

LISA BEDFORD



ONE SECOND
AFTER THE LIGHTS GO OUT

How to **Survive** in a Post-EMP World

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NOTE FROM AUTHOR

The best educated and trained engineers, researchers, and other experts do not fully agree on the effects an EMP or CME will have on life as we know it. Some say that all vehicles will immediately be disabled, other experts disagree. Some say that small electronic devices will likely be just fine because of their very small circuitry, but again, other experts disagree!

What follows is based on my own research, conversations with multiple experts, and common sense. In no way can I guarantee that my advice will be 100% effective for every reader because I do not know your own individual circumstances, and ultimately, that's what survival depends on. There are too many variables in even a simple survival scenario, much less something incredibly complex like an event catastrophic enough to electronically destroy our nation's power grid system.

This book focuses on the effects of an EMP, Electro-Magnetic Pulse, a Coronal Mass Ejection (CME), and cyberterrorism. However, as you read through this very practical book, you'll soon notice there are dozens of tips and bits of information that will help you prepare for a multitude of other crises.

Lisa Bedford

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One Second After the Lights Go Out

How to Survive in a Post-EMP World

By Lisa Bedford

Somewhere in America lives a prepper who has not read *One Second After*. No doubt, she sleeps very soundly at night, believing her future will never be marred by much more than a natural disaster or “everyday disaster”, as I call them. She has her food storage pantry filled, numerous water barrels filled and at the ready, and her faithful bug out bag packed and ready to go.

The rest of us are not quite as serene, in spite of being just as prepared. Thanks to numerous novels about the effects of an EMP on our nation’s power grid, we know how quickly our civilized world could unravel. *One Second After*, alone, has caused thousands to become preppers overnight. Even a short-term power outage illustrates our dependence on the flow of energy through this grid for communication, light, and everything else we need to survive.

But what if an EMP does occur? What if our power grid is shut down in a moment by cyberterrorism or a Coronal Mass Ejection (CME)? Do you have plans you could activate in a moment in order to increase your chances of survival? While everyone else around you sits and waits for the power company to arrive, you could already have the family gathered, supplies double-checked, and ready to hunker down for the long haul.

Simple steps, such as a written plan of action, checklists, and priorities for such an event will help your mind focus on the most immediate, most vital steps and, hopefully, avoid a period of time in which normalcy bias screams, “It’s just temporary. There’s nothing to worry about.”

It’s during those minutes, hours, and first few days that proactive, focused steps will make the difference between your survival and a quick death. And, it’s not all about you! Your children, grandchildren, and other loved ones will depend on you to make smart decisions that will affect their survival, too.

Isn’t this another Chicken Little story?

I’ve been a part of the survival/preparedness niche since late 2008, and I have to be honest with you. Even I get tired of the constant doom and gloom and the setting of dates for catastrophic events. In spite of a degree of ennui, I still tense up with one expert or another predicts, “Imminent collapse of our banking system this fall,” or “2017 is the year when everything will fall apart.”

When it comes to threats against our power grid, there are valid reasons to be concerned. Power companies have long been aware of the dangers to their facilities but have chosen to not take proactive steps to protect their equipment from an EMP or CME due to the high cost involved. So far, their gamble has paid off, but all that could change in a moment.

All the pieces are in place for a nuclear EMP attack via the detonation of a nuclear missile in the atmosphere above our country, which would be the most likely cause of a widespread EMP:

1. A complacent citizenry, nearly completely reliant on the power grid and internet
2. Unprotected power stations that make up our nation’s complex grid system
3. Multiple nations and other entities who view the United States as their primary enemy
4. Nations and entities led by irrational fanatics who have access to just the type of weaponry needed to create an EMP event

It’s actually surprising that an EMP attack hasn’t already happened. Russia, North Korea, and China already have weapons that are designed to cause EMP, and who knows what weapons and capabilities might be in the hands of terror groups not aligned with any particular state.

Cyberterrorism is another real threat. Small attacks on our grid system happen frequently. USA TODAY reports that about once every four days, our power grid experiences a cyber-attack or, in some cases, an actual, physical attack. In 2013, unknown assailants fired over 100 rounds at a large transformer in California. This coordinated attack included severing six underground fiber-optic lines and was a definite attempt at sabotage. Those attackers were never identified, much less apprehended.

U.S. energy, water, and fuel distribution systems have already been hacked by several foreign governments. What better way to take down the most powerful nation on the planet than by crippling its most necessary infrastructure – water, fuel, and power?

Virtually every industry in our country relies on the internet, which, itself, is all too easily hacked.

Ultimately, Mother Nature could have the final word and oversee the destruction of our power grid in the form of a Coronal Mass Ejection. A CME is a giant cloud of solar plasma, a billion tons or more, saturated with magnetic field lines. That material is flung into space at mindboggling speeds, and occasionally, earth is their target. A large enough CME would impact our power grid and communication system.

In spite of our nation's wealth, military power, and massive advances in technology, all that could come to an abrupt end in a matter of seconds thanks to any one of these causes.

The potential danger of a CME has been known for many decades. A particularly huge CME in 1895 caused the northern lights to be seen as far south as Cuba! Cyberterrorism is occasionally in the news and our national security experts are well aware of that threat, but is anyone speaking up about the dangers EMP presents to our country, besides survivalist fiction writers?

- R. James Woolsey, former Director of the Central Intelligence Agency, has written and warned about this scenario using the phrase, “urgency of the EMP threat.”
- Paul Singer, a billionaire hedge-fund manager who wrote that an EMP is, “the most significant threat” in the world to the United States and our allies.
- In 2014, Dr. Peter Vincent Pry wrote of, “EMP Threat From North Korea, 2013.”

In the spring of 2016, Scott Aaronson of the Edison Electric Institute, informed a Senate committee that preventive steps to protect our grid is a must. Our 35,000 substations are soft targets to both EMP and cyberterrorism, and, he said, “The threats continue to evolve.”

The warnings have become louder and the concern more intense, but those in power seem to not hear. Therefore, it's up to individuals, families, and communities to prepare for the devastating loss of our power grid.

About our power grid system

America has 3 separate power grids, the Eastern grid, the Western grid, and the Texas grid, which is owned by Texas. These 3 networks are not connected with each other. Therefore, if one should go down, it cannot get energy from the other two.

These grids connect power generating plants with giant transformers that, once installed, weigh over 800,000 pounds. From these primary transformers, power is transmitted along high voltage lines that connect with smaller transformers and substations, which ultimately bring power to homes, businesses, and industries.

As impressive as our generating stations are and as complex as the system is, there are numerous weaknesses that make it vulnerable to an EMP.

The giant transformers that collect the initial power generated would be rendered inoperable by an EMP. These transformers are not built in the United States. Our country no longer has the forging equipment to make something that large. It generally takes a couple of years to build transformers this size, and that's assuming that current infrastructure is in place and functioning. In a big enough crisis, it might be possible for a power station to procure one of these giant transformers more quickly, but that isn't something anyone should count on.

Even though many power plants have backup transformers, these, too, could be disabled by an EMP unless they are protected in some way.

Another weakness in our power grid system is the reliance on backup generators for the continued operation of our power plants. The concept is great and will work during a typical catastrophe, such as a hurricane, earthquake or short-term blackout. However, the pulse generated by an EMP will affect most of the systems that keep these plants running, and that will most likely include the backup generators. Even if some of the generators remain in working order, they will still need an indefinite supply of fuel to maintain a level of energy production, and the production and transportation of that fuel will be just as affected by EMP than the generators themselves.

Finally, there is the human element. The people who run these power plants also have children and loved ones that they will want to protect and provide for in the event of a catastrophic event. In fact, they, more than most of us, will quickly realize the implications of the power grid failure. It's unreasonable to expect them to continue on their jobs, against all odds and in constant danger, in order to make Herculean efforts to restore power – if that would even be possible. Without the necessary staff on hand, the plant cannot continue to operate.

What's the use?

It's impossible to stock up on a forever-supply of food, water, medications, clothing, ammunition, etc. At some point, even the most prepared, organized, and well-funded prepper will open that last can of soup, look out on a failed food crop, and realize the gravity-fed well has run dry. So what's the use?

The point of preparing for this, or any other crisis, is buying time. If you have 6 months' worth of food, that is six months that you can spend focusing on other aspects of survival, while having enough to eat every day. During that time frame, you can begin to plant food, if you haven't already. As the weeks progress, there will be time to barter and acquire supplies to further improve your chances of survival. Stored "preps" provide a cushion of time, just when you will need it most, even in a world without our power grid.

One of the main reasons my husband and I began preparing and, thus, became part of the prepper movement, was for our kids. When I would start despairing about a future calamity, I would remind myself, "There's one thing worse than having to deal with that horrible event, and that's my kids having to deal with it alone, without me." Every single time, that thought recharged my batteries.

The Importance of Having a Written Plan

Have you ever experienced a time when you were under intense mental and emotional pressure and you could barely function or make a decision? That mental state is described by some as, The Black Zone. Your brain is sending furious signals that you must do something while simultaneously signaling you to freeze.

During those moments, a small group of neurons located in the brain respond to high levels of perceived stress with commands to flee, fight, or freeze. You'd better believe that your amygdala, a small section of the brain, is going to be firing those commands like crazy once the reality of a world without power hits home.

Ironically, every single one of those commands is the worst possible thing you could do! If you mindlessly flee, you'll be leaving behind the safety of your home, your survival supplies and other preps, supportive family and friends, and charging out into unknown danger.

Follow the fight command, and you could be looking at becoming the first homicide casualty on your block. Everyone else is going to be afraid, confused, and some will be just as aggressive as you, but bigger, meaner, and better armed.

If you freeze and do nothing, you'll lose valuable minutes and hours in which you could be taking some of the most important steps to insure your survival and that of your loved ones.

All things considered, your amygdala will be actively working against you. One way to help avoid this is to have a written plan of action, and that is the main purpose of this book.

