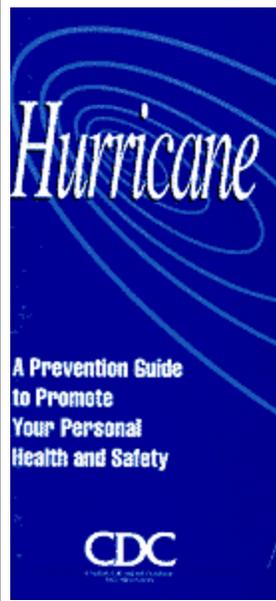


Hurricane

A Prevention Guide to Promote Your Personal Health and Safety

Centers for Disease Control and Prevention (CDC)
U.S. Department of Health and Human Services
Public Health Service
1996

 The cover of the guide features a blue background with white and light blue concentric circles representing a hurricane. The word "Hurricane" is written in a large, white, serif font. Below it, in a smaller white font, is the subtitle "A Prevention Guide to Promote Your Personal Health and Safety". At the bottom, the CDC logo is visible.	<h3>Contents</h3> <ul style="list-style-type: none">• Introduction• Hurricane Disasters• About Hurricanes• Preparing for the Hurricane<ul style="list-style-type: none">○ Hurricane Readiness○ Before the Storm○ Evacuation○ During the Storm• Hurricanes and Your Health and Safety<ul style="list-style-type: none">○ Water Quality<ul style="list-style-type: none">■ Water for Drinking and Cooking■ Disinfecting Wells○ Food Safety<ul style="list-style-type: none">■ Frozen and Refrigerated Foods○ Sanitation and Hygiene○ Immunizations○ Mosquitoes○ Mental Health• Safety Precautions When Returning Home<ul style="list-style-type: none">○ Inspecting the Damage○ Gas Leaks○ Electrical Damage○ Other Injury-Prevention Measures○ Cleanup○ Other Hazards<ul style="list-style-type: none">■ Downed Powerlines■ Animals■ Drowning■ Chemical Hazards• Summary
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Introduction

Hurricane Andrew and Iniki in 1992 and Hugo in 1989 disrupted the lives of thousands of people. While nothing can be done to stop hurricanes, there are actions you can take to help maintain your personal health and safety during and after a hurricane. This pamphlet provides information to help you prepare for, react to, and recover from the impacts of a hurricane, and maintain your physical and mental health in the days and weeks following the storm.

This information is provided by the Centers for Disease Control and Prevention in cooperation with state and local health departments. It includes general guidelines for prevention of disease and injury. However, some recommendations may vary from state to state. Please contact your state health department for health advisories or recommendations that are specific to local conditions.

Hurricane Disasters

As population growth continues along vulnerable coastal areas in the United States, more and more people face the potential hazards that result from a hurricane. Today, approximately 75 million people live within 50 miles of potential hurricane zones.

Some climatologists are concerned that hurricane activity affecting the coastal areas of the United States may increase because of the climatic changes now occurring in Western Africa. Similar climatic changes occurred from 1940 to 1950. During that period, there were three direct hurricane strikes in the greater Miami metropolitan area, one in the Tampa region, one near New Orleans, and one on the Gulf coast of Texas.

The greatest natural disaster in history occurred on September 8, 1900, when a hurricane struck Galveston, Texas, killing more than 6,000 people. Fortunately, as hurricane forecasting, emergency response plans, evacuation procedures, and the training of public health workers have improved in this century, the loss of human life has been greatly reduced. In 1992, while Hurricane Andrew caused an estimated \$20 billion in property damage in Florida and Louisiana, the human toll was 41 people. While each life lost is one too many, the only way to reduce the human cost of a hurricane is with adequate preparation.

This pamphlet provides information to help you maintain your personal health and safety and prevent injury if a hurricane should strike your area.

