

Lead Poisoning Overview

CAHCEO
DECEMBER 6, 2019



Our # 1 Goal = Preventing Lead Poisoning

**Lead: an invisible enemy
that can affect the health
of your child.**



Did you know???

**Lead poisoning
is the most
preventable
childhood illness**



Objectives

- What is lead?
- How are children exposed?
- CT Statistics
- Lead Hazards
- State and Federal Rules
- Resources

What is Lead?

- naturally occurring
- heavy metal
- bluish-gray
- soft
- ductile
- **many historical uses!!**



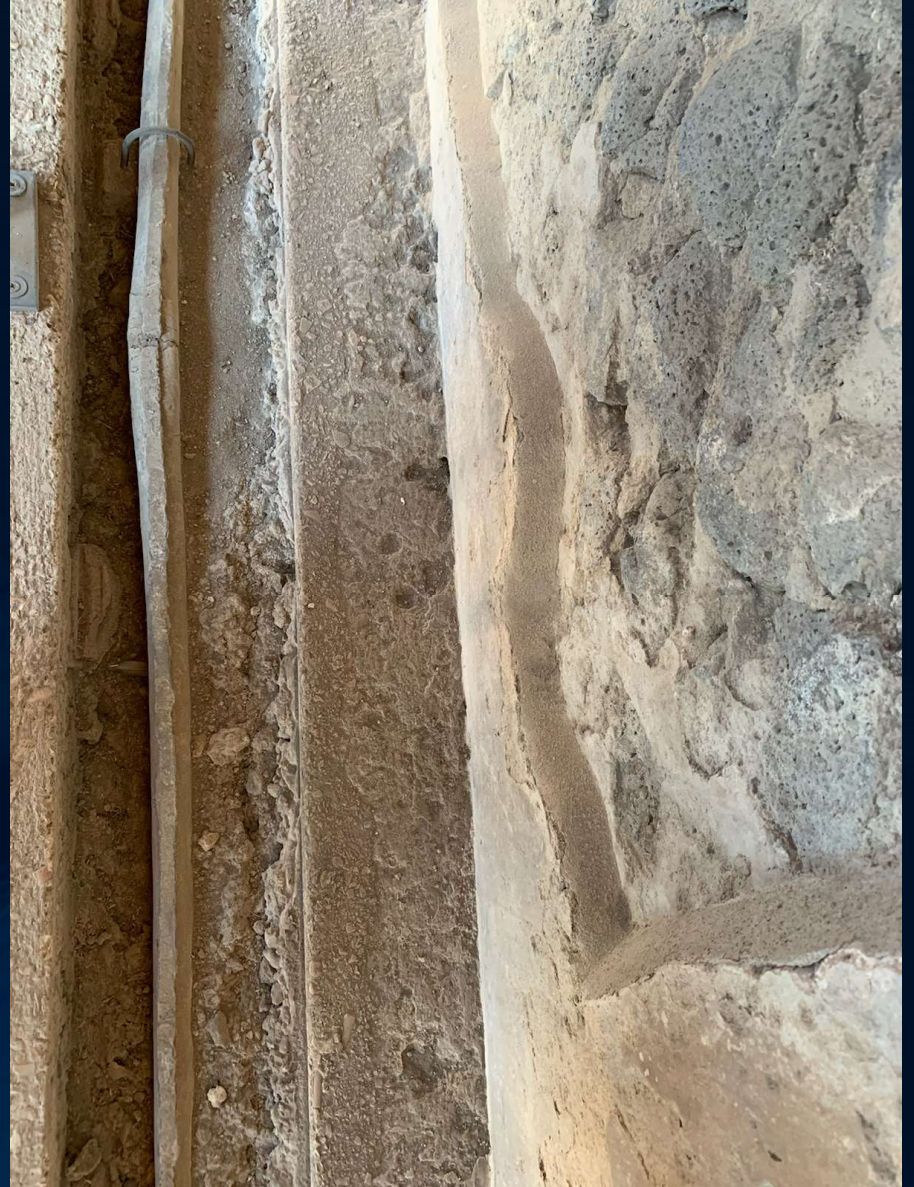
Facts About Lead Poisoning

- Lead is toxic, with no health benefits
- Damage caused is irreversible
- Even low levels of lead can impact a person's health throughout their life
- Lead poisoning is a reportable disease
- **100% preventable**

History of Lead

- First discovered as a by-product in the smelting of silver
- Objects found in Egyptian tombs
- Used to make currency in Syria
- Roman used in aqueducts, water pipes, cookware, cups, and plates
- Used to sweeten wine

Lead water line in Pompeii





Finger Prints



THERE is no cause for worry when finger-print smudges or dirt spots appear on a wall.



**These walls don't
just look good.
They're Yummy Too!**

**New Flavored Lead-Based
Paint and Varnish**

**Great Flavored
Paints (shown)
Candy Candy
Luscious
Milk Chocolate**



A woman with blonde hair is painting a wall with a brush. The wall is green and white striped. The text "Dutch Boy" is visible in the bottom right corner.



A GOOD PAINTER SAVES YOU MONEY—as an expert craftsman he knows the importance of doing little things right, such as sandpapering unevenly worn surfaces so the new paint goes on smoothly.