Don't over-estimate your ability to make decisions and remain calm under an intense level of duress, and remember, your family and group members will be under just as much stress as you. Combined, you could have a real disaster in the making if the most critical decision makers cannot follow through with previously laid plans.

Let's assume the worst

Planning and preparing for everyday emergencies and worst case scenarios is the smartest thing anyone can do. The suggestions in the following pages are not based on fear or paranoia but are simply practical, common sense. They may not all apply to you in your particular set of circumstances, but keep in mind that circumstances change. A family living in the heart of the country, complete with a thriving homestead, may have to move to a large town or city for employment or to be closer to aging family members. You may not have an infant in the family today, but 9 months from now all that could change!

Use this book as a source of ideas you may not have thought of and as a starting point for discussions and taking action. Most everything presented here will help you survive and thrive throughout many potential disasters, not just the loss of our power grid.

Finally, I have assumed that the reader of this book is in the process of becoming prepared with food and water storage, emergency kits, survival supplies, and the like. If you need assistance with these initial, foundational steps, please refer to my book, *Survival Mom: How to Prepare Your Family For Everyday Disasters and Worst Case Scenarios*, as well as the hundreds of survival related articles on my website, TheSurvivalMom.com.

I've also assumed that you, the reader, will be at home or close enough to home to get there within a matter of just a few hours.

The following pages will be sobering, even a little depressing as you begin to realize exactly what a long-term power failure will mean to you and your loved ones. However, the following action plan, complete with suggestions for taking action now, will help you complete your post-grid survival preps.

Within 24 Hours of a Catastrophic Power Grid Failure

When the lights go out, the telephone line dies, and flickering LED lights around the household fade away, those may be signs of an EMP, CME, or cyberterrorism. Your immediate, primary focus must be setting the stage quickly for your family's survival and time is already running out.

The long term survival of your loved ones and anyone who will become a part of your survival group depends on the actions taken in the first 24-48 hours.

Assess the extent of damage done to your home and property due to the power failure. While experts in various fields have weighed in with their best guesses as to specific results of EMP, in particular, not everyone agrees on what those are. The following steps will help you evaluate your assets and liabilities as a new post-power grid world awaits.

1. First, verify that what has happened is really the result of EMP, CME, or cyberterrorism, rather than a typical power outage.
 - If you have a landline, is the line dead?
 - Are you able to connect to the internet?
 - Looking outside, are many vehicles stalled?
 - Can you contact anyone with your cell phone? Can you send and receive text messages?

Those will all be telltale indicators, but they are not confirmation. Keep in mind that the government has the ability to disrupt personal cell phone service and the internet.

Not all experts are in agreement about how an EMP, in particular, will affect specific technology. If some of your electronics are operable and your car's engine comes to life when you turn the key, count yourself blessed.

2. Move quickly and with purpose. Divide the next several actions among group members. Everyone should have a specific task or set of tasks. Not only will this establish a better chance for survival because more tasks will get done more quickly, but it will give each person a focus, beyond current circumstances and help allay fear and panic.

ACTION STEP: Decide beforehand who will be responsible for each of these First Steps and keep a written list of assignments. This will greatly help in the first confusing minutes and hours.

A few vital first steps to delegate:

- Attempt to turn on each vehicle, including motorcycles, ATVs, golf carts, tractors, all motorized vehicles. Transportation could become
- Check for fires in neighboring houses. It's possible that the powerful electric surge of EMP could ignite electrical fires and without help from the fire department, these could quickly spread.
- Fill bathtubs with water, preferably using a WaterBOB or a similar product in order to keep the water untainted.
- Fill sinks and every large container with water. Additional WaterBOBs can be placed on the floor or ground outside and filled.

- Assign one person the task of picking up the kids.
 - Look for any device that has the current time and is still running.
 - Collect all cash, including coins.
3. Accept what has happened and focus your mind on surviving. You've prepared for a worst case scenario such as this; you have multiple supplies and plans in place, and are far better off than 90% of the people around you. Accept and adapt. Your mindset will become the most powerful survival tool you have.

Panic attacks, sleepless nights, irritability, and inability to focus are all symptoms of extreme stress and are perfectly understandable, and you will have to deal with them. However, your loved ones are counting on you to lead them through this worst case scenario.

For many people, maybe even you and members of your family, normalcy bias will affect their decisions, judgment and actions. This mental state occurs at times of intense crisis and is the brain's way of sending the message that all will be well. It can cause even the most intelligent and prepared among us to underestimate the extent of an event and remain unnaturally calm and unable to take action.

ACTION STEP: Learn the technique I call, "The 16-Second Survival Breath," which forces you to concentrate on your breathing and activate the logical side of your brain as you focus on counting. Learn and practice these steps and teach them to your kids:

1. Take four seconds, 1, 2, 3, 4, to inhale, taking a slow, deep breath.
 2. Hold that breath for four seconds, 1, 2, 3, 4.
 3. Exhale slowly to the count of four, 1, 2, 3, 4.
 4. Relax for four seconds before taking the next breath.
4. Unless you have your own water well and a manual pump, water will quickly become a top concern and your community likely has only 24 hours' worth of water in its supply system. Your municipal water system may be able to run on generator power for a while, but once the generators run short on fuel, running water will quickly become a distant memory.

Quickly fill each bathtub, sink, water barrel, trash can, and all other large containers with water. If you have a waterBOB, use one in each bathtub to make sure that water is clean. (A waterBOB is a water container that is made of heavy duty food grade plastic.) Otherwise, wipe down the tub and sinks with bleach before filling. Be sure to open both the Cold and Hot water valves.

In the initial aftermath, use tap water first and once it has run dry, then begin using your stored water. From this point forward, any water gathered from rainfall, a well, swimming pool, or any other source will need to be purified before drinking, and that includes water stored in less-than-clean sinks and bathtubs.

Your city's water system will very likely be affected by an EMP, CME, or cyberterrorism. Municipal water systems are vulnerable because they run on electricity. They have backup generators but those

will be affected. If the generators are operable, they will still run only as long as there is fuel available and once the city water pipes are empty, there's no more water to be had. If you have other sources of water, such as a nearby stream, lake or a well, consider yourself very blessed.

ACTION STEP: Purchase a waterBOB for each bathtub in your house. It's the easiest way to quickly store up to 100 gallons of water. Once filled, it will weigh 800 pounds, so until it's drained, you won't be able to use the bathtub for anything else.

You can also spread a waterBOB outdoors, preferably in the shade, and fill it with a garden hose. According to the manufacturer, "...it can be filled to capacity without the support of a bathtub." To protect the food grade polyethylene liner from sharp rocks or sticks, lay a tarp on the ground first. Over time, the plastic may degrade, so use this stored water first before tapping into your other sources.

ACTION STEP: Don't rely on your tub's stopper to keep the water from draining over time. Instead, get an old-fashioned rubber stopper at a hardware or home improvement store – one stopper per tub. Make sure you get the right size for your tub.

This is a step you can assign to kids or teens while you move on to assess other damage.

5. If you have a swimming pool, begin using that water for everything but drinking. Without a motor to help keep the water moving and clean, mosquitoes can take over in a matter of days. Clean pool water can be used for:
 - Bathing – Pour water into a solar shower, give it time to warm up, and enjoy the closest thing to a nice, hot shower that you'll have for a long time!
 - Flushing toilets
 - Laundry
 - Water garden (fruits and vegetables – not flower beds or the lawn!)
 - Household cleaning

Pool water isn't safe to drink because of all its accumulated minerals and chemicals. Even when it's clean and sparkling, it's not a good source of drinking water. Each time chlorine is added to the pool, you're also adding a dose of stabilizer. Stabilizer is required to keep the chlorine from evaporating too quickly, and over time, the amount of stabilizer increases, along with minerals, including chlorides, sulfates, calcium, and magnesium. Together, these cause a laxative effect, which is the last thing you want to experience in the middle of a world-class crisis!

Along with those minerals and the stabilizer, chlorine resistant bacteria may also be present, such as Giardia and Crypto. Bottom line, if you have a pool or have access to one, you'll use that water for other purposes, leaving your stored water for drinking, cooking, and brushing your teeth.

ACTION STEP: A swimming pool, regardless of whose backyard it's in, is going to become a health hazard for everyone in the area. Between the growth of algae, bacteria, and providing the perfect breeding ground for mosquitoes, it spells trouble.

You can prepare to prevent this from happening to pools nearby by purchasing inexpensive pool shock and keeping it stored in glass, quart canning jars. Pool shock, which is mostly calcium hypochlorite, can deteriorate metal and plastic over time and should be stored in a cool, dry location.

With this extra pool shock, you can, with your neighbor's permission, treat their pool and, for a time, keep the water in that pool as clean as possible.

6. Check to see if any vehicles can be turned on. Does the engine turn over or is it completely dead? Remember to check motorcycles, dirt bikes, ATVs, and any other motorized vehicle, even golf carts. Having a faster mode of transportation than just walking or riding a bike will be a huge advantage.

ACTION STEP: Even if your vehicles are disabled, keep the doors locked and in a garage or carport, if possible, to protect them from vandals later on. Until the gasoline or diesel deteriorates, you'll need the fuel, and the vehicles themselves contain parts and other items that will be useful in the future.

Whether or not any particular vehicle will be affected by EMP is mostly unknown. Some researchers believe that all vehicles, running or not, will be disabled, but others disagree, saying the effects will depend on where the car is parked, its direction in relation to the nuclear detonation initiating the EMP (if that is the cause), the age of the car, and other considerations.

Arthur T. Bradley, author of *Disaster Preparedness for EMP Attacks and Solar Storms*, estimates that only about 30% of vehicles will be completely disabled. Others may have a momentary glitch in operating but then will return to normal operation. In any area with a lot of street and highway traffic, though, stalled vehicles will cause difficulties for everyone, including those whose vehicles are still running.

Regardless of whether or not your own vehicles continue to run, there is one factor that will most certainly sideline all vehicles eventually and that is the lack of fuel, both gasoline and diesel.

