

Don't Be Left in the Dark !



Weathering Floods, Storms
and Power Outages

Personalized Emergency Telephone Numbers

Gas/Electric Companies _____

Water Dept. or Company _____

Hospital _____

Police Department _____

Fire Department _____

Family Physicians _____

Pharmacy _____

Medical Insurance Company _____

Homeowners/Renters Insurance _____

Emergency Contact(s) _____

NYS DEC Spill Reporting Hotline (800) 457-7362 _____

Others _____

Table of Contents

Personalized Emergency Telephone Numbers.....	2
Introduction	4
Preparing for the Storm or Outage.....	5
What to Have on Hand.....	6
Food and Water.....	6
Health and Hygiene Supplies	6
Household Supplies and Equipment	6
Tools	7
Clean-up Supplies.....	7
About Your Food Supply.....	8
Helpful Hints— Storing Your Food.....	8
Other Emergency Preparations	9
About Emergency Generators	10
Generator Safety	10
Helpful Hints— Generator Safety	10
During a Storm or Outage.....	11
Keep on Top of Things	12
In the Event of a Flood.....	12
Keeping Warm	13
Using Water Safely	14
How to Find Water.....	14
Disinfecting Water.....	15
Disinfecting Drinking Water.....	15
Well Contamination.....	16
Procedures for Disinfecting a Well	16
How Much Chlorine Bleach	16
Food Safety.....	17
How Much Dry Ice	17
Helpful Hints— Saving Food in the Freezer	17
Cooking When the Power Goes Out.....	18
Handling Dry Ice.....	18
If You Have to Leave Your Home	19
Family Disaster Supplies	19
Before You Evacuate	20
On the Road.....	21
Winter Emergency Car Kit.....	21
Recovering from the Storm.....	22
What Food is Still Good?.....	22
Keep, Eat, or Refreeze	22
Do Not Eat ... Discard!.....	23
Cleaning Up After a Flood	24
Preparing for Cleanup.....	25
Excess Moisture and Indoor Air Quality	26
Remove Wet Materials.....	26
Use Cleaners and Disinfectants Wisely	27
Avoid Airborne Asbestos and Lead Dust.....	27
If An Oil Spill Occurs in a Flood	27
For More Information	28
NOTES	31

Introduction

This booklet was developed as a guide for homeowners and others who want to prepare for power outages and other consequences of severe weather events such as thunderstorms, floods and winter storms.

If the power goes out, most homes would be without refrigeration. Many homes would not have running water and proper sanitary services. Depending on the season, many homes would also be without heat.

If properly prepared, most families could deal with these inconveniences for a few hours, even a few days. But some families, especially those with infants, elderly or sick people, may need to leave the home.

Whether you stay or whether you leave your home, this booklet provides useful checklists and general information on how to prepare for severe weather events and power outages before they happen, when they happen and after they happen. Along with this general information, please take special note of the highlighted health and safety advice throughout the booklet. It's important to keep in mind the need to follow all health and safety advice even during an emergency.

Don't Be Left in the Dark will hopefully help you to take the next steps needed to prepare you, your family and your home for what might happen during a severe weather event or emergency.

Preparing for the Storm or Outage

Having the right supplies on hand can make life a little easier during a power outage, flood, or storm. Even though it is unlikely that an emergency would prevent you from getting to the grocery store for long, you should prepare a reserve supply of food and other supplies that will last three to seven days. This can relieve a great deal of inconvenience and uncertainty until services are restored. Be prepared for whatever Mother Nature sends your way.



Use the checklists below to help you prepare a reserve food and supply list.

Food and Water

- Bottled water - two gallons per person per day
- Ready-to-eat canned foods - vegetables, fruit, beans, meat, fish, poultry, pasta, soup, juice
- Milk - powdered, canned or shelf-stable brick pack
- High energy foods - peanut butter, jelly, nuts, dried meat (for example, jerky), granola, trail mix
- Cereal and snacks - cookies, crackers
- Staples - sugar, salt, pepper, instant coffee, tea bags, cocoa
- Candy - chocolate bars, hard candy
- Infant and small children's needs - baby food, formula, disposable diapers
- Specialty food - for elderly or people on special diets
- Pet food (if needed)

Health and Hygiene Supplies

- Prescription medication
- First aid kit with bandages, gauze pads, antiseptic, pain killers, tweezers, scissors
- Toilet paper
- Premoistened hand wipes - premoistened towelettes or baby wipes
- Disinfectant no-rinse hand soap
- Toiletries - toothpaste, deodorant
- Feminine hygiene supplies

Household Supplies and Equipment

- One gallon liquid chlorine bleach - unscented with no soaps or additives
- Battery-powered radio
- Flashlights - one in each room of the house
- Extra fresh batteries for both radio and flashlights
- Candles and/or oil lamps filled with odorless oil
- Matches
- Gasoline (if you plan to use a generator)
- Propane fuel (if you plan to use a grill or camp stove)
- Charcoal (if you plan to use a barbecue grill)



- Disposable tableware, including paper towels and napkins
- Manual can opener
- Plastic bags - zip sealing, garbage
- Cash/travelers checks
- Fire extinguisher (small canister "ABC" type)
- Food product thermometer - able to measure temperature from 0 to 220 degrees Fahrenheit

Tools

- Rope (for rescue, tow, tying down property)
- Shovel
- Hammer and nails
- Utility knife
- Work gloves
- Duct tape
- Electrical tape

