



**BY JEN HENDERSON**

# **BIG STORM COMING!**

**A Parent's Quick Guide To  
Complete Disaster Preparedness**

## About *Big Storm Coming! A Parent's Quick Guide to Complete Disaster Preparedness*

Have you ever wondered what you'd do during a natural disaster?

You're going about your day when suddenly you hear a tornado siren. What do you do? Or perhaps you're shopping in town when snow begins to blanket the ground. What do you do? You're driving down a road when water suddenly fills the streets. What do you do?

There's nothing worse than knowing that there's a storm or natural disaster heading toward your home, especially when you're not sure what to do. Yet each year it happens. Millions of people are faced with floods, tornadoes, earthquakes and the like, and they have very little time to react. But there is something you can do. Now.

*Big Storm Coming!* is designed to help you take lifesaving actions right now, in the midst of a natural disaster or severe weather event. It covers eight of the most dangerous situations you might be faced with each year.

- Tornadoes
- Earthquakes
- Blizzards
- Extreme Heat
- Earthquakes
- Wildfires
- Floods
- Biological Disasters

For each of these events, you'll find the information you need to keep your family safe, including the following:

- 1) a quick tip that should take no more than 10-seconds to read, which summarizes what action you can take right now to stay safe;
- 2) a description and explanation of watches versus warnings and what you should do in response to each one;
- 3) steps you can immediately, depending on where you are—at home, on the road, or in a public space;
- 4) suggestions for what to do just after the storm or disaster ends.

If you don't have much time, skim the **10-Second Tip** for your storm or disaster type, which will give you the gist of the safety message specific to that event. If you have more time, find the location (home, car, public place) that most accurately describes your situation and follow those tips, as well.

If you're not currently faced with an emergency, the good news is that you have time to prepare. Take advantage of this time and create your family disaster plan and put together an emergency kit, outlined in Appendix A and Appendix B.

To help you navigate through topics quickly, the e-book is divided into three main sections:

### **Section 1: Severe Weather**

Severe Weather covers the four most deadly weather events: tornadoes, hurricanes, blizzards and extreme heat.

### **Section 2: Natural Disasters**

Natural Disasters covers four of the most serious catastrophes: earthquakes, floods, fires, and man-made disasters.

### **Section 3: Epilogue and Appendices**

These sections offer helpful checklists to get you, your family, and your beloved family pet ready for future crises.

As we all know, nothing replaces being adequately prepared for an emergency—including having an emergency kit and practicing a family disaster plan—but sometimes these events catch us off guard. When they do, it is my hope that this information helps keep you safe.

**Disclaimer:** The information in this e-book is not intended as official advice or a replacement for information given to you by your local authorities. Do not use this book as a substitute for orders or information given to you by local, state, and federal authorities in the face of a natural disaster or severe weather event. If you are in harm's way, take shelter right now and contact your local emergency agency. Call 911 immediately if you're experiencing a medical emergency.

# **BIG STORM COMING!**

## **A PARENT'S QUICK GUIDE TO COMPLETE DISASTER PREPAREDNESS**

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## **Why I Wrote *Big Storm Coming!***

As a severe weather safety expert, I've seen first-hand the unfortunate devastation families endure when storms and other natural disasters strike. For the better part of the last decade as an amateur storm chaser, I've dedicated my writing and research to severe weather warnings and how families might be better prepared for the unthinkable.

Another motivation for my work includes the thousands of families who have survived tornadoes and hurricanes, earthquakes and floods. Their stories are always a mix of heartbreak and resilience. And often regret. Regret that they didn't prepare sooner for what they thought would never happen to them.

We can all relate to belief that "It won't happen to me" when we see disasters on television. Psychologists call this an optimism bias. Yet chances are that at some point in our lives we'll find ourselves faced with what once seemed impossible. When you do finally hear that there is a big storm coming, your best defense is your ability to think quickly and calmly and the knowledge about which actions are critical for your family's survival.

In an emergency, you only have a few moments to act and those actions can often mean the difference between life and death. In any impending weather-related crisis, there's a short window of opportunity for parents to make the kinds of decisions that will keep their families safe.

***Big Storm Coming!*** offers your family timely, important tips you can use right now to protect your loved ones, today and tomorrow.

## **Introduction: Staying Calm**

One of the most important assets you have during a crisis is the ability to remain calm and stay focused on the task at hand: taking steps to keep you and your family safe.

### **Ways to Stay Calm**

Staying calm will help you make better decisions, and right now, every decision counts.

1. Take a moment to compose yourself. Your children and family will reflect your emotions, so close your eyes for a few seconds and breathe deeply.
2. Speak calmly but firmly. Chances are your children already know something is wrong. You can be reassuring without betraying your own sense of panic by moderating your voice and your body language.
3. Think clearly. Remember, above all, safety first. The actions you take now increase your odds of survival. Don't worry about valuables and other material possessions. Those can be replaced.
4. Take immediate action. Get your family out of harm's way right now.
5. Take a mobile phone with you. A mobile phone with Internet access can be a real lifeline as you get your family to safety.
6. Stay tuned to your local news station. It can keep you up-to-date about severe threats, evacuation information, and the latest disaster assistance.

## **SECTION 1: SEVERE WEATHER**

## Chapter 1: Tornadoes

**10-Second Tip:** Take shelter immediately in a basement or interior room without windows, cover your family with a mattress or heavy blankets, and wait out the storm. If you're in a car and can drive away from the storm, do so. Otherwise, get out of the car and head to a building, moving to the most interior room or basement. Once the tornado is over, leave the disaster area cautiously since the area is likely covered with dangerous debris.

### Brief description

A tornado is defined as a violently rotating column of air that extends from the base of a cloud to the ground. Sometimes, they look nothing like the clearly visible ropes of air that you see on television; often they can look like fuzzy clouds that have debris swirling in them and they can be quite large and dark—especially if one is heading straight for you.

In fact, some people describe tornadoes as a fuzzy cloud on the horizon or they might say that the cloud looks like it's on the ground.

If you see a strange cloud that is rotating or that is filled with debris, immediately go inside and take cover in a basement or interior room. The idea is to put as many walls between you and the storm as possible, ideally without windows since flying glass can be deadly.

### Watches versus Warnings

**WATCH:** A tornado watch means that conditions are ripe for tornadoes though there may not be any tornadoes in your area yet. If your weather person says you're under a tornado watch, then you are at risk of experiencing a tornado any time. This means that any storm that develops during a watch could be dangerous.

**WARNING:** A tornado warning is serious! It means that a tornado has been either sighted on the ground by trained spotters or indicated by Doppler radar. A tornado warning can happen any time of day or night. In fact, the most deadly tornadoes happen when it's dark outside and you can't see them coming, so you'll want to make sure that you act immediately if you hear sirens or see a warning on television.

**EMERGENCY:** The National Weather Service has created a new category of tornado warnings called a "Tornado Emergency." This means that a large and very dangerous tornado has been visually confirmed by spotters, is heading toward a populated area, and is on the ground doing damage. Your life is in danger and you should take shelter immediately!

### Watches: What to do right now



If there is a tornado watch, you should stay vigilant throughout the period of time designated by forecasters. Sometimes a tornado watch lasts just a few hours; other times it will last all day and night. You should go about your regularly scheduled activities throughout a watch, but it's imperative that you stay alert to keep your family safe.