Whatever the cause, anything powerful enough to take down our nation's electrical grid will be powerful enough to affect gasoline production and its transport across the country. Further, the pumps at gas stations will likely be disabled, since they are powered by electricity. Some gas stations will have backup generators, allowing pumps to operate for a while, and if you have no stored gasoline and a working vehicle, it's those stations you should seek out immediately to purchase more fuel. Ahead of an EMP or other catastrophic event, ask around and find out which gas stations have emergency generators.

If possible, break your group into teams of 2 or 3 and fill each running vehicle with gasoline, filling gas cans as well. Along with the gasoline, buy fuel stabilizers, such as Sta-Bil, Seafoam, or PRI-G and as many gas cans as possible.

Why bother trying to procure gasoline (or diesel)? For the simple reason is that every advantage you have over others works to your advantage. In apocalyptic novels, it's always the violent marauders who have vehicles, such as motorcycles, giving them the upper hand. In survival, mobility is everything. I

once saw some creative teens attach a lawnmower motor to an office chair on wheels. It made for a pretty interesting sight, and those kids got around the neighborhood rather quickly!

In the coming days and weeks, watch for abandoned cars and then drain the gasoline from those tanks if you have the proper containers. You might as well do this, especially if your own vehicles are running, since the gas will begin to oxidize, lighter chemicals in the gas will begin to evaporate, and at that point, the fuel is barely worth using. In fact, it might even ruin an otherwise perfectly good engine.

NOTE: Many vehicles today are equipped with an anti-siphon device in the filler tube. In those cases, you may have to puncture the underside of the fuel tank and drain the gasoline from that point. Another way to drain the fuel is to cut the hose, just past the anti-siphon valve and run that hose into a gas can.

Siphoning gas isn't something most of us have experience with, but wherever you see a stalled vehicle and no owner in sight, any gas in the tank is going to become very valuable. The problem with modern-day vehicles is that their gas tanks have an anti-rollover valve in the opening. These valves also act as a siphon prevention system. However, with the right set of tools, you can siphon the gas without damaging the tank itself.

The anti-rollover valve is a ball or butterfly valve. This leaves enough room for gas to flow through the fueling tube into the tank, but if the car flips over and gas begins to flow in the other direction, the ball moves to the inlet and blocks the gas from escaping, or in the case of a butterfly valve, the butterfly flap closes.

To get around that obstacle, you'll need a small diameter, stiff hose like the quarter-inch hose that runs to your refrigerator's icemaker. Cut the end at a sharp angle and spin, or "corkscrew", the hose as you insert it. Siphoning gas this way using gravity is slow and can take several minutes to fill up a gallon size container. If you can find a small hose with a hand pump, it can go much faster.

If all your motorized vehicles are disabled, a supply of gasoline could still be advantageous as a form of currency for barter, a method for starting a small cooking fire, or for use in a cookstove. Only collect gasoline from stranded cars if you have gas cans, stabilizer, and consider it to be a future form of currency.

ACTION STEP: If most of your other preps are in place prior to an EMP, buy a few extra gas cans ahead of time just for the purpose of collecting gasoline from stranded cars once they've been long-abandoned by their owners.

7. When the power goes out, check to see if your landline phone is working. In a power outage, cordless phones don't work but landlines, a phone plugged into an electrical socket, will. Don't be surprised if your phone is dead, though. An EMP or CME will cause all electrical outlets throughout the house to be dead and the circuitry in your landline phone is probably fried.

ACTION STEP: Relying solely on cell phones has become the norm for many homes, but in numerous disaster scenarios, that reliance may prove to be unwise. It costs very little to add

a single landline to your internet/TV package. Purchase a landline, corded phone for less than \$20 as a communications backup.

8. Voltage overloads, caused by the EMP, may cause fires to break out, although this is something experts are not in agreement on. However, be aware of the potential of fire and ready for it, both on your property as well as your neighbors.

ACTION STEP: Buy as many fire extinguishers as possible, since the local fire department is now just as handicapped as you will be if a fire breaks out in your home or neighborhood. In a post-power grid world, you'll be using lanterns with flammable fuels, candles with open flames, fire for cooking, so, yes! Stock up on those fire extinguishers wherever you find them. They're available on Amazon and in stores like Target, Costco, and Home Depot.

An old-fashioned Class A extinguisher would be very handy, since it uses compressed water and can be refilled and recharged using a bicycle pump. These are still available and made by Amerex, Badger, and Kidde and will cost around \$150-200 each.

In the future, look for unused fire extinguishers in abandoned buildings.

ACTION STEP: To be safe now and in the weeks, months, or years without an organized and operating fire department, practice family fire drills.

9. If you are away from home, get there as quickly as you can. Try to band together with others heading in the same direction. Carry whatever supplies you can in order to make the trek and have a Get Home Bag stashed in your vehicle or workplace. That bag should include:

- Flashlight with extra batteries. A headlamp is a good choice, too. LED flashlights are vulnerable to EMP. To protect these, store one or more in a RF-shielded bag. A good RF-shielded bag will provide 50 dB of shielding across all relevant EMP frequencies.
- A UVPaqlite, which utilizes naturally luminescent minerals, provides ambient light without requiring batteries and would be impervious to the effects of EMP.
- Knife. This should be more than just a Swiss army knife because you may have to use it for self-defense.
- Water – Most important. You'll need at least 2 liters per day, possibly more if you'll be walking in hot and/or humid weather. If you're not sure you can get water along the route home, discard as much as you can from your pack to make room for more water.
- Small water filter, such as a LifeStraw or Sawyer Mini Water Filtration System.
- A tightly capped dropper bottle filled with bleach. Five drops will treat a liter of water.
- Small first aid kit. This should include moleskin and other blister treatments, plus prescription meds and OTC pain relief medications.
- Extra pair of wool socks, not cotton
- High calorie snacks/energy bars
- Cash in small bills divided into at least 2 stashes, carried in different pockets, in a shoe, your backpack, etc.
- Hand sanitizer or sanitizing wipes
- Toilet paper or a couple of packets of tissues

- Personal protection gear, e.g. handgun with extra magazines, taser, etc.
- Map of area with alternate routes identified
- A compass
- Sunglasses and a spare pair of eyeglasses or contact lenses
- Rain poncho. Can double as a ground cover. A heavy duty black trash bag is a decent substitute.
- Portable ham radio. Store it in a RF-shielded bag, along with extra sets of batteries.
- A change of comfortable clothes and shoes for walking, suitable for the current season, if your usual work attire isn't.
- A few small multi-purpose tools: a 4-way Sillcock key (can be used to access exterior secured water spigots), multitool, matches, duct tape, and a length of paracord

It's vital that you're properly dressed for the hike home and that you have very sturdy shoes. It wasn't so long ago that commuters in Atlanta faced a snowstorm during evening rush hours and, clad in dress shoes and office wear, struggled to stay alive as they walked to any shelter they could find. If you don't have rugged clothing for the trek home, use your cash to buy whatever you need at the nearest Walmart or sporting goods store.

For lighting that won't be impacted by EMP or CME, I like and recommend the UVPaqlite brand of lights. They're made of a combination of 3 all-natural elements, strontium, aluminum, and europium. These are safe elements and work together to create light that is activated by sunlight or any other source of light around. The more intense the source, the quicker they'll charge.

ACTION STEP: Pack a Get Home Bag and a Vehicle Emergency Kit. See my list of must-haves for your vehicle kit in the Resource section of this book. The vehicle kit will contain items not normally packed in a smaller Get Home Bag but might come in handy for your walk home.

What if you're far from home, like hundreds of miles? Should you hit the road and plan on arriving home within 2 or 3 months? Stay put and start a new life as best you can? I review these options and a few more later in this book.

10. If your children are at school, they are safe there in the initial few hours following the power grid failure. Most teachers and staff will not quickly realize the full extent of the damage to the power grid and will follow established emergency protocol. This will include not allowing masses of panicked parents on campus to grab their kids. Use this time to calm down, assess what needs to be done at your home, and then get to the school to pick your kids up.

By the end of the school day, teachers and other school employees will want to get home to their own families. Some may choose to stay with the remaining kids, but that's not something you can count on. If your kids are teens, they should have been instructed to recognize the effects of a power grid failure and told to head home, following an agreed-upon route. They should also have their own Get Home Bag containing whatever items are allowed on campus. If they can stash this bag at a nearby friend's house, this will allow them to include a knife, multitool, OTC medications, and other items not allowed on campuses.

I am a staunch believer in the concept of identifying potential safe houses along each route home. These could simply be homes of family and close friends, familiar businesses where you and your family are known by the owner, churches, and anywhere else your kids are familiar with and where you would be comfortable with them staying for a short while. Before a crisis, ask these people if they would be willing to temporarily shelter your child in an emergency. Talk with your children about these locations, mark them on a map, and instruct your kids to take shelter there. It will make them easier to find if they don't arrive home quickly.

Younger kids should remain at school until a family member comes for them. Be sure that person has a photo ID and, if they are not the parent, a written note from you giving permission to pick up your child. For a time, schools will still be very liability-minded, which is a good thing! You wouldn't want a stranger showing up and claiming your kid.

Give yourself plenty of time to make the trek to the school, or multiple schools if your kids attend more than one. Depending on the location of these schools and the route you must take to get there, it might be wise to carry a firearm for protection. With communication lines down, you have no way of knowing how the rest of the world is faring. Each hour that passes increases the number of people who are realizing the enormous implications of what has happened, making the outside world less and less safe by the hour.

If you don't have a vehicle, you'll have to either walk or ride a bike or use some other form of transportation. You'll be making the trip home with little ones who might have a tough time wading a couple of miles or more. In that case, bring along a scooter, wagon, skateboard, etc. to make it easier for them. Time this very important trek to allow you to return home before it gets dark.