Clean-up Supplies

- Broom
- Buckets
- Disinfecting spray
- Dust masks
- Mop
- Paper towels
- Rags (to clean with)
- Rubber gloves
- Scrub brush
- Sponges
- Trash bags

About Your Food Supply

- Tailor your supply of food to the type of things your family normally eats. Familiar foods can lift morale and give a feeling of security in times of stress.
- Consider whether there is anyone in your household with special diets or allergies that you need to accommodate.
- Buy foods that require no refrigeration and little or no preparation or cooking.
- Build up your reserves by buying a few extra items a week until you have a supply large enough to feed your family for three to seven days.
- Have extra fuel/charcoal on hand if you own a grill or camp stove. Never use a grill or camp stove in the house because dangerous carbon monoxide fumes could build up and cause illness or even death.
- Keep an appliance thermometer in your refrigerator and freezers at all times. This will eliminate the guesswork of just how cold the unit is. The key to determining the safety of foods is knowing how cold they are. The refrigerator should be set at 40 degrees or less, and the freezer should be set between 0 and -10 degrees Fahrenheit.
- Plan ahead to keep your frozen and refrigerated foods cold if you live in an area where loss of power occurs frequently.
- Keep your freezer as full as possible. A full freezer will keep food cold longer and also is more energy efficient.
- Turn the refrigerator and freezer controls to their coldest setting if you fear a power outage is likely. This will extend the length of time the food will keep without spoiling.
- Buy freeze-pack inserts or fill plastic jugs with water and keep them frozen. Put them in the refrigerator as soon as possible after the power goes out.
- Know where dry and block ice can be purchased.
- Develop emergency freezer-sharing plans with friends in another part of town.



Helpful Hints

Storing Your Food

Keep canned foods in a dry, dark area where the temperature is fairly cool – between 32 and 70 degrees Fahrenheit.

To protect foods from pests and extend their shelf life, store them in tightly closed cans or metal containers. Do not store your reserve food supply in the basement if it is prone to flooding.

Rotate your reserve food supply. Try to use food by the “best if used by” date. If foods don’t have a “best if used by” date, then mark (in ink) the date you purchased the item. Place new items at the back of the storage area and older ones in front.

Inspect your reserves periodically to make sure there are no broken seals or dented containers.

Other Emergency Preparations

- Keep your electric and natural gas company's emergency number on or near your phone.
- Keep your water department's or water company's number near your phone.
- Know ahead of time when and how to safely turnoff your electric, gas and water supplies. Have the tools available to turn these services off if it becomes necessary to do so.
- Contact your utility company if anyone in your household uses life-sustaining equipment, such as a kidney dialysis machine or a respirator. Your utility company can advise you on how to prepare for power outages.
- Prepare a plan for anyone in your household who has mobility problems or other special needs.
- Have at least one telephone in your home that does not need electricity (wall plug style or cellular). Cordless phones do not work when there is a power outage.
- Fill your car's gas tank if a heavy storm is predicted.
- Check to be sure that you have an adequate supply of your family's prescription medication if a heavy storm is predicted. Keep a current list of family prescription medications, their dosages, schedules and prescribing doctor.
- Fill your bathtub with water if you are on a well and a heavy storm is predicted. The water can be used for purposes other than drinking (for example, washing, flushing toilets).
- Make a written record of household possessions for insurance purposes. Record model and serial numbers. Be sure to include expensive items such as sofas, chairs, tables, beds, chests, wall units and other furniture too heavy to carry. Store the list somewhere away from home, such as in a safe-deposit box.
- Buy flood insurance if you live in an area that is flood prone.
- Have plywood available to cover windows during a hurricane, especially if you live along the coast.
- Make sure your fuel oil tank is securely fastened to the floor. If your basement floods and your tank is not fastened, it could float. Connection pipes might break and spill fuel oil, resulting in clean-up problems and potential health effects. If you are unsure if your tank is secure, contact your oil company.
- Make arrangements for your pets. Most shelters do not allow pets. Prior to the emergency, call your County Emergency Management Office and ask them where you can leave your pet. Have ID, collar, leash and proof of vaccinations for all pets. Have current photos of your pets in case they get lost.

About Emergency Generators



Helpful Hints

You may want to consider getting a generator that can provide enough power to run your furnace and, if necessary, your well pump during an extended power outage. Another reason to consider a generator is for back-up power to run essential medical equipment or just to keep your refrigerator and freezer running when the power goes out. Whatever the situation, it is important to size the unit correctly and follow the manufacturer's recommendations for its safe operation.

As a portable unit, the generator can power electrical equipment and household appliances using heavy-duty, outdoor extension cords plugged directly into the generator. Check the extension cords frequently to make sure they have not become hot during operation.

Only a licensed electrician should install a generator to your household wiring system, either as a portable or permanent unit. An electrician should install a separate outdoor receptacle and double-pole, double-throw transfer switch to isolate the generator from your utility company's lines. This will prevent electrical back-feed from your generator which could harm utility workers repairing these lines. You should also notify your power company if you have installed a generator.

