

Childhood Lead Poisoning Prevention and Lead Hazard Control

Amy Dobrinin, REHS, Inspector/Assessor



Objectives

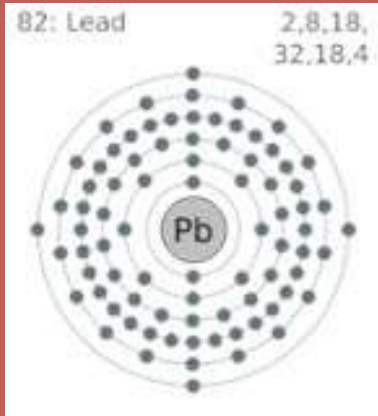
- Understand lead poisoning issues (health effects, sources, etc.).
- Identify lead hazards via visual inspections.
- Review applicable laws governing lead hazards.
- Learn about the Childhood Lead Poisoning Prevention Program
- Learn about the HUD Lead Hazard Reduction Grant



What is Lead?



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Periodic Table of the Elements

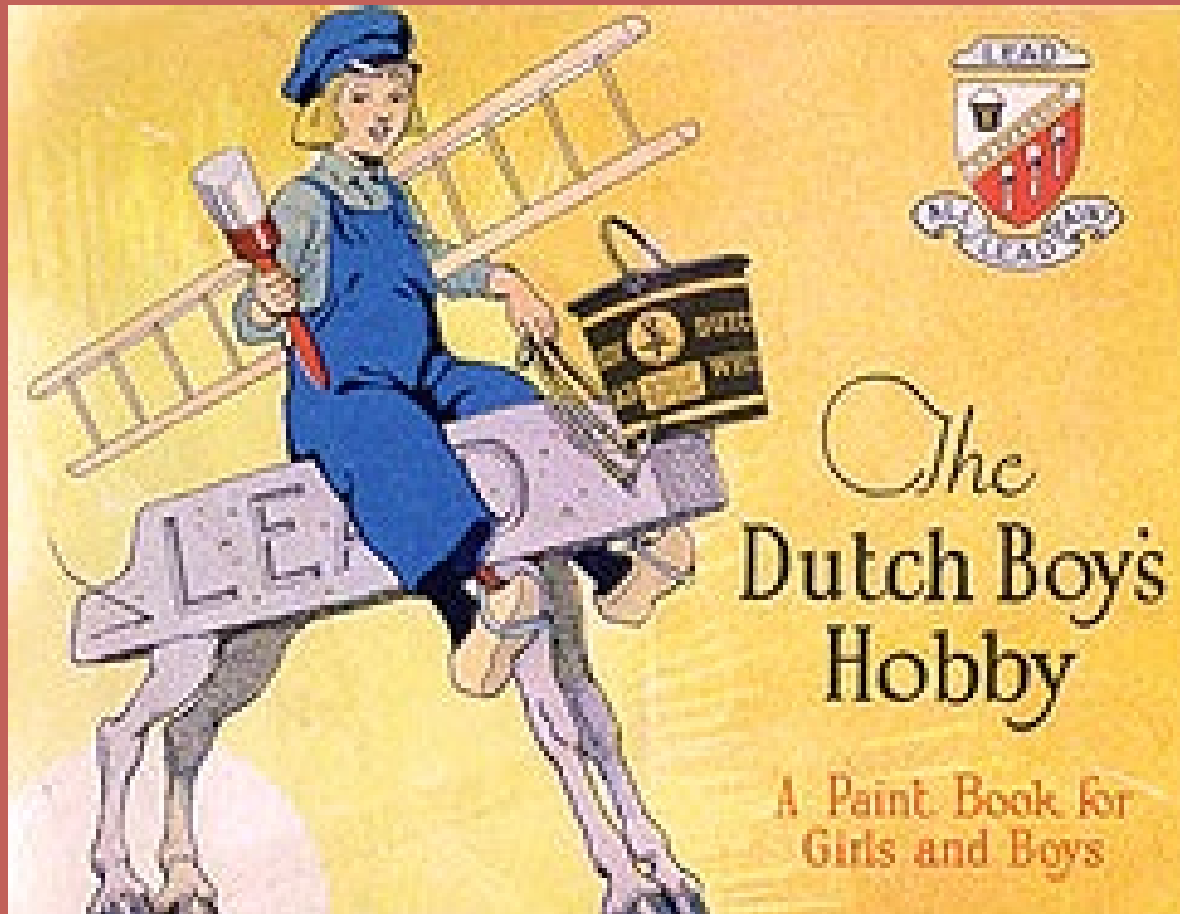
H ¹																	He ²
Li ³	Be ⁴											B ⁵	C ⁶	N ⁷	O ⁸	F ⁹	Ne ¹⁰
