

Hurricane Preparedness

Riding out the Storm

Another hurricane season is here, and like some before, it's predicted to be an active one with quite a number of named storms, some projected to hit the US.

Though hurricanes generally come with some sort of warning, they're still a bit on the unpredictable side and usually generate a strong "should I stay or should I go" debate as you ponder the best course of safety for your family. A quick note here; don't worry about what "category" a hurricane is. If it's called a hurricane it's to be treated with respect just as a loaded gun is handled carefully regardless of the caliber.

We'll cover some of the "stay or go" decision-making criteria for you below, but for now we'll start by saying that under certain circumstances it is possible to shelter in place safely, if you know how to **R.E.A.C.T.**:

Reinforcement – Have you prepared your home structurally in advance, even if it's just shutters?

Equipment – Do you have all the supplies you'll need on hand, or are you waiting for the last minute?

Awareness – Do you have a way to track the storm, and do you have a way for others to track you?

Cautions – Are you aware of the various risks involved in staying in place in a hurricane?

Timeline – You'll need to do several things as the storm approaches, and timing is a factor.

Reinforcement

Your proximity to the coast will dictate how strongly you need to reinforce your home. The farther away you are, the less impact hurricanes will usually have. However, consider two things: One, you really can't use the word "usually" with hurricanes since their strength is always surprising, and two, hurricanes generally spawn tornadoes that impact smaller areas with as much or more force. Consider the following:

- ◆ Add working storm shutters, or if you can afford them, storm windows. At the very least, if you choose to use something like plywood to cover your windows have the material at your house even before hurricane season starts and have the pieces pre-cut, labeled, and ready to mount. A good tutorial can be found at: <http://www.floridadisaster.org/mitigation/rcmp/hrg/index.asp>.
- ◆ Reinforce your roof structure with additional 2x4 cross pieces in the attic held in place with structural adhesive, screws and angle brackets. If you do an internet search for the term "hurricane retrofit" you'll find numerous how-to articles complete with detailed instruction and photos. One such guide can be found at http://www.nhc.noaa.gov/HAW2/pdf/hurricane_retrofit.pdf.
- ◆ In general, do anything to your home that you'd also do to help protect the structure in an earthquake or tornado. The stronger your shelter, the more protected you are against a variety of events.
- ◆ If you have a downstairs walk-in closet and that's where you'd go in a tornado, consider some structural enhancement by removing the sheetrock, adding in some extra 2x4 studs and replacing the sheetrock with 3/4 inch plywood held in place with screws. It doesn't have the strength of a steel-reinforced concrete storm cellar, but it's a great way to fill the gap between having "all or nothing."
- ◆ Next, are you close enough to the water to worry about storm surge where the winds push the surf ashore? Are you in a low-lying area where torrential rains could cause flooding even if there is no storm surge? If so, have you prepared your home for potential flooding and do your hurricane reaction plans including flooding as a component of the event?

Equipment

By having everything you need on hand in advance you do three things. First, you save time, which is always an extremely valuable asset in an emergency. Second, you're not in line at the store and in the way of those who weren't wise enough to prepare in advance. Third, by getting your supplies early, the grocery stores and gas stations have had a chance to restock so there's more on hand for those same last-minute people.

- ◆ "Equipment" includes all supplies such as food, water, medications, and other necessary consumables. It also means worlds more than just a "72 hour kit."
- ◆ If you can afford a gas-powered generator we highly recommend you have one. If not, go to your favorite auto supply, hardware, or "mega-mart" store and get a "power inverter" for your vehicle. It'll let you run an AC appliance by plugging this gizmo into your car's cigarette lighter adapter. Get the largest size you can afford. It won't run much, but if it can run your refrigerator, it'll help with food storage for a bit.

- ◆ Since flame-based light sources can be dangerous in emergencies, make sure you have flashlights, batteries, and so forth. We recommend you have several inexpensive flashlights than only one or two of the high-priced varieties.

Awareness

In this case, awareness is a double-edged sword. First, you'll want to remain aware of where the storm is as it heads your way, and second, you'll want family and friends to be able to keep up with you now that you've made the decision to stay put.

