# How to Prepare for a Tropical Cyclone (Tropical Storm/Hurricane/Typhoon)

## What is a tropical cyclone?
A tropical cyclone is the generic name given to a rotating, organized system of clouds and thunderstorms that forms over warm waters. Tropical cyclones are classified by sustained wind speed:

- **Tropical Depression:** Maximum sustained winds of 38 mph or less
- **Tropical Storm:** Maximum sustained winds from 39 mph to 73 mph
- **Hurricane or Typhoon:** Maximum sustained winds of 74 mph or higher (in the North Atlantic, Caribbean, Gulf of Mexico, central and eastern North Pacific, the term “hurricane” is used; in the Northwest Pacific the term “typhoon” is used.
- **Major Hurricane:** Maximum sustained winds of 111 mph or higher (Category 3, 4 or 5 on the Saffir-Simpson Hurricane Wind Scale, a rating system based on a hurricane’s sustained wind speed, which estimates potential property damage from wind. Flooding and storm surge impacts are not included in this scale).

Knowing what hazards affect your community and learning what to do before, during, and after each one will help you stay safe and strengthen your ability to adapt, so that you can recover or ‘bounce back’ quickly. We are going through a challenging time as we navigate the impacts of the coronavirus disease 2019 (COVID-19) pandemic. Understand that your planning may be different this year because of the need to protect yourself and others from COVID-19. Prepare now so that you are ready to respond to any hazard you may face, while also protecting yourself, your loved ones, and your neighbors from COVID-19.

## Understand tropical cyclone - related hazards
The impact from tropical cyclones can extend over wide areas. The greatest threat to life safety comes from water – in the form of storm surge and inland flooding.

- **Storm surge** can cause water levels to rise quickly and flood large areas in minutes, posing a significant threat for drowning. Storm surge can travel inland along waterways causing additional flooding.
- **Heavy rainfall and inland flooding.** Flooding from heavy rains is the second leading cause of fatalities. Widespread torrential rains cause flooding hundreds of miles inland and can persist for several days after the storm has passed.
- **High winds can destroy buildings and manufactured homes.** Items left outside can become flying missiles. Both tropical storm-force and hurricane-force winds are dangerous.
- **Tornadoes typically occur in rain bands far away from the center of the storm.**
- **Dangerous waves** can produce deadly rip currents from the storm.
- **The impact can extend hundreds of miles inland** causing power, water, gas, communications outages; blocked or destroyed roads; shortages of food, bottled water, medicine, household supplies; and medical facility closures.

## Understand which hazards you are likely to face
Next, determine your exposure to each hazard for your location - where you live, attend school, work, or play. Contact your state or local government emergency management agency for help understanding the hazards likely to affect your location, including storm surge, flash flooding, river flooding, high winds, tornadoes, and rip currents.

- **Find contact information** for state, local and tribal governments and agencies, and for state emergency management agencies.
- **Learn about your community’s response plan for these hazards** and determine if these plans have been adapted because of COVID-19. Stay current on advice and restrictions from your state and local public health authorities as it may affect your actions and available resources.
- **Find out if you live in a designated hurricane storm surge evacuation zone.** Many communities have designated evacuation zones and routes. Make yourself familiar with them, so if local authorities issue an evacuation notice, you’ll know if you are affected and where to go.
- **Find out if you live in a flood zone.** Flood zones are areas mapped by the federal government, to inform residents of their risk for flooding.

## Prepare to meet your basic needs
Tropical cyclones can knock out power, block roads, disrupt the response of emergency services, and cause stores and pharmacies to close for an extended period. COVID-19 adds to this complexity. Prepare now so that you have the critical knowledge, skills, and supplies to stay safe and meet your basic needs.

### Learn critical skills:
Take the time now to learn critical skills that you may need.

- **Learn First Aid and CPR.** The Red Cross has a variety of online classes to learn these skills. Also, download the free First Aid App.
- **Learn how to protect yourself and your loved ones from COVID-19** at cdc.gov/coronavirus and redcross.org/coronavirus.
- **Learn how to turn off utilities in case you are instructed to do so.** Learn how to use equipment safely i.e. generator, backup-battery supply for medical equipment, etc.

### Gather emergency supplies:
Assemble two kits of emergency supplies and a one-month supply of prescription medication. Start with this basic supply list. Give yourself more time than usual to prepare your supplies. Home delivery is the safest choice for buying supplies; however, that may not be an option for everyone. If in-person shopping is your only choice, take steps to protect your and others’ health when running essential errands. Protect yourself and others when filling prescriptions by limiting in-person visits to the pharmacy. Sign up for mail order delivery or call in your prescription ahead of time and use drive-through windows or curbside pickup, if available. Customize your kits to meet your needs. Stock food items that do not need refrigeration. Regularly replace items like water, food, medications, and batteries that go bad over time. Include cleaning, disinfectant, and hygiene items to protect against COVID-19.

- **Stay-at-home kit (2 weeks of emergency supplies):** Include everything you need to stay at home for at least 2 weeks with items such as food, water, cleaning and disinfectant supplies, soap, paper products and personal hygiene items.
- **Evacuation kit (3 days of supplies in a “go bag”):** Your second kit should be a lightweight, smaller version that you can take with you if you need to evacuate. Include everything you need to be on your own for 3 days - food, water, personal hygiene items, and cleaning and disinfectant supplies that you can use on the go (tissues, hand sanitizer with 60% alcohol and disinfection wipes). Ensure that you have cloth face coverings, such as masks and scarves, for everyone in your home who can wear one safely. Cloth face coverings should not be placed on young children under age 2, anyone who has trouble breathing, or is unable to remove it without help. Remember, wearing a cloth face covering is not a substitute for physical distancing. In public, be prepared to continue to keep about 6 feet between yourself and others AND wear a cloth face covering if you can do so safely.
- **1-month supply of prescription medication,** as well as over-the-counter medications like cough suppressants and fever reducing drugs and medical supplies or equipment. Keep these items together in a separate container so you can take them with you if you have to evacuate.

