

# Childhood Lead Screening

## A Guide For Health Professionals



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

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



### High Risk Zip Codes

### 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 an active 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 chilli)?
- Y / N** Does your child have pica or have a habit of eating dirt or other non-food items?

#### Apache County

Eager: 85925, St. John's: 85936, Dennehotso, Teec Nos Pos: 86535

#### Cochise County

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

#### Coconino County

Flagstaff: 86004

#### Gila County

Globe: 85501

#### Graham County

Bylas: 85530, Miami: 85539, Pima: 85543, Safford: 85546, Thatcher: 85552

#### Greenlee County

Clifton: 85552, 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, 85042, 85043, 85051, 85053, Scottsdale: 85250, 85251, 85254, 85257, Surprise: 85378, Tempe: 85281, 85282, 85283, Tolleson: 85353, Tonopah: 85354, Youngtown: 85363

#### Mojave County

Kingman: 86401, 86409, Bullhead City: 86442

#### Navajo County

Whiteriver: 85941, Holbrook: 86025, Kayenta: 86033, Williams: 86046, Winslow: 86047

#### Pima County

Ajo: 85321, Green Valley, Madera Canyon, Sahuarita: 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: 85112, 85194, Coolidge: 85128, Eloy: 85131, Florence: 85132, Kearny: 85137, Maricopa: 85138, Superior: 85173, Winkelman, Dudleyville: 85192, Oracle: 85623, San Manuel: 85631

#### Santa Cruz County

Nogales: 85621, Tubac: 85646, Rio Rico, Nogales: 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: 85346, 85365



# Health Effects of Lead Exposure

## 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

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



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 ADHS (Arizona Department of Health Services)

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

[azhealth.gov/lead](http://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 µg/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](http://azhealth.gov/lead)