

# Health Care Provider Newsletter

Developed by the Alameda County Lead Poisoning Prevention Program and the City of Berkeley Lead Poisoning Prevention Program

*“There is no safe level of lead for children...”  
The American Academy of Pediatrics, October 2007*

## The Deeper Impact of Lead Exposure:

Lead poisoning continues to be the number one preventable childhood disease in the United States. According to the Center for Disease Control (CDC), approximately 310,000 American children under the age of 6 years old have blood lead levels (BLLs) over 10 micrograms/deciliter ( $\mu\text{g}/\text{dL}$ ). There is widespread evidence that there is no safe level of lead for young children. Exposure even to small amounts of lead causes a disruption of the fundamental physiological process within the brain which are vital for learning. As a result, **the consequences of even small amounts of lead exposure reverberate through the entire lifetime.**

### Consider the facts:

- ◆ Children with even slightly elevated BLLs do worse in math, reading, non-verbal reasoning, and short term memory tests
- ◆ Children with elevated BLLs are 6 times more likely to have a reading disability and 7 times more likely to drop out of high school
- ◆ Infants and toddlers exposed to relatively low levels of lead *in utero* score lower on tests measuring neurobehavioral development
- ◆ 20-30% of special education caseloads result from lead poisoning
- ◆ 10% of juvenile delinquency is attributable to lead poisoning
- ◆ Recent studies even suggest that some of the mental decline associated with aging, (losses in verbal and visual memory and language ability) may relate to lead exposure earlier in life.

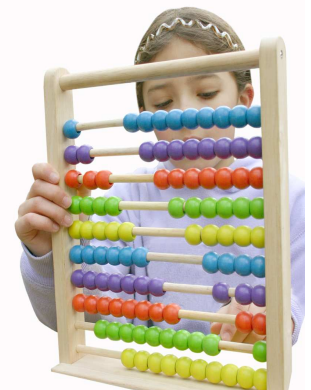
### Consequences for Individual Children

In particular, exposure to lead causes a disruption of the fundamental physiological processes within the brain, which are vital for learning. Additionally, children who have BLLs between 5-10  $\mu\text{g}/\text{dL}$  show poorer performance on tests of arithmetic, reading and nonverbal reasoning skills, as well as short-term memory. Relatedly, lead poisoned children often experience deficits in executive function, specifically trouble paying attention, lack of concentration, difficulty with planning and organization, forming abstract concepts, and poor cognitive flexibility. Other potential outcomes for lead poisoned children include a sevenfold increase in the risk of failing to graduate from high school and an increase in anti-social behavior – resulting in an increased likelihood for them to have police contact, be adjudicated delinquent and sentenced to institutional placement.

### Educational Interventions

Even though a lead poisoned child may have a normal IQ, he or she still may not perform well in a regular classroom due to neuropsychological deficits. As the class’s task demands increase, the child’s performance may get worse unless they receive appropriate targeted interventions – which could include speech and language, visual spatial, neuropsychological, physical and occupational and behavioral therapies.

Spring 2009



*Lead has a significant affect on a child’s ability to learn.*

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## The Deeper Impact of Lead Exposure Cont.

### Importance of Screening and Health Education

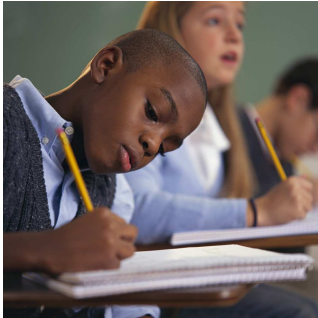
Given the scientific evidence on the effects of lead exposure in children, screening continues to be a key factor in creating a healthy plan for a child that is at risk for exposure to or is exposed to lead. By State law (17 CCR 37000, see full text at page 8.1) health care providers must\*:

- Screen (order blood lead analysis on) children at **12 and 24 mos.** of age who are receiving services from publicly supported programs for low-income chil-

dren, such as Medi-Cal, CHDP, WIC, and Healthy Families. Children who are not in such programs but are found to be at risk because a parent/guardian answers “yes” or “don’t know” to the following risk assessment question:

*“Does your child live in, or spend a lot of time in, a place built before 1978 that has peeling or chipped paint or that has been recently renovated?”*

- In addition, recheck BLLs in the 5-9 range in 6 months, per CDPH guidelines.



