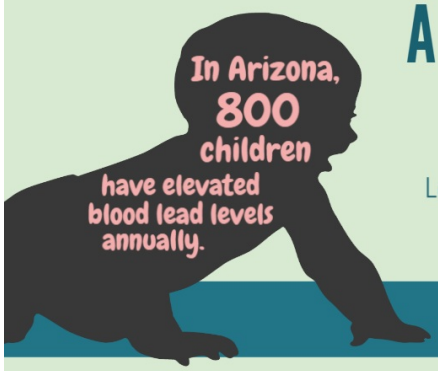
Childhood Lead Screening

A Guide For Health Professionals



Childhood lead poisoning is still a major preventable public health problem.

Lead has adverse effects on almost all organ systems in the body. Even at low levels, children's intelligence, hearing and growth can be irreparably damaged.

Arizona Department of Health Services

Who should receive a blood lead test?

- All children at 12 months and at 24 months who are living in High-Risk Zip Codes should receive a blood lead screen.
- All children who are determined to be at high risk for lead poisoning by answering "Yes" to any of the High Risk Questions. Ask these questions when the child is 12 months and 24 months.

High Risk Questions

Ask parents/guardians the following questions. If any questions are answered with 'Yes,' it is recommended to test the child for possible lead exposure.

Y / N Does your child live in or regularly visit a house that was built before 1950 (this could apply to a home day care center or the home of a babysitter or relative)?

Y / N Does your child live in or regularly visit a house built before 1978 with recent or ongoing renovations or remodeling (i.e., within the past six months)?

Y / N Has a sibling or playmate been diagnosed or treated for lead poisoning?

Y / N Does your child live with an adult whose job or hobby involves exposure to lead (e.g., mining, automobile repair, welding, construction, plumbing, shooting, hunting, fishing)?

Y / N Does your child live near a lead smelter, battery recycling plant, or other industry likely to release lead?

Y / N Has your child been in Mexico, Central America, or South America in the past year?

Y / N Have you ever given your child any of these home remedies: Azarcon, Alarcon, Greta, Rueda, Pay-loo-Ah?

Y / N Does your child eat or drink from imported pottery or ceramic cookware?

Y / N Does your child eat foods containing spices (turmeric) purchased in import stores or other countries, or imported candies (tamarind or chili)?

Y / N Does your child have pica or have a habit of eating dirt or other non-food items?

High Risk Zip Codes

Apache County
Eager: 85925, St. Johns: 85936,
Dennehotso, Teec Nos Pos: 86535

Cochise County
Benson: 85602, Bisbee: 85603, Douglas: 85607,
Hereford: 85615, Mc Neal: 85617, San Simon, Portal:
85632, Sierra Vista: 85635, Tombstone: 85638,
Willcox, Fort Grant: 85643

Coconino County
Flagstaff: 86004, Williams: 86046

Gila County
Globe: 85501, Miami: 85539

Graham County
Bylas: 85530, Pima: 85543, Safford: 85546
Thatcher: 85552

Greenlee County
Clifton: 85533, Duncan: 85534, Morenci: 85540

La Paz County
Parker: 85344, Salome: 85348

Maricopa County
Avondale: 85323, 85392, Buckeye: 85326
Chandler: 85225, 85226
El Mirage: 85335, Glendale: 85301, 85302, 85303, 85304
Gila Bend: 85337, Goodyear: 85338, Guadalupe: 85283
Laveen: 85339, Mesa: 85201, 85202, 85203, 85204,85205,
85207, 85208 85210, 85212, 85213, Peoria: 85345
Phoenix: 85003, 85006, 85007, 85008, 85009, 85012, 85013,
85014, 85015, 85016, 85017, 85018, 85019, 85020, 85021,
85022, 85023, 85028, 85029, 85031, 85032, 85033, 85034,
85035, 85037, 85040, 85041, 85042, 85043, 85051, 85053
Scottsdale: 85250, 85251, 85254, 85257
Surprise: 85378, Tempe: 85281, 85282, 85283
Tolleson: 85353, Tonopah: 85354, Youngtown: 85363