Generator Safety

- Consult with a licensed electrician if you decide to connect a generator to your existing household wiring system and install all recommended safety devices.
- Notify your power company if you have a generator installed.
- Never run a generator inside your home, basement or attached garage. Generators should only be operated outside. Carbon monoxide in the generator's fumes can build up and cause carbon monoxide poisoning, which can lead to death.
- Keep children away from generators at all times.
- Operate the generator in a dry outdoor location, away from open windows.
- Fuel spilled on a hot generator can cause an explosion. If your generator has a detachable fuel tank, remove it before refilling. If this is not possible, shut off the generator and let it cool before refilling.
- Store gasoline away from the generator and not in your home. Keep gasoline in proper storage containers. Improper storage can cause explosions and/or fires.
- Do not exceed the rated capacity of your generator. Overloading your generator can damage it and any appliances connected to it. Fire may result. Be sure to follow the manufacturer's instructions.

During a Storm or Outage

If the power has gone off or a storm is raging outside, there are things that you and your family must do to stay safe. This basic information will help you get through the emergency.



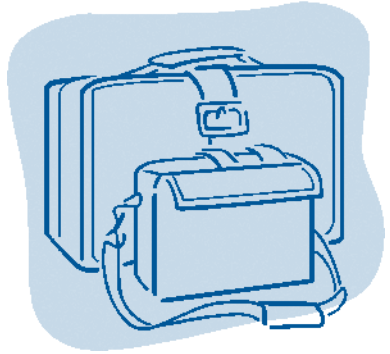
Keep on Top of Things

- Listen to the radio for weather and information updates. If you do not have a battery-powered radio, use your car radio. If you are using your car radio, do not run your car for extended periods of time in a closed or open garage.
- Start thinking about what you would need to do if you had to leave your house and go to a shelter or friend's house. Page 19 has a list of items that you may need if you have to evacuate your home.



In the Event of a Flood

- If flooding is likely, consider how long you should stay in your house. If you think that an evacuation is likely, start gathering the things you will need in preparation for when you leave. If it has been recommended that you evacuate immediately, gather the things you want to take and leave as soon as possible. See page 19 (**If You Have to Leave Your Home**) for suggestions.
- If there is time, move important papers, television sets, computers, stereo equipment and easily moveable appliances such as a microwave oven to the upper floors of your home.
- If your basement floods before you have a chance to shut off electric and natural gas service, do not enter the basement. There is the possibility of electric shock if any electrical wires are touching the water. Contact your electric company as soon as possible.





Helpful Hints

If your heat goes out during a winter storm, you can keep warm by closing off rooms you don't need. Dress in layers of lightweight clothing and wear a hat. If it gets colder, you can avoid hypothermia by wearing layers of dry clothes, a hat and blankets. Hypothermia, caused by exposure to cold, lowers the body's temperature and can seriously threaten your health. Infants and the elderly are especially at risk. Warning signs of hypothermia include slurred speech, drowsiness and disorientation.

Keeping Warm



Other Heating Sources

- If you need to use an alternate heating source such as a fireplace, wood stove, or portable kerosene heater, be sure to have adequate ventilation to the outside. Without enough fresh air, carbon monoxide fumes can build up in your home and cause sickness or even death.
- Keep children away from all heaters to avoid accidental burns.
- Never use a natural gas or propane stove/oven to heat your home.

If You Must Use a Kerosene Heater

- Use 1-K grade kerosene only. Never substitute with fuel oil, diesel, gasoline or yellow (regular) kerosene.
- Never add fuel to the heater when it is hot. The fuel can ignite, burning you and your home.
- Keep the heater away from objects that can burn, such as furniture, rugs or curtains.
- Open a window to provide ventilation when a portable kerosene heater is in use.

How to Find Water

Never ration the amount of water you need to drink if you find your supply of water running low. Being well-hydrated will help you think more clearly. Drink the amount you need today and try to find more for tomorrow.

Typically, an adult needs to drink two quarts of water a day. Very hot weather can double that amount. Children, nursing mothers and the elderly will need more. Ice, soft drinks and fruit juices can serve as water substitutes in emergencies.

If you are left without a stored supply of clean water, you can find hidden sources of water throughout your home in a variety of places, but you must disinfect the water before drinking it by following one of the methods (on the next page). Hidden water can be found in your hot water tank, in your plumbing and in ice cubes and, as a last resort, in the reservoir tank of your toilet (not the bowl). If your home is on a private well, you will probably have a pressure or storage tank that is part of the well system. If power is lost, some water will still be under pressure in your system and should be saved for drinking.

Using Water Safely

Tapping Hidden Water Sources

- To use water in your pipes, let air into the plumbing by turning on the highest cold water faucet in your house and draining the water from the lowest one (often a laundry sink in the basement).
- To use the water in your hot water tank, be sure the electricity or gas is off, and open the drain at the bottom of the tank. Start the water flowing by turning off the water intake valve and turning on a hot-water faucet (preferably one that is on a higher level of your house). Do not turn on the gas or electricity when the tank is empty.

Disinfecting Water

Before using any of these disinfection methods, let suspended particles settle to the bottom, or strain the untreated water through layers of paper towels, clean cloths or paper coffee filters.

Disinfection by Boiling

Disinfection by boiling produces the safest water.

- Bring water to a rolling boil for one - two minutes.
- Let the water cool before drinking.
- Boiled water will taste better if you put oxygen back into it by pouring it back and forth between two containers. This will also improve the taste of stored water.

Using Liquid Chlorine Bleach

- Disinfect water by adding eight drops of liquid chlorine bleach (4-6% available chlorine) per gallon of water (sixteen drops if the water is cloudy).
- Stir, and let stand for 30 minutes.
- If the water does not taste and smell of chlorine at that point, add another dose of bleach and let stand for another 15 minutes.

