

Health and Human Services

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Storm Fact Sheet

Flooding

If a person must come into contact with the floodwater they should take the following general precautions:

- Keep all children and pets out of the floodwater.
- Check in on elderly or chronically ill neighbors to make sure that they are safe.
- Wear waterproof boots, gloves, eye protection and clothes that are either water resistant or disposable.
- Make sure all gas and electric utilities to the affected area are turned off by appropriate persons before you enter.
- Keep contact time with flood waters to a minimum and avoid splashing. It is especially important to keep the water out of mouth, eyes and nose.
- If there has been personal exposure to the flood waters, bathe or shower thoroughly with soap and water and wash all contaminated clothing in hot water and a detergent.
- Make sure tetanus immunization is up to date for any person who is exposed to flood waters. For most adults, having received a tetanus booster within the past 10 years is adequate. For children, parents should check with their pediatrician to make sure the tetanus vaccination is up to date.
- General use of immune globulin (IG) injections for hepatitis A is not being recommended. However, individuals should consult with their primary health care provider if they have significant underlying health problems or are immunocompromised (e.g., on steroid therapy, chemotherapy for cancer, has HIV or some other disease that weakens the immune system).
- Health care providers should be contacted if an individual becomes ill with fever, nausea, vomiting or diarrhea after exposure to possibly contaminated flood waters.

Wells

If the area over a well is under flood water, the recommended procedure for disinfecting is:

1. pour a solution of three gallons of water and one pint of 3% to 6% commercial bleach directly into the well,
2. open all faucets until there is an odor of chlorine apparent and then close all faucets for ten hours to allow the bleach to kill bacteria present in the pipes, storage tank or well,
3. open all faucets and let the water run until the odor and taste of bleach have disappeared,
4. have a sample of water, taken 24 hours after disinfecting, tested at a certified laboratory to determine that the water is suitable for use.

Note: This procedure results in a high level of chlorine so the water should not be used for drinking, cooking, or watering livestock until the chlorine odor and taste is no longer apparent. Use of bottled water or boiling water is suggested if citizens are unsure of the purity of their water supply.

Homes and buildings

Flooded buildings should be pumped out and disinfected. After the water is pumped out, solid wastes should be disposed of in a functioning sewage disposal system or sealed in plastic bags for ultimate disposal in an approved landfill. All flooded floor and wall surfaces should be washed with a solution of two capfuls of household bleach for each gallon of water. Any household articles affected by floodwaters should be washed with the same solution. Carpeting, mattresses and upholstered furniture should be disposed of or cleaned and disinfected by a professional cleaner.

Yards

Yards that have been contaminated by flooded sewage systems should be disinfected by a liberal application of lime. Children and animals should be kept away from limed areas until the lime is no longer visible.

Power Failure/Food Safety

Heavy rain can mean a disruption in electrical and gas service and the availability of potable water. When power goes off in the refrigerator, you can normally expect food inside to stay safely cold for 4 to 6 hours, depending on how warm your kitchen is. Here are some additional guidelines:

- Add a block of ice to the refrigerator if the electricity is off longer than 4-6 hours. As this ice melts, the water may saturate food packages. Keep packages out of the water as it drains.
- High protein foods (dairy products, meat, fish, and poultry) should be consumed as soon as possible if power is not restored immediately. They cannot be stored safely at room temperature.
- Fruits and vegetables can be kept safely at room temperature until there are obvious signs of spoilage.
- A fully stocked freezer will keep food frozen 2 days if the door remains closed. A half-full freezer can keep foods frozen about one day.
- If you are purchasing perishable foods from a market in an area that has been affected by power outages, make sure that the cold foods have been kept below 45 degrees F. and that hot foods have been kept above 140 degrees F.

Generally, do not eat any food that has come in contact with floodwater, especially root and garden vegetables. Citrus fruits should be washed well, sanitized in a chlorine solution and peeled before eating. Apples and other fruits should also be cooked before eating. Carefully examine all canned and bottled goods, these are usually not affected but should be washed thoroughly with approved drinking water and a mild disinfecting solution and rinsed prior to opening and use. Canned or powdered milk may be substituted for fresh milk.

Injury Prevention

Hazards of floods continue to exist after the water recedes as workers, volunteers and homeowners begin to clean up. There are many hazards besides drowning which may cause serious injury. Some basic cautions should be taken as follows.

Electrical hazards: When entering flooded areas, be aware of electrical hazards. Don't touch any electrical equipment unless you are absolutely sure it is properly grounded or that the power is off. Also, don't operate any electrical equipment that is not specifically designed for use in wet locations. The water in which you are standing will provide a path for the electricity if you touch any equipment that is not properly grounded. That path will go through you too.

