

# LEAD PAINT

Welcome to Module 1 in the two-part series on the dangers of lead paint.



## THE FOCUS

In this module the focus is on the following topics:

- Dangers of poor maintenance and renovations
- The basics – where you'll find lead
- EPA Rules
- Requirements for Contractors
- Restricted Practices
- Key stages of a job
- Set up the job

- Worker Protection
- Interior surface prep
- Exterior surface prep
- Paint removal – doing the work
- Waste disposal
- End of the job
- Resources

## DANGERS OF POOR MAINTENANCE & RENOVATIONS

### Contractors, Painters, Landlords!

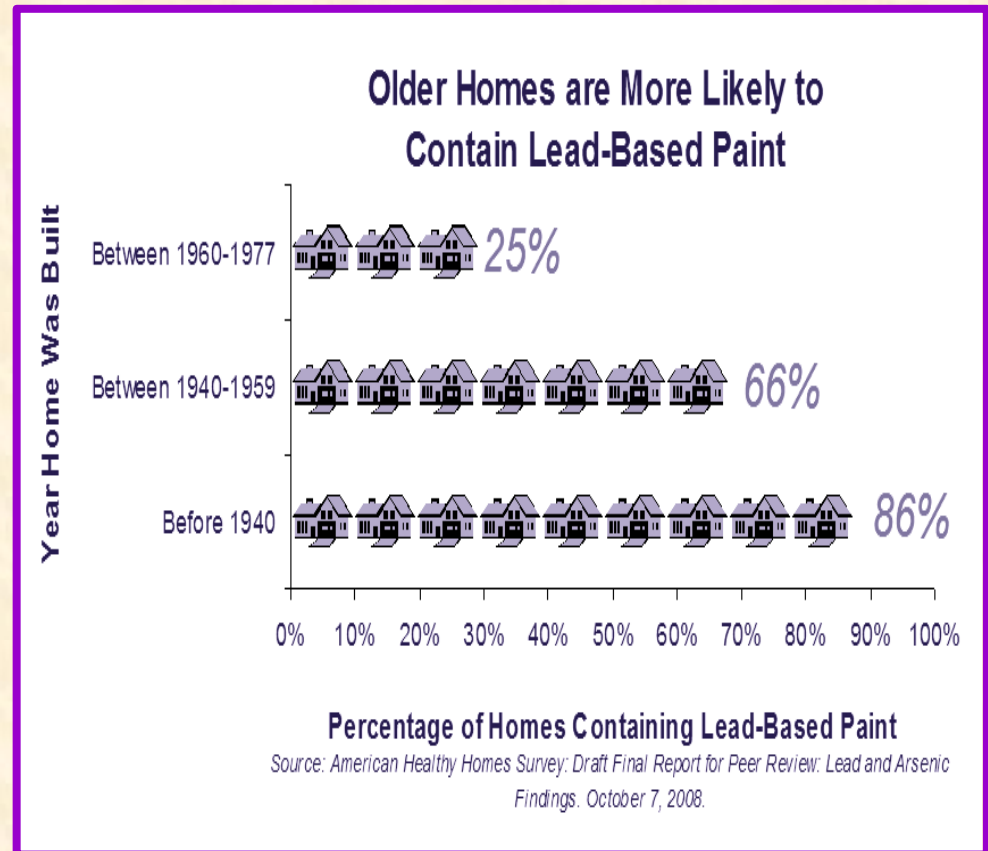
1. If you are working in a home or child-occupied facility built before 1978, you are required to provide information about lead-based paint to occupants and owners of homes, and owners and parents of child-occupied facilities.
2. Two out of three of homes built between 1940 and 1960 have lead-based paint.
3. Nine out of ten homes built before 1940 have lead-based paint.



## OLDER HOMES ARE MORE SUSCEPTIBLE

It is valuable to study the image in this slide to learn more about the connections between earlier architecture and the use of lead paint.

1. Between 1960 and 1967 – 25% of homes had lead paint
2. Between 1940 and 1959 – 66% had lead paint
3. Before 1940 -- 86% of homes had lead paint



## LEAD PAINT CAN BE ANYWHERE

1. Lead-based paint may be found on any surface in the home—inside or outside.
2. When lead-based paint is disturbed during renovation, repair or painting activities, dangerous amounts of lead dust can be created.
3. Jobs such as demolition, window replacement, opening up walls, etc., can also release accumulated lead dust into the home.
4. Even after a typical renovation cleanup, dangerous levels of lead dust can remain.



