

Standard of Care Guidelines on Childhood Lead Poisoning for California Health Care Providers



No Level of Lead in the Body is Known to Be Safe

“Low-level lead exposure, even at blood lead concentrations below 5 µg/dL (50 ppb), is a causal risk factor for diminished intellectual and academic abilities, higher rates of neurobehavioral disorders such as hyperactivity and attention deficits, and lower birth weight in children. No effective treatments ameliorate the permanent developmental effects of lead toxicity. Reducing lead exposure from residential lead hazards, industrial sources, contaminated foods or water, and other consumer products is an effective way to prevent or control childhood lead exposure.”

AAP Council on Environmental Health; Prevention of Childhood Lead Toxicity Policy Statement: Pediatrics, 2016; 138(1): e20161493

“Blood lead concentrations, even those below 10 mcg per deciliter, are inversely associated with children’s IQ scores at three and five years of age, and associated declines in IQ are greater at these concentrations than at higher concentrations. These findings suggest that more U.S. children may be adversely affected by environmental lead than previously estimated.”

Intellectual Impairment in Children with Blood Lead Concentrations below 10 mcg per Deciliter, Richard L. Canfield, Charles R. Henderson, Jr., Deborah A. Cory-Slechta, Christopher Cox, Todd A. Jusko, and Bruce P. Lanphear, The New England Journal of Medicine 2003; 348: 1517 – 1526

“Evidence from this cohort indicates that children’s intellectual functioning at 6 years of age is impaired by blood lead concentrations well below 10 mcg/dL.”

Blood Lead Concentrations < 10 mcg/dL and Child Intelligence at 6 Years of Age, Todd A. Jusko, Charles R. Henderson Jr., Bruce P. Lanphear, Deborah A. Cory-Slechta, Patrick J. Parsons, and Richard L. Canfield, Environmental Health Perspectives 2008; 116: 243 - 248

California Statutes and Regulations for Providers Caring for Children 6 Months to 6 Years of Age

California state statutes and regulations impose specific responsibilities on doctors, nurse practitioners, and physician’s assistants doing periodic health care assessments on children between the ages of 6 months and 6 years. In the State of California, “screening” means testing an asymptomatic child for lead poisoning by analyzing the child’s blood for concentration of lead. California regulations require a blood lead test at 12 and 24 months of age. This is a brief summary of the **health care provider’s responsibilities, which apply to all physicians, nurse practitioners, and physician’s assistants**, not just Medi-Cal or Child Health and Disability Prevention (CHDP) providers.

ANTICIPATORY GUIDANCE	<p>At each periodic assessment from 6 months to 6 years. Under California state laws and regulations, all health care providers are required¹ to inform all parents and guardians about:</p> <ul style="list-style-type: none"> • The risks and effects of childhood lead exposure. • The requirement that children enrolled in Medi-Cal receive blood lead tests. • The requirement that children not enrolled in Medi-Cal who are at high risk of lead exposure receive blood lead tests.
BLOOD LEAD TEST	<ul style="list-style-type: none"> • All children in publicly supported programs such as Medi-Cal, Women, Infants and Children (WIC), and CHDP at both 12 months and 24 months of age.¹ • Perform a “catch up” test for children age 24 months to 6 years in a publicly supported program who were not tested at 12 and 24 months.¹
ASSESS	<ul style="list-style-type: none"> • If child is not in a publicly supported program: <ul style="list-style-type: none"> - Ask: “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 remodeled?” Blood lead test if the answer to the question is “yes” or “don’t know.”¹ • Blood lead test if a change in circumstances has put child at risk of lead exposure. • <i>Other indications for a blood lead test:²</i> <ul style="list-style-type: none"> - <i>Parental request</i> - <i>Sibling, playmate or other close contact with an increased blood lead level</i> - <i>Suspected lead exposure (see possible sources of lead exposure on other side)</i> - <i>History of living in or visiting country with high levels of environmental lead</i>

¹ Health and Safety Code, sections 105285-105286; California Code of Regulations, Title 17, Sections 37000 to 37100

² Items in italics are not in regulations but also should be considered.

Federal Refugee Guidelines (www.cdc.gov/immigrantrefugeehealth/)

- Blood lead test all refugee children 6 months to 16 years old at entry to the U.S.
- Within 3 - 6 months post-resettlement, follow-up blood lead tests should be conducted on all refugee children aged 6 months to 6 years, regardless of initial screening blood lead level.
- Evaluate the child’s iron status including a hemoglobin/hematocrit and red blood cell indices.
- Children under the age of six should be given a daily multivitamin with iron.