- Pay attention to weather reports throughout the day.
- If the storm is at night, keep a pair of shoes near your bed so you can navigate any debris and broken glass. Keep a pair of flip-flops or extra shoes in your shelter, too.
- Keep your radio or television tuned to local channels and listen for your community's siren (or for the emergency siren on your television).
- Watch the sky for any storms. If there's a tornado watch, any storm can turn deadly.
- If you see a storm, go inside a house or other structure and tune into a weather report for more information.

### **Warnings and Emergencies: What to do right now**

If there is a tornado warning, you should stop what you're doing and take cover!

Similarly, if you hear a tornado emergency, you need to act immediately to save family members' lives.

While there are a number of false alarms each year, if you hear a siren or your local weather channel or radio blares a warning, act quickly. Don't try to save your possessions. Just grab your kids and go to an interior room or the basement!

- Get to the lowest level or most interior room of any building, such as a bathroom or closet without windows.
- Get in the bathtub and cover your family with a mattress.
- Avoid your car or mobile home—these won't survive this type of tornado.
- If you're the praying type, pray.

### **What to do if you're at home**

If you're at home during a warning, do the following:

- Run to the lowest level of your home with your kids.
- If you have a basement, go there. Get under a table or mattress to protect you from debris.
- If you don't have a basement, go to a room that puts several walls between your family and the storm. Often an interior bathroom is a good choice. Get in the tub or shower with your kids.
- Pull a mattress or several blankets over you, anything to protect you all from debris.
- Stay there until the storm is over.

### **What to do if you're in a car**

If you're in your car and there's a tornado warning or you see a tornado, do the following:

- If you're already in your car driving *away* from the direction of the storm, drive to a structure where you can take cover.
- If you're in a car and a tornado is near you, get out of the car and take cover in a building or other significant shelter, such as a home or business.
- If you don't have a building nearby, your best bet is to stop the car, get out, and look for a ditch or other indentation in the ground. Lay down flat on the ground, face down, with your kids and have them cover their heads. This will sound counter-intuitive, but a car can easily be tossed around in a tornado, making it a potential death trap.
- Don't take shelter under an overpass. They are not safe during a tornado because the winds and debris actually intensify as they pass through them.

### **What to do if you're in public place**

If you're in a public place, do the following:

- Run to a building or other sturdy structure. For example, if you're at a park, go to a local business or home—just get indoors!
- Go to the lowest part of a building or a strong interior room, such as a meat locker, refrigeration room, or other storage area, preferably somewhere without a window.
- If you're in a big-box store, go to an interior room that is small—these structures are dangerous otherwise.
- Try to cover yourself with blankets or get under sturdy furniture to protect yourself from flying debris.
- Resist the urge to leave the room until the storm is over.

### **What to do once the tornado is over**

Once the tornado is over, do the following:

- Call 911, if possible, and report your location.
- If you can't safely move, stay put, and wait for help.
- Call out for help so rescuers can find you.
- Be careful leaving your shelter since you'll encounter sharp and dangerous debris all around. Carry small children.
- Look out for fallen power lines. Electrocution from live wires on the ground is a real threat after a tornado.
- Stay aware of sound of leaking gas and, if possible, move away from the smell of natural gas. Above all, don't strike a match.
- Once you're safe, call your insurance company to report damage to your home or car.

**Take note!** There are many myths out there about tornadoes that lead to unnecessary deaths every year. Perhaps one of the most misleading is this: "Tornadoes don't happen in my town." While it's true that your chances of being hit by a tornado are very, very small,

every state in the United States has experienced a tornado. Your state is no exception. And just because you've never had a tornado in your area—in the mountains, in a big city, near a river—it doesn't mean you won't ever have one. You should always take weather warnings seriously, even if your personal experience suggests otherwise.

## Chapter 2: Hurricanes

**10-Second Tip:** Monitor the hurricane carefully through your local weather channel, ready your home for wind and debris by locking up any furniture or yard décor and securing windows, and, most importantly, evacuate when asked to do so.

### Brief description

A hurricane is a large system of powerful thunderstorms that are rotating in a low-pressure core of strong winds and driving rain. While most people know what a hurricane is, they don't know that the most dangerous part of a hurricane is the flooding caused not by the rain but by the storm surge, or wall of ocean water that rushes to shore. Remember Hurricane Katrina? That tragedy was largely caused by a storm surge of ocean water and a hole in the sea wall surrounding New Orleans as the hurricane made landfall.

Hurricanes are ranked by the wind strength from Category 1, with winds from 74 to 95 miles per hour, to Category 5, with winds in excess of 155 miles per hour. Yet these categories can be deceiving. A Category 1 hurricane can be just as deadly as a Category 5, depending on the particular wind strength, size, and storm surge with each storm. Remember Superstorm Sandy? It wasn't a hurricane as it made landfall, yet it did significant damage akin to a much stronger storm.

Regardless of where you are along a coast, or the ranking of the hurricane, it's important to pay attention to forecasts and act quickly once you've been asked to evacuate.

### Watches versus Warnings

**WATCH:** A hurricane watch means that you're at risk of experiencing a hurricane within 48 hours. This means that a hurricane has already developed and its trajectory could bring it into your area. It's also when most panic sets in for communities in the path of the hurricane, when stores are flooded with people buying last-minute supplies for their home.

**WARNING:** A hurricane warning means that a hurricane will likely affect your area within the next 36 hours, packing winds of at least 74 miles per hour. This is when forecasters will issue definitive evacuation orders for the areas most likely to be impacted by the storm and will ask residents to begin leaving the hurricane zone. Although the place that the hurricane will strike may be updated, you'll need at least a few days to pack up and get on the road. The point is that it's better to be safe than sorry.

### Watches: What to do right now

If there is a hurricane watch, don't dismiss it. This is the time to stay vigilant and prepare your home and family for wind and floods. Some people disregard watches because they fall into the mental trap of thinking, "It can't happen to me" or "The forecasters have been

wrong before.” Instead of succumbing to this dangerous thinking, spend the little time you have securing your home.

- Pay attention to weather reports over the next few days. A hurricane can shift direction and a few miles can make all the difference.
- Take time to collect important documents like insurance papers and valuable mementoes and seal them in a plastic bin.
- Safely stow any lawn furniture or other yard ornaments so they’re not blown into your home and clean out gutters so they can better handle rain.
- Make sure you have at least \$100 in small bills, fill your gas tank, and have your kids pack three days of clothing in case you’re evacuated.
- Make arrangements at any hotels along the evacuation route, and if you have pets, be sure they’ll be welcomed, too.
- Ensure you have sufficient quantities of any prescription medications.

### **Warnings: What to do right now**

Chances are, you’re in the path of the hurricane and thus are also likely to encounter dangerous flooding and storm surge. Tornadoes are a real threat since many hurricanes have tornadoes embedded in their winds. You should pay careful attention to evacuation zones to know whether or not it’s safe for you to ride out the storm in your home. This is the time when people make unwise choices that lead to unnecessary rescue missions and life-threatening situations.

- Don’t ignore a hurricane warning; instead, look for your evacuation zone and take the designated routes out of town now.

### **How to know if you should evacuate**

Evacuation zones are divided up according to your city’s elevation and are assigned zone letters, A-E, based on how likely they are to flood.