## EPA RULES

- EPA's Lead-Based Paint Renovation, Repair and Painting (RRP) Program Rule for contractors, provides guidance to homeowners/occupants, so that each may learn to properly address lead-based paint hazards associated with renovation, repair and painting activities.
- Training, certification, and work practice requirements in the Renovation, Repair and Painting Rule became effective on April 22, 2010.



## HOW THE EPA RULES APPLY

- The RRP rule affects contractors, property managers and others who disturb known or presumed lead-based paint during renovation.
- **The term renovation** covers all activities done for compensation that disturb painted surfaces including most repair, remodeling and maintenance activities, such as window replacement, weatherization and demolition.
- **The RRP rule applies to all renovation work** performed in residential houses, apartments and child-occupied facilities such as schools and day-care centers built before 1978. Those affected by the RRP rule should read the complete rule, which is available on EPA's Web site at: <http://www.epa.gov/lead/pubs/renovation.htm>.



## REQUIREMENTS FOR RENOVATION CONTRACTORS

- All firms performing renovation, repair or painting work must become certified.
- This can be accomplished by applying to EPA or to the State, if it has an EPA-authorized renovation program, and paying a fee.
- Firms must have one or more “Certified Renovators” assigned to jobs where lead-based paint is disturbed.
- To become certified, a renovator must successfully complete an EPA or State-approved training course conducted by an EPA or State-accredited training provider.
- All renovation workers must be trained. Renovation workers can be trained on-the-job by a Certified Renovator to use lead safe work practices, or they can become Certified Renovators themselves.



## PRE-RENOVATION EDUCATION REQUIREMENTS

Contractors, property managers and others who perform renovations for compensation in residential houses, apartments, and child-occupied facilities built before 1978 ***are required to distribute EPA's Renovate Right lead hazard information pamphlet*** before starting renovation work to occupants and owners of homes, and owners and parents of child-occupied facilities.



## WORK PRACTICE REQUIREMENTS

1. Renovators must use work-area containment to prevent dust and debris from leaving the work area.
2. Certain work practices are prohibited.
3. Open-flame burning, using heat guns at greater than 1,100 degrees Fahrenheit and the use of power tools without high-efficiency particulate air (HEPA) exhaust control (to collect dust generated) are prohibited.
4. Thorough cleaning followed by a cleaning verification procedure to minimize exposure to lead-based paint hazards are required.
5. Generally, minor repair and maintenance activities (less than 6 square feet per interior room or 20 square feet per exterior project) are exempt from the work practices requirements.
6. However, this exemption does not apply to jobs involving window replacement or demolition, or that involve the use of any of the prohibited practices listed above.

## STATE & LOCAL REGULATIONS

1. Other state or local requirements that are different from or more stringent than the federal requirements may apply.
2. For example, federal law allows EPA to authorize states to administer their own lead renovation program in place of the federal lead program.
3. Even in states without an authorized lead renovation program, a state may promulgate its own rules that may be different or go beyond the federal requirements.



