

Water, Mud, Mold, and More: Toxic Chemicals and Staying Safe When Returning to Coastal Louisiana

This pamphlet describes risks you may encounter in returning home after the hurricanes; and strategies to protect your own and your family's health. We cannot tell you whether it is safe to return home; but we can share with you what we know about returning as safely as possible.

Common Ground Relief is a community-based volunteer organization. We offer free medical care, food, water, supplies, and rebuilding assistance to Gulf Coast communities that have been hardest hit and historically neglected.

Common Ground has collected and tested soil and water samples from coastal Louisiana and Alabama. We have reviewed government data, and spoken to residents about their health and safety concerns. This flyer comes from those conversations to address people's most pressing questions and concerns.

Whether you can safely return home depends on your neighborhood, your age and health, and on day-to-day changing conditions on every street and in every home. Because it is not certain that your home and neighborhood are safe, take a precautionary approach. Do not assume that you will not be exposed to harmful substances. Wear protective clothing..

Is the air safe to breathe?

Tests show that in many areas of New Orleans air is generally safe for healthy adults. Nevertheless, there are certain situations that will be dangerous:



- Poisoning and death from carbon monoxide can result from burning or running a generator within an enclosed space, building, or garage. You will not smell this poison.
- Explosion and death can result from sparking trapped methane or propane gas. This risk will be present where floodwaters or wind shifted or moved buildings, water heaters, stoves, or plumbing pipes.
- Any building that was flooded or leaked may have mold. Individuals will react differently to mold, but most of us should limit our time inside and wear respirators until a building is completely clean.
- Any place that still has floodwaters may have germs in the air, including the pots and pans in your home. Wear a respirator until the water is removed and the surfaces dry completely.
- As sheetrock, insulation, and building walls are torn down, there may be asbestos particles in the inside or outside air. Asbestos particles are very dangerous to your lungs. Wear a respirator in any area with demolition dust.

- Some areas of Orleans, St. Bernard and Plaquemines Parishes are still contaminated with spilled fuels and chemicals. Although monitoring data show that chemicals are not present in the air, there may be pockets of these chemicals in areas not tested. You will likely smell these chemicals. If you have a concern, contact the Common Ground Medical Clinic.

Where does my tap water come from? Is it safe to drink? Can I cook with it? Can I use it to shower?

New Orleans' drinking water is pumped from the Mississippi River, treated, and piped into homes and businesses. Tap water is contaminated if Mississippi River water is contaminated, or when pipes between the treatment plant and your faucet contain floodwater.



- Before Katrina New Orleans drinking water contained the pesticide atrazine and significant levels of some toxic chemicals. Mississippi River water is now as clean as it was before Katrina.
- Floodwater never entered the water system for the West Bank and Algiers. Water here is as safe as before the hurricanes.
- Floodwater entered the drinking water system for the East Bank, carrying germs, spilled fuel and toxic chemicals. As the water system comes back on line, floodwater will be flushed out of the pipes. Extra chlorine is being added to kill any remaining germs.
- East of the Industrial Canal in the Lower Ninth Ward, and in New Orleans East, tap water remains unhealthy. It should not be used to drink, make ice, shower, and brush teeth, wash hands, prepare or rinse food without treatment.

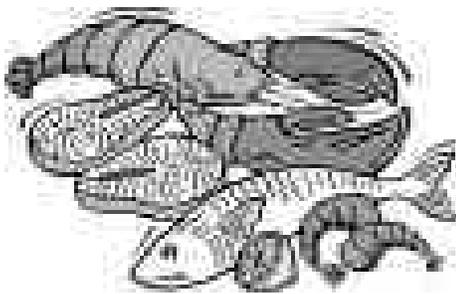
How to be as safe as possible:

Turn on every faucet and shower in your house. Let the hot and cold water run for 10 to 15 minutes.

Use bottled or filtered water for all drinking, cooking, dishwashing, and brushing teeth. All tap water should be filtered using a carbon filter to remove toxins.

Make sure that everyone, but particularly older adults and children, drink plenty of water.

Is the seafood safe to eat?



Seafood may be contaminated with either dangerous bacteria or with toxic metals or chemicals, depending on where it has been living. Water samples from Lake Pontchartrain are not showing higher levels of contamination after Katrina than before. However, we cannot be completely certain that fish from the Lake are free of hurricane-related contaminants.

How to be as safe as possible:

Cook all fish and shellfish to kill dangerous bacteria. Don't eat it raw.

Trim fat from fish before cooking. King mackerel caught from the Gulf Coast has levels of mercury that present a health risk for everyone, but particularly for breast-feeding women and children younger than 7.

Is the fruit safe to eat? Fruit and vegetables will be safe to eat unless they are washed in contaminated water. Wash them with bottled or filtered water.

Is the concrete safe for my kids to play on?