LEAD INDUSTRIES ASSOCIATION
420 Lexington Avenue, New York, N. Y.

You're money ahead when you paint with
White Lead





RESTYLE YOUR HOME THE MODERN WAY—old houses can be given attractive new looks with modern paint styling that emphasizes best features, subdues bad angles. Do it the economical way with long lasting white lead paint.

Lead Paint Banned

- Tunisia and Greece in 1922
- Czechoslovakia in 1924
- Great Britain and Sweden in 1926
- Poland in 1927
- Spain and Yugoslavia 1931
- Cuba in 1934
- United States of America **1978**



BANNED

Common Sources of Lead

- Environmental
 - Paint
 - Dust
 - Water
 - Soil
- Non-Environmental
 - Ethnic/folk remedies
 - Imported foods
 - Occupations
 - Hobbies
 - Children's jewelry, toys, clothing
 - Spices

Most Commonly Found

- Paint
- Dust

In pre-1978 homes





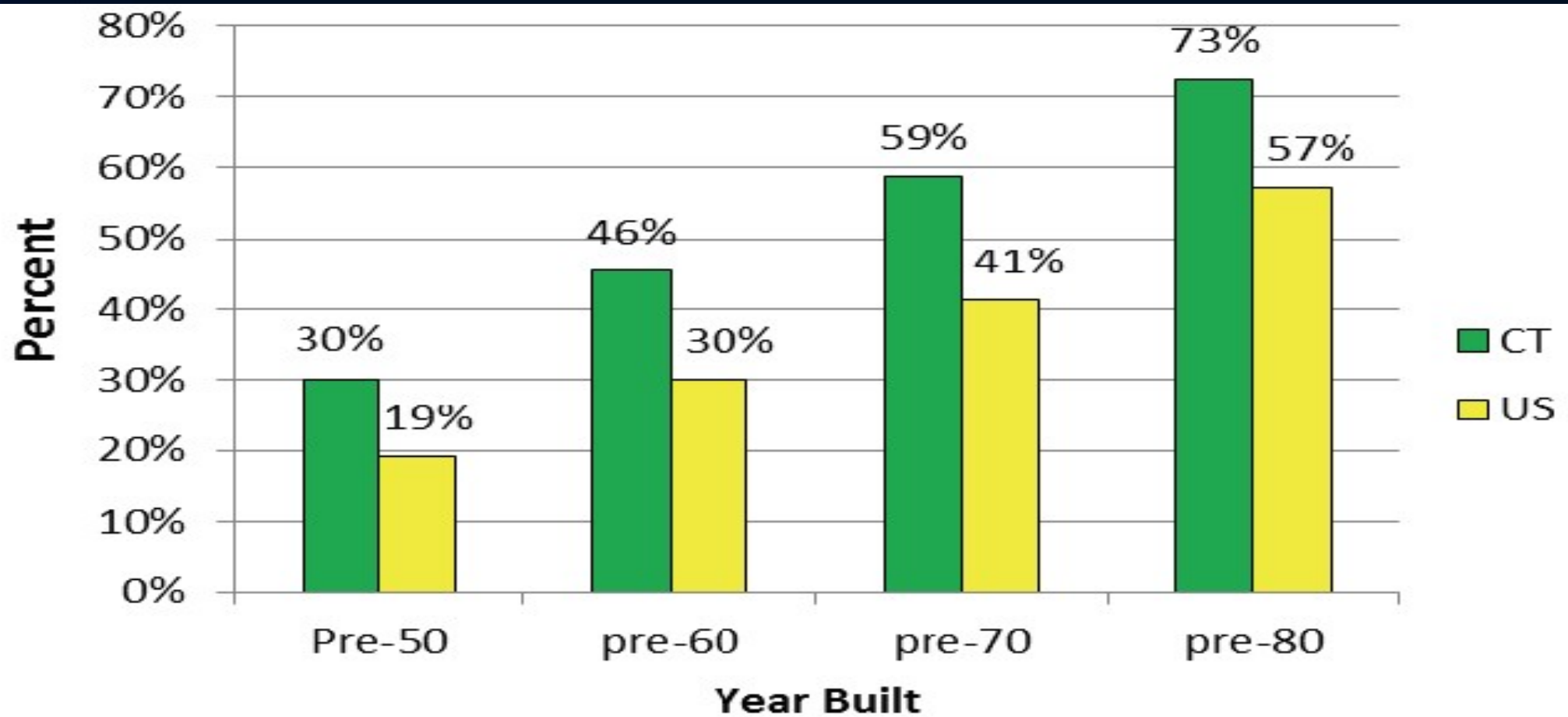


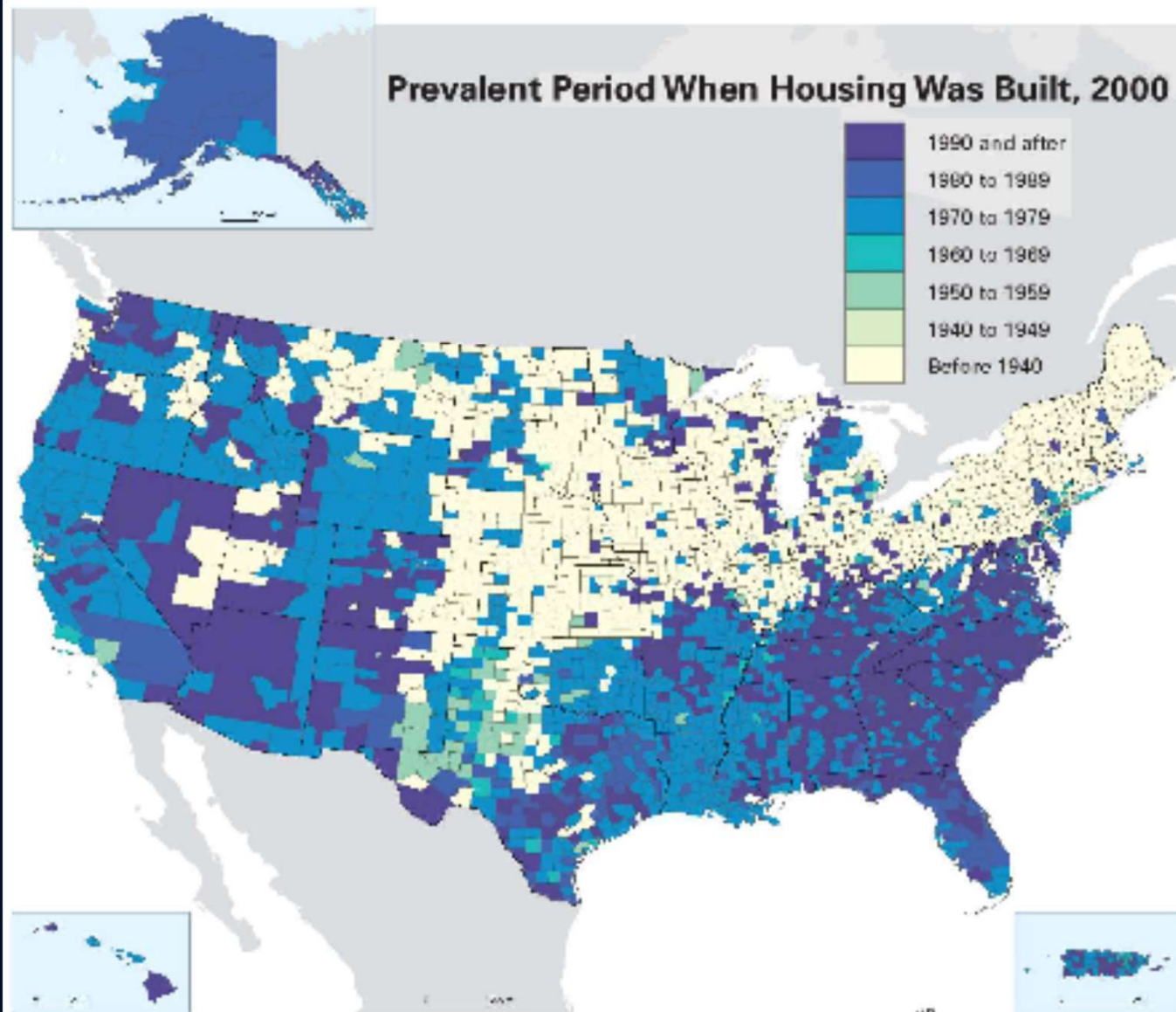




Lead In Paint

- Pre-1978 housing may contain lead-based paint
- **73%** of homes in CT built prior to 1980
- Pre-1950 housing stock has an even higher probability of containing lead paint
 - In CT, 30% of housing stock is pre-1950

