

Child Care and Lead Poisoning Prevention

Virginia Department of Health Childhood Lead Poisoning Prevention Program Janine Kerr, MPH





Webinar Details

During the Webinar



- Use the Q&A function to submit questions during the webinar
- Email your questions to janine.kerr@vdh.virginia.gov

After the Webinar

- Webinar recording & webinar slides posted on the VDH Lead Safe <u>Child Care</u> <u>Centers</u> webpage within 1 week
- Email containing certificate of attendance for the webinar sent to attendees
- FAQs document sent to attendees



National Lead Poisoning Prevention Week!

- Every year during the last week of October, National Lead Poisoning Prevention Week brings people together to increase lead poisoning prevention awareness. It is part of an effort to reduce childhood exposure to lead.
- This year's theme is "**Bright futures begin lead-free**" because every child in every community deserves a bright, lead-free future.
- Get The Facts, Get Your Child Tested, Get Your Home Tested





About the Webinar

Childhood lead poisoning is considered the most preventable environmental disease among young children. Preventing exposure to lead is an important way to keep children happy, healthy, and safe in child care and education settings.

Audience: Child care providers and early education professionals

Objective: To give you the tools and information you need to protect the young children in your care from lead

This webinar covers the following content areas:

- Lead Education & Tips for Preventing Lead Exposure
- Lead Safe Policy
- Resources for Lead Testing and Removal

How to Use This Resource

Child Care and Lead Poisoning Prevention Toolkit

This resource can be used:

- For onboarding new staff
- As an annual refresher training for existing staff
- As a guide for communicating with parents about lead and lead exposure

After reviewing this resource, providers will be able to...

- Understand why lead is dangerous to young children
- Identify sources of lead in child care and early education settings
- Describe tips for keeping child care facilities and early education settings lead safe
- Share important lead poisoning prevention information and resources with parents and caregivers
- Understand and adhere to Virginia lead safe policies
- Utilize resources to help keep risk of lead exposure low



Pre-webinar Poll!





Lead Education & Tips for Preventing Lead Exposure



What is Lead?

- A highly toxic, naturally occurring metal found in the environment
- Lead is very soft and malleable so it has been used in many different products that can be found in and around the home
- Lead prevents the bodies of growing children from absorbing iron, zinc, and calcium. These minerals are essential to proper brain and nerve development
- No amount of lead is safe







Who is Most at Risk?

Children under the age of six are the most at risk for the harmful effects of lead exposure because:

- Their bodies are still rapidly growing and developing
- They are more likely to be exposed to lead from crawling on the floor and hand-to-mouth behaviors
- Their bodies absorb lead more easily than the bodies of adults

Some populations are at higher risk of lead poisoning, but all children can be exposed to lead and harmed by lead.



Negative Health Impacts of Lead Exposure

How is exposure to lead dangerous for young children?

- Exposure to lead can cause...
 - Slowed growth and development
 - Learning and behavior problems
 - Hearing and speech problems
 - Damage to the brain and nervous system
- These health issues can contribute to...
 - Decreased IQ
 - Inability to pay attention
 - Decreased performance in school
 - Increased aggressive behavior





Lifetime Impact of Lead on the Brain



- MRI of an adult brain that was exposed to lead during childhood
 - Higher lead exposure was associated with a smaller prefrontal cortex in young adults
 - This area of the brain is responsible for attention, decision making, and emotional regulation



Sources of Lead Exposure

There are many different sources of lead, but some of the most common are:

- Chipping and peeling paint (in homes built before 1978)
- Water from pipes and plumbing containing lead
- Lead-contaminated soil
- Imported or antique toys
- Imported candy
- Ceramics and pottery
- Traditional folk medicines and cosmetics

Children are often exposed to lead through ingestion and inhalation.









Recalls



Cinnamon applesauce pouches recalled in late 2023

Consumer Product Safety Commission: https://www.cpsc.gov/



Craft buttons recalled in 2023



Croquet set recalled in 2024



Blood Lead Testing

- Most children that are exposed to lead don't show any signs or symptoms that they are sick.
 The best way to know for sure if a child has been exposed to lead is with a blood lead test
- In Virginia, every child that falls under any of the risk criteria listed below must get a blood
 lead test at ages 1 & 2, or up to 6 years of age if they have not yet received a blood lead test
 - 1. Is eligible for or receiving Medicaid or WIC
 - 2. Lives in housing or attends a childcare facility built pre-1960
 - 3. Lives in housing build pre-1978 with evidence of deteriorating paint or undergoing renovations
 - 4. Lives in or visits housing where another person has evidence of lead exposure
 - 5. Spends time with an adult whose job/hobby involves lead exposure
 - 6. Lives near an active lead industrial site
 - 7. Has a parent or guardian who requests testing
 - 8. Is a recent refugee, immigrant, or adoptee from outside US

Blood Lead Testing Cont.

