


Lead Poisoning: Health Impacts & How to Protect Your Family

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Nicholas Newman, Cincinnati Children's Hospital
Tasha Garrett, Parents for Healthy Homes



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Schedule

- Introductions
 - Tracy Gregoire, LDA's Healthy Children Project
 - Rebecca Meuninck, Ph.D., Ecology Center
 - Nicholas Newman, DO, MS, FAAP
 - Tasha Garrett, Parents for Healthy Homes
- The health impacts of lead a pediatrician's perspective.
- A mom's story of having a lead poisoned child.
- Taking action together
- Resources
- Q&A



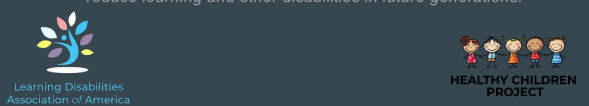
Lead Poisoning Health Impacts & How to Protect Your Family

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LDA'S Healthy Children Project

Our Healthy Children Project works to prevent exposures to harmful chemicals and substances linked to learning, attention, behavior and developmental disabilities, and protect the health of all families from unnecessary toxic chemicals in our products, food, water and air.

Reducing and eliminating the preventable causes of neurological harm and reduce learning and other disabilities in future generations.




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Ecology Center

We work at the local, state, regional, and national level for Healthy People and a Healthy Planet.

On lead poisoning, we empower lead-impacted families to advocate for public policy, serve on Michigan's Childhood Lead Exposure Elimination Commission and the Michigan Alliance for Lead Safe Homes, and founded and lead the Great Lakes Lead Elimination Network.

Our offices are in Ann Arbor and Detroit, Michigan.



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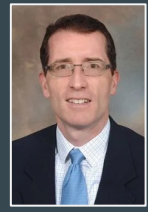
Great Lakes Lead Elimination Network

The Great Lakes Lead Elimination Network (GLEN) is network of local and state-based organizations located in Great Lakes states working on ending childhood lead poisoning through public education and advocacy to support best practices and policies to reduce exposure to lead in our homes, schools, and communities.

Co-hosting partners for this webinar: [Learning Disabilities Association of America Healthy Children Project](#), [Ecology Center](#), [Healthy Homes Coalition of West Michigan](#), [Ohio Lead Free Kids Coalition](#), [Clean and Healthy New York](#), [Women for a Healthy Environment](#), [Great Lakes Lead Elimination Network](#), [Sierra Club](#), [Ill. Chapter, Clean Water Action Minnesota](#), [DLEAD - Detroit Lead Parents Advocacy Group](#), and the [Center for Urban Studies at Wayne State University](#)

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Nicholas Newman, DO, MS, FAAP



Dr. Newman is a pediatrician and the Medical Director of Pediatric Environmental Health and Lead Clinic Pediatric Primary Care Center at Cincinnati Children's Hospital. Dr. Newman works with families to identify and avoid environmental hazards that trigger conditions such as asthma or cause disease such as lead poisoning. He is a national leader in the field of pediatric environmental health.

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Tasha Garrett, Parents for Healthy Homes

Parents for Healthy Homes works to protect children from lead and other hazards in homes in Grand Rapids, Michigan. Their team of parent-advocates have lobbied to protect kids from lead locally, at the state level in Michigan, and nationally for many years. Tasha's own child was lead poisoned, she will share her family's story and tell you what she wished she knew at that time. This extraordinary group of families provides support and resources for lead poisoned children and fights tirelessly for better laws to protect kids.



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Nicholas Newman, DO, MS, FAAP
June 7, 2022



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Disclaimer, Acknowledgment & Funding

- This material was supported by the American Academy of Pediatrics (AAP) and funded (in part) by the cooperative agreement award number 5 NU61TS000296-02-00 from the Agency for Toxic Substances and Disease Registry (ATSDR).
- Acknowledgement: The U.S. Environmental Protection Agency (EPA) supports the PEHSU by providing partial funding to ATSDR under Inter-Agency Agreement number DW-75-95877701. Neither EPA nor ATSDR endorse the purchase of any commercial products or services mentioned in PEHSU publications.
- Additional funding: NIEHS P30 ES006096
- I have received research funding from Meridian Bioscience regarding point of care lead testing equipment.



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For Today

- What is lead?
- Where does lead come from?
- Why do we care about lead?
- What can you do to avoid lead
- What to do if you or your family are exposed to lead?
- What about lead and human milk?



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Lead - Review

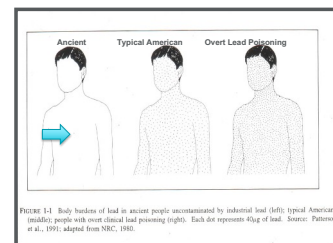
- Found in nature with other metals, resists water
- Used since 6500 BCE
- Ancient Greeks and Romans knew it was toxic
- Toxicity described by Greek Physician Nicander in 2nd Century BCE
- "The first pollutant"



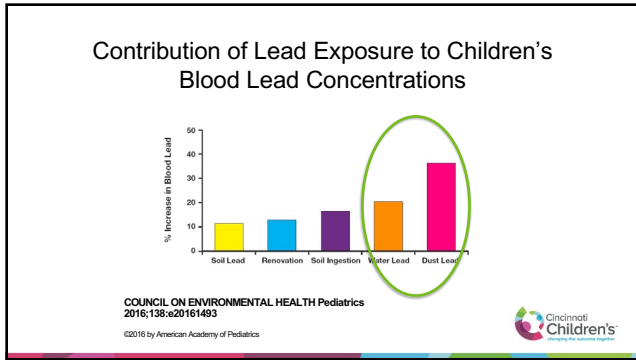
AAP, Pediatric Environmental Health, 2012; Bennett, et al. Cont Peds, 2015
NIOSH/CDC, 2019