About Hurricanes

Hurricanes are powerful storms that form at sea with wind speeds of 74 mph or greater. Hurricanes are tracked by satellites from the moment they begin to form, so there is usually a warning 3-4 days before a storm strikes. A hurricane covers a circular area between 200 and 480 miles in diameter. In the storm, strong winds and rain surround a central, calm "eye," which is about 15 miles across. Winds in a hurricane can sometimes reach 200 miles per hour. However, the greatest damage to life and property is not from the wind, but from tidal surges and flash flooding.

Because of the destructive power of a hurricane, you should never ignore an evacuation order. Many victims of Hurricane Andrew who did ignore evacuation orders lost their lives or found that they could do nothing to protect their property against the storm.

Preparing for the Hurricane

Hurricane Readiness

Hurricane readiness should begin long before the event occurs. If you live in a hurricane-prone area, you can prepare far in advance for the possible dangers to health and safety resulting from a hurricane by:

- learning about your community's emergency plans, warning signals, evacuation routes, and locations of emergency shelters; and
- taking a first aid and CPR course.

You should also prepare for a weather emergency by taking the following actions:

- identify potential home hazards that could develop during a hurricane, such as those involving gas, electricity, chemicals, and structural damage;
- install a smoke detector and check it monthly;
- buy a fire extinguisher and make sure your family knows where to find it and how to use it;
- conduct an evacuation drill for at least two ways out of your home;
- provide escape ladders for multi-story structures;
- establish an assembly point where the family meets in the event of fire or if a disaster occurs when the family is not together at home;
- give your relatives and friends the name of a contact person who will know where you are and how you are doing;
- know the location of your important papers, such as insurance policies, wills, licenses, stocks, etc.;
- instruct family members about how to shut off the gas, water, and electric mains;
- post emergency phone numbers at every phone;
- inform local authorities about any special needs, i.e., elderly or bedridden people, or anyone with a disability; and

- properly dispose of all chemicals, pesticides, and solvents not being used.

You should stock your home with supplies that may be needed during the emergency period. These supplies should include:

- several clean containers for water, large enough for a 3-5 day supply of water (about five gallons for each person);
- a 3-5 day supply of non-perishable food;
- a first aid kit and manual;
- a battery-powered radio, flashlights, and extra batteries;
- sleeping bags or extra blankets;
- a large supply of non-breakable spoons, forks, knives, cups, plates, etc.;
- water-purifying supplies, such as chlorine or iodine tablets or unscented, ordinary household chlorine bleach;
- prescription medicines and special medical needs;
- baby food and/or prepared formula, diapers, and other baby supplies;
- disposable cleaning cloths, such as "baby wipes" for the whole family to use in case bathing facilities are not available;
- a portable toilet, and toilet paper;
- personal hygiene supplies, such as soap, toothpaste, sanitary napkins, etc.;
- alternate heat and cooking sources, such as a kerosene heater and a camp stove -- use these only in well-ventilated areas;
- shovels and hand tools;
- candles and matches;
- a mop, bucket, and towels;
- one or more rolls of plastic sheeting, a staple gun with staples, and duct tape;
- plastic trash bags and ties;
- an emergency kit for your car with food, flares, booster cables, maps, tools, a first aid kit, fire extinguisher, sleeping bags, etc.;

- a citizens band radio or a cellular phone, if possible;
- games and favorite toys, etc.;
- extra cash;
- pet food;
- insect repellent; and
- rubber boots/rubber gloves.

Before the Storm

The National Weather Service will issue a hurricane watch when there is a threat to coastal areas of hurricane conditions within 24-36 hours. When a hurricane watch is issued, you should:

- **BE PREPARED TO EVACUATE;**
- fill your automobile's gas tank;
- if no vehicle is available, make arrangements with friends or family for transportation;
- fill your clean water containers;
- review your emergency plans and supplies, checking to see if any items are missing;
- tune in the radio or television for weather updates;
- listen for disaster sirens and warning signals;
- if you must evacuate your home, pack only essential items, such as clothing, bedding, food, water, medicines, infant needs, vital family papers, and extra cash;
- outside, secure any items which may damage property in a storm, such as bicycles, grills, propane tanks, etc.;
- cover windows and doors with plywood or boards if possible. Otherwise, place large strips of masking tape or adhesive tape on the windows to reduce the risk of breakage and flying glass;
- put livestock and family pets in a safe area if possible. Due to food and sanitation requirements, emergency shelters cannot accept animals;
- place vehicles under cover, if at all possible;
- fill sinks and bathtubs with water as an extra supply for washing; and

- adjust the thermostat on refrigerators and freezers to the coolest possible temperature.