Using Iodine or Chlorine Tablets

- Check the expiration date for the tablets before using.
- Follow the package directions.
- Usually one tablet is enough for one quart of water.
- Double the dose if the water is cloudy.



Disinfecting Drinking Water

Contaminated water can contain microorganisms that cause diarrhea, vomiting, abdominal cramps, headaches, or other symptoms. You should always disinfect water of uncertain purity before using it for drinking, food preparation, or personal hygiene.

Well Contamination

If the area around your well gets flooded or if you suspect that your well is contaminated, you need to disinfect the water in the well before using it for washing and at the tap before using it for drinking water or for cooking. You should continue disinfection at the tap until the water is tested and found suitable for drinking. Contact your local health department for information about testing your well. Changes in the water's appearance, taste or odor may indicate possible contamination.

After disinfecting the well, the water should be tested to determine whether all bacterial contamination has been removed. You should wait several days to test the water to be sure that all the chlorine has been flushed from the water system. Contact your local health department for more information about testing your well. Until testing shows that the water is free of contamination, you should continue to use bottled or disinfected water for drinking and food preparation as described in Disinfecting Water on page 15.

You may wish to consider retesting the well water again after several weeks. If flooding and groundwater contamination is extensive, your well may not be a suitable source of drinking water for some time. Severe flooding that damages the well casing, deposits debris around the well or submerges electrical controls will require a qualified professional for evaluation, servicing and disinfection.

Procedure for Disinfecting a Well

1. Run water until clear, using an outdoor faucet closest to the well or pressure tank.
2. Mix two quarts household bleach containing about 5% chlorine in 10 gallons of water in a large bucket or pail in the area of the well casing.
3. Turn electrical power off to the well pump. Carefully remove the well cap and well seal if necessary. Set aside.
4. Place hose connected to outdoor faucet inside well casing. Turn electrical power back on to the well pump and turn water on to run the pump.
5. Carefully pour the water and bleach mixture from the bucket or pail down the open well casing. At the same time, continue to run the water from the hose placed inside the well casing.
6. At each indoor and outdoor faucet, run the water until a chlorine odor is present, then shut each faucet off.
7. Continue running water through the hose inside the well casing to recirculate the chlorine-treated water. Use the hose to also wash down the inside of the well casing.
8. After one hour of recirculating the water, shut all faucets off to stop the pump. Disconnect power supply to pump. Remove recirculator hose from well.
9. Mix two more quarts of bleach in 10 gallons of water and pour mixture down the well casing. Disinfect the well cap and seal by rinsing with a chlorine solution. Replace well seal and cap. Allow the well to stand idle for at least eight hours and preferably 12 to 24 hours. Avoid using the water during this time.
10. After the well has idled for the recommended period of time, turn the pump on and run the water using an outdoor faucet and garden hose in an area away from grass and shrubbery until the odor of chlorine disappears. Run all indoor and outdoor faucets until the odor and taste of chlorine disappears.

Food Safety

If the power goes out, it is important to open the refrigerator and freezer as little as possible. Do not put your food outside to keep cold in the winter. Placing food outside is not advisable for several reasons. First, the temperature that is cold enough for refrigerated food (40 degrees or less) is too warm for frozen food, which should be between 0 and -10 degrees Fahrenheit. In addition, the sun could warm the food to a temperature which would allow bacteria to grow. Also, animals could get into your food and contaminate it.

Eat the most perishable items first, such as leftovers, meat, poultry and foods containing milk, cream, sour cream, or soft cheese.

Despite your best efforts, the food in your freezer may partially or completely thaw before power is restored. Pages 22-23 have more detailed information about food safety and what food can be saved after the power has been out for an extended period of time.

Generally, food in the refrigerator will remain cold for four to six hours if the door isn't opened.

Saving Food in the Freezer

- The freezer temperature should be between 0 and -10 degrees Fahrenheit.
- Keep the cold air in your freezer by not opening the door any more than necessary. An unopened full freezer will stay at freezing temperature about two days and a half-full freezer about one day.
- The kind of food in the freezer makes a difference. For instance, foods with a high water content, such as meat or fruit, will stay frozen longer than food with a low water content, such as bread.
- If your freezer is not full, group packages so they form an "igloo" to protect each other. Place them to one side or on a tray so that if they begin thawing, their juices won't get on other food.
- If you think power will be out for several days, try to find some dry ice (see box above). Although dry ice can be used in the refrigerator, block ice is better. If your refrigerator's freezer is thawing out, you can put the block ice in the refrigerator's freezer along with your refrigerated perishables such as meat, poultry and dairy items.

Helpful Hints



How Much Dry Ice

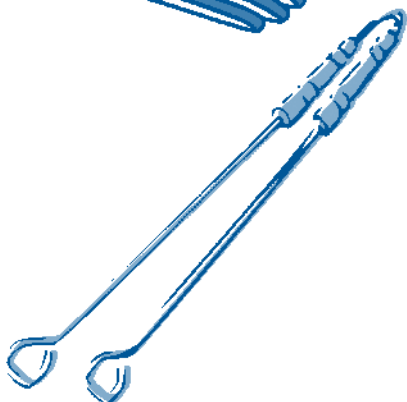
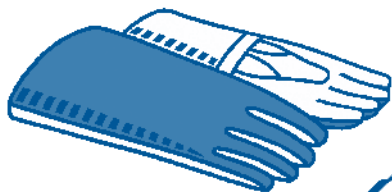
Unit Type	Pounds of dry ice per day
refrigerator	10
freezer on bottom	10-25
freezer on top	20-30
side by side freezer	30-40
chest freezer	40-50
walk-in freezer (12x12)	150-250
walk-in refrigerator (12 x12)	50-100