- You can find your zone by visiting your city’s website or by watching the local news station. If you can’t find it, call your local city office.
- Generally, zones A, B, and C must evacuate, but it depends on the unique landscape features of your area and expert opinions on the likelihood that you’ll experience significant flooding.
- Know your zone and follow all orders. Even though you might be tempted to ignore them because of the hassle of leaving your home or the belief that you can ride out the storm, officials only declare evacuations mandatory to ensure your family’s safety.

### **What to do if you need to evacuate**

If you’re asked to evacuate, don’t wait. Do the following:

- Quickly load important papers and mementoes that you packed in plastic bins, include emergency supplies, and secure pets and children for the drive.
- Follow designated evacuation routes. Other roads may either be closed or be in a flood zone.
- Let family and friends know that you're on the road so they'll know you're safe and when to expect you to arrive at your designation.
- Know that public shelters don't accept pets, so be sure you make arrangements for them with a friend or check with your local veterinarian for other options.

### **What to do if you can stay safely in your house**

If you've been cleared to stay home, you're not out of the woods yet!

- If you're in a mobile home or high-rise building, you're in danger from wind damage. Even at 74-miles per hour, the weakest hurricane can blow over a mobile home. If you live in an urban area, winds may increase in speed as they move between tall buildings, which may cause buildings to sway and glass windows to shatter. Move to the lowest floor of a secure building.
- Do not stay in a car. Ever. Even though it might be exciting to watch the hurricane make landfall, you risk your life for no reason.
- Move to an inner room in your house with your kids, bring your emergency kit nearby (see appendix A for a list) and hunker down next to a radio or television set so you stay alert.

### **What to do once the hurricane is over**

If you've been asked to evacuate, wait until you've been cleared to return before you make your way home. Once it's safe to return home, you can take these steps:

- Carefully inspect your home for damage. If there is significant damage, resist the urge to return and search for belongings. Your home could be unstable.
- Notify family members that you're okay so they don't worry and tie up phone lines of emergency personnel.
- Contact your insurance company to report any damage.
- Call the Red Cross for local shelters and FEMA to register for government assistance.

FEMA: 1-800-621-FEMA (3362) or TTY: 1-800-462-7585

Red Cross: <http://www.redcross.org/find-help/shelter>

**Take Note!** Most people assume that only higher category hurricanes, such as Category 4 or 5, are deadly so they don't evacuate when ordered to do so. However, some of the more damaging hurricanes are assigned lower category levels but are much wider and carry a stronger storm surge. Depending on where the hurricane makes landfall, a low category hurricane can cause more damage as the surge carries significant water inland, causing major flooding and deaths.

## Chapter 3: Blizzards

**10-Second Tip:** Stock up on supplies, prepare your home for freezing wind and snow, and hunker down with loved ones. If you're trapped in a car, call for help (a tow company or 911 are best) and keep your tailpipe clear of snow until someone arrives.

### Brief description

A blizzard is a significant weather storm that has two of the following conditions lasting for at least 3 hours: winds of up to 35 miles per hour, whether that's occasional gusts or sustained winds; and blowing or falling snow that reduces visibility to less than  $\frac{1}{4}$  mile.

While blizzards are most dangerous to people who are exposed to the storm directly, especially the homeless and indigent, everyone in the path of the storm has reason to be concerned. According to the National Weather Service, nearly 25% of all winter deaths happen when people are caught off guard by a storm.

### Watches versus Warnings

**WATCH:** A blizzard watch means you're at risk of experiencing a blizzard within 36 hours, though the storm could shift its position, intensify, or weaken.

**WARNING:** A blizzard warning means a storm will occur in the next 12 hours in your area and that you need to take immediate precautions in terms of travel, supplies, and a potential power outage.

### Watches: What to do right now

During a blizzard watch, it's a good idea to evaluate your food supply and supplement with groceries, take care of any local travel, and plan to keep your children and pets indoors.

- Pay attention to weather reports over the next few days. A blizzard can intensify with winds that may cause major power outages within the affected area, and losing power in the winter is a dangerous situation.
- Go through your pantry and refrigerator to identify any groceries you might need to stock in preparation for at least 5 days.
- Update your emergency kit to include items that will keep you warm in case of a power outage—blankets, sleeping bags, extra wood if you have a fireplace. Include candles, water, nonperishable food, and flashlights with extra batteries.
- If you can, protect exposed pipes so that they don't freeze and leave taps open slightly so they can drip continually.
- Preserve heat by putting rags under doors, closing drapes, and closing doors to rooms not in use.

### Warnings: What to do right now

Now is the time to take preparations seriously, if you haven't done so already (and I hope you have.) If conditions permit and you're low on supplies, head to the store to stock your cabinets and go carefully through the list above. Additionally, it's a good idea to check on anyone in your family or neighborhood who is elderly or struggling with health issues. These people are particularly vulnerable in cold weather, even in their own homes. In fact, it might be a good idea to invite particularly frail individuals to stay with you until the storm is over.

### **What to do if you're in a car**

If you're on the road when a blizzard hits, take action:

- Get off at the nearest exit and take shelter in a hotel or with a friend. While you might be tempted to risk the drive home, you're also risking getting stuck in a snowdrift for several hours before someone is able to rescue you and your kids.
- Call a family member and let them know where you are so they can call for help if you don't make it home.

If you're already stuck on the freeway, make sure you do the following:

- Call 911 and family members to let them know where you are. It might be hours before someone can make it to your car—remember that it will take a while for emergency personnel to clear the roads and make their way through the hundreds of other drivers who are likely in the same position.
- If you have a cell phone with Internet access, look for a local towing business. While emergency personnel are busy, a tow truck might make it to you sooner.
- Take time to clear your exhaust pipe, especially if you're sitting in the same place for long periods of time. Carbon monoxide is a deadly gas that goes undetected, and a blocked exhaust pipe can funnel it directly into your car.
- Have the kids huddle together to stay warm and play games to pass the time. I Spy, Tic-Tac-Toe, and just plain drawing are good choices.
- If you run out of gas and help hasn't yet arrived, consider sharing a vehicle with someone whose car is running. Now is definitely not the time to be shy. You're all in this together and chances are, someone else might welcome the company.

### **What to do if you're in public place**

If you're in a public place and a blizzard is on its way, consider the following:

- Leave immediately for home as soon as you can. Some people wait until it actually starts snowing before they leave work, school, or shopping centers, yet a blizzard doesn't need much time to become a complete whiteout. As soon as you're aware that there's a blizzard warning, head to your house to make preparations.



- It's unlikely that you'd get stuck at a grocery store, restaurant, or other public place, but if you do get snowed in, be sure to call 911 to notify them of your situation, then call family members so they don't worry.

### **What to do if you're stuck at the airport**

If you're stuck at an airport, waiting for a flight, there are things you can do to stay safe and comfortable:

- Airports can be tricky. If your flight has been delayed or cancelled, the best you can do is take a shuttle to a local hotel to wait out the storm—the airline may offer to comp your stay; if they don't, be sure to ask.
- If you can't leave the airport, hit the airport shops and stock up on supplies. It'll be expensive—airport food and goods always are—but having sufficient snacks, blankets, and books/toys will make your stay much more pleasant.
- Treat yourself and your kids to a much-deserved meal. Sitting down as a family can restore a sense of normalcy for a brief time, enough to take the edge off. And don't forget to order yourself a glass of wine or latte. You've earned it.
- To pass the time, try taking kids on an airport scavenger hunt or giving them books or paper to distract them from the long wait. A little creativity can go a long way.