Evacuation

Expect the need to evacuate and prepare for it. Authorities will be most likely to direct you to leave if you are in a low-lying area, or within the greatest potential path of the storm. The National Weather Service will issue a hurricane warning when hurricane conditions are expected in a specified coastal area in 24 hours or less. If a hurricane warning is issued for your area or you are directed by authorities to evacuate the area:

- take only essential items with you;
- leave pets indoors in a safe, covered area with ample food and water;
- if you have time, turn off the gas, electricity, and water;
- disconnect appliances to reduce the likelihood of electrical shock when power is restored;
- make sure your automobile's emergency kit is ready;
- follow the designated evacuation routes -- others may be blocked -- and expect heavy traffic; and
- listen to the radio for emergency updates.

During the Storm

To get through the storm in the safest possible manner:

- monitor the radio or television for weather conditions, if possible;
 - stay indoors until the authorities declare the storm is over;
 - do not go outside, even if the weather appears to have calmed -- the calm "eye" of the storm can pass quickly, leaving you outside when strong winds resume;
 - expect the loss of electricity, gas, and water;
 - stay away from all windows and exterior doors, seeking shelter in a bathroom or basement. Bathtubs can provide some shelter if you cover yourself with plywood or other materials;
 - prepare to evacuate to a shelter or to a neighbor's home if your home is damaged, or if you are instructed to do so by emergency personnel; and
 - if you should lose electrical power, eat perishable food first.
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Hurricanes and Your Health and Safety

The great majority of injuries during a hurricane are cuts caused by flying glass or other debris. Other injuries include puncture wounds resulting from exposed nails, metal, or glass, and bone fractures.

State and local health departments may issue health advisories or recommendations particular to local conditions. If in doubt, contact your local or state health department.

Water Quality

Hurricanes, especially if accompanied by a tidal surge or flooding, can contaminate the public water supply. Drinking contaminated water may cause illness. You cannot assume that the water in the hurricane-affected area is safe to drink.

In the area hit by a hurricane, water treatment plants may not be operating; even if they are, storm damage and flooding can contaminate water lines. Listen for public announcements about the safety of the municipal water supply.

If your well has been flooded, it needs to be tested and disinfected after the storm passes and the floodwaters recede. Questions about testing should be directed to your local or state health department. Information on disinfecting wells is available on pages 7 and 8 in this pamphlet.

Water for Drinking and Cooking

Safe drinking water includes bottled, boiled, or treated water. Your state or local health department can make specific recommendations for boiling or treating drinking water in your area. Here are some general rules concerning water for drinking and cooking. Remember:

- do not use contaminated water to wash dishes, brush your teeth, wash and prepare food, or make ice.
- if you use bottled water know where it came from. Otherwise, water should be boiled or treated before use. Drink only bottled, boiled, or treated water until your supply is tested and found safe.
- boiling water kills harmful bacteria and parasites. Bringing water to a rolling boil for 1 minute will kill most organisms.
- water may be treated with chlorine or iodine tablets, or by mixing six drops (1/8 teaspoon) of unscented, ordinary household chlorine bleach (5.25 percent sodium hypochlorite) per gallon of water. Mix the solution thoroughly, and let stand for about thirty minutes. However, this treatment will not kill parasitic organisms.

Containers for water should be rinsed with a bleach solution before reusing them. Use water storage tanks and other types of containers with caution. For example, fire truck storage tanks, as well as previously used cans or bottles may be contaminated with microbes or chemicals. Do not rely on untested devices for decontaminating water.

Disinfecting Wells

If you suspect that your well may be contaminated, contact your local or state health department or agriculture extension agent for specific advice. Here are some general instructions for disinfecting wells.

