

Washington State Medical Home Partnerships Project

Child Health Notes – March 2017

Promoting partnerships between primary health care providers, families & the community to support early identification of children with special need. comprehensive care within a primary care Medical Home

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Risk Factors for Lead Poisoning

- Lives in or regularly visits any house built before 1950 (or before 1978 that has recent or ongoing renovations or remodeling).
- Resides in a low income family (defined as incomes <130% of the poverty level.)*
- Has a sibling or frequent playmate with elevated blood lead level.
- Is a recent immigrant, refugee, or foreign adoptee.
- Has a parent or principal caregiver who works professionally or recreationally with lead.
- Uses traditional, folk, or ethnic remedies or cosmetics.
- Has pica behavior.
- If the parent has a concern.



Blood Lead Screening and Testing Recommendations

If lead enters the body it can cause toxic effects. Even at low levels, lead can cause permanent damage to the brain and nervous system, leading to behavior and learning problems, lower IQ, and hearing problems.

Lead-based paint and lead-contaminated dust are the main sources of lead poisoning. Houses built before 1978 are likely to contain lead-based paint and lead hazards. Other sources could include contaminated soil, children's toys and jewelry, workplace and hobby hazards, imported candy, and traditional home remedies and cosmetics. Drinking water can also have lead that has leached from pipes or soldering in plumbing, with hot water leaching more lead than cold water.

Young children 6-36 months of age are the most susceptible to the harmful effects of lead. Their growing bodies absorb more lead than adults do and their brains and nervous systems are more sensitive to the damaging effects of lead. Young children also expose themselves to lead more readily by spending time on the floor and exhibiting hand to mouth behavior, which increases dust and soil intake. Blood lead levels are known to peak around 24 months of age.

There are often no obvious symptoms of lead exposure. Those exposed to and affected by lead may not act or look sick. A blood test is the only way to identify if a child has an elevated blood lead level.

All children should be screened for their risk of lead exposure at 12 and 24 months of age. They should be asked about certain risk factors such as the age of their home and other behaviors to determine if the child is at risk and needs to be tested.

***Federal law requires that all Medicaid-eligible children receive a blood test for lead at 12 and 24 months of age.** This is not a new mandate. Washington State has historically low rates of screening – less than 4% of children under 72 months of age are tested.

Lead Anticipatory Guidance for Parents of Young Children

1. Keep your child away from peeling paint and home repairs that disturb lead paint.
2. Frequently wash hands, toys, pacifiers, bottles, and other items your child places in his or her mouth.
3. Clean floors, windowsills, and dusty places often with wet mops and wet cloths.
4. Avoid using ethnic home remedies (such as azarcon, greta, paylooah) and eye cosmetics (such as kohl, kajal, surma) from other countries. Some of these products have been found to contain high levels of lead.
5. Use caution when using candies, spices, and children's toys and jewelry made in other countries.
6. Use only cold water for making baby formula, drinking, and cooking. Hot water leaches more lead from the pipes. Let the water run cold for at least 60 seconds before use to flush out contaminants.
7. Keep your child away from work clothes and tools of household members who do construction work or other work and hobbies that may expose them to lead.
8. Use safe work methods when doing home repair that disturbs paint. For information on lead-safe work methods, see EPA's lead webpage at www.epa.gov/lead.

Recommendations on Medical Management of Childhood Lead Exposure and Poisoning

Lead level	Recommendation
<5 µg/dL	<ol style="list-style-type: none"> 1. Review lab results with family. 2. Repeat the blood lead level in 6-12 months if the child is at high risk or risk changes during the timeframe. 3. For children screened at age < 12 months, consider retesting in 3-6 months as lead exposure may increase as mobility increases. 4. Provide anticipatory guidance on common sources of environmental lead exposure.
5-14 µg/dL	<ol style="list-style-type: none"> 1. Perform steps as described above for levels < 5 µg/dL. 2. Re-test venous blood lead level within 1-3 months to ensure level is not rising. 3. Take a careful environmental history to identify potential sources of exposures and provide preliminary advice about reducing/eliminating exposures. Take care to consider other children who may be exposed. 4. Provide nutritional counseling related to calcium and iron. 5. Ensure iron sufficiency with adequate laboratory testing (CBC, Ferritin, CRP) and treatment per AAP guidelines. 6. Perform structured developmental screening evaluations.
15-44 µg/dL	<ol style="list-style-type: none"> 1. Perform steps as described above for levels 5-14 µg/dL. 2. Confirm the blood lead level with repeat venous sample within 1 to 4 weeks. 3. Additional specific evaluation of the child, such as abdominal x-ray should be considered based on the environmental investigation and history. 4. Contact UW PEHSU for guidance: pehsu@uw.edu or 1-877-543-2436
>44 µg/dL	<ol style="list-style-type: none"> 1. Follow guidance for BLL 15-44 µg/dL as listed above. 2. Confirm the blood lead level with repeat venous lead level within 48 hours. 3. Consider hospitalization and/or chelation therapy (managed with the assistance of an experienced provider). 4. Contact UW Pediatric Environmental Health Specialty Unit for guidance: pehsu@uw.edu or 1-877-543-2436

Abbreviated recommendations from PEHSU Fact Sheet. Please see link for full recommendations:

<http://www.pehsu.net/Library/facts/medical-mgmt-childhood-lead-exposure-June-2013.pdf>

More Information and Resources

Washington State Department of Health, Lead Program	www.doh.wa.gov/lead
UW Pediatric Environmental Health Specialty Unit	http://deohs.washington.edu/pehsu/
CDC Lead Program	www.cdc.gov/nceh/lead/
EPA Lead Program	www.epa.gov/lead