

Department of Health & Human Services

DHHS



N E B R A S K A

**Annual Report on Elevated Blood Lead Levels for Children 0 – 72 Months Old
as required by NEB. REV. STAT. § 71-2518**

**Presented to Governor Dave Heineman
and the Health and Human Services Committee of the Legislature**

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December 31, 2014

AA/EOE/ADA

Annual Report on Elevated Blood Lead Levels for Children 0-72 Months Old

In April 2012, Legislative Bill 1038 was passed which required that the Division of Public Health establish a Lead Poisoning Prevention Program to include the following duties:

- Develop a statewide blood lead risk assessment/blood lead testing plan
- Develop educational materials targeted to health care providers, child care providers, public school personnel, owners and tenants of residential dwellings, and parents of young children.
- Initiate contact with the local public health department or the physician when a child has an elevated blood lead level (EBLL) and offer technical assistance
- Report annually to the legislature

This report provides a summary of the progress that has been made in the establishment of the duties prescribed above.

Statewide Plan Development

DHHS developed a statewide Plan with three criteria for testing children for lead poisoning. The first criterion is geography. To isolate important geographic variables, DHHS studied surveillance and demographic data, the percentage of older housing, and locations of known lead sources. The methodology used determined zip codes that historically have had increased risk of lead exposure. These include the Omaha Superfund Site (Baseline Human Health Risk Assessment, Omaha Lead Superfund Site, DHHS, 2004) as well as those zip codes with at least 5 lead poisoning cases between 2009 and 2011 and with more than 27% of the housing stock built before 1950. These zip codes are re-evaluated annually and will be updated as necessary.

The second criterion of the plan states what is currently required by the Medicaid and Women, Infants, and Children (WIC) programs. All children insured by Medicaid must be tested. No exceptions or waivers currently exist. WIC requires that upon enrollment of a child, the parent must be asked if the child has had a blood lead test. If the child has not had a test, they must be referred to programs where they can obtain such a test (Federal Policy MPSF-WC-01-05-P).

The third criterion of the plan consists of a questionnaire designed to identify risks not addressed by the other criteria. The child's parents or guardians should be asked specific exposure questions to determine each child's risk. If the response to any of the questions is "yes" or "don't know," the child should be tested. The questions are as follows:

1. Does the child live in or often visit a house, daycare, preschool, home of a relative, etc., built before 1950?
2. Does the child live in or often visit a house built before 1978 that has been remodeled within the last year?
3. Does the child have a brother, sister or playmate with lead poisoning?
4. Does the child live with an adult whose job or hobby involves lead?
5. Does the child's family use any home remedies or cultural practices that may contain or use lead?
6. Is the child included in a special population group, i.e., foreign adoptee, refugee, migrant, immigrant, foster care child?

This Statewide Blood Lead Testing Plan has been sent to all members of the Nebraska Medical Association. It is available on the DHHS website at: dhhs.ne.gov/lead.

The current plan is summarized on the following chart:

**Nebraska DHHS Division of Public Health/Childhood Lead Poisoning Prevention Program
Statewide Blood Lead Risk Assessment/Blood Lead Testing Plan**

Three Criteria for Testing a Child for Lead Poisoning		Specifics for Each Criterion												
CRITERION 1	<p align="center">GEOGRAPHY</p> <p>All Children Living in One of Nebraska’s Targeted Communities for Lead Assessment/Testing</p>	<table border="0"> <tr> <td>Alliance – 69301</td> <td>Harvard – 68944</td> <td>Omaha – 68102, 68104, 68105, 68106, 68107, 68108, 68110, 68111, 68112, 68131, 68132</td> </tr> <tr> <td>Beatrice – 68310</td> <td>Hastings – 68901</td> <td>Scottsbluff – 69361</td> </tr> <tr> <td>Fremont – 68025</td> <td>Lincoln – 68502, 68503</td> <td></td> </tr> <tr> <td>Grand Island – 68801</td> <td>Nebraska City – 68410</td> <td></td> </tr> </table> <p>DHHS strongly recommends that all children living in these communities be tested for lead poisoning at 12 and 24 months of age. Children between 25 and 72 months of age need to be tested as soon as possible, if not previously tested.</p> <p><i>Please note that targeted communities may change as more blood lead data is obtained. Zip codes will be re-evaluated annually and posted each July at www.dhhs.ne.gov/lead.</i></p>	Alliance – 69301	Harvard – 68944	Omaha – 68102, 68104, 68105, 68106, 68107, 68108, 68110, 68111, 68112, 68131, 68132	Beatrice – 68310	Hastings – 68901	Scottsbluff – 69361	Fremont – 68025	Lincoln – 68502, 68503		Grand Island – 68801	Nebraska City – 68410	
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CRITERION 2	<p align="center">MEDICAID AND WIC</p> <p><i>Medicaid:</i> ALL CHILDREN INSURED BY MEDICAID MUST BE TESTED—NO EXCEPTIONS OR WAIVERS EXIST.</p> <p><i>WIC:</i> Federal Policy (MPSF:WC-01-05-P) requires that upon enrollment of a child, the parent must be asked if the child has had a blood lead test. If the child has not had a test, they must be referred to programs where they can obtain such a test</p>	<p>Medicaid: CMS (Centers for Medicare and Medicaid Services) requires that all children receive a screening blood lead test at 12 months and 24 months of age. Children between the ages of 36 months and 72 months of age must receive a screening blood lead test if they have not been previously screened for lead poisoning. A blood lead test must be used when screening Medicaid-eligible children. (http://www.cms.gov/MedicaidEarlyPeriodicScrn/) http://www.sos.ne.gov/rules-and-regs/regsearch/Rules/Health_and_Human_Services_System/Title-471/Chapter-33.pdf</p> <p>WIC: For every child age 12 months and older, during the Nutrition Risk Assessment, WIC staff will ask the question “Has your child had a blood lead test done in the past 12 months?” Document the Yes or No response. If a child has not had a blood lead test done, staff make and document a referral for a blood lead test back to their healthcare provider or to a lead screening program.</p>												
CRITERION 3	<p align="center">QUESTIONNAIRE For Children NOT Enrolled in Medicaid or WIC And Children NOT Residing within a Target Community</p> <p>The child’s parents/guardians should be asked specific exposure questions (see questions at right) to determine each child’s risk. If the response to any of the exposure questions is “yes” or “don’t know,” the child should be tested.</p>	<p align="center">QUESTIONNAIRE</p> <ol style="list-style-type: none"> 1) Does the child live in or often visit a house, daycare, preschool, home of a relative, etc., built before 1950? 2) Does the child live in or often visit a house built before 1978 that has been remodeled within the last year? 3) Does the child have a brother, sister or playmate with lead poisoning? 4) Does the child live with an adult whose job or hobby involves lead? 5) Does the child’s family use any home remedies or cultural practices that may contain or use lead? 6) Is the child included in a special population group, i.e., foreign adoptee, refugee, migrant, immigrant, foster care child? <p><i>For additional information, i.e. jobs, hobbies, home remedies, cultural practices that include lead, visit dhhs.ne.gov/lead</i></p>												