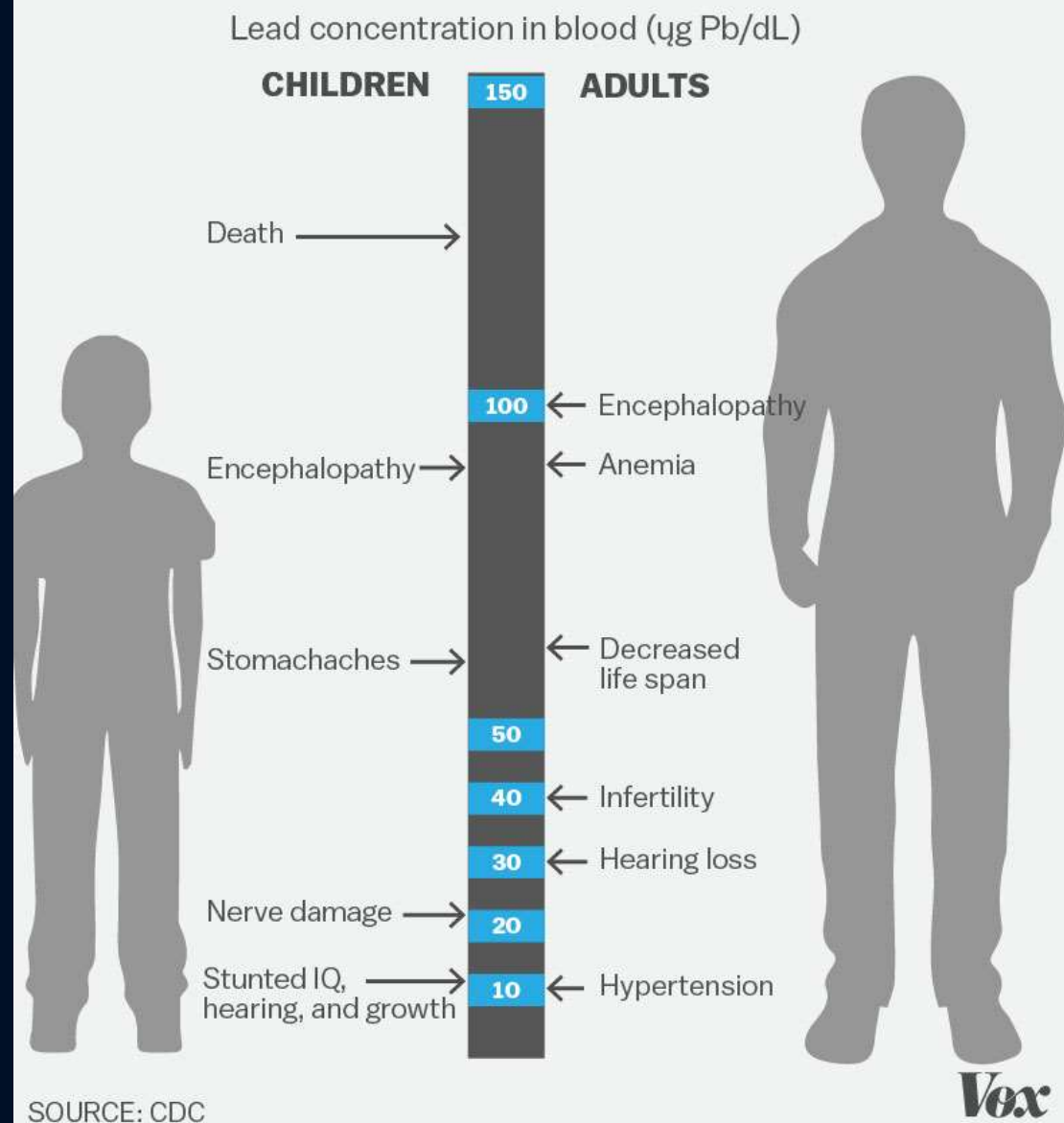




Exposure Routes for Lead

- Ingestion
- Inhalation
- Absorption





Lead Effects on Children

- Young children absorb lead more readily than adults
- Developing nervous systems of children (birth to six) are more susceptible to the toxic effects of lead
- Pregnant women with elevated blood lead levels can transfer lead to the fetus

Lead poisoning's effects on children



Damage to the brain
and nervous system



Slowed growth
and development



Learning and
behavior problems



Hearing and
speech problems

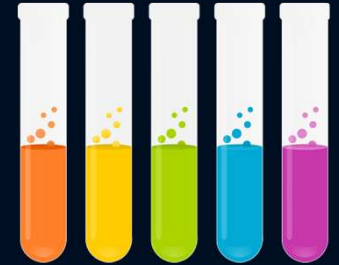
This can cause:

