



Hurricanes/Tropical Storms

WHAT IT IS

Hurricanes and tropical storms are violent weather systems with well-defined surface circulation. Threats from hurricanes include high winds, heavy rainfall, storm surge, coastal and inland flooding, rip currents, and tornadoes. Strong storms may be hundreds of miles across, with winds in excess of 150 mph, pushing storm surge floods of a dozen feet or more. Even storms that no longer carry hurricane force winds may cause devastating flooding just due to rain (for example, Allison, Irene, Sandy, and Harvey). Tropical storms rotate in a counter-clockwise direction around the eye. The rotating storm clouds create the “eye wall,” which contains the most destructive winds in the storm. The eastern half of an Atlantic hurricane typically carries the greatest risks in terms of wind and surge. Hurricanes have winds of 74 mph and up, tropical storms 38-73, and tropical depressions less than 38. The Atlantic hurricane season runs from June 1 to November 30, with the peak occurring between mid-August and late October.

WHAT TO DO

Before (Preparedness/Mitigation)

- Sign up for SpotsyAlert <https://bit.ly/3Gk72KT> and have a battery or crank powered NOAA weather radio available.
- Decide early whether you will evacuate, and where you will go if you are ordered or decide to leave.
- If you evacuate, bring your go bag with you, whether to an emergency shelter or other refuge.
- Prepare your home (shut off utilities, secure property, etc.).
- Ensure you have insurance, and inventory your personal property.
- Secure or bring inside any outdoor objects that could blow away or become “missiles” and cause damage.
- Consider strapping and other structural hardening if your property is particularly vulnerable.
- Learn First Aid.
- Refer to “Power Outage/ Blackout” and “Medical Emergency,” below.



During (Response)

- Listen to radio and television for official, up-to-date information.
- Find a safe room within your home (an interior room, closet, or bathroom).
- Do not go outside until the National Weather Service's, National Hurricane Center <https://bit.ly/3m7QKxU> confirms the storm has left the area.

After (Recovery)

- Return home when local officials say it is safe.
- Avoid walking or driving through floodwaters.
- Check in with family and friends by texting or using social media.

KEY TERMS

A **Hurricane/Tropical Storm Watch** means conditions are possible within the next 36 hours.

A **Hurricane/Tropical Storm Warning** means conditions are expected within 24 hours.

Short Term Watches and Warnings are warnings that provide detailed information on specific hurricane threats, such as flash floods and tornadoes.

The **Saffir-Simpson Hurricane Wind Scale** rates hurricanes' maximum sustained winds on a scale of 1 to 5 (hurricane categories are only loosely correlated to other related threats, such as rain and storm surge).

Sustained Winds are defined as a one-minute wind average, measured at 33 ft. above the surface.

Storm Surge is an abnormal rise of water generated by a storm, over and above any predicted tides.



Power Outage/ Blackout

WHAT IT IS

Power outages can be frustrating and troublesome when they last a short while, but they can be dangerous if they last days or longer – especially in very cold or hot weather, or for individuals with specialized medical needs. Outages can also be costly, as all the refrigerated or frozen food in a home is liable to spoil. Outages may occur on their own, but more often they are a secondary effect of tornadoes, hurricanes, thunderstorms, winter storms, extreme heat (from system overload), or even deliberate acts such as an explosive or cyber attack. Some recent large-scale power outages were the result of grid-management software glitches, with no physical damage to components. Depending on the primary hazard, damage unrelated to the outage may slow power restoration primarily due to downed trees or floodwaters blocking access.

WHAT TO DO

Before (Preparedness/ Mitigation)

- Sign up for SpotsyAlert <https://bit.ly/3Gk72KT> and have a battery or NOAA crank powered radio available.
- Back up all critical files on your computer.
- Consider purchasing a generator for your home – consult an electrician or engineer before purchasing and installing. Safely store an adequate supply of fuel for the generator.
- Unplug electrical equipment. Spikes and surges could occur as power is restored, damaging equipment.
- Fill a bucket or two as a water source and potentially for bathing and flushing the toilet – if municipal water pressure relies on electricity, pressure in the system may fail.
- Maintain a phone with an earpiece that connects by a cord to the receiver (not a wireless phone), and by wire to the wall; retain copper-wire phone service if you have the option (Conventional phone service is not reliant on electrical power). If you switch to VoIP, be sure to purchase a battery backup.
- Charge cellphones and battery-powered devices you use regularly.