Development of Educational Materials

The DHHS Office of Environmental Health Hazards and Indoor Air continues to update its website to make information more easily attainable. The following brochures were developed last year and have just recently been translated into Spanish:

- Childhood Lead Poison Prevention
- Lead Dust Clean-Up and Control
- Preventing Lead Poisoning in Adults

These brochures are attached and are available on the DHHS website at dhhs.ne.gov/lead, along with other educational materials and resources. (The Spanish versions will be available on-line soon).

Initiate Contact with Local Public Health Departments and Physicians

During the first year, a video conference was held with many of the local health departments through the Nebraska Statewide Telehealth Network to discuss the development of the Statewide Blood Lead Testing Plan. Subsequently, the Office of Epidemiology has held conference calls with Surveillance Coordinators at local health departments and have discussed protocols and guidelines for responding to individuals with elevated blood lead levels. The Office of Environmental Health Hazards and Indoor Air continues to communicate with physicians, local health departments, and parents when requests for additional assistance are received.

In addition to updating the DHHS Lead Program website, a PowerPoint presentation was developed to aid staff in health care providers' offices across the state with learning about the new blood lead testing plan.

Medical guidelines that provide follow-up recommendations for elevated blood lead levels were also developed and made available online. The Medical Management Recommendations for Health Care Professionals are outlined on the attached chart.

Medical Management Recommendations for Health Care Professionals



- There is no safe level of lead in the blood
- Any confirmed level of lead in the blood indicates child has been exposed to lead
- Any elevated capillary test should be confirmed with a venous blood sample
- The following are general guidelines and are adapted from the CDC

Childhood Blood Lead Testing & Follow-up Recommendations			
Blood Lead Test Result	Retest using Venous Blood to confirm within:	Recommended Actions based on BLL	Venous Retest Intervals—after recommended actions
< 5 µg/dL	N/A	<ul style="list-style-type: none"> • Provide lead education (dietary & environmental) • Environmental assessment for pre-1978 housing • Provide follow-up blood lead monitoring 	Retest according to Blood Lead Screening Plan
5 - 9 µg/dL	1 – 3 months	<u>Above Actions, plus:</u> <ul style="list-style-type: none"> • Complete history and physical exam • Lab work: iron status, consider hemoglobin or hematocrit • Refer to health department for environmental investigation 	<ul style="list-style-type: none"> • 3 months for first 2-4 tests • 6 - 9 months after BLL are declining
10 - 19 µg/dL	1 week – 1 month*	<ul style="list-style-type: none"> • Recommend lead hazard reduction in home • Neurological, behavioral, and developmental monitoring 	<ul style="list-style-type: none"> • 1 - 3 months for first 2-4 tests** • 3 - 6 months after BLL are declining
20 - 24 µg/dL	1 week – 1 month*	<ul style="list-style-type: none"> • Abdominal X-Ray (if particular lead ingestion is suspected with bowel decontamination) 	<ul style="list-style-type: none"> • 1 - 3 months for first 2-4 tests** • 1 - 3 months after BLL are declining
25 - 44 µg/dL	1 week – 1 month*	<ul style="list-style-type: none"> • Hospitalize and commence chelation therapy (following confirmatory venous blood lead test) in conjunction with consultation from a medical toxicologist or a pediatric environmental health specialty unit • Proceed according to actions for 45-69 µg/dL 	<ul style="list-style-type: none"> • 2 weeks - 1 month for first 2-4 tests • 1- 3 months after BLL are declining
45 - 59 µg/dL	ASAP no later than 48 hours	<u>Above Actions, plus:</u> <ul style="list-style-type: none"> • Lab work: iron status, hemoglobin or hematocrit, free erythrocyte protoporphyrin 	Every 24 hours or as medically indicated
60 - 69 µg/dL	ASAP no later than 24 hours	<ul style="list-style-type: none"> • Oral Chelation therapy. Consider hospitalization if lead-safe environment cannot be assured 	Every 24 hours or as medically indicated
≥ 70 µg/dL	Urgently as an emergency test	<ul style="list-style-type: none"> • Hospitalize and commence chelation therapy (following confirmatory venous blood lead test) in conjunction with consultation from a medical toxicologist or a pediatric environmental health specialty unit • Proceed according to actions for 45-69 µg/dL 	Every 24 hours or as medically indicated

*The higher the BLL on the screening test, the more urgent the need for confirmatory testing

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

Sources of Lead	Occupations Involving Lead	Hobbies Involving Lead	Cultural Practices & Folk Medicines
<ul style="list-style-type: none"> • Lead-based paint in poor condition • Lead dust from deteriorated lead paint • Contaminated soil from paint or pollution • Some toys, imported candy, and cosmetics • Some folk medicines • Bringing lead home from work 	<ul style="list-style-type: none"> • Contractors who renovate or repair buildings • Workers who sand, scrape or blast lead paint • Recyclers of metal, electronics, batteries • Manufacturers of bullets, ceramics & electronics • Steel workers • Firing range workers, gunsmiths, police officers • Construction and demolition workers • Foundries and scrap metal operations • Bridge construction and repair • Automobile repair 	<ul style="list-style-type: none"> • Stained glass • Fishing sinkers • Computer electronics • Automotive repair • Reloading bullets • Soldering • Artistic painting, jewelry making, and pottery glazing 	<ul style="list-style-type: none"> • Ayurvedic medicines • Azarcon • Daw Tway • Bhasma • Smrti • Ba-baw-san • Ghasard • Greta

Definitions:

BLL: Blood lead level

Testing: A blood test

Screening: Applying criteria in the Blood Lead Testing Plan to determine risk

Lead Hazard Reduction: Lead abatement and interim controls like paint stabilization, lead dust, control, cleaning, and addressing bare soil.