**Removing lead paint from homes and buildings helps support a healthy environment.**

## RESTRICTED PRACTICES

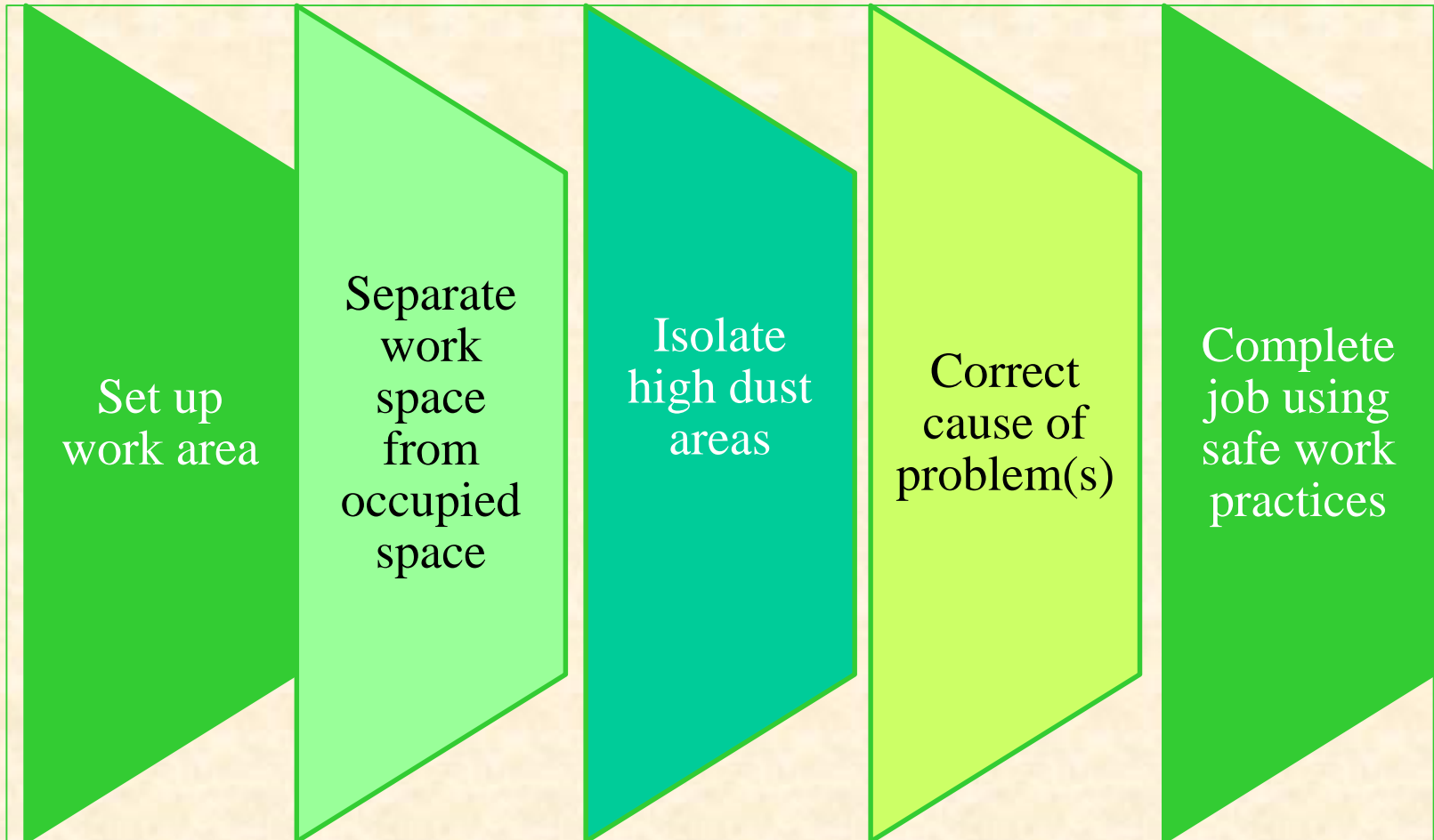
- Don't use unsafe work methods. Some work methods create such high levels of dust that they must not be used when working on surfaces that may contain lead-based paint.
- Don't Use Power Sanders or Grinders Without HEPA Vacuum Attachment.
- Don't Use Open Flame/High Heat Removal of Paint. There is no acceptable use of an open flame torch or high temperature heat gun (above 1100 degrees F) to remove paint.
- Don't use paint strippers containing methylene chloride.
- Don't use uncontained hydroblasting.
- Avoid extensive dry scraping or sanding.

## KEY STAGES OF A JOB – BEFORE STARTING

1. • Find the causes of damage
2. • Prioritize work
3. • Hand out lead hazard information pamphlet



# THE WORK



## FINISH THE JOB

- Clean up thoroughly
- Dispose of waste safely
- Check quality of work and correct problems
- Educate occupants about risks from lead-based paint
- Maintain a safe and healthy home



## SET UP THE WORK AREA

1. Restrict the Area
2. Ask occupants to leave the room where work will be done.
3. Have them stay out until final cleanup.
4. Place “DO NOT ENTER” tape across doorway or post sign





## PROTECT FLOORS & FURNISHINGS

1. Place protective sheeting on floor extending about 5 feet from the work area.
1. Tape protective sheeting to the baseboard under work area using masking tape (or durable tape where masking tape doesn't work).
2. Remove drapes, curtains, furniture, and rugs within 5 feet of work area.
3. Cover any furniture within 5 feet of work area that cannot be moved.



## STOCKING & TRACKING

### Stock the Work Area

1. Put all necessary tools and supplies on protective sheeting before beginning work to avoid stepping off the protective sheeting.