### **What to do once the blizzard is over**

Once the storm is over, the cleanup is just beginning:

- Be cautious about heading outside. Roads are likely to be dangerous and impassible for quite some time.
- Don't overdo it. It might be tempting to take a shovel and put in some serious work clearing sidewalks, roofs, and roads. There are two potential issues here: more heart attacks occur after snow storms because people overexert themselves, particularly those who are older or not used to strenuous exercise. People also get seriously injured when they fall on slippery sidewalks or worse, from rooftops.
- Call your insurance company if your home has sustained any damage.
- If you've lost power, make sure the power company knows (you'll need to use your cell phone, but limit cell phone use to conserve the battery) and then do the following:
  - 1) Keep your refrigerator and freezer doors closed as much as possible so your food stays cold. Everything should keep for at least 4 hours; after that, move your most important items into a cooler and pack it with snow.
  - 2) Close doors to rooms you don't use and have the kids sleep in the same bed, bundled in clothes and extra blankets.
  - 3) Mind the candles and any propane/kerosene heaters. These are not only fire hazards but gas heaters emit deadly carbon monoxide gas.
  - 4) If your power is off for longer than 24 hours, consider heading to the home of a neighbor who has power or to a local shelter.

**Take Note!** It might surprise you to know that about 1,200 people die from a cardiac event during a snowstorm each year, according to the Harvard Medical School. The number of heart attacks peaks right after winter storms when people who shouldn't be over-exerting themselves head outside to shovel snow. If you know someone who isn't in the best of health, especially someone over age 50, don't let them shovel snow. Instead, pay one of the local neighbor kids who would be thrilled to make a couple of bucks. Also, take caution when clearing snow from roofs; dozens of people die when they fall from a steep roof when shoveling the white stuff.

## Chapter 4: Extreme Heat

**10-Second Tip:** Heat stroke and heat exhaustion are largely avoidable. To prevent these life-threatening situations, stay in the shade (better yet, stay indoors), keep hydrated, and minimize physical activity. Keep a close eye on children, elderly folks, and anyone whose health is compromised—they're more vulnerable to heat.

### Brief description

According to the National Weather Service, heat is the number one cause of death in the United States each year. This is particularly true during summer months as temperatures across the country rise to a point where it's dangerous for people to be exposed to the heat without proper precautions. Periods of high heat are often accompanied by poor air quality from pollution that gets trapped in the stagnant atmosphere. When extreme heat—defined as high temperatures, such as 100 degrees or above—lasts for a significant period of time, it's called a heat wave.

Your ability to endure extreme heat depends (in part) on where you live in the country. People in areas where the humidity is low, such as in arid climates, can usually endure higher temperatures without their bodies succumbing to heat stroke or heat exhaustion. One exception is with high winds; then dry heat can be extremely dangerous. Those who live in more humid climates, such as the Deep South, need to be continually vigilant since sweat, which is the body's way of cooling itself, doesn't evaporate off of the skin fast enough when the air is saturated. This causes the body to not cool as well as it should, raising the risk to heat exhaustion.

It also matters whether or not you live in an urban area, where concrete and asphalt can store heat and radiate it upwards, increasing the temperature in the city. Folks in more rural areas may have slightly cooler temperatures and more options for outdoor shade. This is especially true during overnight hours.

Exceptions to these general rules of thumb include children and the elderly, whose systems are more fragile and can't handle heat even on days that might not seem as hot to the rest of us. Anyone whose health is compromised should also be extra cautious when the weather warms up.

### Watches versus warnings

**WATCH:** A heat watch will be issued 12 to 48 hours before excessive heat is expected, though the exact timing is uncertain. Be sure to watch your local news for further developments. During this time, you should alter any plans for outdoor activities and prepare your home to accommodate the high temperatures.

**WARNING:** A warning or advisory is issued when high heat is immanent or occurring. This means you should take precautions immediately to reduce your exposure to the sun by staying indoors as much as possible and checking on friends and family throughout the day to ensure that they're okay.

### **Watches: What to do right now**

During a watch, consider preparations to minimize your exposure to the sun and ensure you have sufficient supplies should you decide to venture out.

- If you haven't done so already, make sure your air conditioner has been serviced and is in good working condition. If you don't have a/c, consider installing a window unit in the main living room to help lower the temperature inside your home.
- Load up the freezer with water and make ice for lots of cool drinks. Consider making popsicles for the kids.
- Planning to head outside regardless? Wear wide-brimmed hats, loose clothing made of breathable fabric (cotton or linen are good choices), and sunblock. Bring along enough cool drinks and perhaps an umbrella or two for your own shade.
- Stock up on foods that you don't have to cook, such as peanut butter and jelly, salads or microwavable meals, to reduce heat-creation inside the home and get out the sprinklers or other water games to entertain kids in your own back yard.

### **Warnings: What to do right now**

Once your local meteorologist has issued a heat warning or advisory, take the actions listed above to reduce your family's exposure to heat. Assemble an emergency kit with water, hats, sunblock, and water-rich snacks, if you plan to travel. If you're staying home, stay cool.

### **What to do if you're at home**

If you're planning to stay home, good choice! But there's more to do:

- At home, keep the air conditioning going, hang blackout shades, and pull out games for your kids to play or books to read. The key is to keep your kids inside as much as possible.
- If your kids get antsy, encourage them to stay close to home by setting up sprinklers, a kiddie pool, or a hose for a water balloon fight.
- Check on your kids often and encourage them to drink water or other drinks as often as possible. Frozen juice pops or even snacks like water-rich celery are good options.
- Apply sunblock at least 30 minutes before you leave the house and re-apply every 2 hours, or every 45 minutes if you've been swimming or hanging out in the sprinklers.
- Check on your elderly or health-compromised friends and neighbors. If you're concerned that they're struggling, invite them over for some cool lemonade or watermelon snacks.

### **What to do if you're in a car**

Take extra precautions if you're traveling in a car with children (and pets):

- This is the most deadly place for children! Please take note. According to the Center for Disease Control, even if the temperature outside is only 60 degrees, the inside of a car can increase exponentially in just 10 minutes to over 80 degrees. During an 80-degree day, a car temperature can reach 100 degrees in just 10 minutes, which is more than hot enough to compromise a small child.
- Never leave a child (or pet) in a car, even with the windows cracked, when it's warm outside.
- Use the air conditioning liberally and invest in sun shades that can be attached to the windows to dull the sun coming through.
- Encourage everyone to drink lots of water and other liquids. You can still get dehydrated even if you're not physically active while you're sitting in the car.

### **What to do if you're in public place**

Whether you're heading out to the beach or to a family cook-out, consider the following:

- If you're out shopping or running errands, look for shade and take breaks often. Pop into an air-conditioned building for 15 minutes every hour and refresh your drinks.
- If you're at a park or beach, set up in the shade provided by trees, structures, or large umbrellas. Bring hats and shoes for everyone (sand can burn your feet in these temperatures) and limit your exposure to just a few hours.
- Liquids, liquids, liquids. Pack plenty of water, juice boxes, and water-filled snacks like celery, grapes, and cantaloupe.
- Apply sunblock often—every 45 minutes if you're in the water—and wear sunglasses to protect your eyes from UV rays.
- Keep an eye out for members of the family who might be overheating. These can quickly become 911 emergencies, so when in doubt, act!