How can child care providers make sure the children in their care are getting blood lead tests if they are at risk for lead exposure?

- Give parents the VDH Lead Risk Checklist so they can determine if their child should get a blood lead test
- Hand out or send parents VDH Lead Safe <u>educational materials</u> about lead and why blood lead testing is important
- Explain that a blood lead test is the best way to know for sure if their child has been exposed to lead



Lead Poisoning Prevention Strategies

Blood lead testing lets us know if a child has already been exposed to lead. We also want to prevent exposure before it even happens.

The good news is, there are also simple and effective steps you can take to prevent children from being exposed to lead. Performing these simple tasks can reduce the risk of children being exposed to lead in your child care location:







Wash toys often

- Toys can become contaminated with lead dust, which small children can accidentally ingest or inhale if they put toys in their mouths
- Make sure all children wash their hands before eating
 - CDC has excellent hand washing <u>educational materials</u>
- Wipe down counters, tables, and food preparation areas daily
- Wet-wipe and wet-mop floors, baseboards, windowsills, and entryways weekly
 - This will remove any lead dust or lead-contaminated soil in the facility









Section Educate

- Show young children how to wash their hands well
- Encourage good nutrition
- Encourage parents to talk to their health care provider about blood lead testing for their children at ages 1 & 2 (or up to age 6 if they haven't received a blood lead test)
- Share lead poisoning prevention education with parents and caregivers
 - The VDH Lead Safe website has many <u>educational</u> <u>materials</u> in different languages about lead safety that child care providers can pass out to parents

Lead 101 For Parents & Caregivers

WHAT IS LEAD, AND WHY IS LEAD DANGEROUS?

- · Lead is a highly toxic metal that is found in the environment.
- Lead is particularly dangerous for young children. This is because they are still
 growing and developing. It is also dangerous for pregnant women. If a pregnant
 woman is exposed to lead it can harm the unborn child.
- Lead poisoning in children can lead to lower intelligence quotient (IQ), hyperactivity (ADHD) and developmental, attention, and learning problems.
- High blood lead levels can cause headaches, irritability, hearing loss, and abdominal pain.

HOW ARE CHILDREN EXPOSED TO LEAD?





Nutrition & Lead

- Nutrition is one of the ways to protect children from the harmful effects of lead
- A nutrient dense diet full of iron, calcium, and vitamin C can prevent lead from being absorbed in the body
- Avoid giving out imported candies these may contain lead



Some imported candies that contain tamarind or chili powder have been found to contain unsafe levels of lead



Sources of Nutrients





${\mathbb Q}$ Inspect & Address



- Check often for chipping and peeling paint if your home or facility was built pre-1978
 - If you find any, develop a plan to **safely** repair it, adhering to <u>EPA's RRP Program rule</u>.
- Move cribs and furniture away from possible sources of lead
- Have your water tested for lead (more on this later)
 - In the meantime, flush pipes for 60 seconds before using water, and use only cold water for cooking and drinking (if your building was built before 1986)
 - Avoid using hot water from the tap for mixing infant formula
- Have the paint and soil in and around your home or facility tested for lead by a certified lead inspector



Lead Risk Assessment

• What is a risk assessment?



- An on-site investigation by a licensed risk assessor to determine if there are lead hazards present at your location. Lead hazards include any possible lead in the paint, dust, and soil
- The EPA maintains a list of all EPA-certified Inspection, Risk Assessment, and Abatement Firms. Use their look-up tool to find a certified firm near your location
 - EPA Lookup Tool
- EPA Lead Renovation, Repair, and Painting (RRP) Program
 - EPA requires that RRP projects that disturb lead-based paint in homes, child care facilities and preschools built before 1978 be performed by lead-safe certified contractors

Staff Talking Points for Concerned Parents

Childhood lead poisoning can be a scary and stressful topic for parents and caregivers. Here are some talking points for communicating with parents and caregivers about lead safety in your facility.

- Know the age of the building. If it was built before 1978, there is a high chance there is lead paint present
 - If it was built before 1986, there is a chance there are lead service lines
- If the building has been safely and properly treated to remove lead hazards, share the treatment history with parents
- If the building has received no formal risk assessment or treatment, check for deteriorating paint on walls, windowsills, and high friction areas (doorways, windows)
 - If deterioration is discovered, create a plan to safely repair the area (adhering to EPA's RRP rule)
 - Share the treatment plan with parents, including: intent to remove children from the area while work is conducted, the repair schedule, the reason for repair, safety mechanisms in place during the repair, etc
- If lead is found in your facility, communicate with parents what the facility is going to do to safely remove the lead hazard. Sample communication for parents can be found in the toolkit resources on the VDH Lead Safe website