Potential Sources of Lead: Educating Families to Prevent Childhood Lead Exposure



Potential Sources of Lead

Guidance for Families

<p>Old paint inside or outside the home</p> <p>Most lead paint is in homes built before 1978</p>	<ul style="list-style-type: none"> • Move cribs, high chairs, and playpens away from cracked or peeling paint. • Do not allow children to chew on windowsills or other painted surfaces. • Call local lead poisoning prevention program about testing paint for lead.
<p>Dust on windowsills, floors, and toys</p>	<ul style="list-style-type: none"> • Wet mop floors and wet wipe windowsills and other surfaces. • Wash toys often. • Wash children's hands before eating and sleeping.
<p>Dirt outside the home</p>	<ul style="list-style-type: none"> • Cover bare dirt with stones, grass, plants, or gravel. • Wipe shoes or take them off BEFORE going in the house.
<p>Drinking Water</p>	<ul style="list-style-type: none"> • For cooking or drinking, let water run until cold before using. • Do not use a water crock unless it has been tested and found to be lead free.
<p>Take-home exposure from shoes/clothing/hair if family member works around lead or performs auto repair at home</p>	<p>Shower and change clothes BEFORE coming home from work, if possible, and BEFORE holding children. Remove work clothes and shoes and store them in a plastic bag. Wash work clothes separately from other clothes.</p>
<p>Some dishes or pots that are worn or antique, from a discount or flea market, made of crystal, handmade, or made outside the USA</p>	<p>Call local lead poisoning prevention program for more information about testing dishes and pots for lead.</p>
<p>Traditional remedies, such as:</p> <ul style="list-style-type: none"> • Azarcon and Greta — orange or yellow powder • Paylooah — red powder • Some Ayurvedic remedies • Some traditional Chinese remedies 	<p>Do not let anyone give “natural” or traditional remedies to your child without talking to your health care provider first.</p>
<p>Some traditional cosmetics & other substances applied to the skin, such as:</p> <ul style="list-style-type: none"> • Surma • Kohl • Sindoor 	<ul style="list-style-type: none"> • Do not use these products on children. • Call local lead poisoning prevention program about testing traditional cosmetics, ritual powders, and other substances applied to the skin.
<p>Altars for religious ritual containing:</p> <ul style="list-style-type: none"> • Ritual powders • Brass and some other metal, ceramic, or painted items 	<ul style="list-style-type: none"> • Place altars with these types of items in areas not accessible to children. • Don't let children handle or mouth these items. • Use separate cleaning supplies to clean these items.
<p>Some costume jewelry, amulets, and keys</p>	<p>Do not allow young children to play with, mouth or touch these items.</p>
<p>Some foods and spices, such as:</p> <ul style="list-style-type: none"> • Some candies (especially imported) • Chapulines (grasshopper snacks) • Some imported spices, such as turmeric, chili powder, Khmeli Suneli • Game meat containing lead shot 	<ul style="list-style-type: none"> • Be aware of foods and spices that might contain lead. • Offer children meals and snacks including a variety of vegetables, fruit, legumes, seeds, nuts, whole grains, unprocessed meats, and dairy products or dairy substitutes without added sugar.
<p>Other items, such as:</p> <ul style="list-style-type: none"> • Fishing sinkers, bullets, pellets, and solder • Some art supplies and sewing chalk 	<ul style="list-style-type: none"> • Keep these items away from children. • Wash hands well after touching these items. • Do not heat, melt, cast or file any metal items at home.
<p>Spends time at firing ranges</p>	<ul style="list-style-type: none"> • Children who spend time at firing ranges should be tested for lead. • Use lead free ammunition. • Do not eat or drink at a firing range. • When finished shooting, immediately wash your hands and face with soap and water. • Change clothes and shoes before going home and wash those clothes separately.
<p>Retained bullets and shrapnel</p>	<p>Consult with your healthcare provider about ongoing testing and monitoring.</p>
<p>Lives or spends time near:</p> <ul style="list-style-type: none"> • Major roadways or freeways • A former or current lead or steel smelter • A foundry or industrial facility that historically emitted or currently emits lead • A general aviation airport used by small aircraft 	<ul style="list-style-type: none"> • Tell your healthcare provider if your children live or spend time near these types of roadways or facilities. • Do not let children play or spend time near these types of roadways or facilities.