Helpful Hints

Dry Ice

- Handle dry ice with caution and in a well-ventilated area. Don't touch it with bare hands; wear gloves or use tongs.
- If there are widespread power outages, emergency officials may be distributing dry ice. Check for central distribution points.
- To locate a distributor of dry ice, look under "ice" or "carbon dioxide" in the phone book.
- Wrap dry ice in brown paper for longer storage. One large piece lasts longer than small ones. In upright freezers, place dry ice on each shelf.
- The temperature of dry ice is -216 degrees Fahrenheit; therefore, it may cause freezer burn on items located near it or touching it. Separate dry ice from the food using a piece of cardboard.
- Fill partly empty freezers with crumpled paper to lessen air currents, which cause dry ice to dissolve.
- Cover the freezer with blankets, adding crumpled newspaper for added insulation. Be sure air vent openings are left open to allow gas from dry ice to escape. Ventilation will also be needed when the power is restored.



Cooking When the Power Goes Out

For emergency cooking, you can use a fireplace, wood stove, barbecue grill, or camp stove. You can also heat food with candle warmers, chafing dishes and fondue pots. Canned food can be eaten right out of the can. If you do heat the can, be sure to open it and remove the label first.

Never use barbecue grills and/or camp stoves indoors. They give off dangerous carbon monoxide gas that can build up and cause sickness or death.

If You Have to Leave Your Home

There may be times when you have to leave your home until the storm is over and utilities have been restored. Use the checklists below to help you prepare.

If you live in an area where evacuations are likely, you should have the bulk of your family's disaster supplies packed in an easy-to-carry container and ready to go quickly.



- Change of clothes and footwear for everyone in the family
- Sleeping bag/blanket and pillow for everyone in the family
- Change for the pay phone
- Insurance agent's telephone number
- Medical insurance provider and doctors' names, addresses and phone numbers
- Prescription medications
- Medical supplies and equipment - denture needs, crutches, prostheses, first aid manual
- Contact lenses and supplies
- Extra pair of eye glasses
- Hygiene/toiletry supplies
- Infant and small children's needs - baby food, formula, disposable diapers, toys
- Telephone numbers of family and friends
- Extra set of keys - both house and car
- Cash/travelers checks/credit cards
- Driver's license or personal identification
- Valuable personal papers that are in the home - insurance policies, social security cards, deed/lease, wills, recent tax return, birth and marriage certificates, stocks, bonds and other negotiable certificates



**Family
Disaster
Supplies**



Before You Evacuate

If you have to leave your home, use the following checklists to help you do so safely and minimize the amount of damage to your home while you are away.

- Turn off all electrical appliances.
- Turn off the electricity at the main fuse or circuit breaker
- Turn off water at the main valve.
- Turn off propane gas service. Propane tanks often become dislodged in emergency situations.
- Leave natural gas on. Unless local officials advise otherwise, leave natural gas on because you will need it for heating and cooking when you return home. If you turn the gas off, a licensed professional is required to turn it back on and it may take weeks for a professional to respond.
- Drain your plumbing if it is likely that the temperature in your house will go below freezing. Shut off the water service valve. Then turn on the highest and lowest hot and cold water taps in the house (often a laundry sink in the basement is the lowest tap). This will drain most of the water out of your system. Also, flush toilets and remove water from lower bowl to prevent freezing damage. Leave all taps open until you return.





On the Road

- If you evacuate because of a flood, do not drive around barricades; they are there for your safety. If your car stalls in rapidly rising water, abandon it immediately and climb to higher ground.
- If you evacuate your home due to a winter storm, let someone know your destination, your route and when you expect to arrive. If your car gets stuck along the way, help can be sent along your predetermined route. If you get stuck, follow the advice listed below:
 - Stay in your car. Do not try to walk to safety.
 - Tie a brightly colored cloth (preferably red) to the antenna for rescuers to see.
 - Start the car and use the heater for 10 minutes every hour. This will provide heat and help recharge your car's battery. Keep the exhaust pipe clear so exhaust doesn't back up into the car.
 - Leave the overhead light on when the engine is running so your car can be seen.
 - As you sit, keep moving your arms and legs to keep blood circulating and to stay warm.
 - Keep one window (away from the blowing wind) slightly open to let in air.

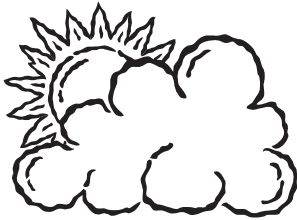


Winter Emergency Car Kit

Have the following items in your car for emergencies:

- Shovel
- Windshield scraper
- Blankets/sleeping bags
- Water
- Snack food
- Hat and mittens for everyone in the car
- Boots for everyone in the car
- Rain gear
- Flashlight with extra batteries
- Toolkit
- Cellular phone

Recovering from the Storm



At last, the storm has ended and the power is back on. If the power has been out for more than a few hours, you need to check the food in your refrigerator and freezer to make sure that it has not spoiled. If you experienced a flood, extensive cleanup is often necessary.

What Food is Still Good?