In the meantime, even young children should have a few items in their desk or backpack to help get through a few hours until they can get home:

- Flashlight, light stick, or UVPaqlite
- Hard candies
- Package or two of tissues
- Hand sanitizer or sanitizer wipes
- A few bandages – If they have to walk home and develop blisters on their feet, these will be helpful.
- Laminated, simplified map showing route home
- Whistle – To be used to signal for help

ACTION STEP: Pack a small Get Home Bag/School Emergency Kit for each child or grandchild in your family.

ACTION STEP: Either draw a map or use a map of your neighborhood to determine walking routes to your child's school. Walk those different routes several times, pointing out landmarks and the homes of trusted friends or family members, who could provide a "safe house" for your child, if necessary. Include this map in each bag.

Take care of loose ends, carefully

You're a prepper and you've been planning for an event such as this. I get it. However, when "it" actually becomes reality, there may still be opportunities to shore up your supplies and become even better prepared to survive. In many areas, this won't be possible, and your only option is to hunker down in safety, immediately. However, there will be individual neighborhoods and stores that may still be able to do business on a cash basis.

Remember, that once that power grid goes down due to EMP, CME, or significant cyberterrorism, whatever cash you have on hand will be worthless. All financial systems will be shut down instantly. ATMs no longer operable, electronic cash registers unable to process transactions, automated deposits and bill pay – permanently stalled. It could take many months or years for a stable financial system to become established.

So, about that cash you have on hand. If your immediate area seems to be calm, it might be worth venturing out to see if any businesses are still open. From a store owner's or manager's perspective, they have a fully stocked shelves of merchandise, the power has gone out, the cash register won't open – but all that merchandise will go to waste if it can't be sold. Expect some businesses to find creative ways to remain in business until it becomes too dangerous to do so, or their shelves are emptied. It won't take long for them to realize that cash transactions or some type of barter system is more beneficial than watching their merchandise spoil or be stolen, and few will be willing to lay their lives on the line to protect it.

Remember, every prepper's circumstances will be different, and those circumstances can change minute by minute as the structure of society begins to falter in the days and hours following a catastrophic event. If you deem it safe to venture out, here are some tips for where to go and how to stay safe.

11. If you have a bicycle or if any motorized vehicles are operable, time is running out to shore up supplies and buy extra necessities. It will be best to travel with another person, or two, since there will likely be many people who didn't think to have cash on hand and will be just as happy to steal whatever it is you buy. From this point forward, never take safety and security for granted.

ACTION STEP: Before an EMP or other catastrophe, begin decluttering your home and ridding it of things you don't need or use any longer. This step will help streamline your survival preparation, you will probably find important gear and supplies you forgot you had, and you'll clear out space that can be used for more important things.

12. Add any last minute supplies to your own preps with a final trip or two to grocery stores, drug stores, sporting goods stores, even pawn shops. Be sure to take cash with you, but be aware that its value will diminish quickly. You're better off spending all the cash you have now, even if prices are inflated, than holding on to a fiat currency in hopes that, somehow, it will retain value. If a cashier is hesitant to make the sale since their cash register won't be working, tell them you'll include a nice tip for them in your cash payment. It won't be too many days before cash is worthless.

Depending on where you find yourself, it will be either safe enough to venture out or potentially deadly. In a suburban neighborhood where many people know each other, I would feel safe riding my bike to a handful of stores in the first hours following the EMP. In downtown Houston or another large city? No way. Just getting home will be enough of a challenge. Use your discretion, travel in groups, and carry firearms, just in case.

ACTION STEP: Each week or pay period, set aside at least \$20 in cash, small bills only. Store the cash in a fireproof safe, hidden in the attic, a crawl space, or somewhere else that isn't easy to access.

Here are a few stores to keep in mind for final purchases:

- Liquor stores – Even teetotalers will find it helpful to have alcohol to use for barter and hard liquor can be used for disinfecting and making tinctures. Historically, it's been used for pain relief when anesthesia isn't available.
- Sporting goods stores – A perfect stop for outdoor gear, hiking boots, outer wear, camp stoves and fuel, possibly firearms and ammunition, bows and arrows, hunting camo, and much more.
- Pawn shops – Firearms, coins, gold jewelry are all worthwhile purchases for future use.
- Pet store – Pick up extra food, cat litter, and medications.
- Clothing stores – Buy practical clothes in larger sizes for kids and maybe a size or two smaller for adults, since everyone will be losing some weight due to extra physical exercise and less food.
- Natural foods or vitamin store – Stock up on nutritional supplements that you already use but also Vitamin C, Vitamin D3, Vitamin E, protein powder, and natural remedies.
- You'll find snacks and other food in office supply stores and mall type stores like Bed, Bath & Beyond.
- Ace Hardware, Maynard's, Tractor Supply, and home improvement stores will have a multitude of supplies that will be necessary. An advantage of Ace Hardware is that they are usually locally owned and operated, and could be more likely to work with their customers in spite of a power outage.

And, oddball items that are going to be sorely missed:

- Underwear and bras. Buy plenty of these in sizes for the family, larger sizes for kids and teens to grow in to.
- Reading glasses of all varieties and strengths
- Feminine protection. I strongly recommend purchasing menstrual cups. They can be used for months, if not years, and don't produce anything that has to be laundered or disposed of.
- Yeast. You can gather wild yeast, but it's a long process and not something you'll want to focus on in the early weeks of survival.
- Hair and beauty products. No woman wants to look like a refugee from the Great Depression. Hair color, lipstick, scented lotion, and nail polish will help make the struggle for survival a little easier because you know you're looking good. These products will prove valuable for barter. As one survivor of the Bosnian War told me, "Yeah, women still wanted to look good no matter what was going on!"
- Insecticides, mosquito spray, mousetraps. If you view the coming months as a descent into third world conditions, you'll realize that diseases spread by mosquitoes, fleas, rodents, and other creatures are going to become a major issue.
- Condoms and other forms of birth control. It will be far easier to prevent a pregnancy than to give birth under extremely difficult circumstances. Women have been doing that

for thousands of years, so it's not impossible, but it's risky to both mother and baby when sanitation is poor, medical help unavailable, and pre-natal care virtually non-existent.

- Pregnancy tests. It's better to test and know than be surprised 2-3 months down the road.
- Razor blades. There's nothing wrong with the Duck Dynasty or bearded hipster look, but you still might want to buy these, since they are very cheap but difficult to manufacture. Women might want to stock up just so they can avoid the never-attractive Sasquatch look.
- Bleach, for household cleaning, as a disinfectant, and for purifying water.
- Cases of bottled water, as many as you can buy and transport. This will go fast, though, as people are conditioned to buy bottled water in emergencies.
- Oscillating fans. Babies, toddlers, the elderly and those in poor health cannot survive for long in unrelenting heat. You'll need a small generator to operate these, though, unless you can find fans that require only batteries.

13. Buy extra pharmaceutical drugs, including insulin and birth control. Again, take cash with you and explain to the pharmacist that you want to stock up on some extra since you're not sure when power will be restored. If you have a written prescription from a doctor, bring it with you, since their computer system will be down. Naturally, offer a nice cash bonus, if necessary.

ACTION STEP: If you are dependent on prescription medications, ask your doctor to prescribe an extra month or two, or more, "just in case". Tell him or her that you've been preparing for a natural disaster, as recommended by FEMA, and you want to have a small supply as a backup. As an alternative, fill your prescriptions on the very first day allowed by your insurance company or pharmacy. Each month you'll end up with a few extra doses that can be stored as a backup.

ACTION STEP: When you begin stocking up on over the counter medications, first, use coupons and weekly grocery store sales to stretch your dollars, but also keep in mind any ailments that most frequently affect your family members. Be sure to stock up on medications to treat those. Examples might be swimmer's ear, allergies, indigestion, insomnia, or sinus problems.

In addition to having a stash of OTC meds for these common sicknesses, do some research and learn which home and herbal remedies might be effective and stock up on those supplies also. Plant helpful, medicinal herbs in your garden, or in containers, and learn how to make tinctures, teas, and salves that will provide your loved ones with relief.

14. Don't forget to drop by smaller stores, which will likely escape the notice of the masses, at least initially. They'll be heading, first, to Walmart, Target, large grocery stores, and will probably even waste their time trying to get into their banks for cash. The truly ignorant, and there will be thousands, will be looting electronics stores, carrying out big screen TVs, iPads, and other, now useless, goods. This is to your advantage during the first hours of a post-power grid world.

Avoid convenience stores, unless they appear to be safe and are in quieter neighborhoods. For whatever reasons, they seem to get looted almost immediately after a crisis of some sort. If you have cash to spare, though, convenience stores would be a good place to buy cartons of cigarettes and airplane-size bottles of alcohol as barter items.

A few oddball stores that will likely be overlooked by hordes of panicked people:

- Bicycle stores – Pick up spare tires, pumps, baskets, trailers, patch kits, and repair tools. If you have little ones, consider buying a trailer now in order to make their transportation easier later.
 - Auto parts stores – Get spares of everything: windshield wiper blades, oil and air filters, fuel stabilizer, siphoning hose, gasoline cans, hoses, and bulbs for the headlights and taillights of any working vehicles. Do the same for motorcycle parts stores, if you have a motorcycle.
 - Pet stores – Food and medications are top priorities. Buy flea and tick products and tick removers. Look for fish/bird antibiotics and buy as much as you can. These antibiotics are the same as those prescribed to humans.
 - Natural foods and/or vitamin stores – Stock up on Vitamin C, Vitamin D3, Vitamin E, multi-vitamins, protein powder, essential oils, and nutritional supplements you rely on. Pick up a book about natural remedies, if you don't already have one.
 - Restaurant supply stores – These are a treasure trove with basic food stuffs in bulk quantities, as well as paper goods and cleaning supplies. Most people will overlook these stores.
15. If your cash holds out and, for the time being, it's safe to be out and about, buy as much as possible of these things:
- Batteries of all sizes
 - Toilet paper
 - Ammunition for firearms
 - Matches
 - Household cleaners and bleach
 - Insecticides
 - Heavy duty black trash bags
 - Disposable diapers in different sizes
 - Any type of light sources

16. Take cash with you to plant nurseries and buy as many seedlings, seed packets, and berry bushes as you possibly can. Throw in boxes of plant food and fertilizer. If you must, buy these things in the nursery sections of stores like Lowe's and Home Depot. Most people won't even think to buy these items. Even if you run short on growing space in your own yard, helping neighbors grow some food will help you, too, in the long run.