Na ¹¹	Mg ¹²											Al ¹³	Si ¹⁴	P ¹⁵	S ¹⁶	Cl ¹⁷	Ar ¹⁸
K ¹⁹	Ca ²⁰	Sc ²¹	Ti ²²	V ²³	Cr ²⁴	Mn ²⁵	Fe ²⁶	Co ²⁷	Ni ²⁸	Cu ²⁹	Zn ³⁰	Ga ³¹	Ge ³²	As ³³	Se ³⁴	Br ³⁵	Kr ³⁶
Rb ³⁷	Sr ³⁸	Y ³⁹	Zr ⁴⁰	Nb ⁴¹	Mo ⁴²	Tc ⁴³	Ru ⁴⁴	Rh ⁴⁵	Pd ⁴⁶	Ag ⁴⁷	Cd ⁴⁸	In ⁴⁹	Sn ⁵⁰	Sb ⁵¹	Te ⁵²	I ⁵³	Xe ⁵⁴
Cs ⁵⁵	Ba ⁵⁶	La ⁵⁷	Hf ⁷²	Ta ⁷³	W ⁷⁴	Re ⁷⁵	Os ⁷⁶	Ir ⁷⁷	Pt ⁷⁸	Au ⁷⁹	Hg ⁸⁰	Tl ⁸¹	Pb ⁸²	Bi ⁸³	Po ⁸⁴	At ⁸⁵	Rn ⁸⁶
Fr ⁸⁷	Ra ⁸⁸	Ac ⁸⁹	Unq ¹⁰⁴	Unp ¹⁰⁵	Unh ¹⁰⁶	Uns ¹⁰⁷	Uno ¹⁰⁸	Uue ¹⁰⁹	Uun ¹¹⁰								
		Ce ⁵⁸	Pr ⁵⁹	Nd ⁶⁰	Pm ⁶¹	Sm ⁶²	Eu ⁶³	Gd ⁶⁴	Tb ⁶⁵	Dy ⁶⁶	Ho ⁶⁷	Er ⁶⁸	Tm ⁶⁹	Yb ⁷⁰	Lu ⁷¹		
		Th ⁹⁰	Pa ⁹¹	U ⁹²	Np ⁹³	Pu ⁹⁴	Am ⁹⁵	Cm ⁹⁶	Bk ⁹⁷	Cf ⁹⁸	Es ⁹⁹	Fm ¹⁰⁰	Md ¹⁰¹	No ¹⁰²	Lr ¹⁰³		

