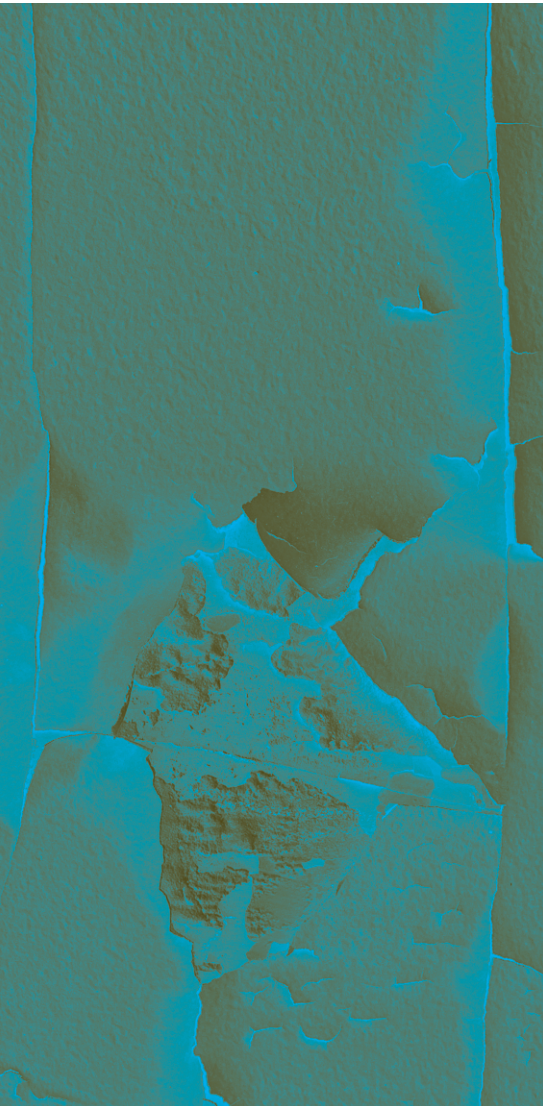




National Institutes  
of Health

# HOMEOWNER'S AND RENTER'S GUIDE TO REDUCING LEAD HAZARDS AFTER DISASTERS



Lead is a highly toxic metal that may cause health problems, especially in young children. Lead-based paint hazards are harmful to both adults and children, but particularly harmful to pregnant women and children under the age of six. We strongly encourage you to engage a certified lead-safe contractor or certified lead abatement contractor to do any work involving lead or lead-based paint.

## WHY WE SHOULD WORRY

About 37 million homes in the United States have lead-based paint. The older a home or a building is, the more likely it has some lead-based paint. Pre-1940 homes have more lead-based paint than homes dating from 1940 to 1978, when lead was banned from house paint. The most likely locations to find lead-based paint in a home are on the outside, on interior wood trim including windows and doors, and in kitchens and bathrooms.

Natural disasters, such as tornadoes, hurricanes, earthquakes or floods, often result in the need for renovations to damaged homes and other structures. Common renovation activities like sanding, cutting, and demolition in structures that contain lead-based paint can create lead-based paint hazards, including lead-contaminated dust.

## KEY MESSAGES

- Wear personal protective equipment. Use a rubber half-mask respirator with High-Efficiency Particulate Air (HEPA; N100) purple cartridges as a minimum.
- Use portable generators carefully, outside and away from the home, to avoid CO poisoning and fires.
- Ensure you clean up thoroughly before reoccupying your home.
- If you hire a contractor, be sure the company and supervisor are lead-safe certified by EPA or your state.

According to the Centers for Disease Control and Prevention (CDC), there is no safe level of lead in blood. When lead is absorbed into the body, it can cause a range of effects, including:

- Nervous system, blood, kidneys, and heart damage
- Reproductive system damage in both men and women
- Behavioral and learning disabilities
- IQ reduction
- Juvenile delinquency

## HOW TO FIND OUT IF YOU HAVE A PROBLEM

Since lead is common in older housing, you should presume that painted surfaces contain lead and that damaged paint can create lead dust. We do not recommend that homeowners or renters test their home using a “spot test kit” purchased at a hardware store, because they are not reliable. If you want your home tested for lead-based paint, call a certified lead-based paint inspector. You can find one through your local health department, your state health department, or the EPA (<http://www2.epa.gov/lead>).