At this point, don't worry about hybrid vs. non-hybrid vs. heirloom. The most important thing will be to get those seeds and seedlings planted at the right time of year, harvest whatever you can, and preserve it for the future. You can easily save the seeds of plants in all three categories, but only non-hybrids and heirloom will go on to produce the same, exact plant.

However, for survival purposes, buy every type of vegetable and fruit seed and seedling available.

ACTION STEP: If you've never done so, try starting seeds indoors as a learning experience. Try different varieties in different locations to see which areas provide optimal temperatures and sunlight. Even if the weather outside is frigid, you'll still get some hands-on experience. A lot of preppers and survival-minded people have stocked up on "survival seeds", having never actually started plants from scratch.

It takes a good, long while to develop gardening skills, rich soil, and the knowledge of what, exactly, will grow in your yard. If you don't have a garden, get one started now, even if it's just a pot of tomatoes on your patio. Everyone is surprised by how difficult it actually is to grow your own food and some will end up starving because they didn't get busy with planting a garden until after the crisis.

17. Make as many trips as you can to shore up your supplies, but once you notice crowds forming at stores, gas stations, banks, and the like, it's time to get home and stay there. Other warning signs that it's not safe to venture out are sirens, fires, the sounds of breaking glass, car and home alarms going off, and growing crowds in the streets and in public areas, such as parks and shopping centers.

Keep in mind that law enforcement officers will quickly begin to hurry to their own homes once they realize what has happened. Law breakers will take full advantage of this and you will truly be on your own.

Your goal, within the first 2-3 days following the EMP/CME/cyberterrorist attack is to spend all the cash you have, if possible. If a miracle happens and life quickly returns to normal, you'll still have your bank account savings and, perhaps, your investments and retirement funds. Admittedly, that's a long shot, but regardless, don't hold on to your greenbacks. In just a very short period of time, they'll be as worthless as the German mark of the Weimar Republic.

18. Check on the welfare of other loved ones if they live nearby. Bring them back to your home, if possible. Hopefully, they, too, will have food and other helpful supplies. You'll need a plan to transport as much of that as possible. It might be worth setting aside an entire day, using everyone in the family, to transition everything and everybody to your home. Besides transporting them, use this list to pack up belongings:

- Cash, gold, silver, jewelry. Cash could come in handy during the initial days following the EMP, jewelry will be a useful barter item if/when necessary (there will always be those drawn to things shiny and sparkly), and gold and silver will provide something for barter and as a foundation of wealth into the future.
- Nonperishable food
- Frozen meat and chicken that can be quickly cooked, pressure canned, or dried within the next 24-48 hours, if you have the capability, time, and supplies.
- Firearms, ammunition, knives, and other defensive/hunting weapons
- Extra clothing, sturdy shoes, winter wear
- Cast iron skillets and pots. Heavy, but they last nearly forever and can be used safely over campfires
- Stored fuel, such as kerosene, gasoline, propane, and even firewood
- Camping gear
- Bleach and water filters and purifiers
- Any electronics that were not ruined by the EMP
- Any and all "survival" supplies, such as duct tape, rope, paracord, flashlights, emergency radios, tarps, multi-tools
- Hand tools, especially those that you don't already own
- Prescription and over the counter drugs

- Medical supplies, first aid kits
- Soap and detergent
- Any supplies related to necessary survival skills, such as fishing equipment, sewing supplies, knife sharpening equipment and supplies for setting snares and traps. If these loved ones have important skills, make sure they bring along with them the tools and supplies necessary.
- Documents that prove ownership of their home and property, birth certificates, and other forms of identification. At some point, a version of civilization will return and these documents will become important.

In a worst case scenario, there are no “one size fits all” rules. You will have to make a judgement call based on your circumstances, the health and physical safety of your loved ones, your ability to provide for them and protect them, and their ability and willingness to help the whole group, even if just by sharing their skills and knowledge. You should also consider their personality and temperament. Someone who is a lazy troublemaker in good times is not likely to be better in a worst case scenario.

ACTION STEP: Give some thought as to who you may want to add to your household beforehand. Whether or not to bring others into your home or group is going to be a very difficult decision and one that will have to be done on a case by case basis, taking into consideration what your circumstances are at that moment. However, if you have planned on grouping together with others to survive a scenario such as this one, you’ll have to gather together as quickly as possible within the first 48 hours or so. That includes transporting people, gear, food, and as many supplies as possible because there’s no guarantee you’ll be able to safely make the trip again.

If you have this conversation before it all hits the fan, everyone involved will know what to do, what to pack up, where to go, and how to get there. Avoid panic-induced poor decisions by having all this laid out ahead of time.

After the first 72 hours or so, depending on your location, plan on lying low to avoid becoming a victim of the initial crime wave that is sure to happen once the violent and lawless realize that “law enforcement” no longer exists. You should have most, or all, of the supplies you need by now, so stay indoors and focus on keeping your home and property safe.

While panicked people are rushing wildly about, swarming stores and attacking each other, you need to be at home, going through this checklist, assigning tasks, and setting the stage to safely hunker down.

Expanding your survival group

When the power grid goes down, every person who ever mocked preppers will suddenly become a believer! Haven’t been able to convince your spouse, adult kids, or best friend that preparing for a worst case scenario is a smart move? Well, they are now on board, and you know what? It isn’t too late.

Post-EMP survival depends, in part, on effectively forming small communities, and in a world suddenly without power, those groups will form. Some will be made up of criminals, hell bent on enjoying a life of rape, plunder, and murder. Other groups will want to be in control, perhaps by setting up road blocks or attempting to establish and enforce their own version of government and/or law enforcement.

And then there's you, perhaps entirely alone, perhaps with a handful of family members, neighbors, and friends. Whoever you end up with, they are now your new survival group. If you can begin now to establish friendly relationships with numerous people who seem to share your worldview, moral values, and work ethic, the better your chances are of survival because in a true disaster, those are the people you'll likely end up with anyway.

Think about the groups that you are already a part of: church, Scouting, homeschooling, clubs, neighborhood watch groups, CERT, work, etc. People that you already know, trust, and with whom you share common ground are the most logical folks to begin connecting with, purposefully. Make a point to expand on your friendships with social events, sharing meals, and doing what used to be called, "being neighborly."

Even if they aren't survival-minded now, trust me. Give them 48 hours or so following the EMP, and they will be more than happy to listen to your "prepper talk." There are some who say that it will be too late for these people, but I disagree. If you have enough food stored for yourself and immediate family to last several months and have extra to share, you're in a strong position to invite others to become part of your new survival community.

Tell your neighbors what has happened. In no way is this giving away information about your supplies or plans. But it is allowing the individuals and families living nearby a chance to improve their own chances of survival by filling up bathtubs with water, making quick trips to the grocery store, and doing their best to gather all family members together.

At some point, their survival and good will may help insure your survival. Human beings have always clustered together in tribes, clans, and villages, and that will begin to develop even in a world without power. For your best chances of survival, get started establishing those supportive relationships now because it's something you will need to establish and a bit of charitable kindness will long be remembered.

If you have neighbors who aren't exactly ideal citizens or have been hostile to you in the past, you'll have to make the call as to whether or not you'll take this step. Keep in mind that desperate people will do desperate things and since your home is within close proximity to theirs, you may very well become one of their first targets. Trust your instincts.

Regardless of whether or not your new survival group is made up of people you've known since birth or just met yesterday, you'll need extra hands for childcare, homeschooling, preparing the ground for gardening, pulling weeds, security patrols, cooking and clean up, sanitation, hauling and purifying water, caring for the sick, logistics, taking care of children – all important jobs that don't require extensive, prior training. When you know those areas are covered, you'll have more time for the more intensive tasks required for long-term survival.

As well, even if these new group members haven't been prepping, they will still have a bank of skills and knowledge, tools, gear, and other supplies on hand that will benefit everyone.

I'd also like to suggest assigning to one or two people the task of journaling, writing the history of this post-power grid world, keeping a detailed record of food production (what grew, what didn't), tracking health issues, successes, failures, recording conflicts that arise and their resolutions. They will become scribes, documenting a new chapter in American history.

There's no way that you, alone, or your individual family can handle all of those tasks, while keeping a constant eye out for danger, 24 hours a day. That's a completely exhausting way to live and no better way to insure short lifespans for everyone involved.

Settling in for the long haul

A failure of the power grid, caused by EMP, CME or cyberterrorism, isn't going to have a quick fix. The transition from our current, comfortable modern life to one in which everything has suddenly become primitive, including human behavior, will be excruciating. With preps in place, you'll be alleviated of an enormous amount of mental and emotional distress and can begin implementing your plans, getting ready for the long haul and hard work of living without most modern conveniences.

Moving on from the initial action steps, your next priority becomes putting vital pieces together that will help insure your survival over the long haul.

Set a wind up or battery powered clock to the approximate time. Be sure to maintain this as you'll need it well into the future. This is a small step and may seem insignificant, but once the grid goes down, time will become irrelevant in many ways, except that it's very useful to establish routines, set times for meetings, patrols, and other activities. It would be a good idea to have several wind-up watches, one for each member of the family. You can find these at estate sales and antique stores.

Although you can always use a sundial to track time, having a clock or a watch that isn't dependent on electricity and doesn't contain electronic components will be worth its weight in gold.

ACTION STEP: Look for wind-up clocks and watches at antique stores now. One newer model, the AcuRite 15607 Vintage Alarm Clock, is available on Amazon and doesn't require batteries or electricity.

