Guide for Team Leaders to Help Disaster Victims Get Back to a Healthy Home

Key to Understanding Specific Health Hazards and How to Fix Them

U.S. Department of Housing and Urban Development
Office of Lead Hazard Control and Healthy Homes
www.HUD.gov/healthyhomes

HEALTHYHOMES

Highlights of this Guide

This guide is intended for volunteer team leaders, project managers and supervisors who assist in recovery and rebuilding after various types of natural disasters. This guide will help you understand the key principles that make up a healthy home, and how to apply them following a natural disaster. Some important things to keep in mind are:

- How to identify specific hazards
- How to work with contractors to remove the hazards
- How to help to ensure that work is done properly
- How to know when residents can return safely to their homes.

Disaster damage can create many potential health hazards for the affected residents and the response and repair teams. This guide provides important information on achieving a healthy home while promoting safe work practices and effective hazard control during repair and restoration.

A damaged home is likely to pose new and serious health risks for the affected residents and the response and repair teams. These hazards include **unsafe conditions** (structural, utility and pest hazards), **mold, asbestos, lead-based paint, polluted water, sewage and other contaminants**. Improper restoration methods can worsen, or even cause new or additional hazards. Therefore, work should begin only after the proper authorities have given their approvals.

What is a Healthy Home?

Everyone wants to live in a healthy home. With the power of credible information and a commitment to doing things right, **you CAN safely repair and rebuild a healthy home after a natural disaster**. To achieve that goal, you need to know, plan for and apply the eight ***principles of healthy housing***. These principles can be used as a "blueprint" for recovery regardless of the type of natural disaster or the residential structure.

1. **GET IT DRY:** Dry out or remove wet materials as quickly as possible. Dampness supports mold, other fungi, bacteria and pests, creating an unhealthy living environment. Mold growth is likely to appear on materials that stay damp more than two or three days. A water damaged building requires special attention to avoid or correct a mold population explosion. That's why it is important to properly and rapidly dry out a water-damaged home as soon as possible.
2. **GET IT CLEAN:** Remove debris, silt, and grime with safe and effective cleaning methods. It's common sense that a clean home is necessary to have a healthy home. It's also obvious that damage and debris must be cleaned out. The question is how to do so most effectively and safely. Damaged buildings can have hidden dangers and lingering health hazards.
3. **GET IT PEST-FREE:** Exclude critters, using little or no toxic pesticides. A damaged home can be more vulnerable to invasion by unwelcome pests. You know that rodents can spread disease, but did you know that insect and rodent droppings are a major trigger of allergies and asthma? Invading animals can bring in ticks and fleas. Termites can damage your home.

CAUTION! Solving one health hazard (pests) with another (toxic pesticides) is not the only option, or the most effective one. ***Integrated pest management (IPM)*** uses knowledge about pest behavior to control pests with a minimal amount of the least toxic chemicals available. Restoring your damaged home is a prime opportunity to apply IPM methods to keep pests out of your home for good.

What is a Healthy Home?

(Continued)

4. **WORK SAFELY:** Protect yourself and others from injury both during and after restoration. Injuries to disaster victims *after* the disaster is over – chainsaw accidents, cuts from broken glass, electrical shock, sprains and strains, falls, burns and other accidents – are all too common. Damaged buildings are dangerous, people are stressed and tired, materials are in short supply, and time is tight. You can overcome these challenges and avoid injuries with the preparations and tips in this guide.

5. **STRIVE TO MAKE IT CONTAMINANT-FREE:** Properly remove and control the spread of indoor pollutants. Property damage can expose hidden health hazards, but ironically, the repair process itself can increase your exposure to a range of indoor pollutants – lead, asbestos, mold, sewage, other bio-hazards, toxic chemicals and fumes, dust, fiberglass, carbon monoxide, smoke, soot, and radon. Know what to expect and how to handle it.

