Keep Lead from Lurking

Lead Testing and Healthy Homes to Help Prevent Childhood Lead Poisoning

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Recharge for Resilience Conference

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Lead poisoning and exposure in Nebraska

- Lead poisoning is most preventable environmental disease among children
- Children and pregnant women are most vulnerable
  - All children under age 6 are at risk, especially 9 months - 2 years, due to:
    - Hand-to-mouth activity
    - Rapidly growing bodies
  - Pregnant women exposed to lead
    - Increase risk of prematurity, low birth weight, slowed growth and development
- Lead exposure among children is still common in Nebraska
  - In 2017, 493 children under age 6 had confirmed elevated blood lead level
  - Testing rates are low in many areas of Nebraska
Exposure to lead can seriously harm a child’s health

Lead exposure can cause:

- Damage to the brain and nervous system
- Slowed growth and development
- Learning and behavior problems
- Hearing and speech problems

• Lower IQ
• Decreased ability to pay attention
• Underperformance in school

Source: CDC, https://www.cdc.gov/nceh/lead/infographic.htm
No safe level of lead

- Most children do not show signs or symptoms
- For every increase in blood lead of 10 µg/dL, decrease IQ by 2 to 4 points (1).
- 1 in 5 cases of ADHD among U.S. children are attributed to lead exposure (2).
- Effects of lead exposure not reversible
- Lag Time: Effects of lead exposure may not be seen for several years


Which children are at greatest risk?

- Living in poverty
- Members of racial-ethnic minority groups
- Recent immigrants and refugees
- Living in older, poorly maintained houses and rental properties
- Have parents who are exposed to lead at work or through hobbies
Lead can be found throughout a child’s environment

1. Paint and contaminated soil
2. Water pipes
3. Toys and jewelry
4. Foods, candies, or spices
5. Jobs or hobbies

Source: CDC, https://www.cdc.gov/nceh/lead/infographic.htm
Lead paint is a common source of exposure

- Children living in older housing at greatest risk
- Lead paint in poor condition = lead paint chips and lead dust
  - Chipping, cracking, or deteriorated lead-based paint
  - Disturbance of lead-based paint during maintenance, renovation, or remodeling
- High risk areas: Around windows, doors, floors, porches, soil around the house
Lead paint hazard examples

Lead paint in older homes is common in Nebraska

- Lead was banned in residential paint in 1978.
- Older homes with lead paint are found all across Nebraska.
- Among Nebraska homes built before 1978:
  - 1 in 2 has lead-based paint (56.7%)
  - 1 in 3 has significant lead-based paint hazard (39.2%)
Other sources of lead exposure

- Parent occupations and hobbies
  - Foundries and metal operations
  - Contractors who renovate/repair older homes
  - Making bullets, ammunition, stained glass
  - Working in or visiting indoor firing ranges
  - Many more

- Lead in water
  - Not as common source of exposure as others
  - Some old pipes, fixtures, and solder may contain lead
Some cultural products can contain lead

- Spices purchased in or sent from other countries
  - Curry, turmeric, masala, chili powder
- Traditional medicines
  - Some Ayurvedic medicine, Bali gali, Pay-loo-ah, Azarcon, and Greta, many more
- Cosmetics from other counties
  - Sindoor, kumkum, kohl, kajal, surma and tiro
- Glazed pottery and cookware
  - Ceramic bean pots
- Foreign children's jewelry and charms
Lead testing and screening

- A blood lead test is **only** definitive way to know if child is exposed to lead

- Not all children at risk are tested for lead

- Less than 50% of children in Nebraska age 1 and 2 are tested for lead.

**Nebraska Lead Testing Recommendations for Children**

**Medicaid**
- Blood lead test at 12 and 24 months regardless of risk
- Test for children 36-72 months if never tested before

**Targeted zip code**
- Blood lead test at 12 and 24 months regardless of risk
- Test for children 36-72 months if never tested before

**All other children**
- Risk assessment questionnaire at annual visits until 6 years old
- Blood lead test is any risk is found
<table>
<thead>
<tr>
<th>Risk assessment questionnaire for all children under 6 years old</th>
<th>No</th>
<th>Yes or Don’t Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Does child live in or often visit a house, daycare, preschool, home of a relative, etc., built before 1950?</td>
<td>☐</td>
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<tr>
<td>2. Does child live in or often visit a house built before 1978 that has been remodeled within the last year?</td>
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<tr>
<td>3. Does child have a brother, sister or playmate with lead poisoning or an elevated blood lead level?</td>
<td>☐</td>
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</tr>
</tbody>
</table>
| 4. Does child live with an adult whose job or hobby involves exposure to lead?  
  *Includes construction and painting, foundries and metal work, ammunition production, stained glass, auto repair, battery making, firing ranges, welding.* | ☐  | ☐                |
| 5. Does the child’s family use any home remedies, cultural practices, or products that may contain or use lead?  
  *Includes traditional medicines such as Ayurvedic medicine, Baji gali, Pay-loo-ah, Azarcon, and Greta. Cosmetics such as Surma, Kohl, and Sindoor. Lead has been found in glazed pottery and cookware from Latin America.* | ☐  | ☐                |
| 6. Is the child a foreign adoptee, refugee, migrant, immigrant, foster care child? | ☐  | ☐                |