Lead Prevention Tips for Parents:

- 1) **Keep it Clean:** Wash children's hands often and wet wipe/wet dust surfaces to remove lead contamination
- 2) **Make your home lead safe:** Find and properly take care of sources of lead in the home
- 3) **Healthy Diets:** Provide regular meals and foods rich in iron, calcium, and Vitamin C
- 4) **Medical Check-ups:** Have child see PCP. If a BLL over 5 µg/dL, make sure child is tested to ensure levels decline.

Contact Information:

Lead Poisoning Prevention Program
Nebraska Dept of Health & Human Services
301 Centennial Mall South
PO Box 95026
Lincoln, NE 68509

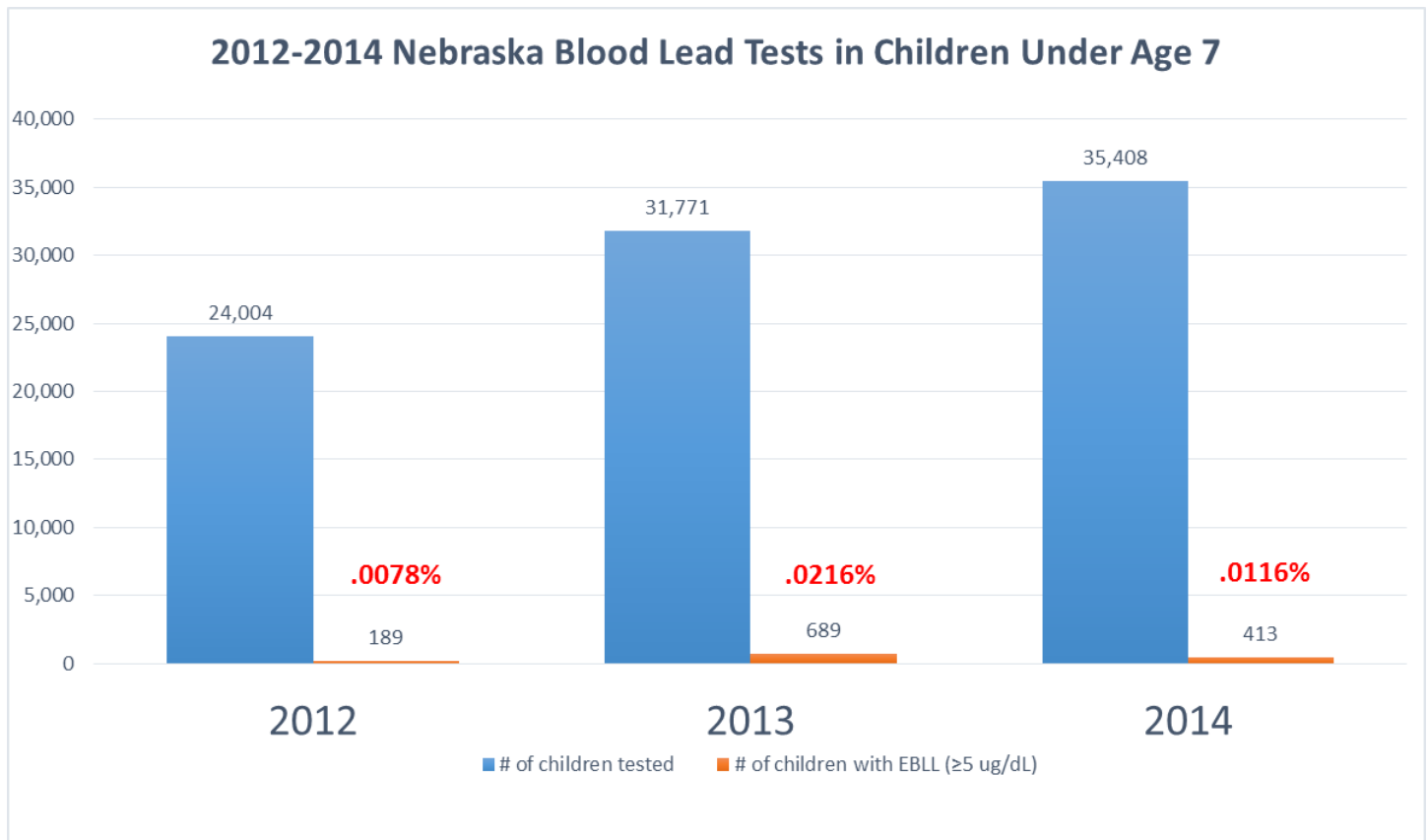
Phone: 402-471-0386 or 1-888-242-1100
Fax: 402-471-8833
Email: dhshhia@nebraska.gov
Website: <http://www.dhhs.ne.gov/lead>

Numbers of Children Tested

Title 173 of the Nebraska Administrative Code regarding Communicable Diseases lists all blood lead tests as reportable to the Department. This data is submitted to the Department either electronically from health care providers through the Nebraska Electronic Disease Surveillance System (NEDSS), or is sent via mail or facsimile to be manually entered by program staff into the Systematic Tracking of Elevated Lead Levels and Remediation (STELLAR) database. These two datasets are then combined, duplicate entries are removed, and then reviewed for missing information before data analysis.