Some electronics that may not have been damaged by EMP or CME that could be used to set and track time are:

- iPods and iPads
- Tablets
- Kitchen appliances
- Cell phones
- Ebook readers
- Fitbit or similar devices
- GPS device
- Digital cameras

If you're a worrier like me, I need to know how long my kids have been gone on errands and when I can expect them, or my husband, home, safe and sound. This one simple step will spare you a lot of stress since you'll have the ability to track time.

An additional step to take, if you haven't done so already, is to check if any electronics can be powered on, including cell phones, digital cameras, and computers. Some, or even all, of your electronic devices may power up if they have a battery charge.

At this point, you may be wondering why bother at all with these electronics, Don't underestimate the small comforts and significant advantages that these items will bring to you and your group. A single ebook reader could provide hundreds of hours of entertainment, education, inspiration, and how-to instruction. One mp3 player could provide music, as well as downloaded podcasts, and photos stored on a cellphone, thumb drive, or camera will be the only link to many friends and relatives who are now separated by impossible distances.

ACTION STEP: Make a list of all the electronic devices you own so that none are missed. Some experts believe that small electronics with tiny circuitry systems may endure the effects of EMP, so don't give up before checking each and every one!

Set aside all electronics that are inoperable. At some point you may be able to use them for parts or for other purposes.

If you have solar battery chargers or any other solar powered item, set them out in the sun as soon as possible to begin charging. Having access to items such as walkie-talkies, a ham radio, ebooks containing survival manuals, and even an iPod for music will be an asset for your family or group.

Solar panels contain electronic components, which is something most people don't realize. Yes, solar power will be an enormous help post-EMP, but all solar panels, generators, and chargers should be protected in a Faraday container.

Hopefully, you have on hand one electronic device that will prove invaluable, and that is a shortwave radio. If it's been shielded in a Faraday container, it will almost certainly be in operating order. Use the shortwave radio at different times of the day and night to connect with broadcasts around the world. Do the same with a ham radio. If these have been protected in a Faraday container, they will be operational, too.

Whenever you make contact with another ham radio operator or connect with a shortwave radio station, keep a written record of the date, time, frequency, and name of the station or person. If you're able to have a conversation with someone, try to schedule another radio contact at a specific date and time – another reason to have that wind-up watch!

Getting as much information as possible about current events will be important. The most accurate information may very well come from foreign broadcasters. Initially, you'll want to know what, exactly, happened and who was responsible. That's just human nature, but in the early days of this new reality, get whatever information you can but spend your energies on getting ready for long-haul survival.

Monitoring any communication via these radios would be an ideal job for someone in the family or group who is unable to do hard, physical labor.

ACTION STEP: It doesn't take much to get a ham radio license, other than a few hours of studying. Actually, it took me many hours of studying online and taking practice tests to pass my exam, but when I did, my score was 99%. My husband, who was an electrician at the time, required far fewer hours and scored 100%.

You can learn about Amateur Radio (the newer, official name for "ham" radio), study, and take practice exams at www.arrl.org.

One question that often asked is, “Will I have to learn Morse code?” The FCC deleted the requirement for ham radio operators to learn Morse code in 2007. For survival purposes, though, it would be extremely smart to learn Morse code in order to send messages to others.

Ham radios aren't as expensive as you might think, at least for getting started. The Baofeng BF-F8HP is a powerful, handheld radio that runs right around \$60-70. These will need to be protected from EMP in a Faraday container, but at this price, you might want to buy several.

Local clubs welcome newcomers and hold meetings and other events throughout the year. You can find one close to you by visiting www.arrl.org/find-a-club. When researching ham radio for my first book and website articles, I found “hams” to be the friendliest people around, often providing hours of information just for the fun of talking about their favorite subject.

As an additional FYI, there are hams (amateur radio operators) whose hobby it is to build and operate vintage amateur radio equipment that would almost certainly survive the effects of EMP or any other power surge.

ACTION STEP: Once you have your ham radio license and a radio, here are a few channels to take note of, in case of any disaster or worst case scenario, if/when radio transmission capabilities return.

- 34.90 Used by the National Guard during emergencies.
- 39.46 Local and state police forces use this during emergencies
- 52.525 Frequently used by hams in FM on the six meter band
- 138.225 FEMA makes use of this channel
- 163.5125 The armed forces use this channel during natural disasters

There will also be transmissions on AM Class-A clear-channel stations. These stations are required by treaties and statutory laws to maintain at least 10,000 watts of power.

It's after the first few hours or days following the EMP/CME/cyberterrorism event that you'll want to check on your generator, if you have one. Take a few minutes to see if it will power up. It has probably been disabled by the electronic pulse, but it's better to know that now than to assume you can depend on it in the future. If it is working, then, suddenly, acquiring extra fuel just became a higher priority.

Getting gasoline for your generator, if it indeed runs on gas, can be a lower priority unless this event occurs in the winter or you need electricity to maintain medical equipment. In that case, start collecting as much gas as you possibly can, especially if you live in an area that typically experiences very frigid winter weather. For you, staying warm is a top survival priority.

Besides its dependence on gasoline, or diesel, a serious drawback to generators is the noise they make. In a world that is now silent, even devoid of the sound of traffic, your generator is going to attract a lot of unwanted attention. You cannot keep it indoors, due to its deadly fumes, so there's a high possibility it could be stolen.

One survival story from Katrina told of thieves stealing generators during the night and leaving a running lawn mower in its place. Homeowners heard a motor running and assumed it was their generator, only to wake up and find it gone. If your immediate survival depends on that generator, find a way to secure it with heavy chains and padlocks.

Keep in mind that generators cannot be kept and used indoors due to their toxic fumes.

When a member of the family has a significant health issue that requires medical equipment, a generator may not be a luxury, but a necessity. In that case, you'll need to determine which size of generator to purchase and what type of fuel it uses. In most cases, a propane generator is a very good choice since propane can be safely stored for very long periods of time and is a clean-burning fuel. It costs more than gasoline or diesel, though.

There's a possibility that older generators, like older models of vehicles, might be impervious to the effects of EMP and CME, so if your generator is a couple of decades old or older, check to see if it can be started. In the case of older generators, stock up on repair parts and spark plugs now and save yourself the hassle of trying to find them in a post-grid world.

ACTION STEP: If you have a generator, create a Faraday container to protect it. If you still have the manufacturer's box, keep the generator in the box. It shouldn't be connected to anything, including fuel lines. Cover the outside completely with aluminum foil. Add another layer, for good measure, and make sure that there isn't even the tiniest bit of cardboard showing. The layers of aluminum foil should overlap and be taped down with aluminum foil tape, but in a pinch, regular duct tape will work.

In some cases, a refrigerator isn't a luxury but a necessity when certain medications must be kept cold. This appliance has almost certainly become useless, though. Two alternatives will help prolong the effectiveness of those medications: a YETI cooler or a small refrigerator that has been protected from EMP in a similar manner as described above for generators. Together, a small generator and tiny fridge will go a long way toward protecting medications and preserving foods for more than just a few hours.

If you're like me, you keep your refrigerator and freezer pretty well stocked. Following a power grid failure, use up as much of it as possible. All the physical activity and high emotional levels will be draining for everyone and there's still a lot of work to be done. It might as well be done on full bellies.

Under normal circumstances, adults typically burn between 2000 and 3000 calories. Very active, fit athletes can easily burn 4,000 or more. Without the aid of gasoline powered vehicles and labor-saving tools and appliances, the average person in a post-EMP world will be working harder than they ever have in their lives. As your meal routine begins to take shape, plan on serving the adults and teens in your family around 3000 calories per day. If necessary, add oil to your meals to increase the calorie count.

ACTION STEP: Plan on dividing the labor required between each able teen and adult. No one should become so physically exhausted that they can no longer work. Physical exhaustion quickly leads to emotional and mental exhaustion. It affects the immune system and, over time, affect every body system, increase risk of heart attacks and stroke, and speeds up the aging process.

In the days and weeks after the grid goes down, everyone will be expending more energy. Keep track of tasks that must be done daily, weekly, and so on and then create a chart so that the demands of physical labor are equally distributed.

Unless your food stores are already limited, maintain everyone's physical strength and energy, along with morale, and eat nutritious meals every day. This is the time in which you need to be at your best, physically, mentally, and emotionally.

Your new workday in this post-grid world begins at sunup and ends, more or less, at sundown. It will be important to have a night time routine established, to begin an hour or two before night falls. Yes, you'll have lanterns, flashlights, and other light sources, but the energy required to use them shouldn't be squandered. You don't know when, or if, you'll be able to acquire additional batteries, lamp oil, or kerosene.

Before the sun goes down, this should be in place:

1. All beds made up and ready for sleep
2. Sources of light within an easy reach
3. Also within easy reach of adults, loaded firearms or other forms of defense
4. Make sure all food is put away in containers that are insect and rodent proof. This will also help keep larger critters from trying to find their way inside to your food.
5. Wash and put away cooking utensils, pots, pans, and dishes.
6. Clear away any walkways that might be needed during the night, such as a path to the bathroom or toilet or the route outside, if there's a disturbance during the night.
7. If necessary, bring in any outdoor animals that might be vulnerable to weather, predatory animals or theft. You can't afford to lose a single chicken. However, I don't recommend bringing large livestock indoors!
8. Freezing nighttime temperatures will mean freezing water in the morning. Make sure you have enough water indoors for the next day for both humans and animals.
9. Finish up all outdoor chores.
10. Lock and latch all windows and doors and make sure all security measures are in place.
11. If mosquitoes are a problem, make sure mosquito netting is hung, and have the kids get busy swatting all the mosquitoes in sight.
12. Make sure the toilet is handy.
13. If you're using a heat source, such as a fire or a propane heater, make sure the room is ventilated. A carbon monoxide detector would be a very smart addition to the sleeping area of your home.

Security issues are going to become a greater and greater issue as the new post-power grid world begins to unfold. If you have younger children, you'll want to establish a "sleeping room", where everyone will be spending the night. As a mom, this is important because I wouldn't want my children scattered throughout the house, making them, individually, more vulnerable to intruders, fire, or some other danger. I would also want to be nearby to provide comfort with my voice and presence and protection with my firearm.