6. **KEEP IT PROPERLY VENTILATED:** Exhaust bad air, bring in good air, and control humidity. Every home needs fresh air ventilation to dilute indoor pollutants that off-gas from building products and people. Damage to heating and cooling equipment and materials, and the clean-out and repair process itself, can amplify and multiply the indoor air contaminant load many times over. The consequences can even be deadly – but not if you know what to do.

7. **MAKE IT EASY TO MAINTAIN:** Restore for a more durable, easy-care home. A well-maintained home prevents water leaks, building failures, pest invasions – and the expense and hassles of repairs. When Mother Nature forces an unplanned and massive home repair ordeal and expense, it can be an opportunity to benefit from better materials and improved methods and systems to prevent leaks, failure, and damage from future weather hazards.

8. **MAKE IT COMFORTABLE:** Control your indoor climate. When restoring your damaged home, include heating, cooling and other energy-efficiency improvements that make it affordable to stay warm in winter and cool in summer – even during power outages.

STEP ONE
Assessing the Property

The relationship between housing and health of residents is always important, particularly when recovering from the impact of a flood, tornado or other major disaster. The following information describes some of the potential hazards that can arise in a home following a disaster, and the health and safety issues associated with the hazards.

MOLD

If a home has experienced flooding, wind-driven rain, plumbing failures, or other water intrusion due to storms or floods, the home likely will be affected by mold.

- Molds are living organisms that grow in damp areas. Many types can grow almost anywhere, including the insides of walls and ceilings, carpets, and furniture.
- Humidity, warm temperatures, and prolonged wetness after a disaster make perfect conditions in which mold can grow.
- If individuals in the home are sensitive to molds, they may experience symptoms such as nasal stuffiness, eye irritation, wheezing, or skin irritation.
- If individuals in the home have serious allergies to molds, they could have more severe reactions including fever and shortness of breath.
- If individuals in the home have a compromised immune system due to illness or chronic lung disease, they may develop serious infections of the lungs if molds are present in the home.

ASBESTOS

High winds, floods and other storm conditions may damage the components of a home, including components made with asbestos (a fire retardant).

- Depending on the age of a home, asbestos might be found in pipe and duct insulation, vinyl flooring products (tiles, linoleum, vinyl sheeting), floor tile glue, exterior cement-like shingles, and other materials.
- If a material containing asbestos has been damaged or disturbed, asbestos fibers can travel easily through the air.
- Exposure to asbestos can create a risk of lung disease and in some cases lung cancer.

LEAD-BASED PAINT

As with asbestos, major storms and floods can also impact components in a home that contain lead-based paint.

- If a home was built before 1978, lead-based paint may be present.
- Lead hazards are particularly dangerous to young children.
- Lead hazards are easily controlled with some simple precautionary measures for repair and cleaning of damaged areas.

RADON

Damage to a home's foundation, basement or sump pump could increase the risk of radon entering the home. Inspect for cracks, gaps and signs of shifting. Also inspect walls (interior and exterior) for diagonal cracks, gaps or bulges that may have been caused by foundation damage.

- Radon is a cancer-causing, radioactive gas that is caused by the natural breakdown of elements found in ground soil.
- Radon cannot be seen, smelled, or tasted but may be a very serious problem in a home.
- Radon is the second leading cause of lung cancer in the United States.
- Testing is the only way to know whether a home is affected by radon. If levels exceed 4 pCI/L, radon-resistant features or radon reducing systems should be put in place.
- Testing is inexpensive and easy. Radon test kits are available from home improvement stores.

WATER QUALITY

Disasters can impact public and private potable water systems in a variety of ways.

- Sewage from public systems, overflowing septic systems and contaminated wells can be serious threats to resident health.
- Well water is particularly susceptible to contamination from disaster events.
- Water related illnesses can easily develop if a water source is contaminated.

HOME SAFETY

In the reoccupancy or reconstruction phase of disaster recovery, damaged homes can present numerous hazards to individuals who are returning to the home.