*Early detection for lead can help create a foundation for a healthy future.*

## Looking Down the Road: Lead Exposure in Pregnant and Lactating Women

In spite of research findings that suggest that prenatal exposure to lead can lead to significant negative affects on neonatal and child health, there are currently no national recommendations by pediatric or obstetric groups that cover lead risks and medical management during pregnancy and lactation. The CDC’s Lead and Pregnancy Work Group of the Advisory Committee on Childhood Lead Poisoning Prevention is working to remedy this. After evaluating available data, they have proposed recommendations for health care providers in their work with pregnant and lactating women and their infants. Their March 2007 Status Report was reviewed at the Advisory Committee on Childhood Lead Poisoning Prevention’s (ACCLPP) October 2008 Conference (link to minutes listed below),

and suggestions were requested for revisions to this document.

The status report outlines risk factors in pregnant women, lead screening recommendations, and environmental and nutritional interventions. It proposes guidelines for treatment and recommendations for breastfeeding for infants born to women with elevated lead levels. The Advisory Committee intends to approach the American College of Obstetricians and Gynecologists for their input and endorsement of the proposed recommendations. Approval of the recommendations is anticipated, but the timeframe is unclear at this point.

In the meantime, evaluate and screen at risk pregnant women for lead poisoning.



*It is important for pregnant and lactating women to be tested for lead.*

*Pregnant women exposed to lead should ask their doctor about a blood test. Lead crosses the placenta and has harmful effects on the fetus. An infant born to a mother with an elevated level of lead in her blood would be at risk for lead poisoning. \**

*\* California Childhood Lead Poisoning Prevention Branch*

## FREE Online Continuing Education Course for Health Professionals on Pediatric Environmental Health

The Pediatric Environmental Health Specialty Unit at UCSF is a Federally funded clinic and educational center for environmental health issues. They offer clinical evaluation, consultations, provider trainings (CME), educational tools, and referrals/links to other resources. Together with the Greater Boston (GBPSR) and San Francisco Bay Area chapters of Physicians for Social Responsibility, and a team of pediatricians from around the country, they developed the Pediatric Environmental Health Toolkit and corresponding training.

The Pediatric Environmental Health Toolkit is a FREE web-based course and offers CME/CEUs for physicians and nurses. The training uses case examples to highlight the relationship between environmental exposures and children’s health as well as clinical usage of the Toolkit materials, including a Pediatric Environmental History Screening Form. The Toolkit is endorsed by the American Academy of Pediatrics (AAP) and can be downloaded or ordered directly.

*(Links listed on page 3)*

## Recent Changes in Medical Management of Childhood Lead Poisoning

The lab report for one of your patients comes back to you with a **blood lead level** (BLL) of 7 µg/dl. Is your patient at risk for adverse effects as a result of this BLL and what should you do?

The California Department of Public Health Childhood Lead Poisoning Prevention Branch (CDPH-CLPPB) established new evaluation and management guidelines of blood lead levels in the **5-9 µg/dL range**, with recommendations for more frequent retesting of children with blood lead levels in this range. The recommendations are guided by numerous studies that demonstrate adverse learning and behavioral consequences to children with lead levels previously considered “normal” (i.e. less than 10 µg/dL).

As a result, the Alameda County and City of Berkeley Lead Poisoning Prevention Programs have expanded services to provide outreach and education to families of children identified with blood lead levels in the 5-9 µg/dL range. Families will be mailed a letter and health education materials outlining key messages and prevention strategies. Families will be instructed to obtain a follow-up blood lead test in 6 months, as recommended by the DPH-CLPPB, to ensure no increase in lead level. These efforts are designed to provide anticipatory guidance to prevent prolonged lead exposure and, ultimately, lead poisoning.

*We ask for your continued assistance in ensuring that follow-up blood lead testing be done and in referring these children to our programs for further support.*



*Alameda County and City of Berkeley Lead Programs offer health education for children within the 5-9 µg/dL range*

## Lead in Consumer Products Update

The news continues to bombard us with alerts of consumer products recalled for lead in paint, plastics or foods. Although the primary source of lead for children in Alameda County continues to be lead-based paint, lead is also showing up in many consumer products such as toys, zippers, jewelry and cosmetics. Multiple sources of lead increases the likelihood of chronic low level lead exposure for children.