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Plan
Based on your location, community plans, and circumstances, make your own plans for evacuation and/or sheltering in place. Remember, local officials are the best source of information when determining whether to evacuate or shelter in place during an emergency.

Evacuation Planning
Do you live in an area that is likely to be exposed to these hazards?

- Along the coast, near a coastal waterway? Or, in a hurricane storm surge evacuation zone?
- In an area that floods frequently? Or, In a flood zone?
- In a mobile / manufactured home or recreational vehicle?

Then, be prepared to evacuate. Learn your community’s evacuation plan. Then, make an evacuation plan with your household members. Know where you will go, how you will get there, where you will stay, how you can protect yourself from COVID-19, and what you will bring.

- Ask friends/relatives outside your area if you would be able to stay with them. If they have people in their home at higher risk for serious COVID-19 illness, make other arrangements. Check with hotels, motels, and campgrounds to see if they are open. Find out what sheltering resources are available from local emergency management officials, and if sheltering plans have been adapted because of COVID-19. Familiarize yourself with the CDC recommendations for staying safe in a public disaster shelter during COVID-19. Have a plan for your pets.

- If you will need to share transportation, plan now. If you will need to use public transportation, including paratransit, contact your local emergency management agency to ask how an evacuation will work. If you have a car, keep it in good working condition and keep the gas tank full.

- Mobile, manufactured homes, and recreational vehicles (RVs) cannot provide safe shelter from tropical storm-force or hurricane-force winds. Straps or other tie-downs will not provide protection. Residents must evacuate when advised by local authorities.

- If you have a disability, need assistance walking, have low vision, are blind, hard of hearing or deaf, develop a comprehensive evacuation plan with family and care providers. Assess your abilities and needs before, during, and after a disaster. Create a personal support network to assist you. If you receive regular medical treatment, work with your healthcare provider to determine how to maintain treatment if you have to evacuate.

- Remember, if authorities advise you to evacuate, be prepared to leave immediately with your evacuation kit (“go bag” of emergency supplies).

Shelter-in-place planning
If you’re not in an area that is recommended for evacuation, you may still decide to leave the area based on your health conditions, you may need to move to higher ground due to flooding, or you may choose to stay in your home. If you decide to stay home, make a plan to shelter in place safely.

- Identify a safe shelter from high winds, such as a FEMA safe room or ICC 500 storm shelter. The next best protection is a small, interior, windowless room in a sturdy building on the lowest level that is not subject to flooding.

- Identify a backup power source for power-supported medical equipment. Have a battery-powered radio, flashlights and/or battery-powered lanterns, and extra batteries.

- If you are in an area that is likely to flood, designate a location on higher ground that you can move to before floodwaters reach you.

Be sure that you can monitor changing conditions
Have access to weather alerts and notifications so that you can monitor conditions and receive instructions from local officials during a power outage.

- The National Hurricane Center (NHC) is the official source for tropical cyclone advisories and forecasts, and is responsible for issuing tropical cyclone watches and warnings for the United States. Local impacts will come from your local weather service office.

- Know the types of notifications to expect and what to do when you receive them.

Make a communication plan
Create a plan to reconnect with loved ones if communication networks are down. Have a back-up battery to charge your cell phone.

- Complete a contact card for each member of your household, and ensure that they carry it.

- Designate an out-of-town contact who can help your household reconnect.

- Text is best. A text message may go through when a phone call won’t.

- Plan a meeting spot so you can reconnect when it is safe to do so.

Safeguard critical documents
Safeguard important documents, including personal, financial, insurance, and medical records so you can start recovering right away.

- Register to receive free emergency alerts that your community offers. Download the free Emergency App

- Understand your community’s plan to notify individuals with disabilities.

- Purchase a battery-powered radio to receive information from local authorities during a power outage. Weather radios with text display and flashing alerts are available for individuals who are deaf/hard of hearing.

- See Disasters and Financial Planning and Financial First Aid Kit

Protect your home and belongings

- Reinforce doors, windows, walls, and roofs. Protect windows with permanent storm shutters or invest in one-half inch marine plywood that is pre-cut to fit your doors and windows. Consider constructing a safe room that meets FEMA criteria.

- Identify a place to store lawn furniture, toys, tools and trash cans (away from stairs and exits). Anchor objects that would be unsafe to bring inside (e.g., gas grills and propane tanks). Trim or remove trees close enough to fall on buildings. Avoid taping windows, as it does not stop them from breaking, but may create larger shards of glass that can cause serious injuries.

- Keep gutters and drains free of debris. Stockpile emergency protective materials such as plywood, plastic sheeting, and sandbags. Install a water alarm and sump pumps with battery backup. Install "check valves" in sewer lines. Elevate the heating system (furnace), water heater, and electric water heater and propane tanks). Avoid taping windows, as it does not stop them from breaking, but may create larger shards of glass that can cause serious injuries.

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- If you are a renter, talk with your landlord about steps you can take together. For homeowners, see Avoiding Hurricane Damage – A Checklist for Homeowners. If you are renting, your landlord’s insurance will not cover damage to your belongings, so consider buying renters’ insurance. Most property insurance policies do not cover flood losses, get separate flood insurance if your property is at risk for flooding. Learn more by visiting FloodSmart.gov.

Additional Resources

- FEMA: ready.gov/hurricanes
- National Hurricane Center: nhc.noaa.gov/
- American Red Cross: redcross.org/get-help/how-to-prepare-for-emergencies/types-of-emergencies/hurricane.html

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