about LEAD

Researchers have discovered lead is a highly toxic metal that can cause irreparable damage to the brain and central nervous system, even through limited exposure.

This health hazard has made the control and eventual elimination of lead-based paint and other lead contamination a national priority.

The guidelines for lead testing and abatement management developed by the Department of Housing and Urban Development (HUD), and recent legislation, Title X of the National Affordable Housing Act have set the stage to reduce lead hazards.

The DC Government now has the right to enter any pre-1978 residential facility or child occupied facility at any time to conduct an inspection if they have a "reasonable belief" that a lead-based paint hazard exists.

The law presumes that any paint in a pre-1978 rental property is lead paint, unless proven otherwise. If the paint is in poor condition, then it constitutes a "lead paint hazard."

The only way to refute the presumption of lead paint is to present a report from a certified inspector or risk assessor saying the paint is not lead-based paint.

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What is lead poisoning?

Lead is a nonessential metal, and lead in the body is unnatural. It takes very little lead to cause lead poisoning.

Lead poisoning results from the consumption of lead in some form. With normal hand-to-mouth activity, Children can ingest substantial amounts of lead from household dust when deteriorating lead-containing paint is present. Lead-containing dust also may be inhaled by children through respiration.

Approximately 500,000 U.S. children ages 1-5 have blood lead levels above 5 micrograms per deciliter (µg/dL), the reference level at which CDC recommends public health actions be initiated.

The Centers for Disease Control & Prevention says there is no safe blood lead level.

- A child can become severely lead poisoned (60-80 µg/dL), by eating one milligram of lead-paint dust, which is equivalent to about three granules of sugar each day.
- To achieve blood-lead levels of 36 µg/dL, a child would have to eat just the equivalent of one granule of sugar a day.

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Who gets lead poisoning? What are the symptoms of lead poisoning?

The highest incidence is in children between ages 1-6, especially those between 1-3 years old.
But anyone who consumes lead may become poisoned.

Lead poisoning is the best-known environmental cause of illnesses in children. Due to their size, physiology, and behavior, children are more vulnerable than adults to environmental hazards. Children at the developmental stage of placing hands and objects in mouth are the most likely to consume lead if it is present in their environment.

Symptoms vary, but the probability of severe symptoms is greater the higher the blood lead level is. Even low levels of lead may alter physiology and impact child development. That is why it is important to screen young children for lead poisoning.

Severe and often permanent mental, emotional and physical impairment can result from lead poisoning. In addition, neurological deficits such as learning disabilities, significantly impaired intellectual & adaptive function, seizures and Encephalopathy may occur.

Lead is also harmful to adults.

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Possible Symptoms of Lead Poisoning:

Gastrointestinal	• anorexia • sporadic vomiting • intermittent abdominal pain (colic) • constipation
Central Nervous System	• behavior changes • hyperactivity, aggression, impulsiveness, irritability • lack of interest in play, lethargy • development delays • reversal in verbalization • loss of motor skills, clumsiness • short attention span • leaning disabilities
Hematologic	• anemic • pallor
Cardiovascular	• hypertension • bardycardia
Encephalopathy (brain injury)	• persistent vomiting • severe ataxia (loss of coordination) • altered state of consciousness • coma • seizures • massive cerebral edema in younger children
Other	• nonspecific or vague abdominal pain • headache and fever

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Are all dwelling units regulated for lead?

No. Only pre-1978 rental dwellings are regulated for lead. Owner-occupied dwellings are not regulated.

The U.S. banned the manufacture of lead-based house paint in 1978 due to health concerns.

Homes and other buildings built before 1978 are likely to contain lead-based paint, and renovation, repair, or painting work can release hazardous lead dust which can be harmful. Projects that disturb painted surfaces can create dust that endangers workers and tenants. Lead dust is often invisible.

The guidelines for lead testing and abatement management developed by the Department of Housing and Urban Development (HUD) and Title X of the National Affordable Housing Act have set the stage to reduce lead hazards.

Source: American Academy of Pediatrics, 2018

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When are inspections required?