Never handle a downed power line. If clearing or other work must be performed near a downed power line, contact the utility company. Extreme caution is necessary when moving ladders and other equipment near overhead power lines to avoid inadvertent contact.

Carbon Monoxide: Flood cleanup activities may involve the use of gasoline- or diesel-powered pumps, generators, and pressure washers. Because these devices release carbon monoxide, a deadly, colorless, odorless gas, operate all gasoline-powered devices outdoors and never bring them indoors.

Back Injuries: Get help to move heavy objects. Working on slippery surfaces can also cause injuries. Make sure you have a firm footing before lifting. Make sure you have a clear path for carrying heavy objects.

Heavy Equipment: Never operate equipment that you have not been adequately trained to use. When crews are working around heavy equipment, site control is critical. During an emergency, people will not pay attention to back-up alarms. Do not work around heavy equipment unless it is absolutely necessary. Have as few pedestrians in the area as possible.

Structural Instability: Never assume that water-damaged structures or ground are stable. Soil is also easily destabilized in wet conditions and may collapse without warning.

Additional questions about proper disinfection procedures and other potential health problems related to the storm can be directed to the local Board of Health in each city or town.

This information is provided by the [Community Sanitation Program](#) within the [Department of Public Health](#).

1. HURRICANE DISASTER SUPPLY KIT

- ❑ Canned goods and nonperishable foods, particularly those that do not need cooking:
 - Canned meats and fish
 - Canned fruits and vegetables
 - Canned soups and puddings
 - Canned fruit juices
 - Dried fruit and nuts
 - Bread, cookies and crackers
 - Peanut butter and jelly
 - Coffee and tea
- ❑ Manual can opener
- ❑ Bottled water (1 gallon per person/per day)
- ❑ Prescription medication (2-week supply)
- ❑ Extra eyeglasses
- ❑ Pet food/supplies
- ❑ Water purification tablets (halazone)
- ❑ Disposable plates, cups, and utensils
- ❑ Infant care items:
 - Disposable diapers
 - Baby wipes
 - Baby food
 - Formula
- ❑ First aid supplies
- ❑ Masking and duct tape
- ❑ Flashlight or lantern, with extra batteries
- ❑ Battery operated radio, with extra batteries
- ❑ Watch or battery operated clock
- ❑ Ice chest
- ❑ Matches
- ❑ Canned heat (sterno)
- ❑ Portable outdoor camping stove or grill with fuel supply
- ❑ A certain amount of cash
- ❑ Important documents (Such as wills, deeds, prescriptions, passports, birth certificates, health record, proof of address, Social Security number)
- ❑ Emergency generator
- ❑ Plastic trash bags
- ❑ Plastic sheeting or tarp
- ❑ Chlorinated bleach
- ❑ Personal hygiene items
- ❑ Other useful items:
 - Work gloves
 - Sun lotion
 - Insect repellent
 - Hammer
 - Screwdriver
 - Pliers
 - Wrenches
 - Handsaw
 - Razor knife
 - Ax or chainsaw
 - Rope caulking
 - Nails and screws
 - Rope and wire
 - Broom, mop and bucket
 - All-purpose cleaner
 - Ladder
 - Sandbags
 - Portable generator
 - Tree pruner
 - Shovel, rake and wheelbarrow
 - Sheets of plywood

2. FAMILY EMERGENCY COMMUNICATIONS PLAN

Develop a Family Emergency Communications Plan in case family members are separated from one another during an emergency (a real possibility during the day when adults are at work and children are at school, camp or at a friend's house). This plan should also address reunification after the immediate crisis passes.

- Ask an out-of-state relative or friend to serve as the Family Emergency Communications Plan contact person. During and immediately after a disaster occurs, it is often easier to access a long distance telephone number than a local one. Also, calling outside a disaster area is usually easier than calling into the same area.
- Make sure everyone knows the name, address and telephone number of the Family Emergency Communications Plan contact person.
- Designate two meeting areas for family members – one within your community (your primary location), and one outside of your community (your alternate location). Sometimes an emergency could impact your neighborhood or small section of the community, so a second location outside of your community would be more accessible to all family members.

A Family Emergency Communications Plan can help reassure everyone's safety and minimize the stress associated with emergencies.

3. STAY INFORMED

Educate yourself and family about emergency plans for your community, place of business, your child's school and camp. Know what potential risks your community and neighborhood are susceptible to in a hurricane, such as storm surge, flooding, etc. Know what your community's potential notification systems, emergency shelters, and evacuation routes. Carefully monitor the Media and follow instructions from Public Safety officials as hurricane approaches.