### **Signs of heat exhaustion include the following:**

- Heavy perspiration, pale and clammy skin, fainting and vomiting. Get the person into the shade, or better yet, air conditioning, ASAP. Have her lay down, apply cold rags, and give her sips of water.

### **Signs of heat stroke, a much more serious health threat, include the following:**

- Flushed dry skin, high body temperature (over 104 degrees), strong pulse, and possible unconsciousness. Get the person into the shade, call 911 and get her to a hospital now. The most important thing to do is cool the person down and get help. Delays in action can be fatal.

**Take Note!** An often overlooked consequence of wearing as little clothing as possible during extreme heat is sunburn. It's easy to forget that you need to reapply sunblock every

few hours—or every 45 minutes if you're in the water. However, just two major sunburns in a child's early years can significantly increase her chance of developing skin cancer as an adult. Sunburn also reduces the body's ability to cool itself, increasing the danger of extreme heat. Look for sunblock that provides both UVA and UVB protection and choose one with an SPF of at least 30. It never hurts to find those brands that use more natural ingredients, such as zinc oxide, rather than carcinogenic chemicals that many products contain. Check out [www.goodguide.com](http://www.goodguide.com) for more specifics.

## **SECTION 2: NATURAL DISASTERS**

## Chapter 5: Earthquakes

**10-Second Tip:** Act quickly to take cover from falling debris and collapsing walls or buildings. If you're outdoors, move away to an open space; if you're indoors, get under a sturdy table with your loved ones and hang on.

### Brief description

Earthquakes occur without watches or warnings. A room starts to shake, the ground vibrates violently, and items on walls and shelves begin to tumble to the ground. If you live in an area close to a fault line, which is where most earthquakes happen, they can cause damage to homes and businesses, depending on the magnitude of the earthquake and the structural integrity of the buildings. However, be warned that earthquakes can strike most places across the United States since the continent has hundreds of fault lines.

Earthquakes, on average, last 30 to 60 seconds and are measured in terms of a Richter Scale, with each increase in number producing an exponential increase in strength. For example, an earthquake that measures a 7.0 on the Richter Scale is ten times stronger than one that comes in at 6.0 since the wave created by the broken and slipping rocks on the fault line is significantly higher. Yet an earthquake that measures a 6.0 in one town can do far more damage to buildings that are not built to withstand the violent shaking than it might in a town built with earthquakes in mind. Thus, it's always a good idea to know the building code used to construct your home and your structure's ability to withstand tremors, even if you live in the Midwest and East Coast since some of the more violent earthquakes happen there. To find out more about your home, consult a home inspector or an engineer in your area.

Regardless of an earthquake's strength, there are key actions you can take once any earthquake starts to keep your family safe.

### What to do if you're at home

If you're at home and the ground begins to shake, assume it's an earthquake and do the following:

- Drop to the ground and find cover under a heavy table or desk away from windows and glass. Hold on to the legs until the shaking stops.
- Do not run outside! Most injuries occur as people attempt to leave their homes or other buildings during an earthquake. Being outside next to a building exposes you to falling debris, glass, and the exterior walls themselves.
- If you're in bed when the earthquake hits, stay there—unless there is a large light fixture or shelves hanging over the bed. Encourage your children to do the same thing.
- It's a myth that a doorframe is the safest place to be. This is only true on a load-bearing wall, which is difficult to discern.



- If you don't have anything heavy and sturdy to hide under, crouch into a ball in the corner of a room away from windows.

### **What to do if you're in a car**

If you're in your car and the quake hits, take action immediately:

- Stop the car as safely as you can, but make sure it's not under trees, buildings, power lines or overpasses. The best place to be is out in the open.
- Stay in the car until the shaking stops.

### **What to do if you're in public place**

If you're out on the town, there are things you should do:

- If you're inside a building, stay there. Running outside will expose you to falling debris, the number one killer during an earthquake.
- Drop to the ground and find cover under a heavy, sturdy desk, table, or large chair.
- If you're in a park or other open space, move away from any trees, power lines, or structures and stay there until the shaking stops. Open space is a safe place to be.
- If you're in a pool or at the beach, get out of the water and either move to an open space outside or drop and cover under a sturdy table. Keep an eye out for tsunami warnings if you're in a coastal area.

### **What to do once the earthquake is over**

After the shaking stops, take the following actions:

- If you get trapped in rubble, don't panic and try not to move. Moving could cause debris to shift and fall on you. And don't light any matches since gas leaks are common after an earthquake.
- Tie a handkerchief or piece of fabric around your mouth and nose so as not to inhale the dust from dangerous debris, such as asbestos.
- Use a cell phone to call 911 and notify rescuers of your position.
- If you're not trapped, then use precaution when walking around the streets. Stay clear of roads, bridges, and buildings that may have been damaged.
- Expect aftershocks. Sometimes one large earthquake can have several dozen aftershocks of varying strengths. Repeat the precautions above.
- Inspect your home for gas leaks, water and sewer line damage, and electrical problems. Don't turn on appliances until you've had them inspected for safety.

**Take Note!** Just because your area hasn't ever experienced an earthquake or you think they are very rare doesn't mean you aren't vulnerable. Fault lines lie beneath many states, which means that earthquakes are possible when those faults move and slip underground. In 2010 a significant earthquake hit New Zealand, causing massive damage and casualties.

Similarly, in 2011, the Mid-Atlantic experienced an earthquake that damaged historical buildings in Washington, DC, including the Washington Monument. Also factor in places you visit often or where you vacation. Earthquakes can happen any time of year. To find out more about your earthquake risk, check out <http://www.usgs.gov>.

## Chapter 6: Wildfires

**10-Second Tip:** Stay indoors and limit your exposure to unhealthy air pollution as much as possible. Prepare for evacuation by packing up all important documents, photos, and medications in a waterproof bin. If the wildfire heads toward your home, follow evacuation routes to safety. Your home is not worth risking your life for.

### Brief description

Wildfires are a sight to behold. Often spanning thousands of square miles, they can suddenly flare up in a strong wind and leap across canyons, fire breaks, and suburban blocks, catching people off guard. Many wildfires are contained before they reach areas of significant population; however, it seems like every summer, at least one fire becomes difficult to control and threatens the homes and lives of thousands of people, especially those in dry, mountainous areas of the country.

If your community is threatened by an approaching wildfire, the most important thing you can do is pack up any valuables and take your family through the evacuation routes to safety. Every significant wildfire comes with an equally tragic tale about a homeowner determined to save his property. These people stay behind, spraying water around and on their homes and cutting fire breaks in their yard. Often, they refuse to leave, even as flames surround the property—by then it's usually too late to escape.

If the fire is in the distance but has polluted the air with smoke, stay inside as much as possible. And be sure to keep your kids inside with the windows closed. Children's lungs are more vulnerable to the small ash particulates produced by large fires, which can lead to breathing problems and illnesses like bronchitis and pneumonia. If your child has asthma, it's particularly important to keep her out of the pollution.

If the fire comes closer and an evacuation order is issued, you may only have minutes to leave your home. There are several steps you should take:

### What to do if you're at home

If you're at home when a wildfire warning is issued, you have little time to spare:

- Grab all of your important documents, including insurance papers, photographs, deeds, and titles to property. Put them together in a waterproof bin or basket to take with you when you leave. You may need these later for insurance purposes.
- If you can, take any laptops, tablet devices, cell phones and chargers, and other small electronic devices. Not only are these expensive to replace but they'll help you keep kids entertained and assist you with filing claims later, once you have access to the Internet.
- Be sure to pack any medications or special dietary supplies. You may not have access to a pharmacy or prescription anytime soon.