Above all, don't neglect getting plenty of sleep. It will be tempting to work to exhaustion and survive on only a couple of hours per night, but that's a bad plan. Lack of sleep leads to bad decision making, lack of attention and alertness - all at a time when you can least afford to make mistakes. Arrange for one person to be awake and alert as the other family members sleep. That is not just good security; knowing that someone else is keeping watch will allow you a level of rest that would not be possible if your sub-conscious is on alert for any unusual sound.

Stock up on a few bottles of over-the-counter sleep medications. Even a half-dose of something like *Zzz-Quil* can provide hours of deep sleep.

Finally, in the first days of hunkering down, water is going to be the most important commodity you have. Consider how you will ration water to the members of your family. Each person needs to drink about 1/2

ounce of water per pound of their body weight per day, e.g. 125 pound person should drink around 60 ounces of fluid per day. Don't limit the amount of water necessary, though. It's better to use up what you have and look for more than for everyone to slowly become dehydrated. At that point, the human body can develop a fever, muscles begin to cramp, there's a significant loss of energy, and major organs begin to shut down.

Keep in mind that just about everyone in your family or group is going to be working harder physically and be under more stress than ever before. Their bodies will need more water than ever.

Pets and livestock will need water as well. Factor that into your stored water and put in place methods to collect rainwater. It's highly likely that water, clean or not so much, will become more valuable than any precious metal.

Can you, should you get out of Dodge?

This, I believe, is going to be one of the very toughest decisions you'll make in the first hours and days post-EMP. Even if you have the ideal survival location that is fully stocked with food and every other supply you might need, consider this: in the time it takes to make the decision to leave, pack up your vehicle (if it's running), and hit the road, the world around you has continued to deteriorate. Routes that you had planned out and traveled multiple times now run through a completely transformed world that holds numerous, unknown, and likely dangerous, elements. It will only take a single road block by 2 or 3 predatory, armed individuals to bring your best laid plans to a halt.

What will stop them from taking everything you have? What do you have to bargain with? Firearms? Food? Your daughter?

Survival websites and forums abound with ambitious talk of bugging out, establishing a "bug out location," and so on, but now, at this moment, you'll have to decide if the risk of leaving your current home is worth the gamble of getting to that location, even if it's just your sister's house 50 miles away. Keep in mind, that if you wait too long or it takes too long to arrive at your destination, it could very well be occupied by squatters, desperate and determined to stay.

If you decide to go and have transportation and fuel, the next few tips could save your life and those of your group:

1. The time to evacuate is now, before the masses realize the peril that awaits them in a future without power. You have, *at the most*, 72 hours to get out of town, and that is only if you have the means to do so, a final destination in mind, and it's relatively peaceful where you live.
2. It's very possible that law enforcement officers will set up roadblocks to avoid massive, panicked evacuations. Although they will believe this is for the greater good, if you have a safer destination for your family, you'd better get on the road as soon as possible, so make the decision quickly as to whether you will stay put or leave. That decision may very well be irrevocable. And, regarding those road blocks, those who decide to hunker down may not be able to get out of town for a very long time because once law enforcement has dwindled, a new form of authority will take its place. It will likely be one that believes, "Might makes right", although I'm hopeful that there will also be altruistic groups that band together for the benefit of all.
3. Whether you hit the road or not, keep an eye out for the rise of para-military groups. This is a logical result of a complete collapse of law-enforcement and the country's infrastructure that previously maintained a functioning nation. These people will be wearing official looking uniforms but answer to

no established law, other than what will help them form a power base. You'll want to avoid confronting these types if at all possible.

4. Be absolutely certain you have enough fuel to get to your destination; otherwise your Bug Out Location will be wherever you happen to run out of gas. No doubt you'll encounter many abandoned vehicles along the way. If the owners are nowhere in sight, take advantage of this by siphoning gasoline to fill up empty gas containers. This strategy can help keep your gas tanks filled, which will be important if you are part of a caravan traveling together. As you calculate how much fuel you'll need to get to your destination, be sure to factor in the likelihood of being stuck in traffic and burning more fuel than you'd planned.
5. Multiple vehicles traveling together will have a better chance of getting out of town and reaching the survival community location safely. If you've discussed this plan with others who are also well-prepared and survival minded, have a written contingency plan so this decision will be less emotional.

Cover these points as you make plans with other group members:

1. Among the group members, how many working vehicles are available for the trip?
2. If there are trailers, 5th wheels, or tent trailers involved, are the functional vehicles able to pull them?
3. How much fuel is available and, based on miles per gallon calculations, will it be enough for all vehicles to reach the destination?
4. Will each family travel in their own vehicles or will there be some other arrangement? For example, the lead car carries able-bodied, armed adults who are responsible for scouting ahead and communicating with other vehicles, while children are transported in the following vehicles, followed up by one more vehicle of armed adults. Another option is for families to travel in their own vehicles with at least one armed person. With younger children, this is highly preferable.
5. What forms of communication are available for vehicle-to-vehicle communication? Agree on a communication schedule and use coded messages to relay information.
6. Have multiple, marked routes, previously scouted out for potential hazards. Ahead of time, decide on the route that is, overall, safest but the lead car should be ready to switch routes or make detours, depending on what they encounter.
7. Determine safe houses or safe resting places en route or have a written schedule that allows for non-stop, 24-hour driving, stopping only to switch drivers.
8. For each vehicle, decide what will be packed and where. Emotions will be high, kids will be crying – don't leave this step to chance.
9. Leave knowing that you may have to abandon your vehicles and proceed on foot. Everyone in the group should be dressed appropriately for the climate and weather, with backpacks fully furnished with survival supplies necessary for walking long distances.

Once you've made the decision to leave home, one more thought must be, what if we can't get to our chosen place of refuge? What if we have to live off the land for a while, live out of our vehicle, or must rely on the compassion of strangers for shelter and safety? If you have a solid supply of everything needed for basic survival with you and you and your team, or family, is healthy, strong, and has a set of practical skills that would benefit others, you will find yourself at an advantage if worse comes to worst.

ACTION STEP: If you had to live out of your car or in the wilderness for a time, could you do it? Do you have the right camping gear for different types of weather? Do you have experience building a fire from scratch and cooking a meal over it?

The very best thing you can do to prepare for this possibility is add camping to your family activities now. It takes time, and some money, to acquire the appropriate supplies, and then put them to use on frequent trips. Don't assume you'll be able to do all this, and a lot more, when your survival is on the line. The last thing you need is for a predator, 2-legged or 4-legged, to approach your campsite while you're reading the instructions for putting up your tent!

Besides saying goodbye to a home that has kept you and your family safe and comfortable, you'll have to also say goodbye to most of your belongings. You'll only be able to take a limited amount of supplies, so make those decisions carefully. If you live near a trusted friend and they are staying put, consider leaving your extra supplies and gear with them, to assist with their survival. If there's a chance you may return, ask them to keep an eye on your property in exchange for a portion of your stored food, water, and other supplies.

Could your home become a safe refuge for family or friends whom you trust completely? If so, give them permission to use your home as their own. It will provide a back-up shelter in case their own home is destroyed or their neighborhood becomes too dangerous, it will provide a degree of security for your property, and will help avoid the problem of squatters taking over your home as their own.

Bon voyage! At this point, you're on your way to a safer location that will, hopefully, become a long-term refuge. Use a short wave radio or ham radio to collect any information possible about events happening outside your area and along your planned route. If the power grid has been disabled by EMP, it's very possible that a military attack or invasion has followed, and you could be driving directly into a much, much worse situation.

ACTION STEP: Prepare a written, detailed list of everything that needs to be done to make your house evacuation-ready. You may never come back to your house and, if you do, there's no telling what condition it will be in. However, that house and property does belong to you, and at some point in the future, you might want to return. To keep it as safe as possible:

1. Make sure all pipes are drained of water.
2. Unplug everything.
3. Turn off all circuits on the circuit breaker.
4. Take measures to secure doors and windows.
5. If you have valuables, such as gold, silver, and expensive jewelry, either take it with you or bury it in a waterproof cache somewhere on the property. Make a detailed map, along with written instructions, to locate anything that is buried or otherwise hidden.
6. Burn all accumulated trash to avoid leaving an environment ripe for insect and rodent infestation.
7. Turn off main water and gas lines.
8. Give away or cook and eat any food in the refrigerator and freezer. Try to leave both of them empty and remove the doors, if possible, as an extra safety precaution.
9. Harvest anything from the garden that's edible.
10. Clear out and burn leaves and plant growth that could present a fire hazard to your home.
11. If you don't have plywood, cover exterior windows and doors with visqueen, or plastic sheeting. This won't provide much of a deterrence to vandals but will help keep out moisture, dust, and insects.

In the end it may not matter if you board up the doors and windows to your home, but if you have the time and plenty of plywood, it sure wouldn't hurt.

ACTION STEP: Use exterior grade plywood and pre-cut it to fit over each window and door. With a Sharpie or other type of marker, label each piece of wood with the coordinating door or window

You should be able to store these under beds or propped up against walls in a garage or other building. Drill holes several inches apart in each piece of plywood and buy hex-head bolts to secure them when the time comes. Make sure the bolts will fit the pre-drilled holes. Hex-head bolts are nearly impossible to remove without the proper tool, and the average vandal won't have that on hand. Sure, they may have an axe or a crowbar and bludgeon their way into your home, but the other possibility is that they'll move on to an easier target.

By the way, don't be tempted to use the plywood for firewood, since it contains adhesives that are carcinogenic. If your life depends on having some heat in the house, make sure the room is well-ventilated before burning plywood.

What if you can't get home?

I'm sure it's crossed your mind. What if we're on vacation 600 miles from home when an EMP occurs? How would I get home from a business trip? What would happen to my college student?

Like every other survival scenario, there is no single answer. No advice I give would fit every person in every possible circumstance. However, it's extremely important to give this some thought as a serious minded prepper. In fact, among preppers, you wouldn't be normal if you didn't!

