

# LEAD

## Get Ahead of Lead: What Home Owners Need to Know About Removing Lead-Based Paint

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NOTE: If work is being done under an order from a government agency, any method for removing lead-based paint should be cleared with that agency. Special regulations or conditions may apply.

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Before the 1970s, household paint often contained lead. As lead paint ages, it can chip or crumble into dust. Exposure to lead-paint dust or chips can cause serious health problems. Children and pregnant women are at higher risk. So, if you live in or own an older home, you need to know how to protect yourself and others.

### GETTING STARTED

There are many ways to reduce the hazards of lead-based paint -- but **SOME METHODS OF REMOVING PAINT ACTUALLY INCREASE THE RISK OF LEAD EXPOSURE**. It's important to pick the safest method for your project; the goal is to reduce the hazards while creating as little lead dust as possible.

If lead paint on ceilings and walls is in good repair, then painting them or covering them with wallpaper may be all that is needed to keep the lead paint in place.

**BUT** -- if lead paint is chipping or peeling, or if it's on a surface such as a windowsill or stair rail where children can chew on it, then the lead paint (or the painted material) should be removed or covered. Painted surfaces that rub on each other, such as doors and windows, require special attention to stop the friction. And if the paint has been damaged by other problems, such as water damage due to leaks, then the underlying problem should be fixed first.

### SAFETY PRECAUTIONS

**BE CAREFUL!** During the work, you might stir up dust or create fumes containing lead. This can be very dangerous for adults, children and pets. Always use a method that creates the least amount of dust and fumes.

You should consider hiring a professional contractor with experience in working safely with lead removal. Whether you're going to do the job yourself or hire somebody, it's **YOUR** responsibility to see that the job is done safely.

Here are some tips:

- Children and pregnant women must not do any lead paint removal work, and they should stay out of the work area until clean-up is complete. (See "Clean-Up" section.) If you're not sure you can clean up every day, arrangements for temporary living quarters should be made.
- Work in one room at a time, and seal off the work area from the rest of the house, including any heating or ventilation ducts, using heavy plastic sheets (6-mil thick is good).
- **EVERYTHING** in the room (furniture, rugs, carpets, floors, bedding, drapes, dishware, food, toys, etc.) must be removed, or covered with **TWO** sheets of plastic (again, heavy, 6-mil plastic) and all the seams taped. Plastic used to cover the floor should be secured to the wall or baseboard with duct tape.
- Workers should wear disposable coveralls, shoes, hair covering, goggles and a respirator approved by **NIOSH** (the National Institute of Occupational Safety and Health) or **MSHA** (the Mine Safety and Health Administration). Approved respirators will have an approval number on them, ( i.e., TC-21C-xxx). Only **HEPA** (High Efficiency Particulate Air)

# LEAD

respirators will filter lead dust and fumes. Simple paper or fabric dust masks will **NOT** protect a worker from lead dust.

- To avoid ingesting lead, workers should not eat, drink or smoke on the job.
- Workers need to clean up carefully. Before leaving the work area, they should dispose of their coveralls, and remove the dust from their clothes with a HEPA (High-Efficiency Particulate Air) filtered vacuum cleaner. And workers should shower as soon as they can after work, so they don't spread lead dust around their homes.

## WHAT TO DO

### Enclosure

One way of reducing exposure to lead paint is to cover the surface with a new surface -- by putting up drywall or by covering windowsills with vinyl or aluminum, for example. This doesn't require the removal of the lead paint, so this is often the easiest solution. But if the new surface is ever removed or damaged, the lead problem returns. Materials used to enclose lead-painted surfaces should be durable and fire resistant, such as gypsum board, aluminum, vinyl, plywood paneling, laminates, acrylic sheets, plexiglas, fiberglass, or tile.

What you should know about lead testing...

Children who may have been exposed to lead-based paint should have a blood test to see if they have elevated blood levels. All children one and two years of age, or who may have been exposed, should be tested. Other children under six years of age, or who may have been exposed, should be tested if their doctors think they are at risk.

### Encapsulation

Encapsulation is a technique that bonds materials to the existing painted surface; it's more than just a coat of paint, in that the encapsulant is bonded to the lead paint. It is important to follow product instructions exactly to be sure that a strong, long lasting bond is created.

### Replacement

This might be a good time to think about replacement. Sometimes it's easier to replace windows, doors, or woodwork than it is to remove lead-based paint.

### Removal

There are several ways to remove lead-based paints:

- Wire brushing or wet hand scraping with the aid of a non-flammable solvent or abrasive compound. Liquid paint removers can be used on small areas, such as windowsills, doors and woodwork. Read and follow the manufacturer's instructions and warning labels before purchasing and using. It is important for workers to use personal protective equipment, such as gloves, safety glasses and disposable coveralls when using some paint removers.
- Wet hand sanding and/or power sanding with HEPA filters. Only wet hand sanding and/or an electric sander equipped with a HEPA filtered vacuum attachment should be used. Dry hand sanding should never be done.
- Heat stripping, using a low temperature (below 1100 degrees F) heat gun, followed by hand scraping. Heat guns pose a fire hazard, and make lead dust and vapors, so they should be used only by experienced workers wearing respirators.

## LEAD

The following methods of paint removal are hazardous and in some communities illegal, and should **NOT** be used:

- open flame burning or torching;
- machine sanding or grinding without a HEPA attachment;
- abrasive blasting or sand blasting;
- power washing without a method to trap water and paint chips.

Exterior work should be done on calm days, and wet-misting or vacuuming should be used to control lead dust and paint chips during removal. The ground around the building should be protected with heavy (6-mil) plastic sheets. The outer edges of the sheeting should be raised to trap dust, debris, and liquid wastes. Wastes should be disposed of properly, as described below.

### CLEAN-UP

Lead removal will generate lead dust and debris. Unless the house is properly cleaned, it will be more hazardous after the work than it was before!

#### Daily Clean-Up

Everyday, the debris should be misted with water, swept up and placed in double 4-mil or 6-mil plastic bags. Then all surfaces should be wet-dusted and wet-mopped. This step is very important.

#### Final Clean-Up

A HEPA-equipped vacuum should be used on all surfaces (floors, walls, ceilings, woodwork, carpeting, furniture). **DO NOT** use a standard household vacuum or shop vacuum, which are not designed or equipped to trap lead dust particles. Then wet-mop hardwood surfaces with a solution containing a heavy-duty household cleaner (automatic dishwasher detergent or a lead-specific detergent). The wet-mopping should be followed by another HEPA vacuuming.

Old rugs and carpets should be replaced, if possible; and all furniture, bedding, rugs, carpets, drapes, etc., that were removed prior to work should be cleaned before being brought back in.

### DISPOSAL

Debris from lead-based paint removal or renovation may be double-bagged and disposed of in limited quantities in household trash. Lead debris must never be burned. Liquid wastes, including wash water, must never be dumped onto the ground; waste water should be filtered through a cloth filter before dumping into a sanitary sewer or toilet. The filtered debris can go out with the other trash. The mops and cloths used to clean up lead dust and debris should never be used for any other purpose, and should be disposed of when the job is done.

### A FINAL WORD

It is safest not to undertake lead removal on your own. Contact your local health department for additional information or for help in identifying qualified contractors experienced in lead removal.

For additional information contact the

New York State Health Department  
Center for Environmental Health  
Infoline: 1-800-458-1158