- Structural damage, unstable materials, chemical spills, vermin, gas leaks, and electrical hazards may pose dangers in or around a home.
- There may be obvious hazards to resident health like downed power lines and debris in and around a home, and structural dangers like buckling roofs, walls, or stairs.
- In addition, conditions inside a home that has been flooded will likely require major cleaning prior to reoccupancy so that no toxic chemical or biological health hazards remain.

UTILITIES

Utilities that normally heat and power a home, including gas and electricity, may be unavailable for extended periods after a disaster.

- Temporary heating and power sources (gas powered electric generators or propane heaters) may give off carbon monoxide, an odorless, colorless gas that can cause sudden illness or in some cases death if the concentration is high enough. Plan for a safe back-up heat source in the event of an emergency. If it's a wood stove or fireplace, make sure it exhausts to the outdoors and has a duct to provide outside air for combustion.
- Electrical connections in flooded spaces may pose shock or fire hazards when reconnected to the power.

CONTRACTORS AND HOUSING REPAIR PROFESSIONALS

To restore a home following a disaster so that it is safe for residents, work will likely require one or more specialized trades. Major work should be done by qualified contractors and professionals. The following requirements should help identify appropriate qualifications. If a contractor does not meet all of the requirements, appropriate organizations should be contacted to find out how to meet the requirements listed below.

For General Contractors

- General contractors should be licensed by the state.
- If the home being restored was built before 1978, contractors should be licensed with the state or the EPA as a Renovation, Repair, and Painting contractor in order to work with lead-based paint.
- Contractors should be insured for the type of work contemplated in the home.
- Contractors should be familiar with meeting any new FEMA rebuilding requirements that might impact the property or construction.
- Contractors should always have professional references that can be checked.

For specialized contracted work

For lead paint abatement, asbestos repair/removal, radon abatement, or major mold remediation, it is important for contractors to meet the following additional requirements:

- Lead abatement, EPA Renovation, Repair and Painting (RRP) or asbestos firms should be certified by the state or applicable government agency such as EPA. (An identification document should be available for consumers.)
- Major mold remediation or radon abatement projects should be done by experienced firms who can demonstrate the necessary training and credentials for work in your area.
- The firm should be insured for the type of work to be conducted in the home. (There should be adequate insurance to protect against any liabilities that may arise during or as a result of construction, with coverage for lead hazard control and asbestos remediation.)

Finally, almost all work that follows a major storm will require permits from the local building department.

STEP TWO
Rebuilding the Property

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Below are some important points to keep in mind when planning the work, and hiring the rebuilding team.

Safety Onsite for the Homeowner:

Before entering a damaged property, make sure that you have appropriate personal protective equipment (PPE). FEMA recommends having safety shoes or boots (rubber boots may be best if you are not sure whether any water has been pumped out), work gloves, eye protection, rubber gloves for cleaning or when using sanitizing chemicals, a hard hat, and respiratory protection in case there is mold or bacteria contamination (respirators with HEPA cartridges or dust masks with a rating of N-95 or higher should be used). When first entering the property, check it for any safety hazards including the following:

- Look for signs of structural damage such as sagging ceilings, large wall or floor cracks, etc. If these conditions exist, you should contact a building inspector, engineer, or licensed contractor for professional assistance.
- Locate the electric and gas lines or any propane supply to ensure they are not posing a danger for you or anyone accompanying you on your check. If you smell a natural gas leak, evacuate the home, and call the gas utility company immediately. If you are unsure about the condition of wiring or appliances, have them inspected by an electrician.
- If you use propane, inspect the tanks for any shifting and look for visible structural tank damage, including external appliance venting and vent caps. Also check for broken, bent or otherwise damaged gas lines. Have any appliances/equipment damaged or exposed to water inspected by a licensed gas supplier or technician prior to use. Propane leaks smell like rotten eggs. If you smell a leak, evacuate the premises and contact your local fire department or propane supplier.
- Call the power company if fallen power lines are observed, and never touch a fallen power line.
- Do not use any electrical outlet or appliance that has been flooded unless it has first been inspected by a qualified electrician.