Floodwater contained sewage and unhealthy bacteria. When the water dries, however, and particularly on hot pavement, the bacteria die.

If your home is close to an industrial site that flooded, there may also have been toxic chemicals in the water. See the list of toxic "hot spots" in this booklet.

Some soils show high levels of arsenic and lead, likely present before Katrina. These toxic metals are likely present where soils have been treated with pesticides or contain lead where old paint was scraped from the house. Prevent young children from crawling on the ground where these activities have occurred.

Is the mud and dust safe when it is dry?

If the mud or dust is outside, in the sun, and very dry, dangerous germs will have died and most of the chemicals evaporated. Even dust alone, however, can irritate your lungs. Soil data also show the presence of lead and arsenic, which can become airborne.

Inside homes, floodwater, mud and dust may contain dangerous levels of mold, germs, asbestos, or lead.

How to be as safe as possible: Clean mud and dust from living and playing spaces. If mud is still damp or wet, put on protective clothing, and clean it up into a sturdy plastic bag.

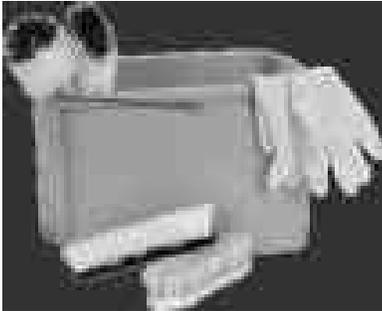
Home Cleanup

Flood Waters: Remove standing water as quickly as possible. Do not allow the water to spray or contaminate other areas. Remove everything that cannot be cleaned and dried as quickly as possible. Wipe surfaces with not more than 1 cup of bleach to 1 gallon of water.

Mold: Mold is one of the most dangerous legacies of Katrina. Mold can cause disease, trigger allergic reactions, and continue to damage your home. Failure to remove all of the mold from your home presents a serious long-term health risk.

- If you are working in a house that has been wet or damp for more than 2 or 3 days, it probably has mold. Wear gloves, rubber boots, pants, long-sleeve shirts and a respirator during clean up. Don't stay inside for longer than 4 hours.
- Remove standing water as quickly as possible. Open the windows or use an air-conditioner or fan to dry things out.
- Remove everything, that might have mold and cannot be wiped clean or washed and dried including furniture, drywall, insulation, ceiling tiles, mattresses.

Call Common Ground for information about how to treat mold-contaminated walls and wood.



Cleaning Chemicals: Disinfectants, cleaners, solvents, sanitizers, and pesticides are toxic and potentially hazardous. Read and follow instructions. Keep windows open and air moving until no smell remains. Use gloves, clothing, safety glasses and a respirator to keep these chemicals away from your skin and lungs. Never mix chlorine, ammonia, or vinegar.

Electricity: In some places it isn't safe to use electricity. Appliances must be cleaned, checked and grounded before you plug them in. Where generators are being used, there may be electricity in the wires, even though

the main power supply is still out. Do not touch wires unless you have tested them and know they are *not* live.

Asbestos and Lead: Homes built before 1978 likely contain lead and asbestos. Lead is highly toxic, especially for children. Lead is found in paint and becomes dangerous when the paint is dissolved, scrapped, eaten, or burned. It moves into the air as dust and then into your body, your blood, and your brain. Wear gloves, protective clothing, safety glasses and a respirator if you are removing paint, particularly old paint.

Asbestos can cause lung cancer. It is found in insulation, ceiling tiles, exterior siding and roof shingles. It is not a problem until these materials are moved and broken, creating asbestos dust.

Clean all paint and demolition dust into double-bagged garbage bags by the street before anyone, especially young children, is allowed back into the area without protective clothing.

Hazardous Household Supplies: Household supplies like bleach, ammonia, gasoline, motor oil, paint, and pesticides may have spilled during the hurricane floods or winds. These chemicals are highly toxic and dangerous. Antifreeze tastes sweet. Children and pets can die if they eat it. Call the Environmental Protection Agency @ 800-401-1327 for cleanup assistance.

Wellness

Water - Use only bottled or filtered water for drinking, cooking, washing food, or brushing your teeth. Tap water should always be filtered with activated carbon to remove low levels of toxic chemicals and chlorine. Drink plenty of water all day long.

Food - Throw out any food that might possibly be spoiled, contacted floodwater, or is in a dented or swelling can. Fresh fruits and vegetables, particularly greens, will help your body stay healthy.

Sanitation - Washing your hands regularly is the single best way to keep from getting sick. Wash them every time you use the bathroom, after cleaning, before eating, drinking, or smoking. Use clean water and soap. Shower and wear fresh clothing every day.

Flies spread germs. Keep them off of your food. Keep any food or garbage covered to keep flies from breeding.