- Put your pets in their crates and grab their food, medications, and a few toys and blankets to keep them comfortable on the road and once you're in a shelter/hotel.
- Call ahead to a hotel or shelter to see if they take pets. You may have to drive a while to find a hotel that isn't booked up that also has room for this other member of your family.
- Before you leave, lock your home and secure all windows. Hopefully your home will survive the blaze; you want to make sure it also survives any opportunistic thieves that might target the area.
- Notify friends and family that you're safe and where you're going so they can reach you.

### **What to do if you're in a car**

Evading a blaze while in a car is easy, if you follow these simple steps:

- Do not drive into the blaze, no matter how small it may seem. Sudden wind gusts can intensify a fire and a car is little protection against the heat.
- Follow evacuation routes and stop to fill up your gas tank at the first available opportunity. You may have to drive a while to find a shelter or hotel that isn't full.
- Distribute snacks and games to your kids to help distract them from the chaos. Play music or sing soothing songs to help alleviate stress.
- Call family and friends to let them know you're safe and where you are heading.

### **What to do if you're in public place**

Few people get trapped in public places during a wildfire since, generally, there is ample warning. However, if you find yourself trapped, do the following:

- Tie a damp handkerchief or wet rag around your mouth and nose; do the same for your family members.
- Hike away from the flames and smoke as fast as you can.
- If you have cell phone service, call for help. Flames can move very quickly and you may have difficulty outrunning the fire.
- If you're in a public place when the fire approaches, check with officials to see if you have time to return home. If not, don't risk it. Proceed to the evacuation route.
- Call family to make sure they know to leave the area, as well.

### **What to do once the fire is over**

Even after the fire is over, smoke may continue to be a problem. Here are other steps you can take:

- Once the fire has passed, wait until officials have given the all's clear to return home. You're likely anxious to check on your property, but returning home early may not be safe and it may hamper rescue and fire containment operations.
- If your property was damaged, realize that you're lucky. You have your family and can start over again.

- Be sure to call your insurance company to file a claim.
- Register with the Red Cross and check with FEMA to see if you qualify for federal assistance.
- If you return to find your property unharmed, be sure to thank your local emergency professionals for their hard work.
- Check with neighbors to see if others need assistance or a place to stay. Pay your good luck forward.

**Take Note!** Even if you're hundreds of miles from a significant wildfire, your area can experience poor air quality, especially in summer when a high-pressure system can cause a heat wave with stagnant air (read: no wind). If a member of your family has asthma, pneumonia, allergies, emphysema, or other respiratory issues, take extreme precautions. Even if you can't see or smell smoke, fine particulates from ash can hover in the air for months afterwards. It's also good to know when your area experiences its peak wildfire season, which may not be summertime. In Virginia, for instance, wildfires peak in late winter. To find out about air quality in your area, consult the website <http://airnow.gov>.

## Chapter 7: Floods

**10-Second Tip:** Make sure you escape a flood without getting in the water—don't drive into water on the road and don't wade into floodwaters of any depth. Even a few feet of floodwater can sweep you or your vehicle away. If you're at home, move to the highest floor (or climb out a window to the roof) and stay there until help arrives.

### Brief description

Flooding can happen almost anywhere, even if you don't live in a designated flood plain. Why? While most people consider the potential for flooding around rivers, creeks, and oceans, a significant amount of rainfall or a breach in a man-made water containment system, such as a dam, can cause your family to lose tens of thousands of dollars in property and threaten your life. Flooding can include a few inches of water in your basement or several feet covering the streets outside.

If you've had even 2-3 inches of rainfall per hour from one storm, or from several storms that move slowly, you're at risk for flooding. This is especially true in cities and suburban areas where gutters can overflow quickly and detritus from yards and streets can get swept into storm drains, clogging them. Within your home, sump pumps and gutters can also become clogged and inundated, increasing the chances that your basement will flood or your roof might leak.

It can take hours, or even days, for water levels to return to normal again, which means that cars and homes have a greater chance of getting damaged.

### Watches versus Warnings

**WATCH:** A flood watch means that conditions are right for local rivers and creeks to overflow or for rainfall to cause mudslides and oversaturation of the ground. In urban areas, it may mean that city storm drains could become dangerously overwhelmed.

**WARNING:** A warning signals immediate action since water already has risen enough to endanger lives, businesses, and other property. Your best move is to avoid getting in the water at all, whether that means avoiding flooded roads or staying in your home.

### Watches: What to do right now

You have a limited amount of time to ensure that your basement floors are clear of any vulnerable property, such as cardboard boxes or bags filled with important papers, photographs, and clothing. Move these upstairs or onto shelving units at least 4 feet off of the ground, as most basement floods average 2 feet of water.

If there will be more significant flooding soon, enlist the help of friends and family to help sandbag your property, paying close attention to doorways and below or at-ground windows, where water is most likely to enter your property. Check with emergency management officials to find out where you can get a supply of sandbags.

### **Warnings: What to do right now**

If conditions are dangerous enough, you may have orders to evacuate. Don't take these directives lightly. Pack all valuables into your car and get yourself and your family away from the flood area as soon as possible. If you drive through areas that are flood prone, have a plan to reach your destination if those areas flood.

### **What to do if you're at home**

If you're caught in a flood in your own house, do the following:

- Move to the highest floor of your home with your children, pets, and (hopefully) a plastic bin containing valuable photos and paperwork.
- If you don't have a higher floor, climb onto the roof through a window and call 911 for help.
- Do not enter the water since it may be moving forcefully enough to knock you down. It may also contain raw sewage and other dangerous chemicals.
- If you must get in the water, swim out of your house and try to climb onto the roof or into a nearby tree. Remember the current is likely to be stronger than you or your children can handle.

### **What to do if you're in a car**

If you're in a vehicle when the roads flood, take immediate action:

- Do not, under any circumstances, drive into a flooded road. Even if the water looks like it's only a few feet high, just one foot of water is enough to sweep away your vehicle. As the National Weather Service says, "Turn around, don't drown!"
- If you are caught in the water, call for help immediately. Chances are you won't be able to regain control of your vehicle and will need to be rescued.
- Open windows immediately so you don't get trapped inside the car if it sinks, and help your kids stay calm.
- Climb carefully onto the roof of the car if it begins to submerge and swim away from it once it begins to sink.
- Ensure your children are unbuckled and help them out of the car to the roof. Getting trapped in a car underwater is rarely survivable.

### **What to do if you're in public place**

People caught in public during a flood have options, too:

- Follow any law enforcement or emergency management directions.
- Get in your car and drive away from the flooded area.
- If you're trapped in a public building, such as a store or library, stay there and climb to the highest floors.
- Call 911 for help.

### **What to do after the flood is over**

- Use caution when re-entering your home after it's been flooded. Electrical lines and power outlets can cause a fatal electrocution in just a few inches of water.
- Call your insurance company and file a claim.
- Schedule a flood abatement service to dry out and vacuum up your flooded home as soon as possible.