■ hydrogen ■ poor metals
■ alkali metals ■ nonmetals
■ alkali earth metals ■ noble gases
■ transition metals ■ rare earth metals

Lead in Paint is a Good Thing?



Lead in Paint is a Good Thing?



Lead in Paint is a Good Thing?

**These walls don't
just look good.**

They're Yummy Too!

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

Great Flavors!

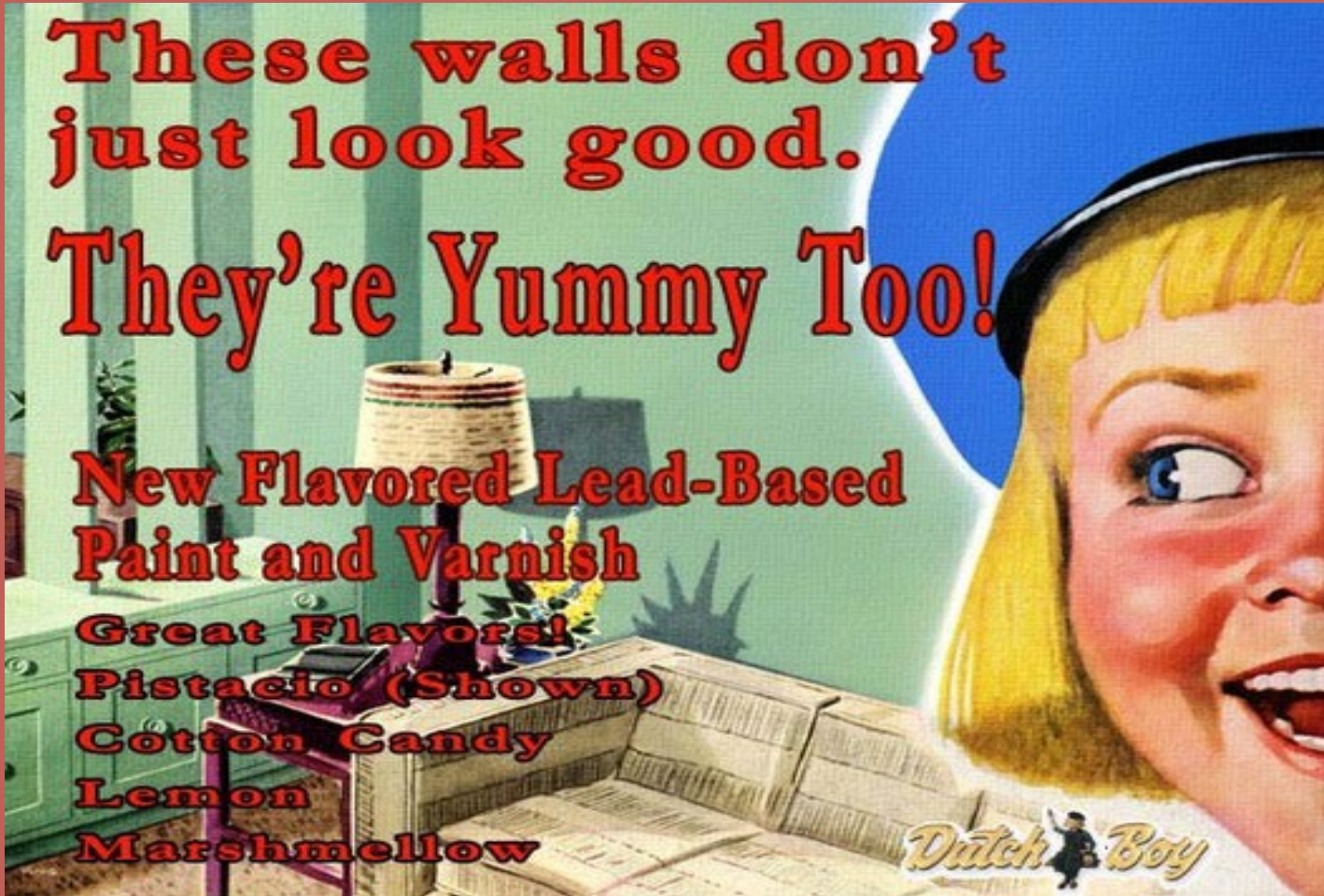
Pistacio (Shown)

Cotton Candy

Lemon

Marshmellow

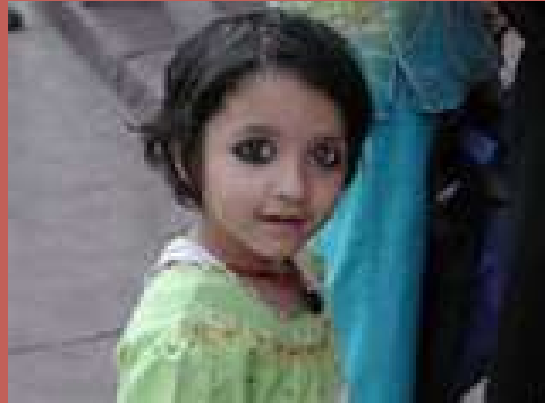
Dutch Boy



Why Was/Is Lead Used?



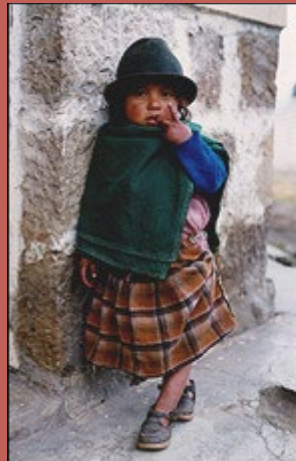
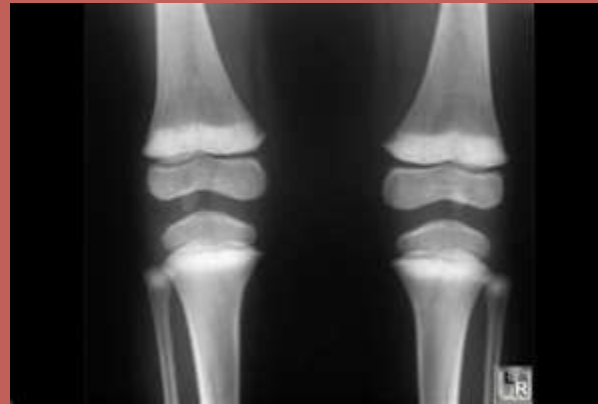
Why was/is Lead Used?



