can occur when it is poured. Children may ingest lead if they chew or swallow the foil. The FDA banned the use of lead foil on wine bottles sold in the U.S. in 1996.

Glassware (Leaded Crystal)

Like ceramics, leaded crystal can leach lead into food or beverages, especially following prolonged contact or if the beverage is acidic. Experts advise against storing beverages in a lead crystal container or drinking from crystal routinely. Leaded crystal baby bottles should never be used.

Kohl

Kohl is an ancient black cosmetic still used by some women in the Middle East, Asia, and Africa. It often contains ground *galena*, a metallic mineral and source of lead. Some cultures also put kohl on the umbilical stump of newborns, or decorate the eyes and faces of children. Kohl is illegal in the U.S., yet may be found in some ethnic shops or available for purchase online. Travelers may bring kohl home to the U.S., unaware of its dangers.

Mexican Candies

Studies have found high levels of lead in many Mexican candies, especially those containing tamarind or chili powder. Ink used to print the wrappers also has been shown to contain dangerous amounts of lead. For a comprehensive and informative report on lead in Mexican candy, including links to test results and a full color index of candies that tested positive for lead, visit the Website of The Orange County (CA) Register:

<http://www.ocregister.com/investigations/2004/lead/part1.shtml>

Projectiles (Bullets, etc.)

Lead has been used to make projectiles since the mid 15th century. Lead's widespread availability, malleability, and high density continue to make it ideal for this purpose. Today, most bullets for shotguns, handguns, and rifles are made of a lead core surrounded by a copper or steel jacket to protect the lead from changing shape at high speeds. Economical solid lead bullets also are available, as are traditional lead musket balls. Curious young children will readily swallow projectiles. Buckshot (small balls of lead used by hunters) may remain in cooked game and be unintentionally eaten. Also, lead from projectiles that remain lodged in the acidic synovial fluid of joints can be absorbed into the blood.

NEWS UPDATES

Remember to screen children at age one, *and* at age two, when children are at more risk due to increased finger-to-mouth activity.