To Disinfect Bored or Dug Wells		
1. Use Table 1 to calculate how much bleach (liquid or granules) to use.		
2. To determine the exact amount to use, multiply the amount of disinfectant needed (according to the diameter of the well) by the depth of the well. For example, a well 5 feet in diameter requires 4 1/2 cups of bleach per foot of water. If the well is 30 feet deep multiply 4 1/2 by 30 to determine the total cups of bleach required (4 1/2 X 30 = 135 cups). There are sixteen cups in each gallon of liquid bleach .		
3. Add this total amount of disinfectant to about 10 gallons of water. Splash the mixture around the wall or lining of the well. Be certain the disinfectant solution contacts all parts of the well.		
4. Seal the well top.		
5. Open all faucets and pump water until a strong odor of bleach is noticeable at each faucet. Then stop the pump and allow the solution to remain in the well overnight.		
6. The next day, operate the pump by turning on all faucets, continuing until the chlorine odor disappears. Adjust the flow of water faucets or fixtures that discharge to septic systems to a low flow to avoid overloading the disposal system.		

Table 1. Bleach for a Bored or Dug Well		
Diameter of well (in feet)	Amount of 5.25% laundry bleach chlorine per foot of water	Amount of 70% chlorine granules per foot of water
3	1 1/2 cups	1 ounce
4	3 cups	2 ounces

5	4 1/2 cups	3 ounces
6	6 cups	4 ounces
7	9 cups	6 ounces
8	12 cups	8 ounces
10	18 cups	12 ounces

Source: Illinois Department of Public Health. Recommendations may vary from state to state.

To Disinfect Drilled Wells

1. Determine the amount of water in the well by multiplying the gallons per foot by the depth of the well in feet. For example, a well with a 6-inch diameter contains 1.5 gallons of water per foot. If the well is 120 feet deep, multiply 1.5 by 120 ($1.5 \times 120 = 180$).
2. For each 100 gallons of water in the well, use the amount of chlorine (liquid or granules) indicated in Table 2. Mix the total amount of liquid or granules with about 10 gallons of water.
3. Pour the solution into the top of the well before the seal is installed.
4. Connect a hose from a faucet on the discharge side of the pressure tank to the well casing top. Start the pump. Spray the water back into the well and wash the sides of the casing for at least 15 minutes.
5. Open every faucet in the system and let the water run until the smell of chlorine can be detected. Then close all the faucets and seal the top of the well.
6. Let stand for several hours, preferably overnight.
7. After you have let the water stand, operate the pump by turning on all faucets continuing until all odor of chlorine disappears. Adjust the flow of water from faucets or fixtures that discharge into septic tank systems to a low flow to avoid overloading the disposal system.

Diameter of Well (in inches)	Gallons per foot of water
3	0.37
4	0.65
5	1.0
6	1.5
8	2.6
10	4.1
12	6.0

Amount of Disinfectant Required for each 100 gallons of water	
Laundry Bleach (5.25% Chlorine)	3 cups*
Hypochloride Granules (70% Chlorine)	2 ounces**
*1 cup = 8-ounce measuring cup **1 ounce = 2 heaping tablespoons of granules <i>Source: Illinois Department of Public Health. Recommendations may vary from state to state.</i>	

Food Safety

Do not eat any food that may have come into contact with contaminated floodwater. Discard any food not in a waterproof container if there is any chance that it has come into contact with contaminated floodwater. Undamaged, commercially canned foods can be saved if you remove the can labels, thoroughly wash the cans, and then disinfect them with a solution consisting of one cup of bleach in five gallons of water. Re-label

your cans, including expiration date, with a marker. Food containers with screw-caps, snap-lids, crimped caps (soda pop bottles), twist caps, flip tops, snap-open, and home canned foods should be discarded if they have come into contact with floodwater because they cannot be disinfected. For infants, use **only** pre-prepared canned baby formula. Do not use powdered formulas prepared with treated water.