**New Legislation:** The Consumer Product Safety Information Act (CPSIA) is new federal legislation that took effect February 2009 establishing progressively decreasing limits for lead in products intended for children 12 years and younger.

- ▶ By February 10, 2009: lead in products for children cannot exceed 600 ppm
- ▶ By August 10, 2009: lead in products for children cannot exceed 300 ppm
- ▶ By August 10, 2011: lead in products for children cannot exceed 100 ppm

### Lead-Safe Recommendations:

- Purchase non-plastic items (books, puzzles, puppets, jump ropes, crafts, etc)
- Keep jewelry away from children. Inexpensive metals and plastics often contain lead.
- Take away any toy with signs of wear, bite marks or chips in the plastic or paint
- Have children tested for lead.

## Resources and Links

The following is information and resources available for health care providers, parents and childcare givers:

- **California Dept. of Public Health—Childhood Lead Poisoning Prevention Branch (CDPH-CLPPB).** Screening regulations, management guidelines, anticipatory guidance tools, provider education (CME) and patient education tools  
[www.cdph.ca.gov/programs/CLPPB/Pages/provideroutreach-clppb.aspx](http://www.cdph.ca.gov/programs/CLPPB/Pages/provideroutreach-clppb.aspx)
- **Center for Environmental Health** Proposition 65 lawsuits for lead and other environmental toxins. [www.cehca.org](http://www.cehca.org)
- **Pediatric Environmental Health Specialty Unit at UCSF.** Federally funded clinic and educational center for environmental health issues, evaluations, trainings (CME), tools and links.  
<http://coeh.berkeley.edu/ucpehsu/index.html>  
[www.atsdr.cdc.gov/emes/training/index.html](http://www.atsdr.cdc.gov/emes/training/index.html)

### Visit the following websites for information on recalled products.

- [www.recalls.gov](http://www.recalls.gov) or [www.cpsc.gov](http://www.cpsc.gov)
- Check independently tested toys at [www.healthytoys.org](http://www.healthytoys.org)
- Check lists of lead-safe candies at [www.leadinmexicancandy.com](http://www.leadinmexicancandy.com)



*Ask your clients to stay connected to consumer product updates, such as those from CPSC.*



**Alameda County Lead Poisoning Prevention Program**  
 2000 Embarcadero, Suite 300  
 Oakland, CA 94606  
 510-567-8280  
 WWW.ACLPPP.ORG



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Department of Health and Human Services  
 Public Health Division

The Alameda County Lead Poisoning Prevention Program and City of Berkeley Childhood Lead Poisoning Prevention provide services to Alameda County and Berkeley residents as they relate to reducing lead exposure in children. Services range from nursing case management for children with blood lead levels above 10  $\mu\text{g}/\text{dL}$  to health education for children with levels between 5-9  $\mu\text{g}/\text{dL}$ .

We also provide resources to property owners on lead-safe practices, such as free lead-safe painting and remodeling classes, In-Home Consultation and lead testing kits, HEPA-Vac lending program and more! For

more information about our programs, or to refer a client to our services, please feel free to contact us at the information listed above.



## Physicians Recognized for Efforts in Lead Poisoning Prevention

The following providers were honored during National Lead Poisoning Prevention Week, October 19-25, 2008 for their distinguished work ensuring that children are screened for lead:

The Alameda County Board of Supervisors issued proclamations to:  
 John Pescetti, MD (La Clinica de la Raza)  
 An Pham, MD (International Pediatrics)  
 Brian Blaisch, MD and Shawnda Johnson, MD (Kaiser-Oakland)

The City of Alameda Mayor, Beverly Johnson, issued proclamations to:  
 Penny Harris, MD (Alameda Pediatrics)  
 Anne Parker, MD (Alameda Pediatrics)

The Oakland City Council issued proclamations to:  
 Eric Wells, MD and Rei Masui, MD (Axis Community Health)  
 Steve Santucci, MD (Bancroft Pediatrics)  
 Roxanna Martinez, MD (Silva Clinic)

The City of Berkeley issued proclamations to:  
 Jose Enz, MD  
 David Kittams, MD (Kiwi Pediatrics)  
 Robin Winnokur, MD (Kiwi Pediatrics)

Your dedication truly benefits children exposed to lead in their environments.

***Congratulations***  
*From The Alameda County and City of Berkeley Lead Poisoning Prevention Programs!*