MOLD

Planning for mold remediation involves many elements, including moisture control, assessment of impacted materials and containment of the mold impacted areas from the other parts of the home.

Mold can grow almost anywhere in wet areas of your home after disasters, including walls, carpets, and basements. When you remove mold, the primary concern is whether the moisture that created the mold has been removed (flood water has receded) or repaired (plumbing leaks are fixed). Mold remediation will not last if the moisture source is not stopped.

Major mold remediation jobs (30 or more square feet) should be performed by a qualified contractor to properly remove mold and prevent future growth.

Small Areas of Mold Remediation *(less than 30 square feet)*

As a general rule, small areas of water damage require less control when remediating.

- The work area should be unoccupied; relocating people from adjacent spaces is not necessary but is recommended for infants, persons recovering from surgery, people with suppressed immunities, and people with asthma, hypersensitivity pneumonitis and severe allergies.
- Containment of the work area is not necessary.
- Cover surfaces in the work area that could become contaminated with secured plastic sheets to contain dust and debris, and prevent further contamination.

Large Areas of Mold Remediation *(30 to 100 square feet)*

- The work area and areas directly adjacent to it should be kept unoccupied.
- Cover surfaces in the work area and adjacent areas that could become contaminated with secured plastic sheets to contain spores, dust, and debris to prevent further contamination.
- Seal ventilation ducts/grills in the work area and areas directly adjacent with plastic sheeting.
- If remediation procedures are expected to generate a lot of dust (e.g., abrasive cleaning of contaminated surfaces, demolition of plaster walls) or the visible concentration of mold is heavy (i.e., blanket versus patchy coverage) follow the procedures below for extensive contamination.

Extensive and Visible Mold Contamination:

- Develop a mold remediation plan. The plan should address: work area isolation, the use of exhaust fans with high-efficiency particulate air (HEPA) filtration, the design of airlocks/decontamination rooms, and personal protection.
- Consult with industrial hygienists or other environmental health and safety professionals with experience performing mold removal before beginning this level of remediation.

Nonprofessionals should tackle only small mold remediation jobs (less than 30 square feet, or even smaller areas if specified by state or local regulations), and then only with the right personal protective equipment (PPE), such as respirators (N-95 or higher), goggles, long gloves and disposable coveralls.

Major mold remediation jobs (30 or more square feet) should be performed by a qualified contractor to properly remove mold and prevent future growth.

FEMA News Photos

ASBESTOS

If construction involving structural or cosmetic elements that contain asbestos is being planned, the work needs to be done by specialized professionals.

Materials containing asbestos cannot be identified just by looking at them. Some materials are labeled, but when in doubt, it is best to treat suspect material as if it contains asbestos and have the materials inspected and tested by a certified contractor using an accredited laboratory. If asbestos-containing materials are damaged, repair or removal should be done only by trained and certified asbestos professionals.

LEAD-BASED PAINT

If a home was built before 1978 and paint is peeling, chipped or damaged in any way, it is best to test the paint for lead content or to treat the paint as if it contained lead.

Lead-based paint inspections should be done by a certified Lead Paint Inspector or Lead Paint Risk Assessor. Renovation work should be done by a Renovation, Repair and Painting (RRP) certified contractor. Lead-based paint abatement work should only be done by a certified lead abatement contractor.

RADON

Testing is the only way to identify a radon issue. Test kits for radon can be found at home improvement stores.

Follow the directions on the packaging to properly place the device, and send it to the indicated lab after the test period to get readings of radon levels. If a home has radon levels of 4 pCi/L or higher, radon control systems should be put in place. Lowering radon levels requires special knowledge and skills. Contractors to perform such work should be state-certified radon contractors. Not all states have such programs in place.