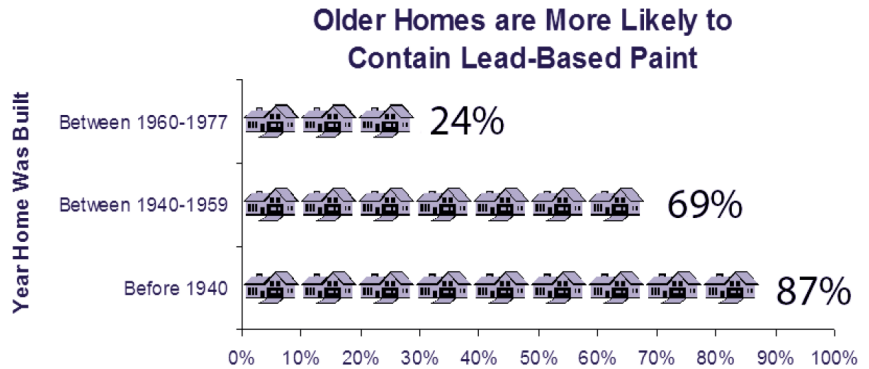
EPA’s Renovation, Repair and Painting (RRP) Rule is designed to minimize exposure to lead-based paint hazards (see below for its website). Contractors performing renovation, repair and painting projects that disturb painted surfaces in homes built before 1978 must be RRP certified and follow lead-safe work practices, unless the paint has been found not to be lead-based paint.

## RE-ENTERING YOUR HOME AFTER A DISASTER

Re-entering your home after a natural disaster can pose risks to you and your family. If rescue personnel have searched your home, it may have a FEMA search marking. Here are some tips to make sure it is safe to re-enter the home:

- Return home only when officials say it is safe.
- Do not allow children to participate in post disaster cleanup work.





- Check for structural safety including sagging ceilings or floors.
- Check for loose power lines or gas leaks and make sure the electricity and gas are turned off.
- Make sure floors are safe — water and mud make floors slippery.
- People with breathing problems or who have weakened immune systems should stay away from the damaged residence.
- If you find a trapped person, call 911. Do not attempt a rescue, as you may become a victim.
- **Be aware of health and sanitation hazards:**
  - Avoid contaminated buildings and contaminated water as much as possible.
  - Wash your hands thoroughly with soap and clean water often when working with debris.
  - Wear proper clothing and respiratory protection.
- Inform local authorities about health and safety issues, including chemical spills, downed power lines, washed out roads and dead animals.

## WHAT YOU CAN DO

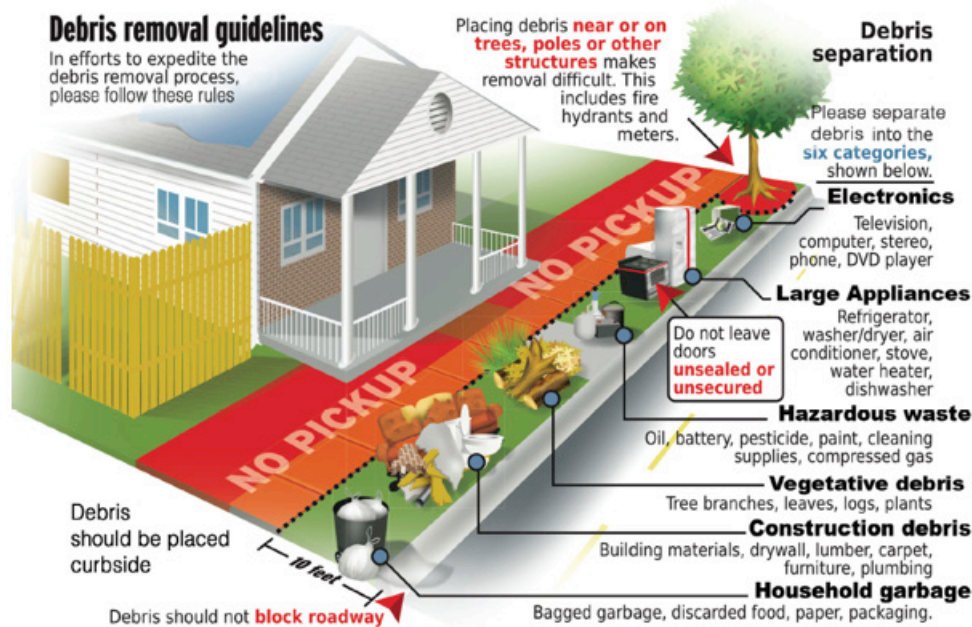
Even without testing paint, cleaning or working in a damaged house should include basic personal protection and procedures listed above to prevent contamination of yourself, your family and your neighbors.