Stress and Trauma - Take breaks. Take time to eat and drink water. Find someone to talk to. If you are having a difficult time because of your experiences, call Common Ground Medical Clinic and ask to speak to a counselor, or find someone in your community who you can talk to.

Protective Clothing and Equipment - While cleaning, wear long pants, a long-sleeved shirt, boots, safety glasses, and gloves. As soon as you are finished cleaning, and before you eat, drink, smoke, or care for children or elderly, change your clothing. Wash them immediately or store them in plastic until they can be washed.

- The proper respirator can protect your lungs from mold spores, lead dust, asbestos, and chemical vapors. If you can't find a respirator at your local hardware store, see the resources sections for distribution centers.
- Buy a respirator that fits. Test the seal by sucking in and blowing out. If air enters or escapes around the edges of the mask, adjust the fit.
- If you are cleaning a home with several storm damage, or live near an industrial site, use a half- or full-face respirator marked with an N100, P100, or R100. Study the package carefully to make sure you have the right type. Change the cartridges often.
- If respirators are not available, an N95 mask can protect you from most mold and dust, but not lead, asbestos, or chemical vapors. An N100 mask will provide some protection against lead, asbestos or chemical vapors. Throw the mask away after 4 hours of use.

Medical

Vaccinations - Free vaccines are available from Common Ground Medical Clinic at their permanent location or mobile clinics.



- Everyone returning to New Orleans needs a tetanus vaccine if you don't remember getting one in the last 10 years. Tetanus is a dangerous infection that enters the body through a cut.
- Anyone who *might* come in contact with floodwater, or human poop needs a Hepatitis A vaccine one week BEFORE possible exposure and follow-up booster shots.
- Anyone who *might* come in contact with human blood, or water contaminated with human blood needs a Hepatitis B vaccine one week BEFORE possible exposure and follow-up booster shots.

Wound Care: If you get a deep cut, get medical help cleaning the wound and stitches if necessary. If you get a small scrape or cut, remove all dirt, loose skin or blood by pouring bottled water over the wound. Then cover the area with a clean bandage. Clean the wound and change the bandage daily. If the wound site becomes wet, hot, or infected, get medical attention immediately.

Toxic Hot Spots

Southern Louisiana has a history of oil and chemical industries. Floodwaters and hurricane winds floated many of these chemicals out of their storage containers and into adjacent neighborhoods. While Common Ground tests, as well as data that we have reviewed by other organizations, indicate that many areas of New Orleans are safe, we have identified certain areas where we believe there are still potential toxic chemicals in the outside environment. These areas are:

Lower Ninth Ward. There are fuel tanks in the front yards of homes. Sediment and water are oily and smell of fuel. Monitoring data indicate petroleum hydrocarbons present.

Neighborhoods near Highway 23 Plaquemines Parish south of Myrtle Grove. There are many chemical storage tanks that have been damaged or floated from their foundations. The water and sediment are oily and smell of fuel. Monitoring data indicate petroleum hydrocarbons present.

Neighborhood west of Murphy Oil Refinery. Common Ground samples of water and sediment indicate the presence of petroleum hydrocarbons.

Morrison Road north of Foch Road. Soil analysis indicates the presence of diesel fuel.

This list is NOT complete. There are certainly other sites in addition to those listed here. Conditions at these sites will change as cleanup progresses. More testing is needed.

The latest toxic spills will create long-term health risks to people living in the contaminated areas.



Indications of a potential toxic site:

- Drums or tanks that have floated out of the ground.
- Oily waste that you can see or smell.
- Cars that show leaking fluids, oil or gasoline.
- Leaking cans /bags of paints, anti-freeze, pesticides, solvents, fuel, or cleaning supplies.
- Areas close to dry cleaners, auto repair shops, gasoline stations, or
- industrial areas that flooded or suffered wind damage.

If you have questions or concerns about whether a situation is safe, call Common Ground and ask for help to make an assessment.

Toxic spills after Katrina and Rita draw national attention to what residents have known for years: industries in New Orleans and the Gulf Coast area pollute low-income communities, harming people's health, and destroying fish and wildlife. Community activists we spoke with want rebuilding efforts to clean up the Gulf Coast environment and renew fishing and shrimping livelihoods.

Resources

Covenant House Clinic, 611 N. Rampart St., 70112. 504-584-1111

Mold and storm water cleanup: LSU Agricultural Center <http://www.lsuagcenter.com/>

Toxic data, cleanup and safety: Environmental Protection Agency: <http://www.epa.gov/katrina/>

Toxic data and environmental protection: Louisiana Environmental Action Network: www.leanweb.org

Protect Yourself from Mold: www.bt.cdc.gov/disasters/

Repairing Your Flooded Home: <http://www.redcross.org/services/oppt/lead/> Federal Emergency Management Agency's Flood website - <http://www.fema.gov/hazards/floods/>