- Lower IQ
- Decreased ability to pay attention
- Underperformance at school



Source: Centers for Disease Control

Diagnosing Lead Poisoning

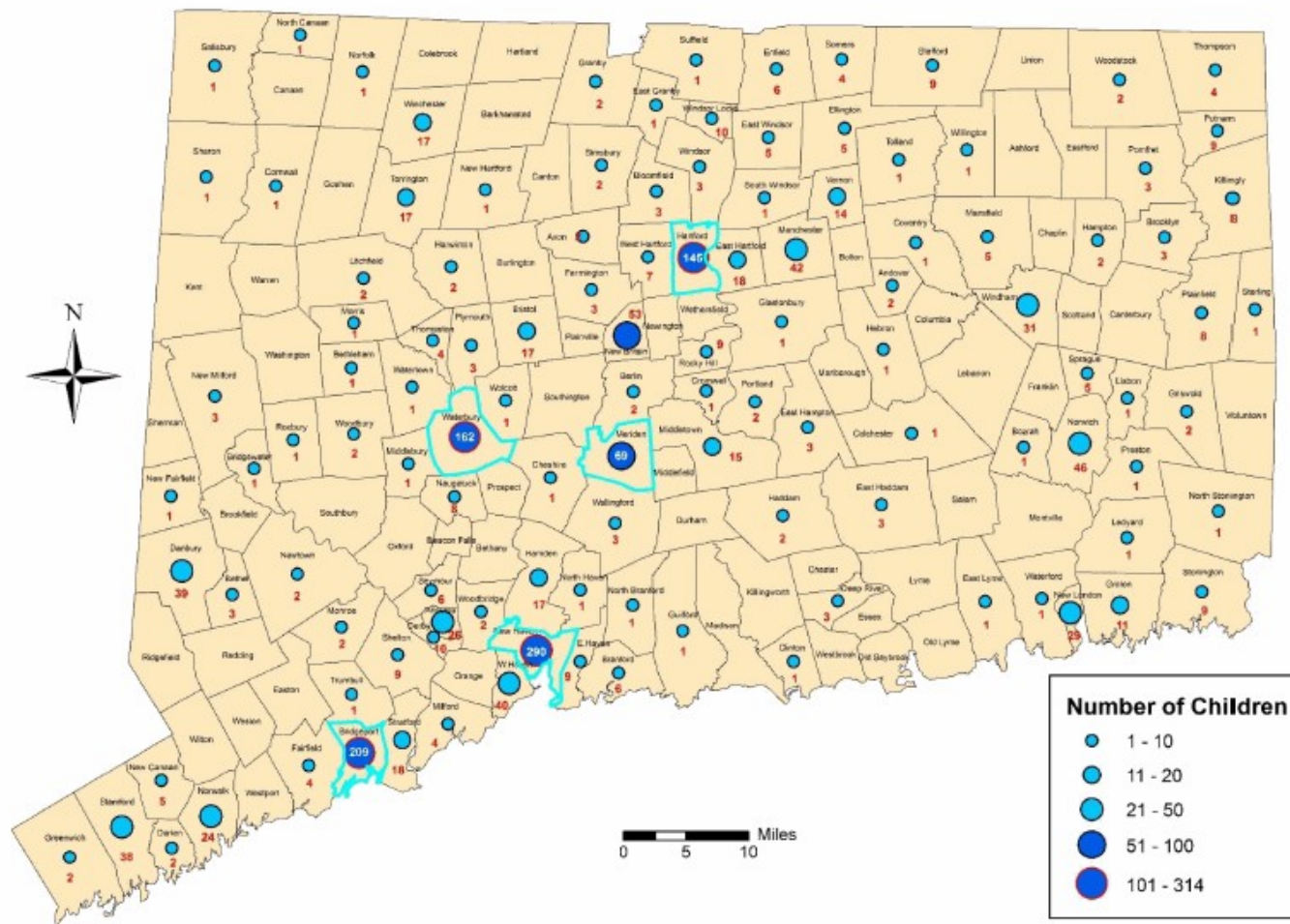


- Blood testing
 - Capillary
 - Venous
- The CDC lowered the Reference Value in 2012, for blood lead: **5 $\mu\text{g}/\text{dL}$ or more**
- CT adopted the Reference Value April 2013

Number of Lead Poisoned Children* Under 6 Years Old by Town, Connecticut 2017


* Blood Lead Level ≥ 5 $\mu\text{g}/\text{dL}$

Total: 1,665 Children



Lead Laws: State and Federal





Lead Poisoning Prevention and Control Regulations 19a-111-1 through 19a-111-11

19a-111-1 through 19a-111-11

- Definitions
- Applicability of regulations
- Regulatory response protocols
- Notification
- Abatement approval
- Abatement of lead
- Methods of abatement
- Time periods for compliance
- Post abatement inspections
- Worker protection
- Occupant protection



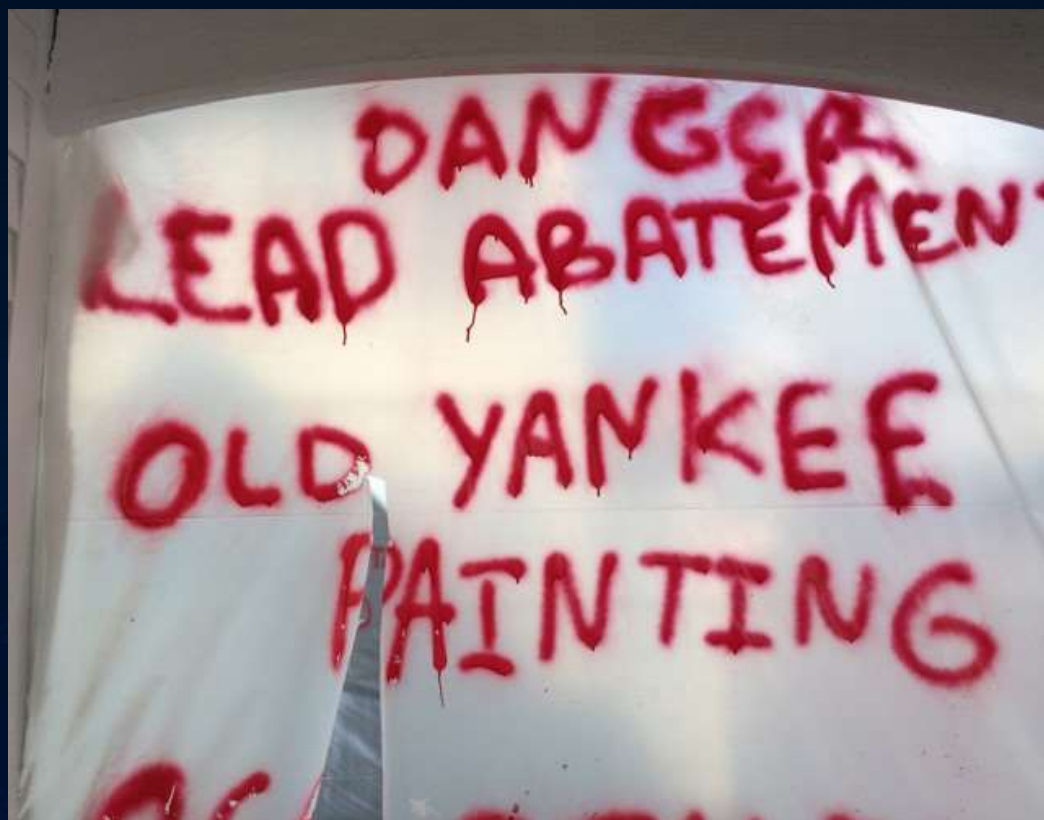
Containment



Containment



Containment



Un-Licensed and/or Non-Certified Work Practices

Problems we've seen:

Uncertified

- lead abatement workers
- lead abatement supervisors
- lead inspector/risk assessors
- lead planner/project designers

Unlicensed

- lead abatement contractors
 - RRP firms
 - home improvement contractors
- lead consultant contractors

Un-Licensed and/or Non-Certified Work Practices



EPA Renovation, Repair and Painting Rule (RRP)

What is the RRP Rule?