**Number of children age 0-72 months tested October 1, 2013, through September 30, 2014:
35,408**

**Number of children tested with a confirmed blood lead level of 5 micrograms per deciliter or higher:
413**



The Childhood Lead Poisoning Prevention Program

The Nebraska Childhood Lead Poisoning Prevention Program has successfully helped to lower many children's blood lead levels through educating parents on lead hazards. The program keeps track of children who have had their blood lead levels tested. For parents of children with elevated blood levels, we provide education to show them the lead hazards in their environment and safe options for remediating those hazards.

We also provide comprehensive literature on lead with information on:

- **Lead's Harmful Effects**
- **Finding Lead Hazards in Your Home**
- **Safe Ways to Reduce These Lead Hazards**

Additional resources

- **Environmental Protection Agency**
www.epa.gov/lead/pubs/leadinfo.htm
- **Centers for Disease Control and Prevention**
www.cdc.gov/nceh/lead/
- **U.S. Consumer Product Safety Commission**
www.cpsc.gov
- **Omaha Healthy Kids Alliance**
www.omahahealthykids.org

For more information

If you would like more information regarding lead and lead poisoning, please write or call:

In Nebraska:
Childhood Lead Poisoning Prevention Program
Nebraska Department of Health and Human Services
301 Centennial Mall South
P.O. Box 95026
Lincoln, NE 68509-5026
402-471-0386 or 888-242-1100, ext. 3

www.dhhs.ne.gov/lead

In Douglas County:
Douglas County Health Department
Childhood Lead Poisoning Prevention Program
1111 South 41st Street, Suite 130
Omaha, NE 68105
402-444-7825

www.douglascountyhealth.com/healthy-children/lead-poisoning-prevention

In Lancaster County:
Lincoln-Lancaster County Health Department
3140 N Street
Lincoln, NE 68510
402-441-8000

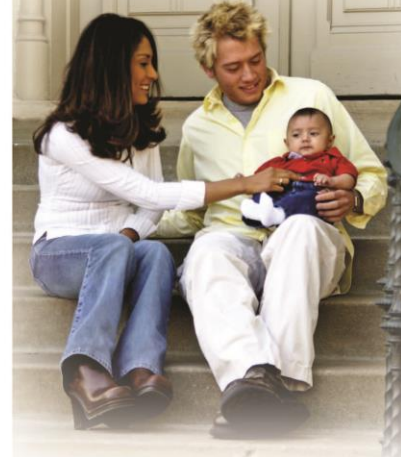
lincoln.ne.gov/city/health/



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HHS-PAM-1 Rev. 10/12 (88001)
(Do NOT use previous version)

Childhood Lead Poisoning Prevention



Protecting Nebraska's Children From Lead

Nebraska Department of Health and Human Services
Division of Public Health

Thousands of Nebraska children have had elevated blood lead levels.

The most common sources of exposure include:

- **Lead-Based Paint**
Lead dust, which is invisible, is created from deteriorated lead-based paint. It is the main cause of lead poisoning in Nebraska's children. Lead-based paint is especially subject to friction around windows, in window troughs (wells), and on sills and sashes. Lead was banned for use as an additive to paint in 1978, with sharp decline in its use from 1960 to 1978.
- **Lead-Contaminated Soil**
Soil often becomes contaminated by deteriorated exterior lead-based paints and old leaded gasoline.
- **Occupational Exposure**
Workers may bring lead home with them, contaminating their homes.
- **Hobbies**
Stained glass, fishing sinkers, automotive repair, reloading ammunition.
- **Dishes**
Imported, ceramic, lead crystal, potter glazes.
- **Some Plumbing Fixtures**
- **Some Toys, Imported Candy, and Jewelry**

Why is lead dangerous?

Lead may harm a child's brain and central nervous system. Even low blood lead concentrations could cause irreversible damage, such as:

- **Impaired Development**
- **Delayed Development**
- **Behavioral Problems**
- **Hearing Loss**

Which children should be tested for lead? Consider these points:

- **Geography**
All children living in certain zip codes (find these at: www.dhhs.ne.gov/lead/) should be tested.
- **Medicaid and WIC**
All children insured by Medicaid must be tested, and children enrolled in WIC are referred for lead testing.
- **Questionnaire**
If any of the six questions at our Web site can be answered yes about a child, the child should be tested for lead. These questions ask about the age of the child's home and other houses where they spend time; friends and family who have had lead poisoning or have jobs, hobbies, or cultural practices involving lead; and special populations such as refugees or migrants the child may be part of.

How can you protect your child from lead?

- Check your home for possible lead hazards as listed on our Web site: www.dhhs.ne.gov/lead.
- Wash your children's hands often – especially before they eat or sleep.
- Keep your child's living and play areas clean and dust-free.
- Do not let children put their hands, dirt, toys, or other nonfood items in their mouths.
- Provide your children with plenty of calcium (milk, yogurt, and cheese) and iron (meats, peanut butter, and green leafy vegetables).
- Keep out of children's reach all vinyl mini-blinds that are not made in the USA or that do not specifically say "lead-free."

If your home was built before 1978:

- Before remodeling a home built before 1978, have it tested for lead-based paint and check for safe remodeling procedures at our Web site: www.dhhs.ne.gov/lead.
- Never DRY scrape, sand, power wash or sandblast possible lead-based paint. Wet sanding and scraping is acceptable with proper clean up.



El Programa para la Prevención de la Intoxicación Infantil por Plomo

El Programa para la Prevención de la Intoxicación Infantil por Plomo de Nebraska ha ayudado a reducir los niveles de plomo en la sangre de muchos niños, educando a los padres sobre los peligros del plomo. El programa le da seguimiento a los niños a quienes se les han analizado los niveles de plomo en la sangre. A los padres de los niños con niveles elevados en la sangre los educamos para mostrarles los peligros del plomo en su entorno, y opciones seguras para remediar esos peligros.