Closed building conditions are important for accurate radon test results. If you are doing a short-term test of just two or three days, be sure to close windows and outside doors at least 12 hours before beginning. Keep them closed as much as possible during the test. Heating and air-conditioning system fans that recirculate air may be operated, but do not operate fans or other machines that bring in outside air. Fans that are part of a radon-reduction system or small exhaust fans operating only for short periods of time may run during the test.

Do not conduct short-term tests during severe storms or with very high winds. Be mindful that in a post-disaster situation, damaged homes may not have the closed building conditions (windows, doors, roof, etc.) needed for testing.

CARBON MONOXIDE

If restoration involves temporary power or heat sources, internal combustion equipment like gas-fueled generators will produce carbon monoxide.

This equipment should always be operated outside and kept away from open windows or air intake openings. When temporary generators are used, carbon monoxide alarms should be used according to manufacturer recommendations. Also, when restoring any heating or hot water system, all active chimneys and air vents should be assessed for leaks or blockages and repaired as necessary.

WATER AND SEWER RESTORATION

In most cases public water and sewer systems will be operable shortly after a disaster event and create few impacts on home repairs.

Check with local water officials if it is suspected that public water sources are compromised. Private well and septic systems, however, may suffer damage; if this is suspected, they should be inspected by a qualified professional. Restoring wells after a disaster should include water testing and inspection of all parts, with repair and disinfected as necessary.

MATERIAL HANDLING AND STORAGE

OSHA suggests that all workplaces, including construction sites, should employ general safety principles: work practices, ergonomic principles, and training/education.

- Store materials in a planned and orderly manner to prevent safety issues.
- Store materials on pallets, and clean spills immediately to deter rodent infestation.
- Heavy stored materials should be hoisted with slings or other mechanical tools that are fully secured to prevent bodily strain and other safety issues.
- Follow storage guidelines, especially for the following conditions:
  - Open yard area
  - Indoor area
  - Stacking material
  - Bulk material
  - Lumber
  - Brick or blocks
- Additional guidelines can be found in the U.S. Bureau of the Census USBR's Reclamation Safety and Health Standards document Section 11. (www.usbr.gov/ssle/safety/RSHS/sec11.pdf)

HOME SAFETY AND UTILITIES

For most home safety and utility hazards, professionals may still be needed.

Professionals for utilities differ from contractors or construction professionals and generally do not have the same accreditations or certifications. It is a good idea to make sure that any professional has the proper training and experience to do the work needed. If an emergency comes up, such as an illness due to carbon monoxide or shock from power lines, always contact emergency services using 911.

STEP THREE
Residents Returning to the Property

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After assessing the work to be done, complete any required inspection of hazardous conditions, select a contractor and execute a contract; home reconstruction then moves to the actual construction phase.

Some items related to health to keep in mind during this phase include:

- Be sure all permits and approvals are obtained before construction begins.
- Be certain that work areas are properly contained for hazards and will not be accessed by anyone without proper training and personal protective equipment (PPE). There are specific requirements regarding lead abatement work or asbestos removal in an occupied property, including access to kitchen and bath facilities. Make sure that everyone who will be entering the property knows the rules. While mold remediation is not usually regulated, there are best practices regarding containment that should be followed during the construction. Be sure to know what hazards might exist during construction and be sure of the separation of work areas from living spaces.
- If the work involves lead paint or asbestos abatement, a certified contractor will need to complete that phase of the work and have a clearance test conducted by a certified lead clearance examiner, inspector or risk assessor, or certified asbestos contractor.
- If the work involves mold remediation, wall cavities should not be closed up until either you or a licensed/certified mold inspector looks at the work that was done. Ask whether the contractor has properly tested for any remaining mold and the moisture content of components. There should be no visible signs of mold or moldy odors. Moisture meters should be used on semi-porous structural materials, like wood, to determine moisture content. Use a pin-type wood moisture meter to check moisture level periodically until the reading remains stable and the moisture level of the wood is at equilibrium (8 to 15%, depending on your area's climate). Wood moisture meters are available from some hardware stores, home improvement stores, tool suppliers and online vendors. Materials with excessive moisture need to be dried prior to rebuilding or enclosure to prevent regrowth of any mold.