Frozen and Refrigerated Foods

If you will be without power for a long period:

- ask friends to store your frozen foods in their freezers if they have electricity;
- see if freezer space is available in a store, church, school, or commercial freezer that has electrical service; or
- use dry ice, if available. Twenty-five pounds of dry ice will keep a ten-cubic-foot freezer below freezing for 3-4 days. Use care when handling dry ice, and wear dry, heavy gloves to avoid injury.

Your refrigerator will keep foods cool for about four hours without power if it is unopened. Add block or dry ice to your refrigerator if the electricity will be off longer than four hours.

Thawed food can usually be eaten if it is still "refrigerator cold," or re-frozen if it still contains ice crystals. To be safe, remember, "When in doubt, throw it out." Discard any food that has been at room temperature for two hours or more, and any food that has an unusual odor, color, or texture.

Sanitation and Hygiene

It is critical for you to remember to practice basic hygiene during the emergency period. Always wash your hands with soap and water that has been boiled or disinfected:

- before preparing or eating
- after toilet use
- after participating in cleanup activities; and
- after handling articles contaminated with floodwater or sewage.

If there is flooding along with a hurricane, the waters may contain fecal material from overflowing sewage systems and agricultural and industrial waste. Although skin contact with floodwater does not, by itself, pose a serious health risk, there is risk of disease from eating or drinking anything contaminated with floodwater. If you have any open cuts or sores that will be exposed to floodwater, keep them as clean as possible by washing them with soap and applying an antibiotic ointment to discourage infection. If a wound develops redness, swelling, or drainage, seek immediate medical attention.

Do not allow children to play in floodwater areas. Wash children's hands frequently (always before meals), and do not allow children to play with floodwater-contaminated toys that have not been disinfected. You can disinfect toys using a solution of one cup of bleach in five gallons of water.

Immunizations

Outbreaks of communicable diseases after hurricanes are unusual. However, the rates of diseases that were present before a hurricane may increase because of a lack of sanitation or overcrowding in shelters. Increases in infectious diseases that were *not* present before the hurricane are not a problem, so mass vaccination programs are unnecessary.

If you have wounds, you should be evaluated for a tetanus immunization, just as you would at any other time of injury. If you receive a puncture wound or a wound contaminated with feces, soil, or saliva, have a doctor or health department determine whether a tetanus booster is necessary based on individual records.

Specific recommendations for vaccinations should be made on a case-by-case basis, or as determined by local and state health departments.

Mosquitoes

Rain and flooding in a hurricane area may lead to an increase in mosquitoes. Mosquitoes are most active at sunrise and sunset. In most cases, the mosquitoes will be pests but will not carry communicable diseases. It is unlikely that diseases which were not present in the area prior to the hurricane would be of concern. Local, state, and federal public health authorities will be actively working to control the spread of any mosquito-borne diseases.

To protect yourself from mosquitoes, use screens on dwellings, and wear clothes with long sleeves and long pants. Insect repellents that contain DEET are very effective. Be sure to read all instructions before using DEET. Care must be taken when using DEET on small children. Products containing DEET are available from stores and through local and state health departments.

To control mosquito populations, drain all standing water left in open containers outside your home.

Mental Health

The days and weeks after a hurricane are going to be rough. In addition to your physical health, you need to take some time to consider your mental health as well. Remember that some sleeplessness, anxiety, anger, hyperactivity, mild depression, or lethargy are normal, and may go away with time. If you feel any of these symptoms acutely, seek counseling. Remember that children need extra care and attention before, during, and after the storm. Be sure to locate a favorite toy or game for your child before the storm arrives to help maintain his/her sense of security. Your state and local health departments will help you find the local resources, including hospitals or health care providers, that you may need.

Safety Precautions When Returning Home

If your area is under a curfew, allow travel time to and from your home. Although unusual following a hurricane, crime can also increase. If your area is under martial law, obey all orders by authorities because they will be armed.

During a hurricane and in the cleanup, injuries occur. To avoid injury, use common sense and wear proper clothing, including clothes with long sleeves and long pants, and safety shoes or boots.