También proporcionamos extenso material impreso sobre el plomo con información sobre:

- Efectos dañinos del plomo
- Cómo hallar riesgos por plomo en su casa
- Formas seguras de reducir estos riesgos por plomo

Recursos adicionales

- **Environmental Protection Agency**
www.epa.gov/lead/pubs/leadinfo.htm
- **Centers for Disease Control and Prevention**
www.cdc.gov/nceh/lead/
- **U.S. Consumer Product Safety Commission**
www.cpsc.gov
- **Omaha Healthy Kids Alliance**
www.omahahealthykids.org

Para más información

Si desea más información acerca del plomo y la intoxicación por plomo, favor escribir o llamar al:

En Nebraska:
Childhood Lead Poisoning Prevention Program
Nebraska Department of Health and Human Services
301 Centennial Mall South
P.O. Box 95026
Lincoln, NE 68509-5026
402-471-0386 o 888-242-1100, ext. 3

www.dhhs.ne.gov/lead

En el condado de Douglas
Douglas County Health Department
Childhood Lead Poisoning Prevention Program
1111 South 41st Street, Suite 230
Omaha, NE 68105
402-444-782

www.douglascountyhealth.com/healthy-children/lead-poisoning-prevention

En el condado de Lancaster:
Lincoln-Lancaster County Health Department
3140 N Street
Lincoln, NE 68510
402-441-8000

lincoln.ne.gov/city/health/



El Departamento de Salud y Servicios Humanos de Nebraska está comprometida con la acción afirmativa/opportunidad de igualdad de empleo y no discrimina con la entrega de beneficios o servicios.

HH5-PAM-1 Rev. 12/14 (80002)

Prevención de Intoxicación Infantil por Plomo



Protegiendo a los niños de Nebraska contra el plomo

Departamento de Salud y Servicios Humanos de Nebraska
División de Salud Pública

Miles de niños en Nebraska han tenido niveles elevados de plomo en la sangre.

Las fuentes de exposición más comunes incluyen:

- **Pintura a base de plomo**
El polvo de plomo, que es invisible, es formado por la deterioración de la pintura a base de plomo. Es la causa principal de la intoxicación por plomo en los niños de Nebraska. La pintura a base de plomo en particular está sujeta a la fricción alrededor de las ventanas, en los canales de marco de ventana (huecos), y en las repisas y hojas de ventanas. El uso del plomo como aditivo a la pintura fue prohibido en 1978, con una marcada disminución en su uso desde 1960 hasta 1978.
- **Suelo contaminado por plomo**
Con frecuencia, el suelo es contaminado por pintura de exteriores a base de plomo deteriorada y gasolina con plomo vieja.
- **Exposición ocupacional**
Los trabajadores pueden llevar plomo consigo a sus hogares, contaminándolos.
- **Pasatiempos**
Vitrales, plomadas de pesca, reparación de automóviles, recargar municiones.
- **Platos**
Importado, cerámica, vidrios de plomo, barnizados de cerámica.
- **Algunos artículos de plomería**
- **Algunos juguetes, dulces importados y bisutería**

¿Por qué es peligroso el plomo?

El plomo puede hacerle daño al cerebro y al sistema nervioso central de los niños. Incluso una concentración baja de plomo en la sangre puede causar daño irreversible, como:

- **Discapacidades del desarrollo**
- **Retrasos en el desarrollo**
- **Problemas de conducta**
- **Pérdida de audición**

¿Qué niños deben hacerse analizar por plomo? Considere estos factores:

- **Geografía**
Todos los niños que viven en ciertas zonas postales (hállelas en: www.dhhs.ne.gov/lead) deben hacerse analizar.
- **Medicaid y WIC**
Todos los niños asegurados por Medicaid deben hacerse analizar, y los niños registrados en WIC son remitidos para análisis de plomo.
- **Cuestionario**
Si se puede contestar que sí a cualquiera de las seis preguntas en nuestro sitio Web respecto a un niño, este debe hacerse analizar por plomo. Estas preguntas indagar sobre la antigüedad del hogar del niño y de otros hogares donde pasa el tiempo; amigos y familia que hayan sufrido intoxicación por plomo o que tengan trabajos, pasatiempos, o prácticas culturales que involucren plomo; y poblaciones especiales como refugiados o inmigrantes a las que pertenece el niño.

¿Cómo puede proteger a su niño contra el plomo?

- Revise su hogar por posibles riesgos de plomo, como aparecen en nuestro sitio Web: www.dhhs.ne.gov/lead.
- Lave con frecuencia las manos de sus niños—especialmente antes de comer o dormir.
- Mantenga limpias y libres de polvo las áreas de vivienda y de juegos de su hijo.
- No deje que los niños se metan las manos, tierra, juguetes u otros artículos no comestibles en la boca.
- Proporcione bastante calcio (leche, yogurt y queso) y hierro (carne, mantequilla de maní y verduras de hoja verde) a sus hijos.
- Mantenga fuera del alcance de los niños todas las mini persianas de vinilo que no hayan sido fabricadas en EE. UU. o que no digan específicamente "lead-free" (sin plomo).

Si su hogar fue construido antes de 1978:

- Antes de remodelar un hogar construido antes de 1978, haga que lo analicen para pintura a base de plomo y busque procesos seguros de remodelación en nuestro sitio Web: www.dhhs.ne.gov/lead.
- Nunca raspe o lije EN SECO, lave a presión o con chorro de arena la pintura a base de plomo. Lijar y raspar en mojado es aceptable con limpieza apropiada.





Health effects of lead poisoning

Lead interferes with the development and functioning of almost all body organs, particularly the kidneys, red blood cells, and central nervous system.

Lead poisoning is much more serious when children are exposed to lead. Since their bodies are not fully developed, lead poisoning can cause:

- Restlessness
- Hearing loss
- Loss of IQ
- Learning or behavior problems
- Developmental delays
- Brain, liver, and kidney damage

Because the symptoms of lead poisoning are similar to those of flu or viruses, the only way to know if a child is poisoned is to have a doctor perform a simple blood test.

For more information about the health effects of exposure to lead, call 1-888-242-1100 or visit:

<http://www.dhhs.ne.gov/lead>

For more information
If you would like more information regarding lead dust cleanup and control, please contact us at:

Office of Environmental Health Hazards & Indoor Air

Nebraska Department of Health & Human Services
301 Centennial Mall South
PO Box 95026
Lincoln, NE 68509-5026

(402) 471-0386 or
1-888-242-1100

www.dhhs.ne.gov/lead

Department of Health & Human Services



This brochure was supported by Cooperative Agreement #5U600H009859-03 from CDC-NIOSH.