FEMA News Photos

Reusing Materials: Save or Replace?

When you are planning renovation, one of the first critical decisions is deciding what to save or repair, and what to remove or replace. When considering your options keep the health impacts of your decision in mind.

For example, will moldy material be able to be cleaned and treated so that mold will not come back? Usually materials that are soft and porous, like paper-faced gypsum board, will need to be replaced. Semi-porous materials like wood and concrete can usually be cleaned and treated. Non-porous materials should be dried and cleaned with a detergent solution or bleach and water (1/2 cup liquid bleach to 1 gallon of water). When cleaning, provide fresh air by opening windows and doors and follow instructions on all cleaning product labels. Do not mix cleaning products together or add bleach to any other chemicals because this can create toxic vapors. Clean efficiently to remove all visible signs of mold. Dry immediately.

When faced with replacing building elements like walls, floors, and ceilings, you should consider, the possibility of future disaster events. If you are restoring a basement or first floor subject to flooding you should consider moisture-resistant building materials like fiberglass-faced gypsum board and spray foam or extruded polystyrene insulation rather than porous traditional drywall and fiberglass insulation.

FEMA has issued guidance on building materials that are appropriate for disaster-prone areas (Flood Damage-Resistant Materials Requirements for Buildings located in Special Flood Hazard areas in accordance with the National Flood Insurance Program Technical Bulletin 2, August 2008).

Residents Returning to the Property

After the major construction items have been completed, the following suggestions should be considered before a property is reoccupied:

- The contractor should have a complete inspection sign-off on the building permit and have an occupancy certificate issued. Each of the required inspections (building, electrical, mechanical, plumbing) should indicate a final sign-off by the correct inspector.
- If regulated work was done, like lead paint abatement, Lead Renovation, Repair and Painting (RRP) or asbestos removal; a clearance certification by the appropriate professional should be provided. In some cases this will be in the form of a state-issued certificate.
- Construction debris should be removed from the property. All contaminated construction materials that were targeted for removal, including anything containing asbestos, lead-based paint, and mold, should have been properly wrapped, removed from the property, and disposed of appropriately.
- A final walk-through of the property should be done after construction. Create a checklist of any items that remain to be completed. During this walk-through, check for any signs of mold that may be returning to areas that were rehabilitated.

SELECTING QUALIFIED CONTRACTORS

Where can I find qualified contractors?

- Check you states contractor licensing agency for lists of licensed or registered general and specialty contractors.
- Find certified Lead-Safe Renovators in your area at www.epa.gov/lead.
- Find a link to the agency in your state that lists asbestos professionals at www.epa.gov/abestos (see Hire an Asbestos Professional), visit www.nachi.org/abestos, or contact your local Health Department. For accredited asbestos laboratories, visit www.nist.gov and select the Laboratory Accreditation (NVLAP) link under Products and Services.
- Check restoration industry groups that list professionals certified in cleaning, fire and water damage, mold remediation and related specialties, such as:
  - The restoration Industry Association (www.resorationindustry.org)
  - The Institute of Inspection, Cleaning and Restoration Certification (www.certifiedcleaners.org)
  - The American Council for Accredited Certification (www.acac.org)
- To find home builders and remodelers who are members of the National Association of Home Builders and its local chapters, visit www.nahb.org. Find members of the National Association of the Remodeling Industry at www.nari.org.
- Check with your insurance company, licensed home inspector or building official for referrals.