The original lead water supply piping of ancient Pompeii



Lead is Toxic to Humans



Lead Poisoning



Lead poisoning

Lead buildup in the body causes serious health problems

Symptoms:

- Headaches
- Irritability
- Reduced sensations
- Agressive behavior
- Difficulty sleeping

- Abdominal pain
- Poor appetite
- Constipation
- Anemia

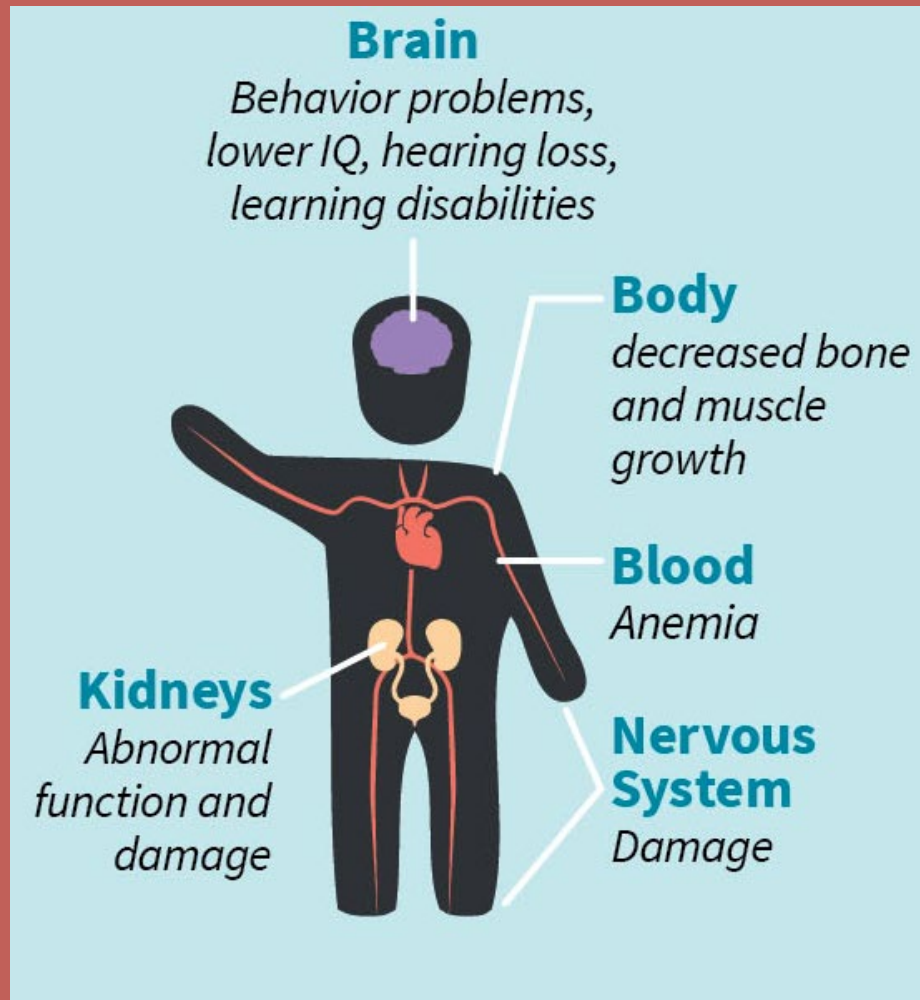
Additional complications for children:
Lead is more harmful to children as it can affect developing nerves and brains

- ▶ Loss of developmental skills
- ▶ Behavior, attention problems
- ▶ Hearing loss
- ▶ Kidney damage
- ▶ Reduced IQ
- ▶ Slowed body growth

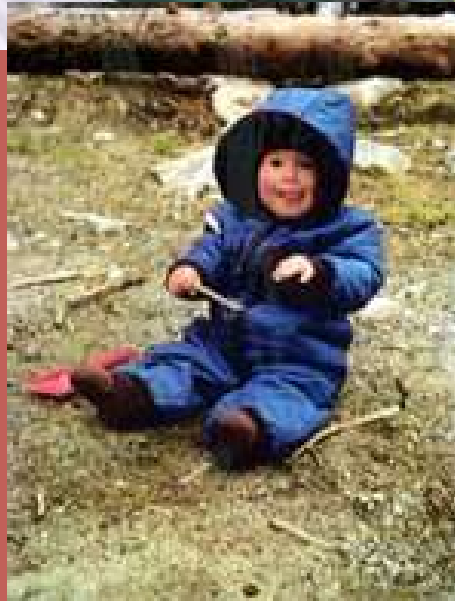
Source: MedlinePlus/Mayo Clinic 240809 AFP



Health Effects of Lead Poisoning



What Causes Lead Poisoning?



Large amounts of lead have been found in certain ethnic remedies. Top, surma or kohl is applied to children's eyes in some Asian communities; Center and bottom, azaroon and grefa are used to treat intestinal and stomach ailments in some Latino communities.

What Causes Lead Poisoning?