*If the answer to any of these questions is “yes” or “don’t know”, the child is considered at risk for lead exposure and should receive a blood lead test.*
What can families do to protect children from lead?

1. Keep all doctor appointments and make sure child is tested for lead if at risk
2. Keep children away from lead paint, paint chips, and lead dust
3. Wash your child’s hands and toys often
4. Mop floors and wipe window sills once a week
5. Do not sand, scrape, or burn old lead paint. Make sure renovations in older homes is done in lead safe manner.
6. Cover bare soil
7. Do not bring lead home from work or hobbies known to involve lead
8. Do not use home remedies, spices, cosmetics from other counties that are known to contain lead
9. Feed children foods healthy foods rich in iron and calcium
What can home visitors do to address lead exposure?

- Ask family if children have been tested for lead
- For families in older homes (pre-1978 and especially pre-1950)
  - Ask when home was built
  - Look out for areas of chipping or cracking paint where child plays
  - Use EPA’s lead poisoning home checklist to help identify lead exposure hazards
  - Recommend routine cleaning of floors, window sills, child’s hands, and toys
  - Provide education to families

https://eclkc.ohs.acf.hhs.gov/program-planning/home-visitors-handbook/research-home-visiting
Potential services for children exposed to lead

- Medical
  - Follow-up blood lead testing, transportation to medical visits

- Educational
  - Referrals for developmental assessment, early intervention, Head Start

- Nutritional
  - Caregiver nutritional counselling
  - Referral to WIC, SNAP, or other community food resources

- Legal services
  - If living in rental homes, apartments, lead disclosure laws (Legal Aid of Nebraska)

- Housing/Environmental
  - Recommend safe housing. Temporary or permanent alternative housing
  - Testing home for lead
Testing home for lead

- **Option 1: Hire a Nebraska Licensed Lead Inspector or Risk Assessor**
  - Recommended approach, but more expensive
  - List of lead testing companies: [http://dhhs.ne.gov/Pages/Lead-Resources-for-Home-Owners.aspx](http://dhhs.ne.gov/Pages/Lead-Resources-for-Home-Owners.aspx)

- **Option 2: Do-it-yourself test kits**
  - Found in many hardware stores or online
  - Lower cost and easy to use
  - Can tell you if lead is in the paint you tested, but not how much lead is present or if it is a hazard.

- **Testing Water**
  - Only recommended for certain situations (if know lead pipes are present)
  - Under $30, can contact DHHS Public Health Lab at (402) 471-2122

Source: LeadCheck
Resources

Protect Your Family from Lead in Your Home

https://www.epa.gov/lead/protect-your-family-lead-your-home

Lead Poisoning Home Checklist


Renovate Right

https://www.epa.gov/lead/renovate-right-important-lead-hazard-information-families-child-care-providers-and-schools
Where to go for more information

- **Local Childhood Lead Poisoning Prevention Programs:**
  - Find your local health department: [http://dhhs.ne.gov/Pages/Local-Health-Departments.aspx](http://dhhs.ne.gov/Pages/Local-Health-Departments.aspx)
  - Douglas County Childhood Lead Poisoning Prevention Program: (402) 444-7825

- **State resources**
  - Nebraska Childhood Lead Poisoning Prevention Program
  - Lead Hotline: 1-888-242-1100
  - [https://leadsafe.ne.gov/](https://leadsafe.ne.gov/) or [www.dhhs.ne.gov/lead](http://www.dhhs.ne.gov/lead)
  - Educational Materials: [http://dhhs.ne.gov/Pages/Lead-Educational-Materials.aspx](http://dhhs.ne.gov/Pages/Lead-Educational-Materials.aspx)

- **National Resources**
  - Lead Information Center at 1-800-424-LEAD(5323)
  - EPA Lead Website: [https://www.epa.gov/lead](https://www.epa.gov/lead)
  - CDC Lead Website: [https://www.cdc.gov/nceh/lead/default.htm](https://www.cdc.gov/nceh/lead/default.htm)
THANK YOU

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