The RRP Rule:

- establishes requirements for companies and individuals performing renovations
- affects contractors, property managers and others who disturb painted surfaces
- applies to work in houses, apartments and child-occupied facilities built before 1978
- includes pre-renovation education requirements

When Does the RRP Rule Apply?

- Anyone who is paid to perform work that disturbs more than 6 square feet of paint on the interior or 20 square feet on the exterior, of a house or child-occupied facility, built before 1978 must be certified
- Rent = **COMPENSATION**



Who must be certified?

- Rental property owners/managers
- General contractors
- Home improvement contractors
- Special trade contractors:
 - Painters
 - Plumbers
 - Carpenters
 - Electricians



How to Become Certified

Companies = CERTIFIED FIRM

- Register on EPA's website
- Costs \$300
- Valid for 5 years

Individuals = CERTIFIED RENOVATOR

- Take an 8 hour class
- Costs vary between \$150-\$300
- Valid for 5 years





Mechanical Sanding and Dry Scraping



Mechanical Sanding and Dry Scraping



Mechanical Sanding and Dry Scraping



Uncontained Debris



HUD Lead Safe Housing Rule (LSHR)

Types of Housing Covered

- Federally-owned housing being sold
- Project-based assistance
- Public housing
- Housing occupied by a family receiving a tenant-based subsidy
- Multifamily housing for which mortgage insurance is being sought
- Housing receiving federal assistance for rehabilitation



LSHR Amendment

- January 13, 2017
 - New amendment to the LSHR
 - Responding to cases of children under age 6 living in certain categories of federally funded housing who have elevated blood lead levels $\geq 5\mu\text{g/dL}$
 - An amendment to the term elevated blood lead level to align with CDC's recommended level of concern

Review of HUD requirements

- Adoption of CDC's 2012 changes
 - Level of concern to reference value
 - Reference value now 5 $\mu\text{g/dL}$ (micrograms/deciliter)
- Terminology change from EIBLL to EBLL
 - EBLL = HUD only required inspection for a 5 $\mu\text{g/dL}$ or greater
- Environmental testing changes






HUD & EPA 1018 Disclosure Law





What is the Section 1018 Disclosure Rule


- Section 1018 of Title X, requires the disclosure of known information on lead-based paint and lead-based paint hazards before the sale or lease of most housing built before 1978



**Protect
Your
Family
From
Lead in
Your
Home**

 **EPA** United States
Environmental
Protection Agency

 **United States
Consumer Product
Safety Commission**

 **United States
Department of Housing
and Urban Development**

June 2017

What is Required?

Before consent of a contract, sellers/landlords must:

- Give an the EPA information pamphlet on identifying and controlling lead-based paint hazards, Protect Your Family From Lead In Your Home

Sellers or landlords must disclose:

- Location of the lead-based paint
- Location of lead-based paint hazards
- Condition of the painted surfaces



What is Required?

- Provide any reports on lead-based paint
- Include an attachment that:
 - Includes a Lead Warning Statement
 - Confirms that the seller or landlord has complied with all notification requirements
- Sellers, landlords, agents, homebuyers and tenants must sign and date the attachment
- Sellers must provide homebuyers with 10 days to conduct a paint inspection



OSHA Standards for Lead



Two Standards

- General Industry
 - 29 CFR 1910.1025
- Construction
 - 29 CFR 1926.62
 - Applies to all construction work where an employee may be exposed to lead
 - All work related to construction, alteration or repair
 - Includes painting and decorating

Employees With Greatest Risk

- Abrasive blasting
- Welding, cutting or burning on steel structures
- Lead burning
- Using lead-containing mortar
- Cleaning with power tools without a dust collection system
- Rivet busting
- Heat gun applications

Resources

www.ct.gov/dph

www.epa.gov

www.hud.gov

www.cdc.gov

www.osha.gov



Fact Sheets – English and Spanish

REDUCING LEAD HAZARDS IN THE HOME

The fact is, you can protect your child from lead poisoning. It takes removing or managing lead hazards, such as lead paint dust, and by using proper lead dust cleaning techniques on a regular basis.

Lead poisoning is 100% preventable. And how you clean your home can make all the difference. Please read this flyer to find out more.

Seven facts about lead-based paint and lead dust

FACT #1
The use of lead paint in homes was banned in 1978. Homes built before 1978 may contain lead paint. Older homes, built prior to 1950, are very likely to contain lead paint.

FACT #2
Lead dust is produced from lead paint. As the paint gets older, it may be damaged by moisture or if it's disturbed.

FACT #3
Lead dust is very fine; it cannot be seen.