PH-PHM-14 (6/11/14) 9/13

LEAD DUST

Clean-Up and Control

To help reduce risk of lead contamination

Nebraska Department of Health & Human Services
Division of Public Health

Finding hazards in your home

Look for paint or stain that is loose, cracked, chipping, peeling, flaking, rubbing off, or deteriorating in any way.

When paint chips off, all layers of paint usually come off together. This can cause lead poisoning because earlier layers of paint may contain lead—even if the surface has been repainted with lead-free paint.

Window hazards

- Check the sides and upper parts of the window.
- Check the sill and window for:
 - Peeling
 - Chipping
 - Toys or other signs of child play
 - Toys and other signs of child play such as chew marks
- Check the area between the interior window and screen.
- Check the window sash.

Woodwork, walls, and doors

- Check all surfaces for chipping and peeling paint.
- Look for impact chipping on corners of door frames, baseboards, and walls.
- Look for rub or scrape marks on door edges.

Stair and porch hazards

- Check for areas of chipping or peeling paint.
- Look for chewing on spindles, rails, treads, and edges.
- Check risers, baseboards, and stair tread for impact chipping.
- Look for worn areas on tread.



Finding hazards from outside

Lead dust can come in from outside the home. Contaminated dust or soil can be tracked in on shoes or animals or blown in by the wind. Soil can be contaminated from:

- Deteriorated lead-based paint around the perimeter of the house
- Leaded additives in gasoline
- Industrial sources
- Demolition and paint removal from surrounding buildings

Lead can be brought home from work

Some examples include:

- Sanding, scraping or blasting lead-based paint
- Renovating/repairing older homes
- Working in foundries and metal recyclers
- Making ammunition, firing guns, or working at a shooting range

Reduce the risk of lead hazards by:

- Not letting children or pets play in bare soil around perimeter of house
- Covering bare soil with grass, mulch, gravel, sand or other landscaping materials
- Putting out doormats and remove shoes to not track lead dust into the home
- Maintaining good housekeeping
- Not wearing your work clothes home if you work with lead
- Washing your hands often

Cleaning up lead dust

1. Correct lead hazards before starting any dust cleanup to prevent further contamination.
2. While wearing disposable gloves, use rags or sponges to wet clean all horizontal surfaces in the house with any all-purpose cleaner mixed with warm water and clean the floor again.
3. Start at the rear of the home and work from ceiling to floor, working toward the front of the house.
4. The recommended cleaning method is to use two buckets and a mop on floors. Fill Bucket #1 with a CLEANING SOLUTION and then fill Bucket #2 with clean RINSE water.
 - Dip the mop in Bucket #1 and clean the floor
 - Dip mop into the Bucket #2 (rinse bucket), and then back into cleaning solution bucket (Bucket #1)
 - Repeat above steps until all floors have been cleaned.
 - Dispose of water by pouring into toilet
5. During wet cleaning, replace rags, sponges and mop-heads frequently, and wash separately or dispose of them in plastic trash bags when finished.



Because lead dust is so difficult to remove, lead-contaminated carpeting or rugs should be removed and replaced. If disposal is not an option, use a HEPA vacuum to clean the carpet first, followed by steam cleaning. Steam cleaning may need to be done more than once.



Los efectos en la salud de la Intoxicación por plomo

El plomo interfiere con el desarrollo y el funcionamiento de casi todos los órganos del cuerpo, en particular los riñones, los glóbulos rojos y el sistema nervioso central.

La intoxicación por plomo es mucho más seria cuando los niños son expuestos al plomo. Como sus cuerpos no se han desarrollado completamente, la intoxicación por plomo puede causar:

- Agitación
- Pérdida de audición
- Pérdida de cociente intelectual
- Problemas de aprendizaje o conducta
- Retrasos en el desarrollo
- Daño al cerebro, el hígado y los riñones

Como los síntomas de la intoxicación por plomo son similares a aquellos de la influenza o un virus, la única forma de saber si un niño ha sido intoxicado es hacer que un doctor realice un sencillo análisis de sangre.

Para más información sobre los efectos en la salud por exposición al plomo, llame al 1-888-242-1100 o visite: <http://www.dhhs.ne.gov/lead>

Para más Información
Si desea más información sobre el plomo y la intoxicación por plomo, contáctenos en nosotros al:

Office of Environmental Health
Hazards & Indoor Air
Nebraska Department of
Health & Human Services
301 Centennial Mall South
PO Box 95026
Lincoln, NE 68509-5026

(402) 471-0386 o
1-888-242-1100

www.dhhs.ne.gov/lead



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POLVO DE PLOMO

Limpieza y Control

Para ayudar a reducir el riesgo de contaminación por plomo

Nebraska Department of Health & Human Services
Division of Public Health

Cómo hallar riesgos en su casa

Busque pintura o barniz que se esté desprendiendo, que esté agrietada, astillada, descascarada, desconchada, desgastada o deteriorada en cualquier forma.

Cuando la pintura se pelee, típicamente todas las capas de pintura se desprenden juntas. Esto puede causar intoxicación por plomo porque las capas de pintura más antiguas pueden contener plomo— aun si se ha vuelto a pintar la superficie con pintura libre de plomo.

Peligros en ventanas

- Chequee los lados y las partes superiores de la ventana.
- Chequee el área entre la ventana interior y el mosquitero.
- Chequee la hoja de la ventana.
- Chequee la ventana y su repisa por si hay:
 - Descascarado
 - Astillas
 - Juguetes u otras señales de juego de niños
 - Marcas de mordiscos

Molduras, paredes y puertas

- Chequee todas las superficies por si hay pintura astillada y descascarada.
- Busque astillado por impacto en las esquinas de los marcos de las puertas, zócalos y paredes.
- Busque marcas de fricción o raspado en los bordes de la puerta.

Peligros en escaleras y porches

- Chequee si hay áreas de pintura astillada o descascarada.
- Busque si hay mordiscos en varas, pasamanos, escalones y bordes.
- Chequee los pedaños, los zócalos y los escalones para ver si hay descascarado por impacto.
- Busque áreas de desgaste en escalones.