FLOODING AND MOLD GROWTH

- Roof damage can result in water and mold damage to ceilings, insulation and walls.
- Wet drywall is more prone to mold growth than is plaster.
- Wet carpets and pads slow drying, warp subflooring.
- High indoor humidity encourages mold growth, slows drying.
- Vinyl wallpaper traps moisture in walls.
- Water settles on bottom wood framing, and risks mold and decay if it stays wet behind baseboard.
- Wet insulation (except for closed cell foam) holds water, causing long-term mold and rot problems. It must be removed.
- Wicking water line – Water wicks upward beyond the floor level. Extreme mold growth from long-term wetness is worse in wicking area.
- Floodwater line – Shows depth of flood.

CLEAN, GRAY AND BLACK WATER

Clean-up procedures and what you can salvage from water damage depends on the type of water. **Clean water** includes rainwater, leaks from broken water supply lines, and tub or sink overflows with no containments. **Gray water** or unsanitary water may include leaks from dishwashers or washing machines, punctured waterbeds or broken aquariums. **Black water** contains disease-causing (pathogenic) agents and is extreme unsanitary; it includes flooding from seawater, rivers or other rising storm water. **Gray water** that remains untreated for longer than 48 hours can change to the black water category as microorganisms multiply.

CAUTION

If a ceiling or wall is moldy, insulated, or may have lead-based paint, set up containment and wear personal protective equipment (PPE) before doing any gutting work. (See Containment guidelines in Prepare the Work Site and Protect Yourself sections.)

It's helpful to cover sections of ceiling or wall material with thin plastic sheeting before removal to prevent a massive release of mold spores or lead dust into the air. (Refer to mold and lead precautions and resources in Assess Health Hazards section.) Do NOT tear out surfaces that may contain asbestos. Consult an asbestos professional to assess the situation and determine the safest solution.

If gutting reveals insulated pipes (especially hot water pipes) in homes built before 1980, the insulation might contain asbestos.

MOLD MYTHS

MYTH: "Black mold" is the dangerous type

FACTS: Many species of mold are black. That term was coined to describe one species that was suspected of causing serious health effects. Regardless of color or species, any indoor mold growth should be considered a potential health hazard and safely removed.

MYTH: Bleach should be used to kill mold

FACTS: Dead mold and live mold can have the same health effects, so it's best to remove mold rather than just kill it. Bleach and other disinfectants can kill mold if in contact long enough, but are hazardous chemicals that also pose risks to people. Visit www.hud.gov/healthyhomes and read the Rebuild Healthy Homes publication to learn more.

The wrong restoration methods can worsen, or even cause, some hazards. Please visit our website of www.hud.gov/healthyhomes for more information. Also see the back cover of this brochure.

Post Natural Disaster Recovery and Rebuilding: Information Resources

Important information that may assist consumers, professionals, team leaders and volunteers is available on the following federal agency websites. Please check regularly for updates.

1. **U.S. Department of Housing and Urban Development's Office of Lead Hazard Control and Healthy Homes** (www.hud.gov/healthyhomes)

Rebuild Healthy Homes: Guide to Post-disaster Restoration for a Safe and Healthy Home

Please see the three videos:

Returning home after a natural disaster.

www.youtube.com/watch?v=aY4v6y2mcCo

This video discusses how to return to your home for the first time after a natural disaster. The video goes through a checklist of things to do and look for to ensure the safety of individuals and families.

How to deal with mold after a natural disaster.

www.youtube.com/watch?v=lJvfbzg7gUA

This video builds on the first video and specifically talks about what a homeowner can do to address mold in their home.

Restoring your home after a natural disaster:

www.youtube.com/watch?v=nSJwDxi8f-E

This video covers potential hazards that could arise after a disaster, such as lead, mold, asbestos, CO2, and other hazards, and how to address them as you rebuild.

2. **Centers for Disease Control and Prevention** (www.cdc.gov)
3. **U.S. Environmental Protection Agency** (www.epa.gov/iaq)
4. **Federal Emergency Management Agency** (www.fema.gov)
5. **Occupational Safety and Health Administration** (www.osha.gov)