Mohave County
Kingman: 86401, 86409, Bullhead City: 86442

Navajo County
Whiteriver: 85941, Holbrook: 86025, Kayenta: 86033
Winslow: 86047

Pima County
Ajo: 85321, Green Valley: 85614
Sahuarita: 85629, Sells, Pisinemo: 85634
Tucson: 85701, 85704, 85705, 85706, 85710, 85711,
85712,85713, 85714, 85715, 85716, 85719, 85730,
85735, 85736, 85741, 85745, 85746, 85750, 85756, 85757

Pinal County
Apache Junction: 85119, 85120, Casa Grande: 85122, 85194
Coolidge: 85128, Eloy: 85131, Florence: 85132, Kearny: 85137,
Maricopa: 85138, 85139, Oracle: 85623, San Manuel: 85631,
Superior: 85173, Winkelman, Dudleyville: 85192,

Santa Cruz County
Nogales: 85621, Tubac: 85646, Rio Rico: 85648

Yavapai County
Prescott: 86301, Prescott Valley: 86314, Ash Fork: 86320
Bagdad: 86321, Cottonwood: 86326

Yuma County
Roll: 85347, San Luis: 85349, Somerton: 85350,
Wellton: 85356, Yuma: 85364, 85365

Health Effects of Lead Exposure

Lead poisoning can be hard to detect, as signs and symptoms usually don't appear until dangerous amounts have accumulated.

Lower Blood Lead Level

Developmental delay
Learning difficulties
Irritability
Loss of appetite
Weight loss
Sluggishness and fatigue
Abdominal pain
Vomiting
Constipation
Hearing Loss

Extremely High Blood Lead Level

Severe brain damage
Death

- A child's IQ will drop one to three points for every increase of 10 µg/dL in the child's blood lead level.
- On a community level, lead exposure is associated with an increase in the number of children with developmental deficits and learning disorders.

Common Sources of Lead in Arizona

Homes built before 1978 with chipping, peeling or flaking paint, or imported toys with lead-based paint.

Imported spices, such as turmeric, coriander, black pepper, thyme, and hanuman sindoor.

Imported glazed pottery, commonly used to cook beans or hot chocolate.

Home remedies such as *greta or azarcon* used to treat stomach illness or *empacho*.

Soil or dust tracked into the house contaminated with lead.

Hobbies such as hunting and fishing that use leaded bullets or fish sinkers; some artist paints and furniture refinishing.

Work in lead-related industries such as construction, mining, welding, or plumbing.

What should I do if a child has an elevated blood lead level (EBLL)?

1. Report EBLL to Arizona Department of Health Services (ADHS).

Fill out the Physician Report for Elevated Blood Lead Levels. You can find the form at:

azhealth.gov/lead

Fax the form to the ADHS Lead Poisoning Prevention Program at 602-364-3146.

Blood Lead Level	Time to Report	Reporting to ADHS Required By Law
≥ 45 µg/dL*	1 business day	Yes
≥ 10 µg/dL up to 45 µg/dL	5 business days	Yes
5 µg/dL up to 10 µg/dL	5 business days	No

* Immediately consult with Poison Control (1-800-222-1222) and ADHS for levels above 45 ug/dL.

2. Confirmational Testing

Any capillary or finger-stick screening BLL above 10 µg/dL must be confirmed with a venous sample.

All children should have a hemoglobin or hematocrit test performed, as anemia is associated with EBLLs.

3. CDC Recommended Schedule for Follow Up Testing

Venous blood lead level (µg/dL)	Early follow-up (first 2-4 tests after identification)	Late follow-up (after BLL begins to decline)
≥ 5 - 9	3 months*	6-9 months
10-19	1-3 months*	3-6 months
20-24	1-3 months*	1-3 months
25-44	2 weeks-1 month	1 month
≥ 45	As soon as possible	As soon as possible

*Some case managers or PCPs may choose to repeat blood lead tests on all new patients within a month to ensure that their BLL level is not rising more quickly than anticipated.

ADHS Lead Poisoning Prevention Program Resources

- Phone interview to identify potential lead sources.
- Recommendations and guidance for families, including clean up and nutrition.
- Health education materials.
- Reminder letters for follow-up testing.
- Limited environmental investigations.

azhealth.gov/lead

For more information please contact Melissa Tegarden at 602-364-2965.

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