During (Response)

- Report your outage. Never assume a neighbor has reported it.
- Use a flashlight only for emergency lighting.
- Never leave a burning candle unattended. Consider using battery-operated flameless candles.
- Unplug electrical equipment until a steady power supply returns.



- Only use generators away from your home and never run a generator inside a home or garage, or connect it to your home's electrical system.
- Remember that your gas appliances will still work, even in a blackout – this includes gas ranges and grills. Do not attempt to use a gas furnace or hot water heater unless you are a licensed professional.
- Keep tabs on food storage/ food safety:
 - Do not open your refrigerator or freezer – they will remain cold longer this way.
 - If it is cold outside, consider putting your food outside to keep it cool.
 - How long your appliances stay cold will depend on their size, how full they are (a fuller cooler will stay cold longer), and how warm the air around them is; a refrigerator will warm up within a few hours; a freezer is typically OK for a full day or longer.
 - Once you decide to open the refrigerator or freezer, plan to eat everything you can as fast as you can – a thawing freezer and a backyard grill can be the foundation of an excellent neighborhood “freezer party.”
- If water pressure fails, a bucket of water dumped manually into a toilet will cause it to flush.

After (Recovery)

- If power is restored, be certain it is steady before you plug equipment into it.
- Eliminate unnecessary travel especially by car as some traffic lights might be out and roads could be congested.
- Throw away any refrigerated food that has been exposed to temperatures 40° F or above for two hours or more, or that has an unusual odor, color, or texture. When in doubt, throw it out!

KEY TERMS

A **Power Outage** is a state of electric power loss in a given area or section of a power grid. It could affect a single meter (house or building), a block, a circuit, or a system, depending on the extent of the damage and the root cause of the outage.

A **Brownout** is indicated by voltage dropping in the system. It is characterized by the lights dimming.

A **Blackout** is the total loss of power in a given area.



Medical Emergency

WHAT IT IS

A medical emergency is any acute injury or illness that poses an immediate risk to a person's life or long-term health. You can't predict accidents or illnesses, but you can prepare for a medical emergency. Medical emergencies may happen on their own, or they may be a secondary impact of virtually every other hazard. Some examples of medical emergencies are: difficulty breathing, fainting, chest pain or pressure, uncontrolled bleeding, coughing or vomiting blood, sudden severe pain, poisoning, or major injuries, such as broken bones, lacerations, burns, or puncture wounds.

WHAT TO DO

Before (Preparedness/ Mitigation)

- Know how to call or text 911.
- Keep well-stocked First Aid kits at home, at work and in your car.
- Put together a list of emergency contacts.
- Keep a list of medical conditions and medications with you at all times.
- Fill out a File of Life and put it on your refrigerator door.
- Learn the warning signs of medical emergencies.
- Participate in trainings such as CPR, First Aid, Basic Life Support (BLS), or Stop the Bleed to prepare yourself for emergencies.

During (Response)

- Stay calm, and call 911. If you are trained, start CPR (cardiopulmonary resuscitation) or rescue breathing, if necessary.
- If you think you are having a medical emergency, seek immediate medical care.
- Gather as much information as possible about the circumstance, and call 911. Follow all the operator's instructions carefully. Stay on the line until the operator says it's OK to hang up.
- If you have only a brief time with the operator, make sure you share your address and your medical issue first.
- Call if you can, text if you can't. It is always preferred that you call 911 since it is a better way of exchanging information.



After (Recovery)

- Review all your documentation to ensure your emergency contact and medical information are up to date.
- Educate others in your networks to better prepare your community.

KEY TERMS

CPR is short for cardiopulmonary resuscitation. CPR is an emergency procedure in which the heart and lungs are made to work by compressing the chest overlying the heart and forcing air into the lungs. It is used to maintain circulation when the heart has stopped pumping on its own. CPR courses are offered by many community organizations.

First Aid refers to a course of basic injury-treatment and life-saving skills offered by many community organizations.

An **Automated External Defibrillator (AED)** is a portable device that checks the heart rhythm and can send an electric shock to the heart to try to restore a normal rhythm.

File of Life is a form that you keep on your refrigerator door that provides emergency personnel critical medical and emergency contact information in case you are unable to provide that information to them yourself.