In my view, being stranded far from home would leave you with 5 possible options:

1. Head home, regardless, carrying with you the basics for survival or whatever you can acquire along the way. Survival novels are full of tales of determined men, making their way home to their families over hundreds of miles and against all odds. This option might work if you are in great physical shape, have no health issues, and are blessed with an enormous amount of luck. It wouldn't hurt if the terrain between you and your family has multiple supplies of water and the weather is agreeable. Forget it if you have more than just a few miles of desert to traverse.
2. Stay put and lay low. If you have the skills and knowledge, set up a wilderness camp and use your ingenuity and Boy Scout skills to live off the land. You'll likely end up dying a pretty quick death, but this is an option.
3. Stay put and try to become an indispensable part of another household or group. If you have a bank of life-saving skills, such as knowing how to grow and preserve food, medical training, or can help guard your new group of fellow survivors. When the infrastructure begins to be rebuilt and a degree of law and order has been established, you can then begin heading home.
4. Stay put and start a new life. This option isn't necessarily pessimistic. Given the circumstances, you may have no other choice.
5. Do a little bit of both. Combine stints on the road, always heading homeward, with time spent staying with a community or with a family. They might be grateful for the additional help with physical labor

and whatever practical skills you possess may help get them through a difficult time until you're able to travel again.

As you ponder these options, know that an effective plan for getting home will include:

- **Transportation.** Are you planning on hoofing it home? Better start getting into better shape right now and invest in an excellent pair of walking shoes/boots. If they're waterproof, that's even better.
- **Water.** Wherever you happen to be stranded and the terrain and weather between you and home will determine if you'll be able to find a plentiful supply of water on a regular basis. If you're not 100% certain that you can, stay where you are. Water weighs 8 pounds per gallon and if you need at least that much per day in order to stay alive, you won't be able to carry much more than perhaps 3 or 4 gallons, plus whatever other supplies and gear you have.
- **Food.** Can you set traps? Hunt and fish using alternative methods? Can you identify edible and medicinal wild plants? Do you know which parts are edible and which are poisonous? Can you start a small fire for cooking and purifying water, and if so, what will you use for a cooking pot? These are just a few issues to consider.
- **Shelter.** Putting up a lean-to is one thing, but surviving the elements within that shelter is quite another.
- **Security.** You may be surrounded by people more desperate than you. More fit and more strong than you. Can you survive on your wits alone? What self-defense skills do you have?
- **Weather and terrain.** Both will change as you travel. Are you ready for all possibilities? Do you know of alternate routes that might make it easier or would allow you to avoid populated, possibly dangerous areas?

There are no easy answers to the question, "What if I can't get home?", but there are many potential solutions to the problem. It's a matter of coming up with multiple plans and being able to act quickly and make sound decisions if, or when, you must.

It's one second after. What will you do?

Every one of us, even a modern day mountain man or hard-core survivalist, depends on our modern system of communication, transportation, medical care, and energy, which, in turn, depends on our power grid. If people around us begin to panic after just a few hours without power, imagine what they'll do in a world in which power is never restored, or at least, not for several months or longer.

More importantly, though, imagine what you would do. Those who quickly recognize what has happened and understand the ways in which their world is about to change quickly move up the ladder of survival. Those who depend on others for help, dither in making decisions, and are mentally and emotionally unprepared for an event like EMP, a Coronal Mass Ejection, or cyberterrorism that destroys the source of our power will quickly find themselves in desperate straits.

If you've been smart enough to recognize the importance of being prepared, chances are that you'll be in the first group of survivors, but don't wait to begin putting into action plans that will, specifically, prepare you for a world without a power grid.

Resources

Supplies and Gear for EMP Survival

- Heavy duty black trash bags
- Solar battery chargers
- Firewood
- Matches
- WaterBOB
- Water barrels
- Berkey water filter
- Lifestraw Family filter
- Sawyer 4 Liter Water Filtration System
- Bleach
- Essential oils: cinnamon, peppermint, lavender, lemon
- Calcium hypochlorite
- Manual well pump
- Food and other supplies for pets and livestock
- Extra 5 gallon buckets
- Kitty litter
- Large quantities of pool shock and chlorine if you own a pool or live near someone who does
- Mosquito repellent
- Homeschool textbooks and school supplies
- Fire extinguishers
- Soap and/or ingredients to make your own
- Tea light candles – buy them in bulk.
- Long potholder gloves for use over a campfire
- Tin snips
- Cast iron cookware
- Gasoline preservative
- Gas cans
- Siphon kit
- Heavy chains and padlocks
- Extra food
- Hand sanitizer and sanitizer wipes
- Pool water testing kit
- Toilet paper or alternative
- Small electronics protected in a Faraday cage
 - Ebook readers
 - Ham radios
 - Short wave radios
 - Walkie talkies
 - iPod or other mp3 players
 - digital camera

- Cash
- Gold and silver coins
- Wind-up clocks/watches
- Batteries in different sizes. You really can't stock up on too many of these.
- Flashlights, light sticks, UVPaqlite products
- Rolls of black paper
- Visqueen
- Solar panels, protected in a Faraday container
- Pressure canner
- Canning jars
- Canning supplies (lids, tongs, etc.)
- Rocket stove (brands?)
- Bicycle baskets, trailer
- Tents
- Sleeping bags
- Mosquito netting
- Prescription medications – Ask your doctor to prescribe an extra 2 or 3 months' worth, if possible.
- Buckets with toilet seat attachment
- Kiddie pools
- Kindle or other ebook reader – Store in a Faraday container
- Books on CD
- DVDs
- Battery powered fans
- Plywood
- Radiation detector
- Potassium iodide tablets
- Hexagonal nuts and screws
- High quality hand tools
- OTC medications
 - Ibuprofen
 - Aspirin
 - Benadryl
 - Acetaminophen
 - First aid supplies
 - Pepto-Bismol
 - Anti-diarrhea medication
- Sweet treats, such as hard candies or chocolate stored in vacuum packed jars
- Solar ovens – preferably at least 2 or 3
- Tarps
- Heavy duty work gloves
- Rubber gloves
- Rope and paracord
- Raw, local honey

- Solar yard lights
- Just-add-hot-water freeze dried meals. If they can be prepared directly in their mylar bag, so much the better.
- Manual can openers
- Board games, playing cards
- Homeschool supplies, such as math textbooks, classic novels, and encyclopedias
- Get Home Bag
- Clothesline and clothespins
- Drying racks
- Ingredients for homemade laundry soap
- Reading glasses, extra contact lenses and supplies
- Firearms and ammunition
- Laser practice firearm
- Diatomaceous earth
- Battery powered smoke and carbon monoxide alarms
- Shoe glue
- Sewing supplies
- Treadle sewing machine
- “Old school” devices, such as record players (and vinyl records!), cassette players and cassettes, slide rules, abacus, etc.
- 55 gallon water drums and a pump kit

Vehicle Emergency Kit

Sanitation

- A 4-pack of toilet paper, flattened (Take the center cardboard tube out to make it as flat as possible.)
- Baby wipes
- Small box of Kleenex
- Hand sanitizer
- Bar of soap
- Clorox wipes
- A few plastic grocery bags stuffed into another grocery bag
- Toothbrushes and toothpaste
- Dental floss
- Tampons/feminine protection
- Paper towels

Sustenance

- Beef jerky or something similar
- Trail mix
- Shelled sunflower seeds
- Small cans of food, such as fruit, ravioli, tuna
- Protein bars and granola bars
- High calorie energy bars (Mainstay is a good brand.)
- Hard candies
- Packets for flavoring water
- A few freeze-dried meals
- Can opener, unless all your cans have a pop-top
- Plastic forks, spoons and knives, one set per person

Entertainment/Sanity

- A read-aloud book
- Small Bible, scriptures
- Paper and pens/pencils
- Deck of cards.
- Single-use digital camera (Not only good for entertainment, but it might come in handy to document your emergency situation.)
- Small binoculars
- Sharpie
- Glo-sticks

- Ear plugs

Hard-Core Survival

- Emergency blankets
- Fleece blankets
- Light sources (Headlamps are worth their weight in gold, but also have a traditional flashlight or two. These can be stored in a glove compartment or other niche in your vehicle.)
- Rain ponchos
- Duct tape
- Hand and foot warmers
- Rope/paracord
- Knife
- Battery/solar-powered emergency radio
- One or two plastic ground covers
- Work gloves
- Extra batteries for anything battery powered in your kit
- Umbrella or rain poncho
- Waterproof matches
- Whistle
- Compass (Learn how to use it!)
- Water purification tablets
- Small portable water filter
- Tinder and at least two methods for starting a fire
- Mirror for signaling
- Small, sturdy shovel (Check out a collapsible shovel if space is tight.)
- Several heavy duty black trash bags
- An emergency radio with extra sets of batteries
- Water
- Road maps for your state and adjoining states, just in case.

Medical

- Basic First Aid Kit from Wal-Mart, price \$9
- Children's pain relief medication and dispenser
- Adult pain relief medication
- Quick Clot
- Benadryl
- Aspirin
- Small bottle of bleach for sanitizing
- Thermometer
- Sunblock

- Insect repellent
- Medical gloves and face masks
- Tweezers
- First Aid reference book
- Super Glue
- Moleskin

Miscellaneous

- Ziploc-style bags (Just store some of your items in different sized bags so you'll have them already packed.)
- Rubber bands
- A bungee cord or two
- A cell phone charger
- Comb/hairbrush
- Small scissors
- Sewing kit
- Cloth bed sheet
- A couple of compact nylon bags and a nylon backpack (If you have to leave your vehicle, you'll need something for carrying supplies.)
- Money in small bills, along with plenty of change.
- A list of emergency phone numbers
- A battery-powered fan
- A long-sleeved shirt for each person
- A pair of comfortable walking shoes and wool socks for each person
- A wool cap and/or a floppy brimmed hat
- Pepper spray
- Handgun with extra ammunition and magazines
- Bandanas