### Tracking

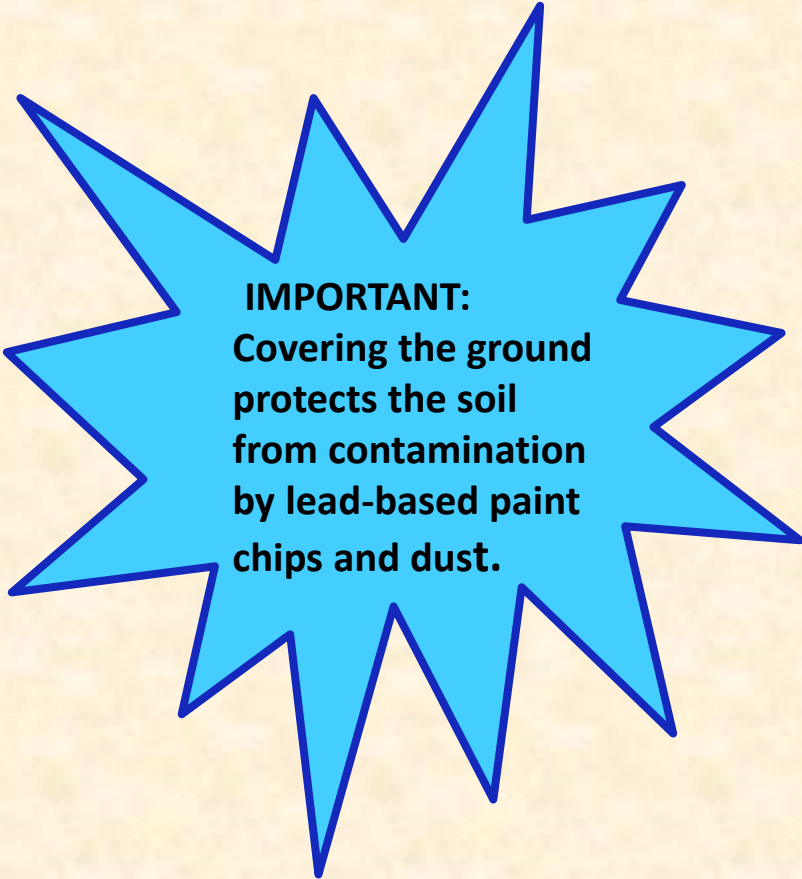
2. To avoid tracking dust off the protective sheeting, wear non-skid shoe covers on protective sheeting and remove them each time you step off the protective sheeting.



HEPA vacuum for lead dust removal

## PROTECT THE GROUND

- When working on the ground floor, lay protective sheeting 10 feet from work surface or as space permits.
- When working on the 2<sup>nd</sup> story or above, extend the sheeting farther out.
- Vertical shrouding on scaffolding should be used if work is close to a sidewalk, street, or another property, or the building is more than three stories high.
- Protective sheeting can be taped and/or stapled to wood siding or ribbon board. A wood strip may need to be attached to a masonry wall.



**IMPORTANT:**  
Covering the ground protects the soil from contamination by lead-based paint chips and dust.

## COVER WINDOWS & DOORS

1. All windows and doors within 20 feet of the work area must be closed.
2. If they cannot be closed, seal with protective sheeting during work.
3. If an entrance must be used that is closer than 20 feet, place a shroud above and on the sides of the entrance.



## ALWAYS WEAR PROTECTION

- Always wear safety goggles or safety glasses when scraping, hammering, etc.
- At end of work period, remove dusty clothes and/or vacuum off dust.
- Wash them separately. Do not use compressed air to blow dust off clothing.
- Wear disposable protective clothing covers.
- Disposable protective clothing covers can be stored in a plastic bag and reused if fairly clean and there are no rips.
- Small tears can be repaired with duct tape.
- Wear painter's hat to protect head from dust and debris



A removal agent in proper PPE

# RESPIRATORY PROTECTION

1. When work creates dust or paint chips, workers should wear at least a NIOSH-approved respirator for lead work.
2. Always post warning signs that there is no eating, drinking or smoking on or near the worksite.



## INTERIOR SURFACE PREPARATION – PART 1

- Wet scrape any loose, peeling, or flaking paint.

### Fill and Patch Holes

- • If removal of damaged edges is necessary, mist surface before removal.
- • Skim and fill holes and cracks less than 1/16 inch wide with a non-shrinking spackle compound.
- • If sanding is necessary to feather edge, use wet abrasive sponge or wet-dry sandpaper with water.

### Prep Surface

- Clean wall, particularly in kitchen area.
- De-gloss surfaces as necessary (use liquid sandpaper or wet-dry sandpaper with water).