When returning to your home after a hurricane:

- find out if the authorities have declared the area safe;
- watch for debris on the road while driving;
- return to your pre-determined assembly point and/or contact your pre-established out-of-area contact person. Make sure all family members have been accounted for and let others know of your status;
- make sure the main electrical switch to your home is off before entering the structure;
- be careful when entering a structure that has been damaged;
- if you suspect a gas leak, leave immediately and notify the gas company;
- if possible, listen to the radio or contact authorities to find out if sewage lines are intact before turning on the water or using the toilet;
- report utility damage to the proper authorities;
- continue to monitor your radio or television for up-to-date emergency information.

Inspecting the Damage

Upon returning to dwellings evacuated before the hurricane's arrival, be aware of possible structural, electrical, or gas-leak hazards. Electrical power and natural gas or propane tanks should be shut off to avoid fire, electrocution, or explosions. Try to return to your home during the daytime so that you do not have to use any lights. Use battery-powered flashlights and lanterns, rather than candles, gas lanterns, or torches.

Gas Leaks

If you smell gas or suspect a leak, turn off the main gas valve, open all windows, and leave the house immediately. Notify the gas company, the police, fire departments, or State Fire Marshal's office, and do not turn on the lights, light matches, smoke, or do anything that could cause a spark. Do not return to the house until you are told it is safe to do so.

Electrical Damage

Your electrical system may have been damaged. If you see frayed wiring or sparks when you restore power, or if there is an odor of something burning but no visible fire, you should immediately shut off the electrical system at the main circuit breaker.

You should consult your utility company about using electrical equipment, including power generators. Be

aware that it is against the law and a violation of electrical codes to connect generators to your home's electrical circuits without the approved, automatic-interrupt devices. If a generator is on line when electrical service is restored, it can become a major fire hazard. In addition, the improper connection of a generator to your home's electrical circuits may endanger line workers helping to restore power in your area.

All electrical equipment and appliances must be completely dry before returning them to service. It is advisable to have a certified electrician check these items if there is any question.

PLEASE NOTE: Several deaths following past hurricanes have occurred due to fires. In many cases, fires were caused by the careless use of candles to light homes without electrical power. Use battery-powered lanterns, if possible, rather than candles. If you use candles, make sure they are in safe holders away from curtains, paper, wood, or other flammable items. Never leave a candle burning when you are out of the room.

Other Injury-Prevention Measures

To avoid other hurricane-related injuries, you should:

- learn proper safety procedures and operating instructions before operating any gas-powered or electric chain saw;
- with an electric chainsaw, use extreme caution to avoid electrical shock;
- when using any power equipment, always wear a safety face shield or eyeglasses, and gloves;
- avoid all power lines, particularly those in water;
- avoid wading in water. Broken glass, metal fragments, and other debris may be present in the water; and
- be careful of nails and broken glass when removing boards covering the windows.

Contact your state or local health department or utility company if you need additional safety information.

Cleanup

Once you have established that no structural, electrical, or gas-related hazards exist in your home, dry and disinfect all materials inside the house to prevent the growth of mold and mildew.

Walls, hard-surfaced floors, and many other household surfaces should be cleaned with soap and water and disinfected with a solution of one cup of bleach to five gallons of water. Be particularly careful to thoroughly disinfect surfaces that may come in contact with food, such as counter tops, pantry shelves, refrigerators, etc. Areas where small children play should also be carefully cleaned. Wash all linens and clothing in hot water, or dry clean them. For items that cannot be washed or dry cleaned, such as mattresses and upholstered furniture, air dry them in the sun and then spray them thoroughly with a disinfectant. Steam clean all carpeting. If there has been a backflow of sewage into the house, wear rubber boots and waterproof gloves during cleanup. Remove and discard contaminated household materials that cannot be disinfected such as

wall coverings, cloth, rugs, and drywall.

Other Hazards

Downed Powerlines

If powerlines are lying on the ground or dangling near the ground, do not touch the lines. Notify your utility company as soon as possible that the lines have been damaged, or that the powerlines are down. Do not attempt to move or repair the powerlines.