The Massachusetts Emergency Management Agency (MEMA) is the state agency responsible for coordinating federal, state, local, voluntary and private resources during emergencies and disasters in the Commonwealth of Massachusetts. MEMA provides leadership to: develop plans for effective response to all hazards, disasters or threats; train emergency personnel to protect the public; provide information to the citizenry; and assist individuals, families, businesses and communities to mitigate against, prepare for, and respond to and recover from emergencies, both natural and man made. For additional information about MEMA and Hurricane Preparedness, go to www.mass.gov/mema.

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Be Red Cross Ready

Pets and Disaster Safety Checklist

Our pets enrich our lives in more ways than we can count. In turn, they depend on us for their safety and well-being. The best way to ensure the safety of your family is to be prepared with a disaster plan. If you are a pet owner, that plan includes your pets. Being prepared can help save lives.

Learn First Aid for Your Pets

Dogs and cats are more than pets—they're family. And just like any other family member, pets deserve to be cared for and protected. That's why the American Red Cross has developed Dog First Aid and Cat First Aid, comprehensive guides to help keep pets healthy and safe. From basic responsibilities, like spaying/neutering and giving medications, to managing cardiac emergencies and preparing for disasters, these guides offer information pet owners can trust.

Contact your local chapter to purchase guide books and first aid kits or log on to the Red Cross Store to see all available products.

How can I prepare?



Plan to take your pets with you in an evacuation. If it is not safe for you to stay, it is not safe for them either.

- Know which hotels and motels along your evacuation route will accept you and your pets in an emergency. Call ahead for reservations if you know you may need to evacuate. Ask if no-pet policies could be waived in an emergency.
- Most Red Cross shelters cannot accept pets because of health and safety concerns and other considerations. Service animals that assist people with disabilities are allowed in Red Cross shelters.
- Know which friends, relatives, boarding facilities, animal shelters or veterinarians can care for your animals in an emergency. Prepare a list with phone numbers.
- Although your animals may be more comfortable together, be prepared to house them separately.
- Include your pets in evacuation drills so that they become used to entering and traveling in their carriers calmly.
- Make sure that your pet's vaccinations are current and that all dogs and cats are wearing collars with securely fastened, up-to-date identification. Many pet shelters require proof of current vaccinations to reduce the spread of disease.
- Consider having your pet "microchipped" by your veterinarian.

What should I do?



Assemble a portable kit with emergency supplies for your pets.

- Keep items in an accessible place and store them in sturdy containers so that they can be carried easily. Your kit should include—
 - Sturdy leashes, harnesses and/or carriers to transport pets safely and ensure that they can't escape.
 - Food, drinking water, bowls, cat litter/pan and a manual can opener.
 - Medications and copies of medical records stored in a waterproof container.
 - A first aid kit.
 - Current photos of you with your pet(s) in case they get lost. Since many pets look alike, this will help to eliminate mistaken identity and confusion.
 - Information on feeding schedules, medical conditions, behavior problems, and the name and number of your veterinarian in case you have to foster or board your pets.
 - Pet beds and toys, if easily transportable.

Know what to do as the disaster approaches.

- Often, warnings are issued hours, even days, in advance. At the first hint of disaster, act to protect your pet.
- Call ahead to confirm emergency shelter arrangements for you and your pets.
- Ensure that all pets are wearing collars with securely fastened, up-to-date identification.
- Check that your pet disaster supplies are ready to take at a moment's notice.
- Bring pets inside so you won't have to search for them if you need to leave quickly.

After a disaster ...



- The behavior of pets may change dramatically after a disaster, becoming aggressive or defensive, so be aware of their well-being and protect them from hazards to ensure the safety of other people and animals.
- Watch your animals closely and keep them under your direct control as fences and gates may have been damaged.
- Pets may become disoriented, particularly if the disaster has affected scent markers that normally allow them to find their home.
- Be aware of hazards at nose and paw or hoof level, particularly debris, spilled chemicals, fertilizers and other substances that might not seem to be dangerous to humans.
- Consult your veterinarian if any behavior problems persist.

Emergency action plans for your family should include your animals—all of your animals.

For information on disaster planning and emergency actions to take for livestock, horses, birds, reptiles or other small animals, such as gerbils or hamsters, please visit RedCross.org, the Humane Society of the United States (www.HSUS.org) or Ready.gov.

Let Your Family Know You're Safe

If your community has experienced a disaster, register on the American Red Cross Safe and Well Web site available through RedCross.org to let your family and friends know about your welfare. If you don't have Internet access, call 1-866-GUT-INFO to register yourself and your family.



For more information on disaster and emergency preparedness, visit RedCross.org.