Lead Safe Policy



Early Childhood Care and Education: Head Start Blood Lead Testing Requirement

- Head Start is a federally funded early childhood care and education program option that serves the most vulnerable children and families
- Head Start programs currently follow the lead screening requirement under the <u>Early and Periodic</u> <u>Screening, Diagnostic, and Treatment (EPSDT) program of the Centers for Medicare and Medicaid</u> <u>Services</u> that requires all children to 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
- Lead safe policy is also incorporated into the recently updated federal Head Start Program Performance Standard <u>45CFR 1302.47(b)(10)</u> that all programs must adhere to when implementing program operations.
 - A program must develop a plan to prevent children from being exposed to lead in water and paint in Head Start facilities. In facilities where lead may exist, a program must implement ongoing practices, including testing and inspection at least every two years, with support from trained professionals. As needed, a program must pursue remediation or abatement to prevent lead exposure.



Early Childhood Care and Education: Head Start Blood Lead Testing Requirement

- What strategies can be utilized to meet the Head Start Lead Safe Requirement?
 - Build partnerships with local Health Care facilities.
 - Work with your Head Start Health Advisory Committee to organize outreach to primary care physicians.
 - Access resources available on the early childhood learning and knowledge center website specific to <u>Lead Poisoning Prevention</u>.
 - Programs may also purchase lead screening equipment for students to be tested onsite.



Early Childhood Care and Education: Statutes and Standards for Lead Safety

There are standards and statutes in place for child care programs to help reduce the risk of children being exposed to lead in child care settings.

- Licensed Child Day Centers, Licensed Family Day Homes and Subsidy Vendors: The standards require that areas and equipment of the child day program, inside and outside, are maintained in a clean, safe and operable condition. Unsafe conditions include chipped or peeling paint. Additional identified unsafe conditions can be found in the standards for each program (<u>8VAC20-780-270 A</u>, <u>8VAC20-800- 240 A</u>, <u>8VAC20-790-630 A</u> and <u>8VAC20-790-260 A</u>)
- Licensed Family Day Homes: The standards also require that equipment and materials used by children be clean, nontoxic, and free from hazards such as lead paint, sharp edges or points, loose parts, and rust (<u>8VAC20-800-480 E</u>)



Early Childhood Care and Education: Statutes and Standards for Lead Safety

- Voluntarily Registered Family Day Homes: The standards require that the home is in good repair with no peeling lead paint (<u>8VAC20-850-110 C</u>)
 - Voluntary Registration Health and Safety Checklist PDF
- Licensed Child Day Programs and any Program Described in Subdivision A 4, B 1, or B 5 of § <u>22.1-289.030</u> that Serves Preschool-Age Children: The Code of Virginia requires these programs to develop and implement a plan to test potable water for lead from sources identified by the U.S. Environmental Protection Agency as high priority, or instead use bottled water, water coolers or a similar water source that meets the U.S. Food and Drug Administration standards for bottled water. The plan and test results, or the decision to use bottled water must be submitted and reviewed by the Department of Health's Office of Drinking Water (§ <u>22.1-289.057</u>)
 - Inspectors will begin determining compliance effective January 1, 2025. <u>More information</u>.



Lead in Drinking Water

Lead in Drinking Water

Despite significant efforts to reduce lead in drinking water, there are still many lead service lines in place today. There are different options for finding out if there are unsafe levels of lead in your water depending on your water source.

Types of Water Systems

Public Water Systems:

- Community Water System
- Non-transient non-community water system
- Transient non-community water system

Private Water Systems:

• Private wells





Public Water Systems: Lead Rules and Regulations

- <u>Safe Drinking Water Act</u>: Established to protect the quality of drinking water in the U.S.
 - Allows the EPA to establish standards to protect tap water and requires all owners and operators of PWS to comply with said standards
- Lead and Copper Rule (LCR): Established to control lead and copper in drinking water
 - The LCR requires systems to monitor drinking water and provide action and education if lead and copper concentrations exceed the LCR action level.
 - The LCR applies to all community water systems and non-transient non-community water systems
 - The LCR is a protective approach to identifying problems in an entire water system, not necessarily at single specific location

• EPA 3Ts for Reducing Lead in Drinking Water in Schools and Child Care Facilities

• Testing, Training, and Taking Action. Not a regulation, but rather a recommended framework for implementing a voluntary water testing program to reduce lead in drinking water



Public Water System – Community Water System

- A public water system (PWS) that serves the same people year-round. Most residences (including homes, apartments, and condominiums in cities, small towns, and mobile home parks) are served by Community Water Systems
- Consumer Confidence Reports (CCRs)
 - The EPA requires community water suppliers to test water quality regularly. The results of these water quality tests can be found in CCRs, provided annually
 - Ask your water supplier (or landlord, if you live in an apartment building) for a copy of the CCR for your address
 - <u>Understanding Your CCR</u>
- Visit the <u>VDH Office of Drinking Water</u> page or the CDC <u>Consumer Confidence Report</u> page for information about community water quality testing. The VDH Office of Drinking Water is Virginia's regulatory body for safe drinking water