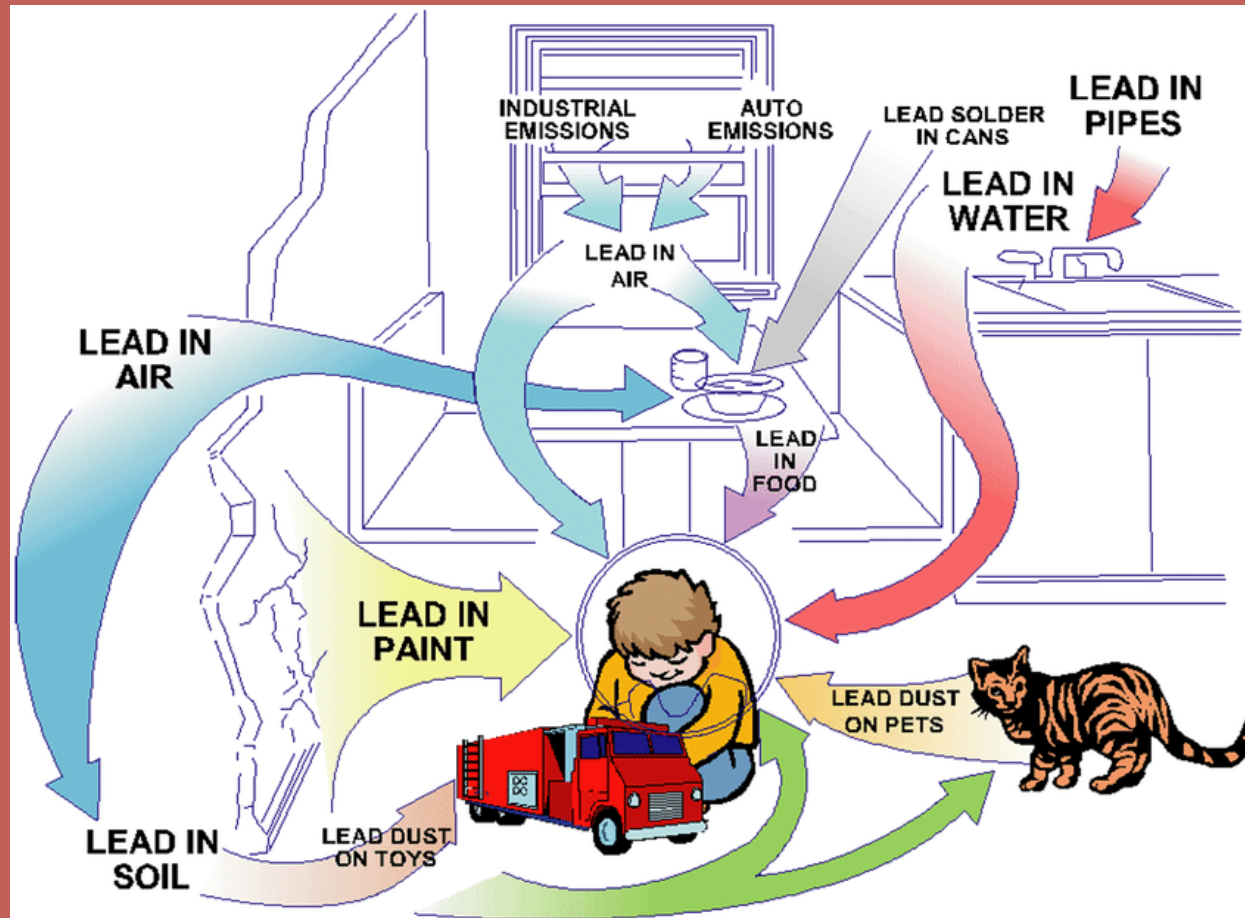
Lead Poisoning can Cause Lasting Health Effects







Most Common Sources of Lead Poisoning



How Widespread is Lead-Based Paint in Housing?

Year House was
Built

Percent of Houses
w/ LBP

Before 1940

87 percent

1940-1959

69 percent

1960-1978

24 percent



Pertinent Laws and Regulations

1. Health and Safety Code section 17920.10
(State Housing Law)**
2. Health and Safety Code section 105256**
3. Title 17, California Code of Regulations,
section 35001 et seq.

** Enacted by Senate Bill 460 (Ortiz). Effective
2003



State Housing Law

- ❏ Requires local agencies to order the abatement of:
 - ❏ Deteriorated Lead-Based Paint
 - ❏ Lead Contaminated Soil
 - ❏ Lead Contaminated Dust

- ❏ (Health and Safety Code sec. 17920.3. Enacted via SB 460, effective 2003)



Is All Lead Based Paint Hazardous?