Once the storm has passed and/or the power has been restored, go through your refrigerator and freezer and discard food that was not kept cold enough. The key to determining which food is safe to eat is knowing the temperature at which the food has been kept. The refrigerator should be 40 degrees Fahrenheit or below. You can also use your food product thermometer to check individual food items.

Remember the general rule: When in doubt, throw it out!

Generally, food in the refrigerator will remain cold for four to six hours if the door isn't opened. A full freezer will stay frozen for two days; a half-full freezer for about one day.

Keep, Eat, or Refreeze

Despite your best efforts, the food in your freezer may partially or completely thaw before power is restored. Foods may be safely cooked and eaten or refrozen if they still contain ice crystals. Foods that have completely thawed, but are still cold and have been kept cold for no longer than one or two days after thawing, may be eaten or refrozen if the following conditions are met:

Fruits may be eaten or refrozen if they still taste and smell good. Fruits beginning to ferment are not dangerous to eat but will have an off-taste.

Vegetables should not be eaten or refrozen if thawed completely, since bacteria multiply rapidly in these foods. If ice crystals are present, eating or refreezing is possible.

Meat and poultry should be discarded if the color or odor is poor or questionable or if the meat has been warmer than 40 degrees Fahrenheit for two hours. Unspoiled meat may be cooked and then eaten or refrozen.

Fish and shellfish should not be eaten or refrozen if thawed completely since these foods are extremely perishable. You may eat or refreeze if ice crystals are present.

Frozen dinners should be kept refrigerated and cooked as soon as possible.

Ice cream should be discarded.



Helpful Hints

Remember to Replenish Your Supplies

Don't forget to replenish your supplies. Go through the checklist on pages 6-7 and note additional items that your family requires. Add a few items a week to your normal grocery shopping to replenish your supplies.

Do Not Eat ... Discard!

Throw away moldy items or food with an unusual odor or appearance. Throw away the following foods if they have been above 40 degrees Fahrenheit for over two hours:

- Raw or cooked meat, poultry, seafood
- Meat-topped pizza, lunchmeats
- Casseroles, stews, soups
- Milk/cream, yogurt, soft cheese
- Mayonnaise, tartar sauce, creamy dressings
- Cooked pasta, potato, rice, salads prepared from these foods
- Refrigerator and cookie doughs
- Fresh eggs, egg substitutes
- Cream-filled pastries
- Custard, chiffon, cheese pies
- Gravies

Foods Okay to Keep

There are foods that some people store in the refrigerator that also can be kept at room temperature for a few days. If you have any of the foods listed below stored in your refrigerator and the temperature in your refrigerator rises above 40 degrees Fahrenheit, these foods should be safe.

- Butter, margarine
- Hard cheese
- Fresh fruit and vegetables (except fresh sliced fruit and raw sprouts)
- Fruit juices
- Dried fruits, coconut
- Fresh herbs and spices
- Opened jars of vinegar-based salad dressing, peanut butter, jelly, relish, taco sauce, barbecue sauce
- Mustard, ketchup, olives
- Fruit pies

Cleaning Up After a Flood

Garbage Storage, Collection and Disposal

As you start cleaning, you will likely produce a great deal of garbage. Local authorities will tell you where and when collection will occur. Garbage invites insects and rodents. Rodents, in particular, may be looking for food because the flood may have destroyed their homes and normal food source. Store garbage in watertight, rodent/insect-proof containers with tight-fitting covers. Use plastic liners if available. Pile garbage in a convenient location but

not near your well. If a rodent problem develops, use traps purchased at your local hardware, lawn, garden and grocery stores. Standing water is a breeding ground for some insects. When possible, drain or fill areas of standing water.

Food, Containers and Utensils

- Raw foods that were exposed to flood waters may be contaminated and should not be eaten.
- Food and food containers that have been in or splashed with floodwaters need to be either thrown away or properly cleaned.
- Canned foods can be used unless the cans are swollen, rusted, seriously dented, or the contents cannot be identified. Wash off food cans that are still sealed and disinfect them for five minutes in a bleach solution of two teaspoons of bleach per gallon of water.
- Discard food containers with lids that are screwed on or pressed on (such as soda and beer bottles). They cannot be cleaned adequately.
- Clean and disinfect dishes, utensils and cookware in a solution of two teaspoons bleach per gallon of water. Do NOT use this method on sterling silver tableware. The bleach will cause these items to tarnish. Sanitize sterling silver by putting it in boiling water for at least two minutes.

Flush Toilets

If floodwaters are covering your septic tank and leach field, you should not use any flush toilets attached to the system. Septic systems rely on gravity to pull the wastewater down and away from the surface. When the system is flooded, wastewater can rise and mix with surface water, exposing people to human waste. If you are unable to use the toilets in your home, use portable toilets such as the type used for camping. Some communities may set up banks of commercial portable toilets for resident use.

During flood cleanup, the indoor air quality in your home or office may appear to be the least of your problems. However, flooding may cause indoor air quality problems that could last for a long time and cause you and your family to get sick. The next few pages provide information about how to reduce the likelihood that you will have indoor air quality problems. The information is intended to be used in conjunction with the Federal Emergency Management Agency (FEMA)/Red Cross booklet **Repairing Your Flooded Home**, which details general cleanup methods.



Preparing for Cleanup

Get the free booklet, *Repairing Your Flooded Home*, from your local health department, FEMA or your local chapter of the American Red Cross (see listings the end of this section). Read that booklet carefully before cleanup because it discusses flood safety issues and can save your life. The booklet also contains detailed information about proper methods for cleaning your home.