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Power Outage Safety Tips



"The severe winds experienced during hurricanes and tropical storms have the potential to cause power outages throughout the Commonwealth during this Hurricane Season," warns Massachusetts Emergency Management Agency Director Kurt Schwartz. "As we have experienced in recent years with many other types of storms, strong winds have the capability to topple utility poles and trees, as well as snap tree limbs causing them to fall on power lines and disrupt electrical service."

The Massachusetts Emergency Management Agency (MEMA) has the following tips for dealing with a possible power outage:

- Check flashlights and portable radios to ensure that they are working, and you have extra batteries on hand. A radio is an important source of critical weather and emergency information during a storm.
- If your water supply could be affected by a power outage (a well-water pump system), fill your bathtub and spare containers with water. Water in the bathtub should be used for sanitation purposes only, not as drinking water. Pouring a pail of water from the tub directly into the bowl can flush a toilet.
- Set your refrigerator and freezer to their coldest settings (remember to reset them back to normal once power is restored). During an outage, do not open the refrigerator or freezer door unnecessarily. Food can stay cold in a full refrigerator for up to 24 hours, and in a well-packed



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- [Southern Massachusetts Hurricane Evacuation Study Technical Data Report - Part I](#)
- [Southern Massachusetts Hurricane Evacuation](#)

- freezer for 48 hours (24 hours if it is half-packed).
- If you have medication that requires refrigeration, check with your pharmacist for guidance on proper storage during an extended outage.
- Follow the manufacturer's instructions and guidelines when using a generator. Always use outdoors, away from windows and doors. Carbon Monoxide fumes are odorless and can quickly accumulate indoors. Never try to power your house by plugging the generator directly into household wiring; a practice known as "backfeeding." This is extremely dangerous and presents an electrocution risk to utility workers and neighbors served by the same utility transformer. It also bypasses some of the built-in household circuit protection devices.
- In order to protect against possible voltage irregularities that can occur when power is restored, you should unplug all sensitive electronic equipment, including TVs, computers, stereo, DVR, VCR, microwave oven, cordless telephone, answering machine and garage door opener. (Review the process for manually operating your electric garage door.)
- Be extra cautious when you go outside to inspect for damage after a storm. Downed or hanging electrical wires can be hidden by trees or debris, and could be live. Never attempt to touch or move downed lines, and keep children and pets away from them. Do not touch anything power lines are touching, such as tree branches or fences. Always assume a downed line is a live line. Call your utility company to report any outage-related problem.

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Shelter-in-Place For a Hurricane

"Shelter-in-Place is a standard protective action utilized in Emergency Management," states Massachusetts Emergency Management Agency Director Kurt Schwartz. "It is most often used during an event in which hazardous materials have been accidentally released into the atmosphere, but also during other dangerous conditions, such as a severe storm, like a hurricane, when it is preferable to be indoors, not outside or on the road."

If a hurricane approaches New England, state or local Public Safety Officials may instruct you to "Shelter-in-Place". As with Evacuations, you would be alerted in a variety of ways. Learn what methods are utilized in your community. They could include:

- Outdoor sirens or horns.
- The Emergency Alert System (EAS) - Information provided on the radio and television.
- National Oceanic & Atmospheric Administration (NOAA) Weather Alert Radio.
- 'All Call', 'Reverse 911' or 'Code Red' - one of a number of automated telephoning systems for sending recorded messages to which your community may subscribe.
- Traditional News Media.
- Residential Route Alerting, which dispatches Public Safety vehicles through neighborhoods announcing messages with Public Address systems or literally 'knocking on doors'.
- U.S. Coast Guard Marine Broadcast.
- A message on Teletypewriters (TTY).
- Social Media sources: Facebook, Twitter, etc.

The following are steps to be taken only when instructed to 'Shelter-in-Place', not to be completed ahead of time:

- If instructed by Public Safety officials, you should immediately go indoors.
- Close and lock all doors and windows. Locking is preferred since it generally ensures that the door or window is shut tight.
- Close drapes, blinds and window shades.
- Protect windows with pre-drilled plywood sheets.
- Go to a room in the center of your home with the fewest windows and doors.
- It is ideal to have a hard-wired telephone in the room you select. Cellular telephone equipment may be overwhelmed during an emergency.
- Do not call your local fire or police departments (9-1-1) for information. Public Safety workers

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will need their lines open for emergency use. Call your local Emergency Management Office or Mass2-1-1, which is available 24/7 to respond to your questions.

- Take your Family Disaster Kit to that location.
- Keep pets indoors. Make sure you have additional food and water supplies for them.
- If you have livestock, shelter them, also. Provide them with stored feed and water.
- Continue to monitor your Emergency Alert Station (EAS) and other Media for official warnings, messages and instructions.
- Stay inside until officials say otherwise.
- If you are in your vehicle and are advised to 'Shelter-in-Place', and are very close to home, your office or a public building, go there immediately.

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