Condition of Lead-Based Paint

- Lead-based paint is usually considered safe if it's in good condition.
- If lead-based paint is NOT in good condition, it is a hazard:
 - (a) Existing hazard: Deteriorated and/or poorly maintained.
 - (b) Created hazard: Remodeling in older housing without proper safeguards.



Condition of Lead-Based paint

 Deteriorated

 Poor Condition

Intact



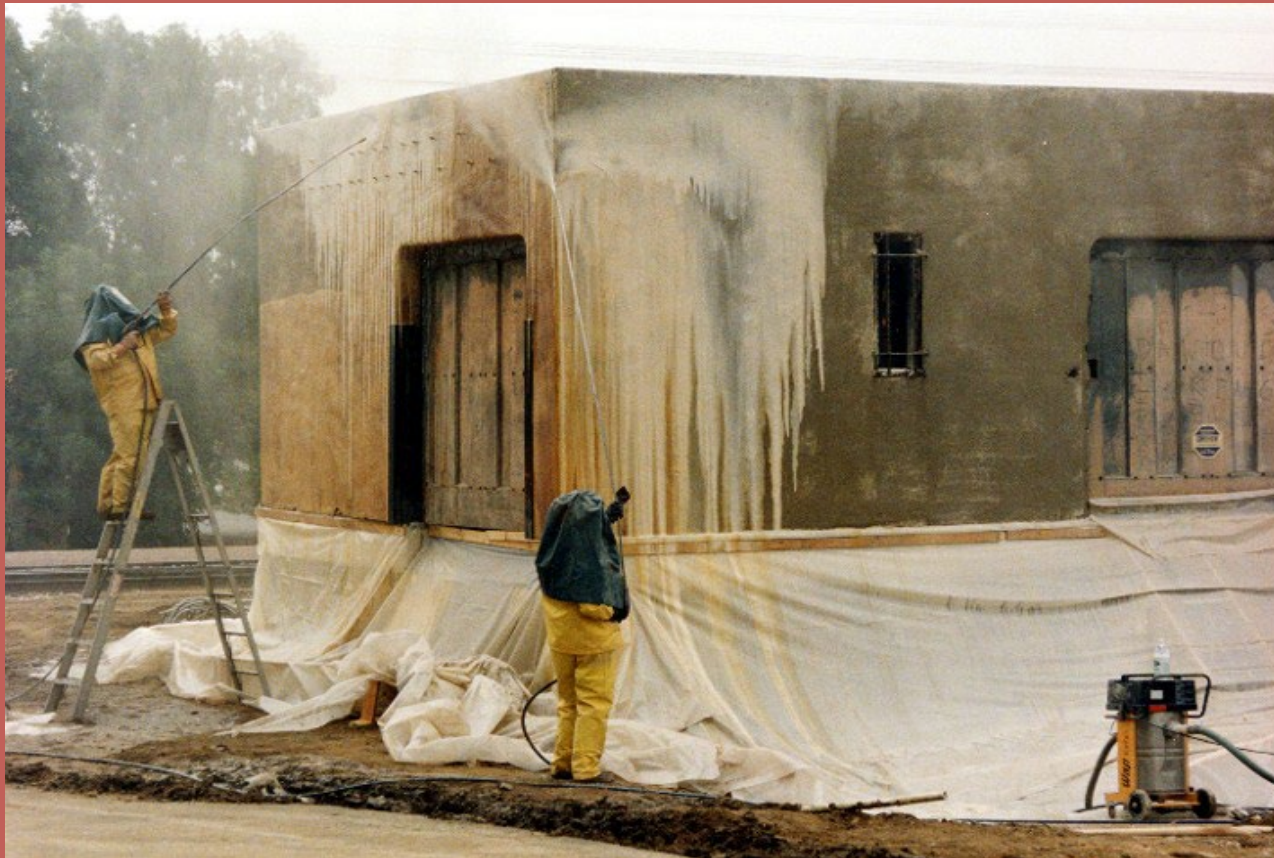
Deteriorated Lead Based Paint

 Existing Hazard

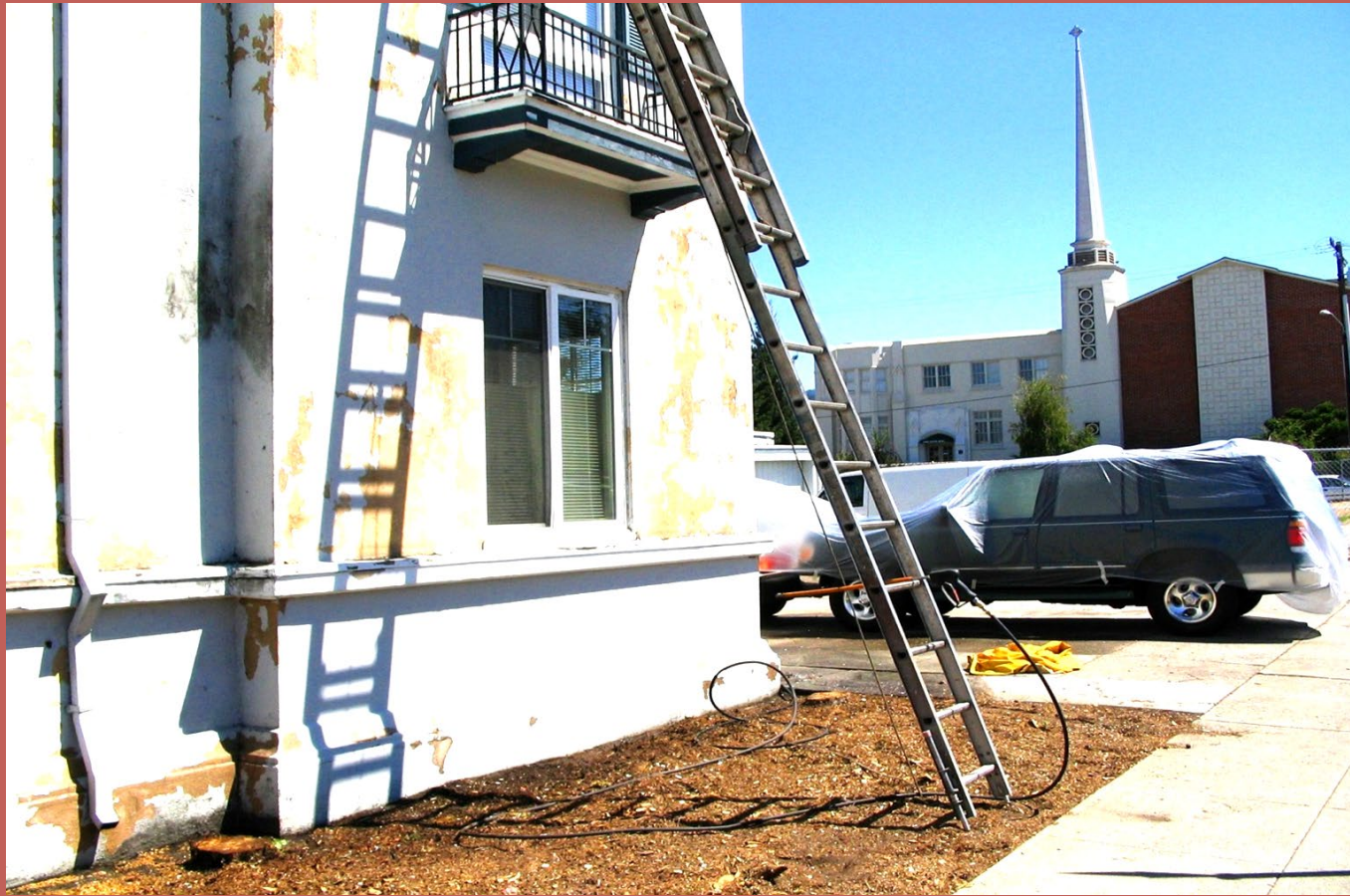


Created Lead hazard

Created Hazard



Improper Containment







“Presumed Lead-Based Paint”

- Federal government limited the amount of lead in paint in 1978.
- “Presumed Lead-Based Paint” is defined as paint on all structures built before 1978 in California.

(Title 17, CA Code of Regulations, section 35043).

- Testing can rebut presumption of lead



How to Identify Lead Hazards

Visual Inspection



How to Indentify Lead Hazards

Testing



Double-hung,
wood- framed
window and sill
with deteriorated
lead-based paint



Deteriorated Lead-based paint



On original wood siding



On original wood flooring

Teeth Marks on
Stair Rail From
Child with PICA
Behavior (eating of
non-food items)