- ◆ The first thing you want to have on hand is an NOAA Weather Alert Radio. You can find them at your favorite mega-mart, electronics store, and even grocery stores during severe weather season. Get one that has Specific Alert Message Encoding or "SAME" technology. Essentially, this lets you program the radio to hear only about your county if you'd like so that you're not constantly alerted to emergencies on the other side of the state. Take a look at <http://www.nws.noaa.gov/nwr/nwrrcvr.htm> for a good tutorial and more info.
- ◆ Determine which of your available radio and television stations will be monitoring the storm's progress and can tell you things such as distance to your area, whether or not there are storm surge warnings, etc. Of the national stations, "The Weather Channel" online at www.weather.com, is always a good bet.
- ◆ Notify an out-of-area friend or family member (the person who is or should be your family emergency contact and who won't be affected by the hurricane) and let them know you've decided to stay put. Develop a hierarchy of communication methods. Incorporate cell phones, land lines, email, family websites (or something like Facebook, Twitter, or MySpace), or official emergency family notification sites such as those the Red Cross will activate after a disaster. In other words, make sure you have plenty of ways to communicate whether you're okay or need some sort of help.
- ◆ Do the same with local friends and neighbors. If you've decided to stay, make an agreement to check up on each other afterward and that each knows how to get in touch with the other's emergency family contact. In fact, you might find it useful to fill out and swap copies of our "[Find Me](#)" form, and for your four-legged family members, get a copy of our "[Pet ID](#)" form.
- ◆ For neighbor to neighbor communication consider getting a pair of FRS radios. They're as inexpensive as the NOAA Weather Alert Radio and have a surprisingly long range. You'll need something like this in case the cell towers are down and the land-line phones don't work.

Cautions

Though this article is about staying home and riding out the storm, it's a decision we wouldn't take lightly and we urge you to consider all your options before deciding to stay. Consider the following as part of your "stay or go" decision.

- ◆ Always remember that the other shoe can drop at any moment, and that there's never a guarantee an emergency is going to be your only emergency. So, consider this: When riding out the storm remember that you'll be cut off from other services. The power company can't come out and turn the lights back on, the plumber can't help you when flood waters cause sewage to back up in your house, and if one of the kids injures themselves, it's doubtful you'll be able to drive to the emergency room. Give good thought to the things you'll have to endure as a major storm plows through your area and make sure you're ready to handle them.
- ◆ If you're debating your stay or go decision, don't wait too long or the evacuation routes will be massive traffic jams and/or closed, and the decision will be made for you.
- ◆ If you can't take any (or even many) of the steps we've outlined for you here, then maybe you should at least leave your house and go stay at another location better suited and equipped to protect you from the weather.

Timeline

Some things you need to do well in advance of a major storm and some things have to wait until the last minute. In any event, with something as large and dangerous as a hurricane, there are always details that need to be tended to and you have to consider your timing in the process. These are presented in something of a chronological order and you'll notice that these also happen to be arranged in an "outside in" order, meaning that you want to do the things that are farthest away from home first and work your way in.

Important note: Below when we say "out" referring to how close the storm is, we're referring to the nearest edge of the storm that's going to reach you first, and not the eye of the hurricane. Keep this in mind since most weather stations will measure from the eye of the hurricane. It's up to you to know the difference.

(Note: For a separate numbered list of the steps to follow, click on "[30 Steps.](#)")

Before Hurricane Season Starts

Self reliance and family safety are year-round concerns whether your geographical area is prone to natural disasters or not. However, if you live anywhere near a coast, hurricanes should be additional reason enough to look at your family's safety and to plan ahead. So, before hurricane season starts...

- ◆ Make sure you performed all the structural enhancements you could for your home.
- ◆ First aid and CPR classes are great for the heads of household and family members who are old enough.
- ◆ Make your decision well in advance on what your most probable reaction to a hurricane should be; whether you want to evacuate or stay put.

A Week Out

This is about as long a warning as we'd have that a hurricane was heading toward any particular region. This far out, the likelihood of pinpointing a city the storm will impact is slim to none. However, any time a squall is even remotely pointed at your area it's a good time to look at your preparations so you can be one step ahead of the game.

- ◆ At a week out, look at the structural integrity of your home and double-check to make sure you have all the shutter material and other hardware you'll need already on hand.
- ◆ If you have a gas-powered generator at home, gas it up and make sure it works. If it needs repairs you'll want to know no later than now.

Three Days Out

This is about the last day you want to be out and about running errands or buying supplies. You'll want to have everything you need with today being about the last day for it. Any later than this and you'll be waiting in long lines and looking at dwindling supplies.