FACT #4
Lead dust is the most common source of lead poisoning for everyone, especially children and pets. Children between the ages of one and two are at the greatest risk for being poisoned.

FACT #5
Lead poisoning usually occurs when children put lead dust in their mouths after touching it.

FACT #6
Children may also eat chips of lead paint. The paint chips may come from household lead paint, as on old windows or porches, or from paint chips in bare soil in the yard.

FACT #7
Your local health department will try to find where the lead paint and lead hazards are found in your home. With this information they can determine whether the lead hazards in your home should be removed or managed.

REDUCING LEAD HAZARDS AT HOME

CLEANING TOOLS

- Plastic or rubber gloves that can be thrown away after each use
- Plastic trash bags
- Two (2) or three (3) plastic buckets
- A spray bottle
- Lint-free rags or paper towels that can be thrown away after each use
- Any general purpose cleaning product. Do not use bleach.
- Industrial vacuum with a HEPA filter, known as a HEPA vacuum
- Vacuum all carpeting and rugs using an industrial HEPA vacuum ONLY

CLEANING SURFACES

- When removing large paint chips, wear plastic gloves. Place them into a plastic trash bag.
- Remove smaller paint chips by vacuuming with a HEPA vacuum.
- If sweeping paint chips, mist the paint chips with water from a spray bottle, then sweep them up and put them into a trash bag.
- Clean one room at a time. Clean the highest surfaces first and work your way to the floor.
- Always start at the farthest corner of the room and work your way to the door.
- To learn more about cleaning lead dust, see our flyer online.

PREVENT LEAD POISONING BEFORE YOU CAN'T

To find out more, contact the Connecticut Department of Public Health Lead and Healthy Homes Program at 860-509-7299. Or, you can call your local health department.

PREVENTING LEAD DUST INSIDE & OUT

INSIDE

- Move furniture to block your child from paint that is chipping and peeling. Block any painted area on which your child might bite, chew or suck, such as windowsills.

SEVEN FACTS ABOUT LEAD-BASED PAINT AND LEAD DUST

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FACT #5
Lead poisoning usually occurs when children put lead dust in their mouths after touching it. Lead dust can be found on many surfaces such as windowsills, floors and even toys. When children put these surfaces in their mouths, they are putting lead dust in their mouths as well.

FACT #6
Children may also eat chips of lead paint. The paint chips come from household lead paint, as on old windows or porches, or from paint chips in bare soil in the yard.

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TIPS FOR CLEANING LEAD DUST

CLEANING TOOLS

- Plastic or rubber glove that can be thrown away after each use
- Plastic trash bags
- Two (2) or three (3) plastic buckets
- A spray bottle
- Lint-free rags or paper towels that can be thrown away after each use
- Any general purpose cleaning product will work. Do not use bleach.
- Industrial vacuum with a HEPA filter, known as a HEPA vacuum.

CLEANING WITH CARPETS

Wall-to-wall carpets: Vacuum the rug using an industrial HEPA vacuum ONLY. Vacuum the rug slowly from the corner furthest from the door toward the door. Steam cleaning rugs is also an option.

Area rugs: Begin vacuuming at the top of the rug with a HEPA vacuum as described above. Next, fold the rug in half and vacuum the back of the rug and floor normally. Do the same to the other half of the rug.

Scatter rugs: Wash scatter rugs in a washing machine. Do not put any clothes in the washing machine with the scatter rugs.


CLEANING WITHOUT CARPETS

Wet cleaning: This cleaning method is for wood floors, windowsills, window wells, counters, radiators and all of your children's toys. A wet rag is best for windowsills and window wells. Toys can be cleaned in the sink or tub. To wet clean, fill one bucket with water and cleaning solution and another bucket with plain water. Use a different cleaning rag or paper towel in each bucket. Once you clean the surface, rinse it with a new rag or paper towel using just plain water. Empty and rinse the buckets and refill for each room you clean.

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Several Languages



CT DPH LEAD & HEALTHY HOMES PROGRAM

FACT SHEET

Lead Poisoning Prevention

Where is Lead Found?

- **Paint:** Lead can be found in paint that was made before 1978. This paint can be on any painted surface in your home, like doors, windows, and porches.
- **Dust:** Lead dust in the home is comes from lead painted surfaces that are chipping and peeling. Sanding and scraping old paint when repainting or remodeling can also cause a lead dust problem.
- **Soil:** Old paint that has fallen off the outside of your house onto the ground may have left lead in the soil.
- Lead can also be found in ceramic dishes, crystal, food cans from outside the U.S., water pipes, solder and fittings, and some ethnic cosmetics and home remedies.
- Some jobs and hobbies can expose children and adults to lead. Some examples are painters, house remodelers, plumbers, mechanics, bridge workers, making jewelry, ceramic/pottery or stained glass, and going to indoor firing ranges.

Is Your Child At Risk For Lead Poisoning?

If you answer yes to any of these questions you may want to have your child tested, even if your child is older.

- Does your child live in or often visit a building built before 1960?
- Does your child live in or often visit a building built before 1978 that is being or was just repaired or remodeled?
- Does your child live in or often visit a building that has peeling or chipping paint?
- Does your child live with an adult or often visit an adult whose job or hobby exposes them to lead?
- Does your family eat or drink from dishes made outside the U.S.?
- Does your family use home remedies?