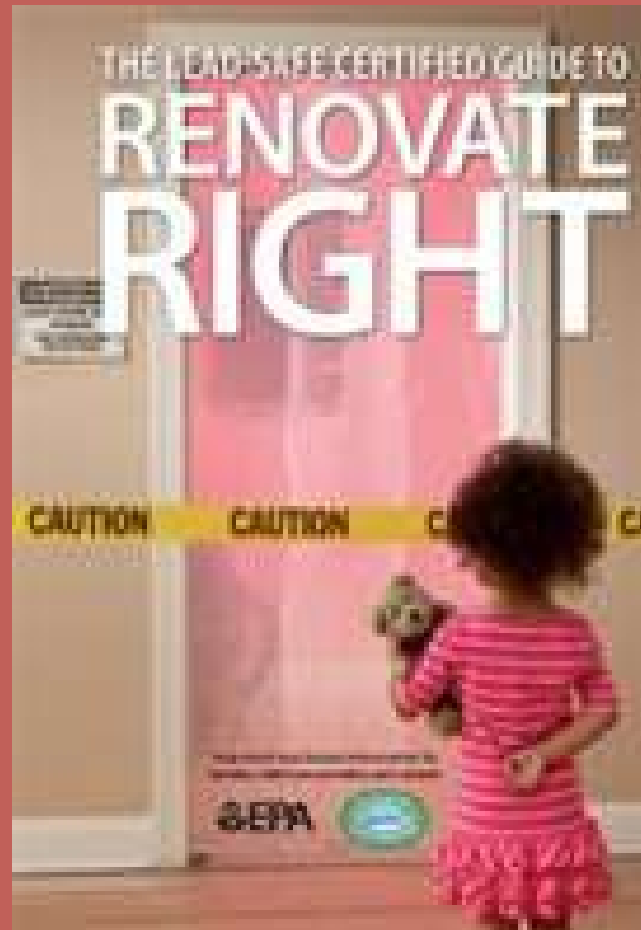


The Renovation, Repair and Painting Law

**IF YOU'RE NOT
LEAD-SAFE CERTIFIED,
DISTURBING
JUST SIX
SQUARE FEET
COULD COST YOU
BIG TIME.**

Any contractor from plumbers to electricians to painters, who disturbs lead paint while working in a pre-1978 home, school or day care center now must be Lead-Safe Certified. If you're not, you can face tens of thousands of dollars in fines. Plus, you put the health of yourself, your workers and your customers at risk, which could result in lawsuits. One class certifies you for five years. It's that easy.

Sign up for certification today!
epa.gov/rpdl/lead-safe or 800-424-LEAD



What are proper safeguards that should be used when remodeling a pre-1978 building?

“Lead-Safe Work Practices”

- (a) Plastic tarps on ground to catch paint chips and dust.
- (b) Worker protection.
- (c) Proper disposal of waste.







Worker Protection



Before and After Paint Stabilization





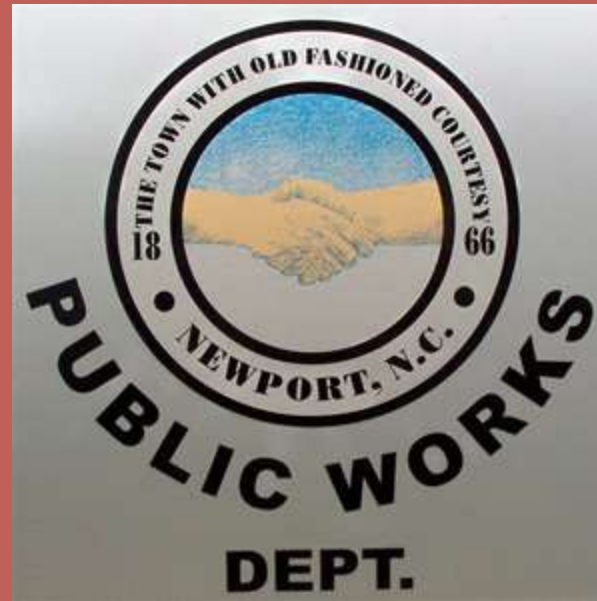


Remediation of Contaminated Soil



Visible paint chips were removed and clean soil was placed on top of old soil

What can we do?



Childhood Lead Poisoning Prevention Program



CDC Lead Level of Concern

EDITOR'S PICK TOPICAL ALERT

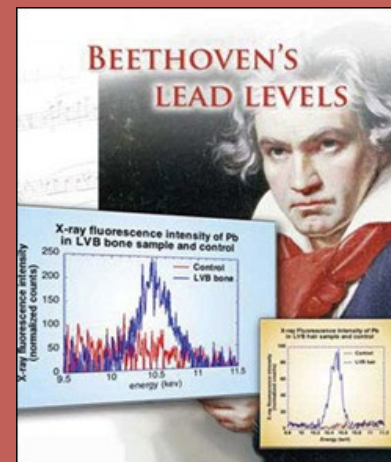
CDC again tightens blood lead standard for young children: EPA's action levels for lead in Butte soil now even more outdated

Michael Cast Nov 14, 2021 1

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Lead in the News



Help For Homeowners and Tenants

HUD Grant

- Provides funding to remove lead hazards from dwellings.
- Priority to homes where lead-poisoned children under six reside or visit regularly.
- Low-income families- income for home owners or tenants may be used to qualify.