Remove Standing Water

For health reasons and to lessen structural damage, all standing water should be removed as quickly as possible.

The water can “wick” into the walls causing a greater area to be affected. Standing water is a breeding ground for bacteria and mold, which can become airborne and be inhaled. Where floodwater contains sewage or decaying animal carcasses, infectious disease is a concern.

Even when flooding is due to rainwater, the growth of bacteria and mold can cause allergic reactions in sensitive individuals.

An exception to the water removal rule is if there is fuel oil floating on top of the water in a flooded basement. This usually happens when a basement floods and the oil tank was not properly fastened to the floor. The oil should be

Drinking Water

- Assume all water sources are unsafe until approved by your local health department.
- Until water sources are approved, use health department- approved bottled water (look for the New York State certificate number on the label), or water distributed by a health department- approved tank truck until your well is usable or public water has been restored.
- If your well has been covered over with floodwaters, it should be disinfected (see pages 15-16).
- Follow local officials' water usage restrictions to conserve water.
- If you must use water of unknown quality, it should be disinfected (see page 15 for procedures for disinfecting water).

cleaned up before the water is pumped out. If the oil is not removed first, then the walls and floor will be coated with oil as the water is removed.

Excess Moisture and Indoor Air Quality



Helpful Hints

Dry out your home quickly to reduce bacteria and mold growth. Wet materials and furnishings that cannot be thoroughly cleaned and dried within about 2 days should be discarded because they can be a source of bacteria and mold growth.

1. Remove standing water with a mop, pail or wet/dry shop vacuum.
2. Open windows and use a fan to evaporate remaining moisture.
3. Close windows and cover any sump pump wells, then run a dehumidifier on the high setting. Continue using a fan to circulate air in any damp rooms. Run the dehumidifier until the holding tank fills at a slow rate.

Bacteria and mold brought into the home during flooding may present a health hazard. These organisms can penetrate deep into soaked, porous materials and later be released into the air or water.

Coming into contact with air or water that contains these organisms can make you sick. High humidity and moist materials provide ideal environments for the excessive growth of bacteria and mold that are always present in the home. This may result in additional health concerns such as allergic reactions.

Increases in home humidity over the longterm can foster the growth of dust mites that are a major contributor of allergic reactions and problems with asthma.

Be patient. The drying out process could take several weeks and the growth of bacteria and mold will continue as long as humidity is high. If the house is not dried out properly, a musty odor, which signifies the growth of bacteria and mold, can remain long after the flood.

Remove Wet Materials

Discarding items, particularly those with sentimental value, can be difficult for some people. However, keeping certain items soaked by water may be unhealthy. Some materials tend to absorb and keep water more than others. As a general rule, materials that are wet and cannot be thoroughly cleaned and

dried should be discarded because they can remain a source of bacteria and mold growth.

Look in the FEMA/ Red Cross booklet, **Repairing Your Flooded Home**, “Step 4,” for an explanation of how to dry out the different types of construction material that are used in your house (for example, plaster, wallboard, insulation). The booklet suggests that you may be able to dry out and save these building materials. You may, however, want to consider removing and replacing them to avoid indoor air quality problems. Because they take a long time to dry, these materials may be a source of bacteria and mold growth.

In addition, fiberboard, fibrous insulation and disposable filters should be replaced if they are in your heating and air conditioning system and came in contact with water. If a filter was designed to be cleaned with water and was in contact with clean rain water only, thoroughly clean it before reinstalling.



Use Cleaners and Disinfectants Wisely

Be careful about mixing household cleaners and disinfectants together. Check labels for warnings. Mixing certain types of products can produce toxic fumes and result in injury and even death.

The cleanup process involves thorough washing and disinfecting of the walls, floors, closets, shelves and contents of the house. In most cases, common household cleaning products and disinfectants can be used for this task. FEMA also suggests using disinfectants and sanitizers when cleaning the heating and air conditioning ductwork if it has been flooded.

Disinfectants and sanitizers contain substances that can cause other problems. The health effects from chemicals in household cleaning products vary greatly, from “no known health effects” to “serious health effects.” Read and follow label instructions carefully and provide fresh air by opening windows and doors. If it is safe for you to use electricity and if the house is dry, use fans both during and after the use of disinfecting, cleaning and sanitizing products.

Avoid Airborne Asbestos and Lead Dust

If you have to remove all or part of walls or floors, lead or asbestos-containing materials (for example, paint, plaster, pipe wrap) could be disturbed, causing lead dust or asbestos fibers to be spread around your home. Lead is a highly toxic metal that produces a range of health effects, particularly in young children. Longterm exposure to airborne asbestos can cause lung cancer and mesothelioma, a cancer of the chest and abdominal lining. If you know or suspect that your home contains lead-based paint or asbestos, contact the New York State Department of Health at 800-458-1158 for information about steps you should take to avoid contaminating your home.

If An Oil Spill Occurs in a Flood

If an oil spill has occurred in or near your home during a flood, contact the NYS Department of Environmental Conservation Spill Hotline (800) 457-7362 to report the spill and to get help cleaning it up. **DO NOT** pump the water out into your yard because it might be mixed with oil and contaminate nearby wells, water bodies and homes.

To control odors, keep all doors between the basement and the living space closed and avoid tracking oil in the home.

