RECOMMENDATIONS FOR BLOOD LEAD TESTING OF CHILDREN IN WASHINGTON STATE

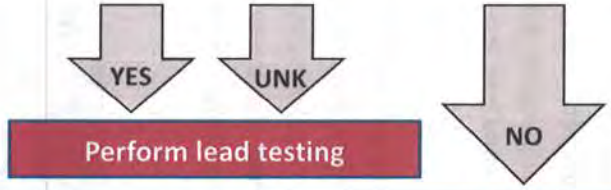
The Department of Health recommends screening children using the below algorithm at 12 and 24 months of age.

Does the child have any of the following risk factors:

- Lives in or regularly visits any house built before 1950.*
- Lives in or regularly visits any house built before 1978 that has recent or ongoing renovations or remodeling.
- From a low income family; (defined as incomes <130% of the poverty level)**
- Known to have a sibling or frequent playmate with elevated blood lead level.
- Is a recent immigrant, refugee, foreign adoptee, or child in foster care.
- Has a parent or principal caregiver who works professionally or recreationally with lead. (See sidebar for examples.)
- Uses traditional, folk, or ethnic remedies or cosmetics (such as Greta, Azarcon, Ghasard, Ba-baw-san, Sindoor or Kohl.)

* Screening may not be indicated if the home has previously undergone lead abatement or tested negative for lead after remodeling.

** Federal law mandates screening for all children covered by Medicaid.



Healthcare providers should consider testing additional children per clinical judgment, such as:

- Child whose parents have concerns or request testing (including older children that have risk of exposure).
- Child living within a kilometer of an airport or lead emitting industry, or on former orchard land.
- Child with pica behavior.
- Child with neurodevelopmental disabilities or conditions such as autism, ADHD, and learning delays.

LEAD RISK EXPOSURE EXAMPLES:

Occupations and Hobbies:

- *Remodeling and demolition*
- *Painting*
- *Work or visit gun range*
- *Mining, smelting, battery recycling*
- *Making lead fishing weights or ammunition*
- *Stained glass*
- *Soldering and welding*

Consumer Products:

- *Pottery or porcelain with lead glaze*
- *Informally imported foods, candies and spices*
- *Antique furniture and inexpensive jewelry*

Healthcare providers are encouraged to use the Department of Health's Lead Risk Index Map to better understand which areas in their community are at higher risk for lead exposure. See https://fortress.wa.gov/doh/wtn/WTNIBL/

Interpretation and Medical Management of Blood Lead Levels:
If blood lead level is ≥5 mcg/dL: See PEHSU Recommendations on Medical Management of Childhood Lead Poisoning

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PUBLIC HEALTH
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Lead Screening Recommendations for Children in Washington State

The prevalence and severity of elevated blood lead levels in children have been greatly reduced since the removal of lead from paint and gasoline in the 1970s. However, legacy lead paint remains in some homes in Washington and continues to serve as the primary source of lead exposure in our children. At the present time, housing age, as an indication of potential residential lead hazards, is the most established risk factor for lead poisoning.

Even relatively low levels of blood lead (<10 µg/dl) have been shown to have effects on the developing central nervous system in children resulting in IQ loss, learning difficulties, poor school performance, decreased attention span, and inappropriate behavior.

Anticipatory Guidance: Healthcare providers should educate parents of children 6 months to 6 years of age by providing lead anticipatory guidance during routine check-ups. Prevention requires reducing environmental exposures from paint, dust, soil, and water. Efforts to increase awareness of lead hazards and nutritional interventions to increase iron and calcium, which can reduce lead absorption, are other key components of a successful prevention strategy.

Targeted Screening: Healthcare providers should assess all children for risk of lead poisoning at 12 and 24 months of age. The Department of Health recommends performing a blood lead test based on the guidance in the attached algorithm for all children not covered by Medicaid (Apple Health). Federal regulations require that all children covered by Medicaid receive screening for elevated lead levels[1] . If the parent or caregiver does not know if the child has one of the following risk factors, a blood lead test should be performed. Testing for blood lead levels is the only way to definitely know if a child is being exposed to lead.

Testing Methods: Blood lead testing is the only acceptable laboratory test for screening and confirming lead poisoning. Venipuncture is preferred for specimen collection, but finger stick (capillary) collection is acceptable if care is taken to properly clean and prepare the finger. Capillary samples are easier to contaminate because of the possibility of lead containing dust and dirt on the hand or under the fingernails. Children with capillary specimens testing ≥5 µg/dL on a point of care test should undergo confirmatory testing, ideally with a venous specimen.

Confirmatory Testing:

Blood Lead Level	Recommendations on confirmatory screening
≤5 mcg/dL	Repeat the blood lead level in 12 months if the child is at high risk or risk changes during the timeframe.
5-14 mcg/dL	Re-test venous blood lead level within 1-3 months to ensure the lead level is not rising. If it is stable or decreasing, retest the blood lead level in 3 months.
15-44 mcg/dL	Confirm the blood lead level with repeat venous sample within 1 to 4 weeks.
≥45 mcg/dL	Confirm the blood lead level with repeat venous lead level within 48 hours.

[1] http://www.hca.wa.gov/medicaid/billing/documents/guides/epsdt_bi.pdf

Washington State Department of Health

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