Environmental Health

Elevated childhood blood lead levels

Lead is toxic to people of all ages, but young children are the most at risk for adverse health effects. Normal childhood behaviors, such as crawling and hand-to-mouth contact, contribute to increased exposure to lead in the environment during a period of rapid brain development.

In May 2012, the Centers for Disease Control and Prevention (CDC) revised the blood lead level (BLL) at which children are considered elevated. Based on the absence of an identified blood lead BLL without deleterious effects, combined with the evidence that these effects appear to be irreversible, CDC eliminated the term “level of concern” and adopted a new elevated BLL reference value of ≥5 μg/dL.

From 2010-2018, a total of 825 Oregon children had confirmed BLLs at or above 5 μg/dL (Figure 1). Of those children, 213 had confirmed blood lead levels ≥10 μg/dL.

![Figure 1: Children aged <6 years with confirmed elevated blood lead levels (BLL) by year.](chart)

*Source: Oregon Health Authority, Childhood Lead Poisoning Prevention Program*
The increase in the number of confirmed children at or above 5 μg/dL can be attributed to two factors. First, reporting rules were changed in 2011 to make all BLLs reportable regardless of level. Consequently, the number of BLLs reported has steadily increased. Second, more pediatricians began having confirmatory testing performed on children whose initial BLL result was in the 5-9 μg/dL range after the adoption of the new reference value in 2012.

### Additional Resources:

- Health Care Provider Lead Screening Questionnaire. Portland, OR: Oregon Childhood Lead Poisoning Prevention Program, OHA; 2011

### About the Data:

Data include confirmed elevated blood lead levels where there is either one venous blood test or two capillary blood tests <12 weeks apart that are ≥5 μg/dL.

All children who are enrolled in Medicaid/Oregon Health Plan (OHP) must be tested for lead at 12 and 24 months of age as required by the Centers for Medicare & Medicaid Services. If there is no record of a lead test before age 6, the child must be tested.

Children under 6 who are not enrolled in OHP should be tested for lead exposure risks using Oregon's Lead Screening Questionnaire at 12 months and again at 24 months of age. The Oregon Health Authority recommends testing if there are any responses of “Yes” or “Don’t know” on the questionnaire.

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