**Take Note!** You might not think you need flood insurance because you don't live in a flood plain; however, most homeowners insurance policies don't cover the cost of flooding, regardless of the cause. Have a leak in your basement? Flood insurance covers that. A water main breaks down the street and floods your home? Flood insurance covers that. Hail damage or fallen trees rip a hole in your roof that allows water to flood your home? Flood insurance covers that. See a pattern? Even if you don't think you need this type of insurance, it's a good idea to check with your company to see just what your plan covers—and how much it might cost to add a flood policy. You might be surprised how cheap coverage can be, a small price to pay for the peace of mind it will offer you.



## Chapter 8: Biological, Chemical, and Nuclear Disasters

**10-Second Tip:** Minimize your family's exposure to the toxin that has been released, usually by heading indoors, closing all windows and doors, and covering your mouth and nose with a cloth or mask. If the exposure originates indoors, immediately leave the building and head to a hospital for decontamination.

### Brief description

In a post 9/11 world, we live with a heightened fear of terrorist attacks, which could happen on a plane, in a subway, or in our own back yards. But as the power plant meltdowns at Three Mile Island or in Fukushima have taught us, terrorists are not the only—or even the most likely—source of biological disasters. Nuclear power plants pepper our countryside and trucks and trains haul tons of biological and chemical toxins, such as pesticides, along our freeways, and sometimes, through our neighborhoods. When these machines break down or fall victim to accidents or neglect, our water supplies are vulnerable, as is the air we breathe.

Disasters of this nature can come in the form of aerosols, liquids, solids, and chemical vapors. Most often, contamination occurs when people breathe in dangerous fumes or when particulates enter their bodies through the skin or eyes.

Often, you won't know about a disaster of this nature until it has occurred, which means you'll have less time to act than you might with a forecasted weather event. Still, as with most disasters, every second counts.

A disaster of this sort requires a different sort of action, based on where you are when it occurs.

### What to do if you're at home

If you're inside and hear through television, radio or word-of-mouth that there is a disaster outside, whether it's chemical, biological or nuclear, tune into local officials. They may ask you to leave or shelter in place:

- If there is a nuclear disaster close to your home, you need to leave immediately and move perpendicular to the nuclear cloud or away from the power plant. You only have minutes before the radioactive fallout begins.
- Try to find shelter underground in a cellar or underground room that is at least 10 miles from the disaster site.
- If you can't get underground, go to a very tall building and seek the middle floors, at least 2-3 floors from the bottom and the top, where radioactive material is the strongest.
- Stay inside for at least 48 hours so that radioactive levels can decline.

If the disaster is biological or chemical, close all windows and doors and turn off any air conditioning or heating units that might circulate the toxin.

- Grab your emergency kit, cell phone or landline, and radio, so you can stay connected to information and other family members.
- Text or call family members to let them know where you are and to spread the warning.
- Move to the most interior room in your house with your family and seal off the room as best you can with wet towels, sheets, or other cloths.
- Stay put until you're notified it's safe to leave the house.
- If you were exposed to the toxin, change your clothes and take a shower to decontaminate.
- Contact medical professionals immediately. If you've been exposed to a contagious agent, expect to be quarantined while being treated.

### **What to do if you're in a car**

If you're in a car when a man-made disaster occurs, you have options; again, the best one is to listen to local officials. They may ask you to do the following:

- Immediately turn off all air conditioning and heating functions on your car, roll up the windows, and tie a rag around your nose and mouth.
- If the disaster has affected your home, leave the area and drive to a hotel or shelter that is at least 10 miles away. If it hasn't affected your home, drive home and take the precautions listed above.
- Strip off your clothes and take a shower to decontaminate.
- Notify friends and family of your whereabouts, and stay tuned to news stations for further actions.
- Seek medical attention when it's safe to do so. If the agent you've been exposed to is contagious, expect to be quarantined while being treated.

### **What to do if you're in public place**

If you're somewhere other than your home when the disaster occurs, do the following:

- If the disaster is a nuclear one, you need to move perpendicular to the cloud or the power plant.
- Try to find shelter underground in a storm cellar that is at least 10 miles from the disaster site.
- If you can't get underground, go to a tall building and seek the middle floors, at least 2-3 floors from the bottom and the top, where radioactive material is the strongest.
- Stay inside for at least 48 hours so that radioactive levels can decline.

If the disaster is biological or chemical and you're outside, cover your nose and mouth and head indoors.

- Go to the most interior room of the building and seal it off with wet towels or clothing.
- If you've been exposed to the toxin, remove clothing and shower or rinse off.
- No shower? Use a water bottle to rinse off. Put on clean clothing.
- Use a cell phone to notify officials about where you are and how many people are with you.

Seek medical attention when it's safe to do so. If the agent you've been exposed to is contagious, expect to be quarantined while being treated.

### **What to do once the disaster is over**

Once you've been told it's safe to move about, be sure to do the following:

- If the disaster was nuclear, stay indoors and away from the contaminated area to avoid residual radioactivity.
- Contact the Environmental Protection Agency for further instructions on how to decontaminate your home and your family.
- Dispose of contaminated clothing and other materials according to procedures outlined by emergency officials.
- If you've been exposed, either through breathing in toxins or having them touch your skin or eyes directly, seek medical attention at the nearest hospital away from the source of the biological agent.
- Register with FEMA so that they can get you any assistance you might need.

**Take Note!** In spite of the hype, you're more likely to get struck by lightning than to be a victim of a man-made disaster involving chemicals and nuclear fallout. Still, it's important to be aware of the types of disasters to which your family is most likely to be exposed. Are there nuclear power plants in your area? Are they in good condition? What are the procedures that companies use to alert the public of potential problems? Do you live near a major freeway or highway? Is it a main thoroughfare for companies hauling dangerous chemicals, such as pesticides, petrol, or nuclear waste? To find out about the location of nuclear power plants in your area, visit <http://www.nrc.gov/info-finder/reactor/>.

## **SECTION 3: EPILOGUE AND APPENDICES**

## Epilogue: What do I do now?

After the emergency has passed, be sure to do the following:

- If you or your family member is injured, seek medical attention immediately.
- Be aware of your surroundings. Just because a natural disaster or weather event is over doesn't mean that danger has passed. Gas leaks, downed power lines, and debris can be just as deadly. Wildlife will also be disturbed, so be cautious around beehives, for example, or animal dens.
- Contact family members using a cell phone or land line as soon as you can. If phone lines are overwhelmed, send text messages, if possible. Information about the emergency is sure to spread over the news and you won't want them to worry unnecessarily.
- Alert local law enforcement and emergency crews via 911. They may not know yet that your area has been affected and will need to know the nature of any injuries or problems.
- Notify your insurance company that you'll need to file a claim. Most businesses will give you at least 36 hours to contact them, but individual policies vary. And while you might not feel like talking about what's happened yet, you need to protect your family financially.
- Contact your local Red Cross chapter. You can register with them as a disaster victim and receive assistance in the form of food and shelter. You may also qualify for disaster assistance through FEMA. Call 1-800-RedCross or 1-800-FEMA for help with this process.

Above all else, be sure to recognize that you and your family have just experienced a tremendously stressful event, one that could take weeks or months to recover from. Be compassionate with yourself and your children.

Talk with your kids about what has happened so they understand that you'll do everything to keep them safe. And listen to their fears; let them talk about what has happened as often as they need to. It's okay to admit you're scared, too, and that you need help. Seeing adults admit their fears goes a long way toward soothing a child's concern.