## INTERIOR SURFACE PREPARATION – PART 2

1. Where a long-lasting system (sometimes called encapsulant) is to be brushed, sprayed, or rolled, surface preparation is very important.
2. If an encapsulant is used, use one that is approved by a state government.
3. If your state does not have a list of approved encapsulants, it is recommended that you check with a state that does. Contact the National Lead Information Center at 1-800-424-LEAD for the telephone numbers of states with lists.
4. A sample area should be tested before application. Follow manufacturer's instructions exactly.





## INTERIOR SURFACE PREPARATION – PART 3

### Apply Mesh

1. Where there is extensive cracking or alligatoring, consider using a system that includes mesh because it can add strength and durability.
2. Cut the mesh leaving a 2-inch overlap at ceiling and baseboard.
3. Install so that mesh is plumb.
4. Press mesh into the base coat with a wallpaper rush, spackle knife, or roller.
5. Overlap seams by 1 inch. Cut down the center of the seam and remove the 2 waste strips.
6. Let seams butt against each other.

## INTERIOR SURFACE PREPARATION – PART 3

### Apply Mesh Continued

1. Using a spackle knife, press the mesh at the bottom and top. Then cut off the excess.
2. Roll on the top coat. Make sure that there is complete and even coverage.
3. If there is a risk of further peeling, the top edge of mesh can be reinforced with cove or crown molding, and the bottom reinforced with base cap.



## EXTERIOR SURFACE PREPARATION

1. Clean wood with detergent (or lead-specific cleaner) and scrub brush.
2. Wet scrape woodwork and siding.
3. Mist small areas frequently to keep down dust. Using a pump sprayer in a knapsack is convenient.
4. Wet sand using wet-dry sandpaper or wet sanding sponges.
5. A power sander may be used if attached to a HEPA vacuum, and the worker is wearing respiratory protection.



## PAINT REMOVAL

When using chemical strippers, the edge of the protective covering below the painted surface must be tightly fastened to the wall so that the stripper doesn't damage other surfaces.



## WASTE DISPOSAL

- Avoid carrying construction waste through an occupied space. If you must carry it through an occupied space, first place it in a heavy-duty plastic bag or wrap it in protective sheeting and seal with tape.
- When a dumpster is used, keep the dumpster covered. If a chute is used, cover the chute (or use a barrel chute) and cover the dumpster.
- Store all waste in a secure container or dumpster until disposal.
- Do not transport waste in an open truck, unless it is bagged and sealed.



## WATER DISPOSAL

- Water used for clean-up should be dumped into a toilet.
- Never dump this water in a sink, tub, on the ground, or down a storm drain.
- Water used to remove paint through pressure washing must be collected in drums and may need to be tested to determine if it is hazardous.
- Check with your state agency responsible for waste.



## END OF THE JOB

### During the Job

Be sure that:

1. The cause of the problem is being corrected;
2. The work area is safely set up;
3. The practices in this guide are being used; and
4. Dust and debris are not spreading beyond the work area.

### End of the Job

1. Be sure that the repairs were done properly and that no dust or paint chips remain.



## RESOURCES – PART 1

1. Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (July 1995).
2. Technical guidance on methods for identifying and controlling lead-based paint and lead-based paint hazards. The Guidelines can also be downloaded for free from the HUD Office of Lead Hazard Control web site.
3. Residential Lead Desktop Reference (2nd Edition, June 1998).\* A CD-ROM containing a large variety of lead-based paint information resources.
4. Maintaining a Lead Safe Home (1997).\* A do-it-yourself manual for homeowners and property managers.





## RESOURCES – PART 2

- Lead-Based Paint: Operations and Maintenance Work Practices Manual for Homes and Buildings (May 1995).\* Technical guidance on safe work practices. (200 pages)
- Guide Specifications for Reducing Lead-Based Paint Hazards (May 1995).\* Technical guidance on purchasing lead-hazard control reduction services and developing lead-hazard reduction work specifications.
- Lead Safety for Nonprofit Property Owners, Developers, and Managers (July 1998). Practical guide to developing policies and activities that incorporate lead safety in property management.



## RESOURCES – PART 3

- HUD, Office of Lead Hazard Control. Provides information on HUD regulations, technical and educational documents, and links to other lead resources.
- EPA, Office of Pollution Prevention and Toxics. Provides information on EPA regulations, technical and educational documents, and links to other lead resources.



## END OF MODULE

This brings us to the end of Module 1 on Lead Paint. Please, proceed to the 10-question quiz and then on to Module 2.



**END OF MODULE 1**