### Important Notice to Homeowners

If you hire a contractor to perform renovation or repair work on your pre-1978 home, the contractor must be RRP-certified and follow the requirements of the RRP Rule, unless the paint has been found not to be lead-based paint. EPA and HUD strongly encourage homeowners to hire certified lead-safe renovation contractors to do this work, because they have received training on lead-safe work practices to prevent lead contamination.

### What steps should homeowners take to protect themselves and their families from exposure to lead dust if they plan on doing their own renovations or clean-up?

- Wear personal protective equipment, including: an N100 respirator (HEPA, follow manufacturer's instructions), goggles and gloves.
- Contain the work area so that dust does not escape. Cover floors and furniture that cannot be moved with heavy-duty plastic and tape, and seal off doors along with heating and cooling system vents before disturbing painted surfaces.
- Keep children, pregnant women, and pets out of the work area at all times.
- Minimize dust by using techniques that produce little dust, such as wet sanding or wet scraping, or using sanders or grinders that have HEPA vacuum attachments to capture the dust.



Lead-containing wastes should be wrapped in plastic and handled using special procedures per the RRP rule.

- Thoroughly clean by using a HEPA vacuum and wet wiping to remove dust and debris on surfaces. Mop floors with plenty of rinse water before removing plastic from doors, windows and vents.
- Shower or hose off to keep from bringing lead dust to your current living quarters.

## SAFETY TIPS ON USING PORTABLE GENERATORS

If you use a portable generator for electricity, use CAUTION to avoid carbon monoxide poisoning and fires.

- Use portable generators OUTSIDE and far away from buildings.
- Do not put portable generators on balconies or near doors, vents, or windows.
- Do not use portable generators near where you or your children are sleeping.
- Never refuel a generator while it is hot.
- For more information, go to: [http://www.osha.gov/OshDoc/data\\_Hurricane\\_Facts/portable\\_generator\\_safety.pdf](http://www.osha.gov/OshDoc/data_Hurricane_Facts/portable_generator_safety.pdf)

## CLEARANCE BEFORE REOCCUPYING YOUR HOME

After work is completed, a contractor should run a “cleaning verification test” (<http://www2.epa.gov/sites/production/files/documents/steps.pdf>), or, if the home is HUD-assisted or you want further confirmation of the cleaning, a “clearance” test, (<http://www.hud.gov/offices/lead/lbp/hudguidelines/Ch15.pdf>). These tests determine whether it is safe to re-occupy the home by showing if the lead dust has been cleaned up adequately.

To learn how to perform renovation work safely, contact the National Lead Information Center, 1-800-424-LEAD (5323), or by TTY at 800-877-8339. To find a lead renovation contractor, or for complete information about the requirements of the RRP Rule, go to: <http://www2.epa.gov/lead/renovation-repair-and-painting-program>. The HUD Guidelines can be downloaded from <http://www.hud.gov/lead>.

### NORTH CAROLINA CONTACT INFORMATION:

For additional guidance regarding lead post-disaster cleanup during renovation and demolition activities in North Carolina, please contact the Health Hazards Control Unit (HHCU) at (919) 707-5950 and ask to speak to a consultant. You may also visit our website at <http://epi.publichealth.nc.gov/lead/lhmp.html> to learn more about the NC Lead Hazard Management Program.