If your children experience anxiety, nightmares, and changes in eating or sleeping habits for longer than a few weeks, call your pediatrician. Your loved ones may need professional assistance and counseling to fully recover from their experiences.

While nothing can take the place of preparation—creating an emergency kit and family plan ahead of time—there are still things you can do to protect your family right now. For any emergency, your first step should always be to stay calm and go somewhere safe.

## Dedication and Acknowledgments

***Big Storm Coming!*** is dedicated to the thousands of families who have survived severe weather and natural disasters. Their harrowing stories continue to inspire me throughout the seasons, year after year.

In particular, I'm grateful to the citizens of Joplin, Missouri; Hallam, Nebraska; Greensburg, Kansas; Saragosa, Texas; and, in my own back yard, Pulaski, Virginia, whose tragic experiences with deadly tornadoes shaped me as a writer, student, and scholar.

I'm indebted to Christina Katz for her guidance in writing this e-book, to the many reviewers who donated their time to make it more helpful (Mike, Janine, and Heidi), and to my husband, Dane, fellow storm chaser and my first and best reader.

## Appendix A: Emergency Kit Know-How

Assembling an emergency kit is one of the most significant precautionary steps you can take to help keep your family safe and comfortable in the event of a disaster. Often regular social and civic services shut down, leaving families to take care of themselves, sometimes for three or four days. Even if you do find yourself in a shelter, supplies are often rationed and might not meet individual family needs.

You can create a family emergency kit and then supplement supplies with individual kits, including one for each child. Having a few treasured personal items and favorite snacks will help kids feel more relaxed and assembling kits together gives parents an opportunity to talk through the family plan with everyone (see below).

Every family kit should include enough of the following for three to four days:

- Water, enough for each person (1 gallon per person, per day)
- Nonperishable, high-protein, high-calorie foods like granola, pop tarts, jerky, canned tuna (with pop-top lids), peanut butter or other nut butter, dried fruits, and cereals
- Baby food, formula, diapers, and other infant-related products
- First aid kit, including any medicines, which you should rotate every few months
- Copies of insurance documents, medical records, identification, and other important papers—laminated, of course
- Blankets, pillows, extra clothes and shoes
- A few favorite toys, board games, and books
- Flashlight, lantern, candles and lighter
- Pocket knife, rope, and dust masks
- Extra cash, in small bills (\$100 is a good amount)
- Paper towels, toilet paper, wet wipes, antibacterial gel, and a few towels
- Diapers, wipes, and any other personal items
- List of emergency contacts
- Extra batteries and a cell phone charger
- Books, games, a music player with relaxation CDs

### Emergency Plan

One of the most vital conversations you have with your children is what to do in case an emergency. Consider where your family will meet up, what numbers you'll call, and how you'll report to family so they know when you're safe. Practice safety drills at least once a year, and consider timing them to coincide with drills held by local schools and community centers.

A family plan is simple: it's a plan of action unique to each family that ensures two things: 1) everyone knows what to do and where to meet during an emergency, and, 2) other

people outside your family know how to reach you. Check out the Red Cross for more detailed information: [www.redcross.org](http://www.redcross.org).

## **Home and Insurance Preparation**

- One of the most important protective financial measures you can take is to ensure you have sufficient home insurance, one that will cover the cost of rebuilding as well as the replacement cost of your belongings.
- Even if you don't own a home, renter's insurance can offer you an affordable safety net of compensation to find a place to stay while you rebuild your life.
- While you're talking to an agent, consider documenting your home and your possessions for insurance purposes. Using a digital camera, take photographs of both the inside and outside of your home. Go through each room and record significant purchases, which you can put on a flash drive and store in a fire-safe box.<sup>1</sup>

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<sup>1</sup> See Vigeland, Tess. "Lessons from Another Storm." *The New York Times*. Nov. 13, 2012.



## Appendix B: Tips for the Other Family Member: Your Beloved Pet

There's nothing like the love and loyalty of your beloved pet. While pets give us great enjoyment and comfort, they also depend on us for their daily routines, including feedings, grooming, medications, and play. During severe weather and natural disasters, however, their lives are most directly in our hands.

Treat the preparation for a pet the same way you would your child. Most importantly, if you have to evacuate, do not leave your pets behind—your furry friends might not survive being abandoned as they can't fend for themselves.

1) Make sure your pets are up-to-date with vaccinations, medications, and most importantly identification tags. Consider getting your pets microchipped so that they can be more easily returned to you. It only costs \$30-40 per pet and lasts a lifetime, though you'll need to keep the information current for the microchip process to work. Talk to your vet for more information.

2) Create an emergency kit for each pet including the following:

- A pet carrier or cage for each pet
- 4-5 days of canned foods (with pop-top lids, if possible)
- Food dishes, flashlight, and paper towels
- A gallon or two of water per pet per day, depending on their size
- Disposable litter trays and extra litter
- Extra collars, leashes, chew toys, etc.
- Medications and copies of medical records
- Blankets and pillowcases to scoop up scared pets and keep them warm
- A recent photograph in case you get separated

3) Identify an evacuation route that will take you and your pets to safety and plan for where you'll take your pets if you have to go to a shelter. Most shelters won't accept pets, so call your vet ahead of time for recommendations on kennels, animal shelters, and pet-friendly hotels along your evacuation route. Consider asking friends and family to serve as designated caregivers should you need help with your pets for longer than a few days.

4) Larger pets, such as horses, and other types of pets like lizards, snakes, fish, and even birds, may require special care. Ask your vet about emergency care options or check the ASPCA website at [www.aspca.org](http://www.aspca.org) for more suggestions.

## Sources

Much of what I've written here has been gleaned from expert organizations, such as the Red Cross, or from government agencies, such as FEMA, the Center for Disease Control, and the National Weather Service.

I've also relied on many conversations with members of the meteorological and emergency management community for the most up-to-date information.

From these sources, I've curated what I believe are the most useful tips you can use when every second counts, and I've presented them here in a consolidated, easy-to-access format.

To learn more about information from any one of these chapters, please visit one of the following:

Weather.gov  
Fema.gov  
CDC.gov  
Redcross.org

For information immediately useful to your area, tune into your local television news station, your NOAA Weather Radio frequency, or call your local emergency manager.

## About the Author



A life-long storm chaser, Jen Henderson is a Skywarn Storm Spotter, severe weather safety expert, and natural disaster journalist. For over a decade she has written about her experiences with tornadoes in both regional and national journals, offering the public a glimpse inside the world of amateur storm chasing and disaster recovery.

Jen's articles on weather safety can be found parenting magazines including *New Jersey Family*, *Calgary's Child*, *Houston Family*, *Metro Parent*, *Westchester Family*, and *Atlanta Parent*. She also writes brief science summaries for *The American Scholar*.

Jen is a Ph.D. student at Virginia Tech where she is mapping the tornado warning process from initial forecast to public response. She hopes to improve our understanding of forecasting and weather warnings so that more people take steps to stay safe. She has a family emergency plan in place, enough supplies for her five felines, and a 3-day survival kit for the whole family tucked safely in her basement.

To read some of Jen's work on weather safety or to ask a question related to severe weather preparedness, please visit her website at [www.jenhenderson.com](http://www.jenhenderson.com) or email her directly at [writer@jenhenderson.com](mailto:writer@jenhenderson.com).