Cómo hallar peligros fuera de la casa

El polvo de plomo puede venir desde afuera de la casa. El polvo o suelo contaminado puede ser traído dentro de los zapatos, animales o el viento. El suelo puede estar contaminado por:

- Pintura a base de plomo deteriorada alrededor de la línea de goteo del perímetro de la casa
- Aditivos de plomo en la gasolina
- Fuentes industriales
- Demolición y extracción de pintura de edificios en los alrededores

Se puede traer el plomo del trabajo a la casa

Algunos ejemplos incluyen:

- Lijar, raspar o limpiar a chorro pintura a base de plomo
- Contratistas que remodelan o reparan casa viejas
- Obreros en fundiciones y recidadores de metales
- Fabricar municiones, disparar armas o trabajar en una galería de tiro

Reduzca el riesgo de peligros por plomo:

- No dejar que los niños o mascotas jueguen en el suelo expuesto alrededor del perímetro de la casa
- El suelo expuesto debe estar cubierto con hierba, mantillo, gravilla, arena u otros materiales de jardinería
- Ponga tapetes de entrada y quítelos los zapatos para no arrastrar polvo de plomo a la casa
- Mantenga buen orden y limpieza
- No lleve puesta su ropa de trabajo a la casa si trabaja con plomo
- Lávese las manos con frecuencia

Limpieza de polvo de plomo

1. Corrija los peligros de plomo antes de comenzar la limpieza del plomo para prevenir contaminación adicional.
2. Con guantes desechables puestos, use trapos o esponjas húmedas para limpiar todas las superficies horizontales con un limpiador de uso general mezclado con agua tibia.
3. Comience en la parte de atrás del hogar y trabaje desde el techo hasta el piso, continuando hacia el frente de la casa.
4. El método de limpieza recomendado es usar dos cubetas y un trapeador en los pisos. Llene la cubeta #1 con una SOLUCIÓN DE LIMPIEZA y luego llene la cubeta #2 con agua limpia para ENJUAGAR.
 - Sumerja el trapeador en la cubeta #1 y limpie el piso
 - Sumerja el trapeador en la cubeta #2 (de enjuagar), y vuelva a la cubeta de solución de limpieza (cubeta #1)
 - Repita los pasos anteriores hasta que se hayan limpiado todos los pisos.
 - Deseche el agua echándola por el inodoro
5. Durante la limpieza en húmedo, reemplace frecuentemente los trapos, esponjas y repuestos de trapeadores, y lávelos por separado o deseche los en bolsas plásticas cuando termine.



Debido a que el polvo de plomo es muy difícil de eliminar, se deben quitar y reemplazar las alfombras o tapetes contaminados con plomo. Si desecharlos no es una opción, use una aspiradora con filtro HEPA para limpiar la alfombra primero, y luego limpiar al vapor. Puede ser necesario hacer la limpieza al vapor más de una vez.



How can I protect myself and my family?

- Wash your hands and face before eating or drinking at work
- Don't smoke in the work area
- Wear proper protective equipment such as a fitted respirator and gloves when working around lead dust or fumes
- When done working for the day, shower at work if you can or immediately once you get home.
- Change into clean clothes and shoes at work before you go home
- If possible, wash your clothes at work. If not, wash work clothes separate from other clothes and run the empty washing machine again to rinse out lead
- Participate in your employer's lead screening program if you are at risk for lead poisoning
- Keep your work area and home clean by using a wet cloth to clean horizontal surfaces, a wet mop to clean floors, and a vacuum with a HEPA filter
- Use safe procedures or hire a professional when renovating a home built before 1978

For more information
If you would like more information regarding lead poisoning prevention, please contact us at:

Office of Environmental Health Hazards & Indoor Air

Nebraska Department of Health & Human Services
301 Centennial Mall South
PO Box 95026
Lincoln, NE 68509-5026

(402) 471-0386 or

1-888-242-1100

www.dhhs.ne.gov/lead

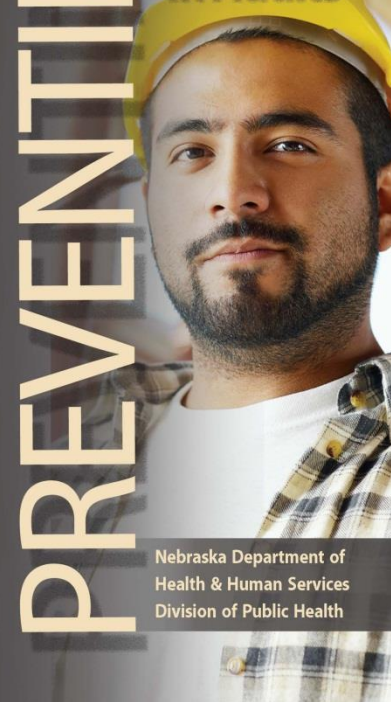
Department of Health & Human Services



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PREVENTING Lead Poisoning in Adults



Nebraska Department of Health & Human Services
Division of Public Health

What is lead poisoning?

Lead is a toxic metal used in many industries and found in many consumer products. Lead poisoning can occur when lead builds up in the body. No amount of lead in the body is considered safe.

Am I at risk for lead exposures?

Many jobs and work activities involve lead. You may be at risk if you:

- Melt, cast, or grind lead, brass, or bronze
- Make ammunition, fire guns, or work at a shooting range
- Work with scrap metal or electronics
- Scrape, sand, remove or handle lead-based paint or products painted with it
- Tear down or renovate old buildings or bridges
- Make or repair batteries, radiators, or automobiles
- Make or work with ceramics, jewelry, or stained glass

Some lead exposures are due to hobbies, including:

- Shooting in indoor ranges
- Making bullets or fishing sinkers
- Making pottery, stained glass, or jewelry
- Home renovations and furniture refinishing

There are other less common sources of lead exposure in adults, such as imported candy and using alternative or folk medicines.



How can lead poisoning affect my health?