- ◆ Make sure your pantry is as full as you'd like it to be. By shopping 3 or more days beforehand, you get what you need, and the store has a chance to restock before the throngs of procrastinators hit.
- ◆ When checking your food stocks, make sure you have ways to store it (get longer shelf-life items like canned goods) and ways to cook it, which means get charcoal, Sterno, gas for your grill, etc.
- ◆ When stocking food pay good attention to nutrition, but since food is one of the "kings of morale" make sure you have a good supply of non-perishable "comfort foods" on hand such as your favorite nuts, chips, cookies, and other snacks. Include treats for your pets since they'll need comforting too.
- ◆ Check your stock of all medications, both prescription and over-the-counter to make sure you have enough to last if the stores are closed for a couple of weeks. Include your pets in this step.
- ◆ Gas up all your vehicles and fill a couple of 5-gallon gas cans to keep on hand provided you can store them safely. Fuel will be an issue for a while and getting yours in advance saves you time and lets you get out of the way of the last-minute folks. If you wait any later than 2 days, you'll be sitting in long lines at the gas station and wasting time that's better spent elsewhere.

Two Days Out

At this point the weather forecast is going to be pretty accurate as to whether or not your vicinity will feel the effects of a tropical storm or hurricane. From this point on you'll probably still head in to work and school, but you'll want to focus your readiness efforts much closer to home.

- ◆ Fill some empty milk jugs or plastic soda bottles with water and put them in the freezer. Let them freeze solid. This way, if the power goes out, these will help keep your fridge and freezer cold longer and you'll have extra water when they're thawed out. In fact, you can even use them to make an expedient air conditioner for small spaces if heat becomes an issue. See our article "Homemade Air Conditioner."
- ◆ Secure some of your more important household items such as backup computer disks or flash drives, paperwork, heirlooms, etc. by wrapping them in plastic, putting them in plastic tubs, sealing the tubs with tape, and putting the tubs up off the floor on closet shelves or other elevated and secure locations.

One Day Out

- ◆ -Start doing some safety landscaping. Are there heavy tree limbs that might fall on your house? Remove them. Is there any yard furniture that needs to be secured? Secure it. And so forth.

- ◆ Put your shutters in place if you're going to mount any. It's easier to do this a tiny bit early than to wait until the last minute when you'll have any number of unforeseen details pop up that will need your attention.

Six to Eight Hours Out

At this point, you'll probably know whether or not the storm is going to be a direct hit for your area. Now you can begin the final steps that will let you work your way into the house where you'll stay for the duration. You should be home from work and the kids out of school. Everyone should be home.

- ◆ Take some last minute photos of property and family members. You'll want to show the condition of the property before the storm, and for family members, if you get separated during or after the storm you'll have current photos of everyone.
- ◆ Recharge all your electronics while you know you still have power. Charge your cell phones, laptop computers, rechargeable lights, etc. and let them all get a good eight hours of charging. It's also a great idea to make sure you have cigarette lighter adapters for all electronics so you can recharge them in your vehicle. (Also see "50 Emergency Uses for your Camera Phone" at)
- ◆ Turn your refrigerator and freezer down to their lowest settings. Making sure all your food is colder will help keep it fresh longer should you lose power for an extended period of time.
- ◆ If flooding is a possibility, you'll want to do a couple of things. When we mention flooding we're assuming there are at least parts of your house in which you can remain high and dry otherwise you'd have left for a different location. So assuming that, let's talk about your vehicle. First, move your cars to higher ground if the area around your home might flood. Some people call this "docking." Docking your vehicles might be as simple as parking them on a hill in your neighborhood. Second, move your more valuable furniture and possessions off the lower floor, or at least up off the floor if you only have one level. In fact, you can stack your better furniture up on top of cheaper stuff.
- ◆ If flooding is not an issue, you'll want to park your car in the garage or at least some protected area. Try not to leave it out where flying debris can damage it or a spin-off tornado could pick it up and toss it about.
- ◆ Vehicle issues aside, this is about the time you'd want to brace your garage doors so they don't buckle and cave in during high winds. Most homes are destroyed when doors or windows fail allowing strong winds to enter the house and lift the roof off. Once the roof is off, the walls can collapse under heavy wind pressure.
- ◆ If they're even out of the house at all, this would be a good time to make sure the kids are home and at the very least, in the yard.

Two or Three Hours Out

Again, please remember that when we say "so and so hours out" we're referring to the leading edge of the storm that will hit you first, and not the eye of the storm. When bad weather is still about 2 or 3 hours away, you'll want to do the following.