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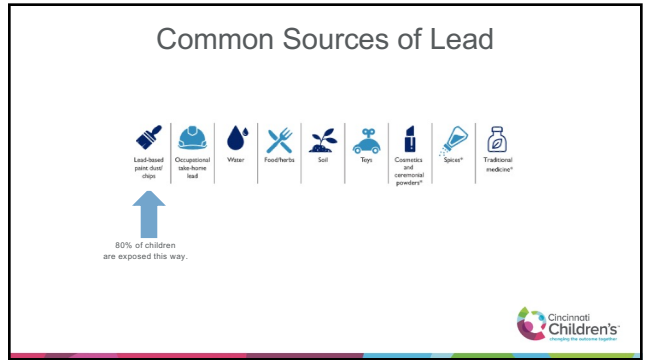
Historical Perspective on Lead Exposure



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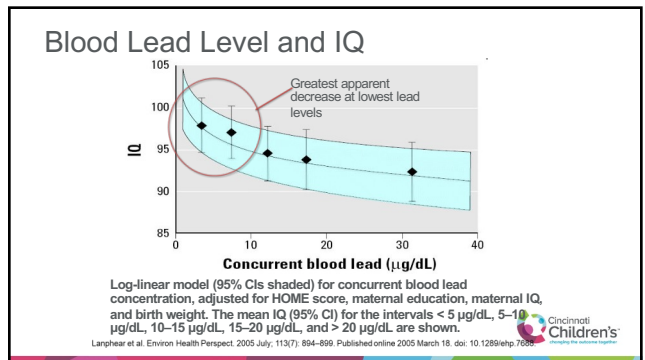
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High Risk Occupations

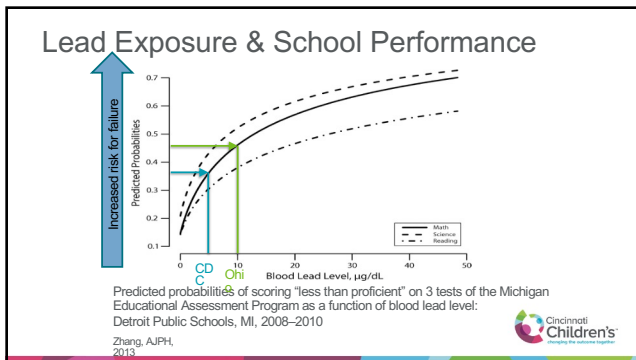
- Construction – lead dust and fumes
- Lead battery workers
- Lead reclamation
- Paint & plastics workers
- Welders
- Police/Military personnel
- Glass makers
- Artists
- Pottery workers
- Auto repair

LaDou, ed. Curr Occ & Env Med, 4th Ed, 2007

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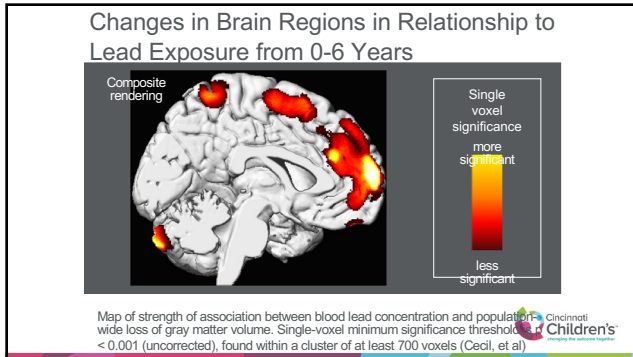
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Childhood Lead Exposure and Behavioral Problems

- Childhood
 - Up to 25% of ADHD may be attributable to lead exposure (BLL >1.3 mcg/dL)
- Adults
 - Antisocial behavior
 - Increased adult criminal behavior & incarceration
 - ~10% risk

Froehlich, et al. Pediatrics, 2009; Needleman, et al. Neurotox & Teratol, 2002; Wright, et al. PLOS Med, 2008; Farrington JAMA Peds, 2018

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Avoiding Lead Exposure

- Housing – careful maintenance and renovation
- Occupational
- Lead service lines
- Foods, Cosmetics, Cultural Powders

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What if my family is exposed to lead?

- Identify the source □ Eliminate
 - This is easier said than done
 - Housing vs Foods/Contaminated Items
- Lead level at age 7-8 years best predicts behavioral problems

Chen, et al Env Health Perspect, 2005; Sears, et al J Expo Sci Env Epi, 2022

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Lead and Human Milk

- Some lead can get into human milk
- Unless producer's lead level is <math>< 40</math>, then human milk is recommended
- Human milk is beneficial for baby's brain and overall development
- Good nutrition
 - Calcium, Iron, Vitamin D

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Thank you!

- Dr. Nicholas Newman
 - Cincinnati Children's Hospital
 - Cincinnati, OH

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Tasha Garrett Parents for Healthy Homes

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Question and Answer Session



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Ways to take action

- Stay connected with us!
- Supporting state and local policies and ordinances
- Advocating for funding to lead clean-up in homes and removal of lead pipes
- Educating your community about reducing lead exposure
- Making sure young children get blood lead tests



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Resources

Ecology Center Resources about lead: www.ecocenter.org/training-materials.

Healthy Children Project website: <https://healthychildrenproject.org/lead>.

We will also share many resources by email including fact sheets on lead in your home, how lead affects children, tips to keep children lead free, and adult exposures to lead.

Learning Disabilities Association of America and state affiliates websites

Also, check us out on Facebook and Twitter!

Stay Connected

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