Lead exposures usually occur by swallowing lead dust or breathing in dust and fumes containing lead. Once it is in the body, it can be stored in your organs and bones where it can cause serious and permanent damage to your kidneys, brain and nervous system, cardiovascular system, reproductive system, and other parts of the body. Too much lead can even cause coma or death.

Lead exposures can cause:

- High blood pressure
- Decreased sex drive, infertility
- Digestive problems
- Difficulty concentrating
- Tiredness or weakness
- Hearing and vision problems
- Your risk of health damage increases with the amount of lead in your body and the length of time you have been exposed.

How do I know if I am exposed to lead?

A simple blood test can measure how much lead is in your blood, known as a blood lead level (BLL). If you think you are exposed to lead at work or at home, ask your doctor for a blood lead test. Scientists and doctors recommend that blood lead levels in adults be kept below 10 µg/dL (micrograms per deciliter), and levels should be kept below 5 µg/dL for women who are pregnant or may become pregnant.

What is take-home lead?

People who have jobs or hobbies that involve lead can bring lead dust into their home on work clothes, skin, or equipment. This is called 'take-home lead' and it can expose anyone who comes in contact with it. Take-home lead can even cause lead poisoning in children who live in or visit the house.

For more information on take-home lead, call 1-888-242-1100 or visit <http://www.dhhs.ne.gov/lead>





¿Cómo puedo protegerme y a mi familia?

- Lávese las manos y la cara antes de comer o beber en el trabajo
- No fume en el área de trabajo
- Lleve equipo protector apropiado como un respirador a la medida y guantes cuando trabaje cerca del polvo y vapores de plomo
- Cuando termine de trabajar por el día, tome una ducha en el trabajo si puede o inmediatamente llegue a su casa.
- Cámbiese a ropa y zapatos limpios en el trabajo antes de irse a su casa.
- De ser posible, lave su ropa en el trabajo. Si no, lave su ropa de trabajo separada de la demás ropa y opere otra vez la lavadora vacía para enjuagar
- Participe en el programa de detección de plomo de su empleador si está en riesgo de intoxicación por plomo
- Mantenga su área de trabajo y su hogar limpios usando un paño mojado para limpiar las superficies horizontales, un trapeador húmedo para limpiar los pisos, y una aspiradora con un filtro HEPA.
- Use procedimientos seguros o contrate a un profesional cuando remodela una casa construida antes de 1978

Para más Información
Si desea más información sobre la prevención de la intoxicación con plomo, contáctenos en:

**Office of Environmental Health
Hazards & Indoor Air**

Nebraska Department of
Health & Human Services
301 Centennial Mall South
PO Box 95026
Lincoln, NE 68509-5026

(402) 471-0386 o

1-888-242-1100

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PREVENCIÓN

Intoxicación con plomo en los adultos



**Nebraska Department of
Health & Human Services
Division of Public Health**

What is lead poisoning?

Plomo es un metal tóxico que se usa en muchas industrias y se encuentra en muchos productos para el consumidor. La intoxicación por plomo puede ocurrir cuando el plomo se acumula en el organismo. Ninguna cantidad de plomo en el cuerpo es considerada segura.

¿Estoy en riesgo de exposición al plomo?

Muchos trabajos y actividades laborales implican plomo. Usted puede estar en riesgo si:

- Derrite, funde o muele plomo, latón o bronce
- Fabrica municiones, dispara armas o trabaja en una galería de tiro
- Trabaja con chatarra o electrónicos
- Raspa, lijá, remueve o manéja pintura a base de plomo o productos pintados con esta
- Derrumba o renueva edificios o puentes viejos
- Fabrica o repara baterías, radiadores o automóviles
- Fabrica o trabaja con cerámica, joyería o vitrales

Ciertas exposiciones al plomo se deben por pasatiempos. Incluyendo:

- Disparar en galerías de tiro
- Fabricar balas o plomadas de pesca
- Hacer cerámica, vitrales o joyería
- Renovaciones al hogar y restauración de muebles

Hay otras fuentes menos comunes de exposición al plomo en adultos, como dulces importados y el uso de medicina alternativa o medicinas tradicionales.



Este obrero no tiene puesto un equipo protector apropiado y está en riesgo DE exposición al plomo.

¿Cómo puede la intoxicación por plomo afectar mi salud?

La exposición al plomo ocurre típicamente cuando se traga polvo de plomo o se inhala polvo y vapores que contienen plomo. Una vez está en el organismo, puede acumularse en sus órganos y huesos donde puede hacer daño serio y permanente a sus riñones, cerebro y sistema nervioso, sistema cardiovascular, sistema reproductivo y otras partes del cuerpo. Demasiado plomo puede causar incluso un coma o la muerte.

La exposición al plomo puede causar:

- Hipertensión
- Deseo sexual disminuido, infertilidad
- Problemas digestivos
- Dificultad para concentrarse
- Fatiga o debilidad
- Problemas de audición y visión

Es posible que su organismo no muestre muchas de las señales o síntomas de exposición al plomo sino hasta que haya ocurrido daño severo, y estos síntomas pueden ser fáciles de malinterpretar.

¿Cómo sabré si estoy expuesto al plomo?

Un sencill o análisis de sangre conocido como análisis de nivel de plomo (BLL) puede medir cuánto plomo hay en su sangre. Si piensa que se expone al plomo en su trabajo u hogar, pídale un análisis de nivel de plomo a su doctor. Los científicos y doctores recomiendan que los niveles de plomo en la sangre de los adultos se mantengan a menos de 10 µg/dL, y que los niveles permanezcan a menos de 5 µg/dL para las mujeres embarazadas o que puedan quedar embarazadas.

¿Qué es plomo llevado a casa?

La gente que tiene trabajos o pasatiempos que conllevan plomo puede traer consigo polvo de plomo a su hogar en la ropa de trabajo, la piel o el equipo. Esto se llama 'plomo llevado a casa' y puede exponer a cualquiera que entre en contacto con este. El plomo llevado a casa puede incluso causar intoxicación por plomo en los niños que viven en el hogar o lo visitan.

Para más información sobre plomo llevado a casa, llame al 1-888-242-1100 o visite <http://www.dhhs.ne.gov/lead>