- ◆ Bring the kids in the house and have them help you with last minute stuff. Hint: You can calm the kids by making the whole thing look like an "indoor campout."
- ◆ Bring in all outdoor pets. If they can fit in the house they should be brought inside the house.
- ◆ Start building a "nest" in the room you've chosen as the safest area of the house. Make it comfy since this is where you'll be while the storm pushes through. Put down a mattress, have some snacks and water handy, make sure you have flashlights and extra batteries and that all your radios have extra batteries. For extra safety, make sure any windows in this room are shuttered on the outside and covered on the inside. You might even go so far as to bring in something like a heavy table for the kids to sleep under. In hurricanes, most deaths occur from drowning in the storm surge but deaths from structural collapse run a close second. Hint: If the kids have bike or skateboard helmets, have them put them on.
- ◆ Though the windows might be shuttered or covered on the outside, this is no guarantee there will be no breakage. To add a tiny layer of protection inside (assuming your not doing any sort of interior shutter or plywood cover), close the blinds and draw the curtains. If a window breaks this will help limit how far the glass fragments fly.
- ◆ Depending on the weather, you may want to turn your AC down or heat up a bit to make the temperature inside the house more comfortable for a little longer should the power go out.
- ◆ Start filling your extra water containers in anticipation of a loss of water. Clean and fill your bathtub, start your washing machine on a cold water cycle and turn it off when the tub is full, pull the trash bag out of your large kitchen trash can and fill the can with water. This is in addition to the bottles and jugs of water you should normally keep in storage around the house for unforeseen emergencies, and the 30 or so gallons that will be in your water heater.

- ◆ If you have a way to secure them (so they don't blow away), your outside household trashcans can be pressed into service as expedient rain barrels to collect rainwater coming off your roof. You wouldn't want to drink this water but you can use it for cleaning, etc. (Reminder: You should never ever drink flood water even if you try to purify it.)

As the Storm Comes Rolling In

- ◆ Unplug all the electronics you were charging (they should be charged by now).
- ◆ Unplug any valuable electronics like your television, stereo, desktop computer, etc. This is to protect them since surge protectors are no match for a direct lightning strike on your house.
- ◆ Be mindful of where you are in the house and what's going on outside. If your threat is high winds, you'll want to be in the center-most room of the lowest area of your house, or the same place you'd go in a tornado (where you made your "nest"). If wind is not that great, but the rain comes in non-stop then you might want to keep an eye on rising flood waters and be ready to move to a higher level in your house.
- ◆ Close but don't lock all your interior doors. A closed door makes the wall structure a little stronger, it limits flying debris should a window break, and it helps limit wind flow through your house should a window break or part of the roof come off. (You should do this in a tornado as well.)
- ◆ Move to the "nest" you made in your safe area and stay put until the storm is over. Keep in mind though, that if the eye of the hurricane passes directly over you, it might seem like the storm is done. It's not. The other half is about to hit. Stay put until you know you're safe.

Afterward

- ◆ Check to make sure your family members are safe, sound, and soothed. This includes pets!
- ◆ Check on your neighbors to make sure they're okay too.
- ◆ When getting out and about, make sure to wear sturdy shoes since there will be a lot of debris on the ground.
- ◆ Stay well away from downed power lines (since the ground will be wet and power can arc), look for broken water mains (as trees topple their roots can pull up water lines), and listen and smell for broken gas lines.
- ◆ Watch for displaced wild animals.
- ◆ Note: It's only now that you'd want to put your gas-powered generator outside and crank it up. Some people have left theirs out in the weather only to find it damaged beyond repair.
- ◆ Once you know all the people and pets are safe and well, you can start thinking of cleanup. However, make sure to take photos and video of the damage for insurance purposes.

Naturally, there are hundreds of such considerations to be made in the event of any urgent situation whether it's hurricane related or not. Since there are far too many thoughts, tips, tricks, and ideas to squeeze into one article, we recommend you get the entire list by getting your copy of "Disaster Prep 101" and making that one small investment in your family's safety.

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About the Author: Paul Purcell is a terrorism and natural disaster preparedness consultant in Atlanta, GA. He's also the author of "Disaster Prep 101" found at www.disasterprep101.com. © 2010 – Paul Purcell. Permission granted to share this article with others provided it is distributed for free, and that all portions, including footnotes and "About the Author" sections remain intact and attached.