Buildings constructed before the Consumer Product Safety Commission's 1978 lead paint ban for residential housing are likely to contain lead-based paint.

Inspections are required following performance of risk reduction work in rental housing, or at the time of turnover prior to re-occupancy. Since the maintenance of a dwelling unit can change, the law requires that the condition of the unit be verified at each turnover.

- If a unit is determined to be lead-free, then only one inspection is required.
- If lead paint is found in a unit, follow up inspections may be required.
- Inspections must be performed by an independent accredited inspector.

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Can a Maryland property owner obtain lead-free status & be exempt from the risk reduction standards?

Yes.

Maryland House Bill 16 passed in the 1996 Session of the General Assembly and provides two procedures for exempting a property from the requirement to meet risk reduction standards.

- No lead paint (except factory applied coatings) on exterior or interior painted surfaces.
- No lead paint on interior painted surfaces and no chipping, peeling, or flaking lead paint on exterior surfaces.

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What professionals are involved in a lead project in Maryland?

Lead Paint Contractors:

- Contractors who work on residential, public, and commercial buildings
- Contractors who work on steel structures and superstructures
- Contractors who perform inspections
- May apply for accreditation through the MDE Environmental Lead Division
- Must employ only qualified individuals to provide lead paint services
- Inspection contractors must also submit protocols for MDE approval

Lead Paint Abatement Workers:

- 2 days of training and are qualified to work on residential, public & commercial lead paint jobs
- Painters, carpenters, and other tradespeople

Lead Paint Maintenance & Repainting Supervisors:

- 2-day training course required
- Including instruction in the replacement of windows which have lead paint.
- Provide oversight for activities involving the in-place management of lead paint in residential, commercial & public buildings

Lead Paint Removal & Demolition Supervisors

- 4 days of training required
- Provide oversight for any lead paint-related work, including major renovation or lead paint abatement projects, more limited maintenance and repainting projects, on residential, commercial, and public buildings

Lead Paint Inspector Technicians:

- 3 days of training required
- Qualified to use lead paint detection equipment and to sample paint and dust for laboratory analysis.

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What professionals are involved in a lead project in Maryland?

Lead Paint Visual Inspectors:

- 3 days of training required
- Qualified, under state law, to conduct inspections of rental housing to assure that risk reduction treatments conform to statutory standards

Lead Paint Risk Assessors:

- Experienced inspectors
- Must complete an additional 2-day training course
- interpret information and provide advice regarding possible sources of lead exposure

Structural Steel Workers:

- At least 1 day of training and are qualified to remove lead paint from steel structures & superstructures such as bridges & water storage tanks
- Painters, carpenters, and other tradespeople

Structural Steel Supervisors:

- 4 days of training required
- Provide oversight for lead paint activities on steel bridges, water tanks, and industrial structures

Training Providers:

- Accredited by the State of Maryland based on the submission of a satisfactory curriculum, the use of accredited instructors, and passing an on-site audit by MDE

Training Course Instructors:

- Must complete relevant training courses
- Have appropriate experience
- Pass an examination to become accredited
- Accredited by the State of Maryland based on examination
- Other experts in certain specialties may contribute to courses conducted by accredited instructors

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How can Kynoch Environmental Management help?

1

Strong Team of Accredited Experts

Certified to provide lead hazard assessment and abatement management services. KEM projects comply with HUD guidelines for lead testing and abatement.

2

Decades of Experience

Established methodology for lead testing, analysis and development of a comprehensive lead risk assessment.

3

Dependable, Responsive Team

Rapid response to client needs with a strong network of independent labs and qualified, licensed contractors to conduct any type of abatement project.

4

Thorough Review

- State of the art technology for detecting lead in air, soil and water
- Full evaluation of in-place management options
- Detailed analysis & risk evaluation

5

Concise, Accurate Reports

- Site-specific guidelines & prioritized list of issues to address
- Exacting & customized abatement plan
- Detailed cost estimates

6

Comprehensive Support for Abatement Activity

- Oversight & evaluation of bidding process
- Contractor selection
- Air & dust monitoring both inside and outside containment area (OSHA compliant)
- Photographic & written documentation of the abatement process

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