For more information see **Residential Oil Spills and Flooding What Homeowners Need to Know** at www.nyhealth.gov/nysdoh/indoor/oil_spill_flood.htm



For More Information and Materials

New York State Department of Health

New York State Department of Health

Center for Environmental Health

(800) 458-1158

www.nyhealth.gov

The following publications are available from the New York State Department of Health at extension 27530:

- Asbestos in the Home: A Homeowner's Guide
- Carbon Monoxide Fact Sheet
- Reducing Lead Hazards When Remodeling Your Home
- Supplemental Space Heaters Fact Sheet
- Residential Oil Spills and Flooding What Homeowners Need to Know
- How to Use a Disposable Respirator

Local and Regional Health Departments

Your local health department can provide additional information about the topics in this booklet. Regional, district, county and city health departments carry out environmental health programs to ensure that suitable water, food, housing and recreational facilities are provided to the public. County health departments and district offices identify, investigate and resolve actual and potential health hazards caused by environmental factors. Telephone numbers for regional, district, county and city health departments are listed below.

Western Region (Buffalo, Rochester)

585 423-8072

Geneva District Office (Ontario, Wayne, Yates)

315 789-3030

Hornell District Office (Steuben, Schuyler)

607 324-8371

Allegany	585 268-9250	Livingston	585 243-7280
Cattaraugus	716 373-8050	Monroe	585 274-6067
Chautauqua	716 753-4481	Niagara	716 439-7444
Chemung	607 737-2019	Orleans	585 589-3272
Erie	716 858-6089	Seneca	315 539-1945
Genesee	585 344-8506	Wyoming	585 786-8894

Local and Regional Health Departments (cont.)

Central Region (Syracuse) **315 477-8100**

Canton District Office (St. Lawrence) 315 386-1040
Watertown District Office (Jefferson, Lewis) 315 785-2277

Broome	607 778-2887	Oneida	315 798-5064
Cayuga	315 253-1405	Onondaga	315 435-6623
Chenango	607 337-1673	Oswego	315 349-3564
Cortland	607 753-5035	Tioga	607 687-8600
Madison	315 366-2526	Tompkins	607 274-6688

Capital Region (Troy) **518 408-5423**

Glens Falls District Office (Saratoga, Warren, Washington) 518 793-3893
Herkimer District Office (Fulton, Herkimer, Montgomery) 315 866-6879
Oneonta District Office (Delaware, Greene, Otsego) 607 432-3911
Saranac Lake District Office (Essex, Franklin, Hamilton) 518 891-1800

Albany	518 447-4620	Rensselaer	518 270-2674
Clinton	518 565-4870	Schenectady	518 386-2818
Columbia	518 828-3358	Schoharie	518 295-8382

Metropolitan Region (New York City) **212 268-7185**

New Rochelle Field Office 914 654-7000
Central Islip Field Office 631 851-3087
Monticello District Office (Sullivan) 845 794-2045

Dutchess	845 486-3404	Rockland	845 364-2608
Nassau	516 571-3410	Suffolk	631 853-3058
Orange	845 291-2331	Ulster	845 340-3150
Putnam	845 278-6130	Westchester	914 813-5000

New York City Department of Health & Mental Hygiene 311 within NYC or
212 639-9675

Federal Emergency Management Agency (FEMA)

FEMA

P.O. Box 2012

Jessup, MD 20794-2012

www.fema.gov

FEMA provides information and services for the public concerning natural and man-made disasters.

Copies of the booklet **Repairing Your Flooded Home** are available from FEMA or the American Red Cross (The booklet's publication number is ARC 4477. See American Red Cross contact information below).

Emergency Management Offices

www.semo.state.ny.us

Every county has an emergency management office. Requests for individual assistance should be made through your county emergency management office, which can be found in your local telephone book. Some county emergency management offices are part of a county government web site.

The New York State Emergency Management Office (SEMO) can assist county emergency management agencies as needed.

American Red Cross

www.redcross.org

Contact your local Red Cross listed in the telephone book. If you cannot find a local contact, call the Red Cross at (800) 787-9282.

Salvation Army

www.salvationarmyusa.org

Your local Salvation Army Office is listed in the telephone book. The Salvation Army has local, regional and national disaster service programs. Salvation Army staff and volunteers assist in both local incidents and major disasters. Salvation Army disaster response teams are coordinated and directed by commissioned officers and trained personnel and supported by volunteers.

Creating a Healthy Home: A Field Guide for Clean-Up of Flooded Homes

www.centerforhealthyhousing.org/FloodCleanupGuide_screen.pdf

This guide, provided by the National Center for Healthy Housing, is for homeowners and contractors who need to clean up mold in flooded homes before starting to rebuild or renovate.

NOTES

Don't Be Left in the Dark!

Plan Ahead ...

- Go through the emergency supplies checklists and purchase any necessary supplies (pages 6-7).
- Keep your supplies together in an accessible location and inform all household members of their location.
- Develop an emergency/evacuation plan. Make arrangements for family members and pets in advance.

Stay Calm...

- Keep your battery-powered radio running, and listen for weather and safety updates.
- Follow your emergency/evacuation plan.
- Never operate a generator in your home or in other enclosed spaces and follow generator safety tips (page 10).

After the Emergency...

- Go through your refrigerator, freezer and stored foods to discard tainted/damaged food (pages 22-24).
- Disinfect your drinking water if you are on a private well (pages 15-16).
- Replenish your supplies.
- Remove standing water as quickly as possible.
- Contact federal, state or local agencies to find out about disaster and recovery services and information (pages 28-30).