VDH School and Child Care Lead Testing and Reduction Grant Program



- Provides free sampling kits and technical assistance for **eligible** facilities to sample facility faucets and fountains for lead presence.
- Once samples are collected, facility managers can use prelabeled return boxes to send samples to our state contracted labs for testing.
- For samples that indicate a lead exceedance, the Office of Drinking Water (ODW) can provide technical assistance and guidance for remediation options.
- Contact: <u>leadtestingprogram@vdh.virginia.gov</u>
- <u>Website</u>

*VDH has reached capacity for September enrollment. VDH will begin accepting enrollments again at a later date (to be announced).

Private Water System

- Private water systems are those that serve no more than 25 people at least 60 days of the year and have no more than 15 service connections (varies by state). Most private water systems use groundwater wells
- EPA regulations that protect public drinking water systems **do not apply** to privately owned wells. As a result, owners of individual water systems are responsible for ensuring that their water is safe from contaminants, including lead





Private Water System – Private Wells

- Well Water Testing: Drinking Water Clinics
 - The Virginia Household Water Quality Program hosts drinking water clinics across the state. These clinics:
 - 1. Inform citizens of the water quality issues in the area
 - 2. Distribute reduced cost water sampling kits
 - 3. Demonstrate how to correctly collect water samples at your location
- Collected water samples are sent to VA Tech for analysis and results are sent to the homeowner. An interpretation meeting is held at the end of the clinic to walk residents through their water quality results and what follow up actions are needed. Find a clinic happening near you: <u>Drinking Water</u> <u>Clinic Schedule</u>

The VAHWQ Program tests for other contaminants in addition to lead, including bacteria and nitrate. If there is no clinic happening near you, you may visit this list of <u>private certified water testing labs</u> or contact Erin Ling at <u>ejames@vt.edu</u> to submit water samples for testing and analysis.



POU Water Filtration Devices



- A lower cost option for reducing the risk of lead exposure via water.
- Some facilities may not have the time or resources to undergo lead service line replacement.
 POU water filtration systems are a more budget friendly option that can still reduce the risk of lead exposure from water
- Point-of-use water filtration devices are used to remove impurities, including lead, from water at the point of use (a faucet, refrigerator, pitcher, or water bottle)
- <u>Research suggests</u> that POU filters can be very effective at removing lead from drinking water
- The EPA created a <u>Consumer Tool</u> for Identifying Point of Use (POU) Drinking Water Filters Certified to Reduce Lead.
- The National Sanitation Foundation (NSF) Public Health and Safety Organization has a guide of <u>Certified Product Listings for Lead Reduction</u> water filters



Post-webinar Poll!



Resources for Additional Information

CDC

- Information about sources of lead: <u>CDC | Sources of Lead</u>
- Information about the health impacts of lead exposure: <u>CDC | Health Impacts</u>
- Proper handwashing guidance and promotion material: <u>CDC | Handwashing Health Promotion</u>
- Information about blood lead testing: <u>CDC | Blood Lead Levels in Children</u>

VDH Childhood Lead Poisoning Prevention Program

- Virginia Department of Health lead prevention in child care centers: <u>VDH | Child Care Centers</u>
- Virginia Department of Health lead poisoning prevention educational materials: <u>VDH | Lead Safe</u>
 <u>Educational Materials</u>
- Virginia Department of Health Childhood Lead Poisoning Prevention Program: <u>VDH | Lead Safe</u> <u>Virginia</u>



Resources for Additional Information

Other

- Questions about compliance and child care health and safety inspections: Office of Child Care Health & Safety @ VDOE | <u>childcarelicensing@doe.virginia.gov</u>
- Consumer Product Safety Commission list of recalls: <u>CPSC | Recalls</u>
- Certified Lead Inspector EPA Lookup Tool: <u>EPA | Locate Certified Inspection, Risk Assessment, and Abatement</u> <u>Firms</u>
- National Center on Early Childhood and Wellness: <u>Lead Screening Well-Care Health Care Fact Sheet</u>
- Lead Safe Renovation, Repair, and Painting: <u>EPA | RRP Program</u>
- EPA POU Water Filtration Devices: EPA | A Consumer Tool for Identifying Point of Use (POU) Drinking Water Filters Certified to Reduce Lead
- For any questions about private water sampling and testing, or to submit a water sample for testing, contact Erin Ling with the Virginia Household Water Quality Program at ejames@vt.edu



Thank you for attending & thank you for your commitment to the health and safety of the children in your care!