Do not drive through standing water if downed powerlines are in the water. If a powerline falls across your car while you are driving, continue to drive away from the line. If the engine stalls, do not turn off the ignition. Stay in your car and wait for emergency personnel. Do not allow anyone other than emergency personnel to approach your vehicle.

Animals

Wild or stray domestic animals can pose a danger during or after the passage of a hurricane. Remember, most animals are disoriented and displaced, too. Do not corner an animal. If an animal must be removed, contact your local animal control authorities.

If you are bitten by any animal, seek immediate medical attention. If you are bitten by a snake, first try to accurately identify the type of snake so that, if poisonous: the correct anti-venom can be administered. Do not cut the wound or attempt to suck the venom out.

Certain animals may carry rabies. Although the virus is rare, care should be taken to avoid contact with stray animals and rodents. Health departments can provide information on the types of animals that carry rabies in your area.

Rats may also be a problem during and after a hurricane. Take care to secure all food supplies, and remove any animal carcasses in the vicinity by contacting your local animal control authorities.

Drowning

Although hurricane winds can cause an enormous amount of damage, wind is not the biggest killer in such a storm. Nine of every ten hurricane fatalities are drownings associated with swiftly moving waters. People who enter moving water with their cars, or who get on boats on lakes or bays when a hurricane strikes the area are at grave risk of drowning, regardless of their ability to swim. Even very shallow water that is moving swiftly can be deadly. Cars or other vehicles do not provide adequate protection. Cars can be swept away or may break down in moving water. Be alert and follow hazard warnings on roadways or those broadcast by the media. Police and public works departments should be contacted for up-to-date information regarding safe roadways.

Chemical Hazards

Be aware of potential chemical hazards you may encounter when returning to your home, especially if the hurricane is accompanied by flooding. Floodwaters and high winds may have moved or buried hazardous

chemical containers of solvents or other industrial chemicals. Contact your local fire department about inspecting and removing hazardous chemical containers. Avoid inhaling chemical fumes.

If any propane tanks (whether 20-lb. tanks from a gas grill or household propane tanks) are discovered, do not attempt to move them yourself. These represent a very real danger of fire or explosion, and if any are found, the fire department, police, or your State Fire Marshal's office should be contacted immediately.

Car batteries, while flooded, may still contain an electrical charge and should be removed with extreme caution by using insulated gloves. Avoid coming in contact with any acid that may have spilled from a damaged car battery.

Summary

Hurricanes are powerful storms that form at sea and consist of strong wind and rain. Because modern technology allows us to track a hurricane's progress, communities in the hurricane path will usually be warned of the storm's strength. Evacuating the area may be necessary because of the strength of a particular storm. By taking some basic precautions, you will be prepared and able to help prevent many injuries, as well as the possibility of some diseases.

Before the hurricane, learn about the emergency procedures established by your community, and prepare a personal family action plan. Keep emergency supplies on hand such as extra food, water, and battery-operated radios and flashlights. If authorities issue an evacuation order, follow the route they suggest.

After the storm, listen for public announcements regarding the safety of your neighborhood and return only when the area is considered safe. Avoid downed powerlines and report any problems with your utilities to the appropriate companies. Be aware of possible structural, electrical, or gas-leak hazards.

If drinking water has been contaminated, treat the water before use. Discard any food that has come into contact with contaminated water. Remember the rule of thumb for food -- "when in doubt, throw it out."

The weeks after a hurricane will be physically and emotionally draining. To help manage stress, take frequent breaks during the cleanup, and get as much rest as possible. While some sleeplessness, anxiety, anger, hyperactivity, mild depression, or lethargy are normal, extreme or prolonged symptoms should be evaluated by a mental health professional.

In addition to the information provided in this pamphlet, local and state health departments or emergency management agencies may issue health advisories particular to your location. For more information, contact your local or state health department.

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See also the [Spanish version](#) of this page.

[CDC Prevention Guides for Emergencies and Disasters](#)