How does a child get lead poisoned?

- Lead poisoning usually happens when children ingest (eat) dust that has lead in it. Children may also eat chips of lead paint or soil that has lead in it.

What Does Lead Do to the Body?

- No amount of lead in the body is safe. The damage lead can cause is forever! Lead can damage the brain. It can cause growth problems, hearing loss, and learning problems.
- Many children do not show signs of lead poisoning. Some signs of high levels of lead poisoning are the same as other childhood illnesses, like the common cold or teething.



CT DPH LEAD & HEALTHY HOMES PROGRAM

FACT SHEET

Eating Right Helps Fight Lead Poisoning

Lead tricks the body into thinking it is iron, calcium or zinc. Eating healthy can help decrease the lead from staying in the body.

Don't let your child go through the day on an empty stomach!

Five Basic Food Groups

- Breads, cereals and grains
- Vegetables
- Fruit
- Milk and milk products
- Meat, chicken, fish, nuts, and beans



Foods Rich in Calcium

- Milk
- Yogurt
- Cheese (for snacks, in cooking such as macaroni and cheese, pizza, tortillas, vegetables)
- Foods made of milk (pudding, soup, ice cream, custard)
- Sardines or canned salmon (with bones)
- Green vegetables (kale, collard greens, broccoli)



Foods Rich in Zinc

- Chicken or turkey
- Lean meat
- Fish
- Milk and cheese
- Clams, oysters, mussels, crab
- Dried beans and lentils
- Eggs



- Arabic
- Chinese
- Dari
- English
- Haitian Creole
- Hindi
- Pashto
- Polish
- Somali
- Spanish
- Swahili
- Urdu

HUD Lead Hazard Reduction funded programs in Connecticut



| Name of Program | Contact(s) | Town(s) Covered |
|---------------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| City of Bridgeport | Audrey Gaines – 203 576-7131 | Bridgeport |
| CT Children's Healthy Homes Program | Chris Corcoran – 860 837-6242 | Bridgeport Danbury East Hartford East Haven Enfield Hartford Manchester Meriden New Britain New Haven Norwalk Stamford Torrington Waterbury West Haven Winchester Windham |
| Naugatuck Valley Health District (CT Children's Healthy Homes Program) | Carol Slajda – 203 881-3255 | Ansonia Beacon Falls Derby Naugatuck Seymour Shelton |
| City of New Britain (CT Children's Healthy Homes Program) | Chris Corcoran – 860 837-6242 | New Britain |
| City of New Haven | Rosalyn Hamilton – 203 946-6978 | New Haven |
| City of Hartford | Arlene Robertson – 860 757-4773 Jeserika Figueroa – 860 757-4720 | Hartford |
| City of Norwich | Wayne Sharkey – 860 823-3770 | Norwich |
| City of New London | Tom Bombria – 860 437-6346 | New London |
| City of Waterbury | Francis Ford – 203 574-6786 Richard Lee – 203 346-3903 | Waterbury |



“Other” funded lead programs in Connecticut

| Name of Program | Contact(s) | Town(s) Covered |
|--------------------------------------------------------------------------------------------------------|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| State of CT Department of Housing bond funds (administered by the CT Children’s Healthy Homes Program) | Chris Corcoran – 860 837-6242 | Statewide |
| HUD Community Development Block Grant funds (administered by the State of CT Department of Housing) | Local economic and community development office | Varies - towns with less than 50,000 residents may apply, must check with each local town for availability |
| Capital for Change | Main Office – 860 233-5165 | Statewide – offers a variety of programs and services to help people purchase homes and keep housing safe, efficient, and affordable |

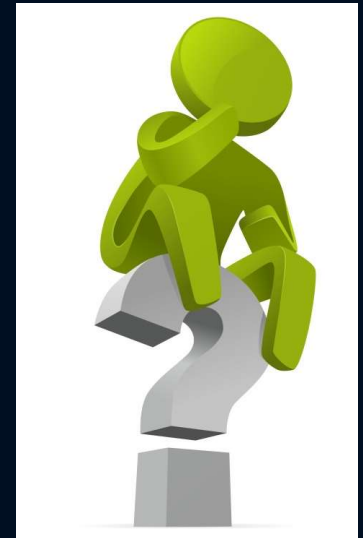


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IS 100%
PREVENTABLE**

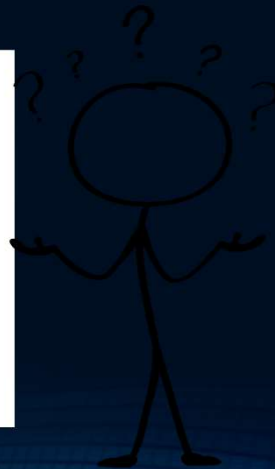
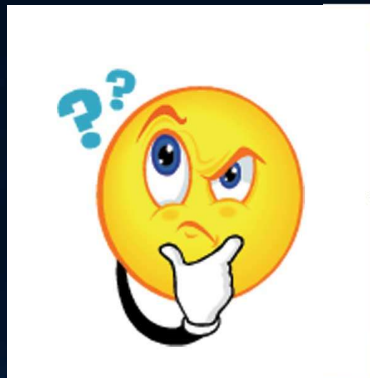




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Questions???





Contact:

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