

One Second After the Lights Go Out: An EMP Survival Handbook

by Lisa Bedford

Most preppers have read at least one book about post-EMP survival. *One Second After* is the most well-known and has caused many people to become preppers overnight. What is more life-changing than an event that brings destruction to our nation's power grid systems? Even a short-term power outage illustrates our dependence on the flow of energy through this grid for communication, light, transportation, and everything else we need to survive.

But what if an EMP does occur? What should you do first? Having a written plan, including checklists, 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 taking proactive 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 EMP, 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 steps to protect their equipment from an EMP or CME due to the very, very high cost involved.

All the pieces are in place for an attack via the detonation of a nuclear missile in the atmosphere above our country:

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. Those nations and entities are 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 ISIS and other terrorist groups.

Smaller attacks on our grid system happen frequently. USA TODAY reports that about once every four days, our power grid is attacked by a cyber-attack or 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.

In March, 2015, the entire country of Turkey experienced a 10-hour blackout whose cause is still unknown at the time of this writing. A cyber-attack on their power grid is a very real possibility.

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.

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.

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 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."

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 current infrastructure is in place and functioning

Even though many power plants have backup transformers, these, too, will 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.

Finally, there is the human element. The people who run these power plants also have children and loved ones 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. So what's the use?

The point of preparing for this, or any other crisis, is that these efforts buy you 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, perhaps barter and acquire chickens or other livestock. Stored "preps" are a cushion of time, a margin, just when you need it most.

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? That mental state is described by some as, The Black Zone. Your brain is sending furious signals that you must do something while also 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 post-EMP world hits home.

Ironically, every single one of those commands is the worst possible thing you can do right now! 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.

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.

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 and full of 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 EMP.

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 this initial, foundational steps, please refer to my book, *Survival Mom: How to Prepare Your Family For Everyday Disasters and Worst Case Scenarios*.

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 couple of hours.

The following pages will be sobering, maybe even a little depressing as you begin to realize exactly what a long-term power failure will mean to you and your loved ones.

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 disappear, first verify that the power outage is really due to an EMP or some other massive failure of the power grid.

It may have been caused by a military attack, a terrorist event, hackers, or a coronal mass ejection, but for now, your primary focus must be survival. Realize that your time to take care of final preparations 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. 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.

2. Accept what has happened and focus your mind and energy 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. However, your loved ones are counting on you to lead them through this worst case scenario.

For many, 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.
3. Water will quickly become a top concern and your community likely has only 24 hours' worth of water in its supply system. 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.)
4. Otherwise, wipe down the tub and sinks with a sanitizing solution before filling. Be sure to open both the Cold and Hot water valves.

In the initial aftermath of the EMP/power grid failure, use tap water first, and once it has run dry, then begin using your stored water.

Yes, your city's water system will cease to operate. Municipal water systems are vulnerable because they run on electricity. They have backup generators but those will be affected by the EMP. If the generators are operable, they will run only as long as fuel is available. 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 will degrade, so use this stored water first before tapping into your other reserves.

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:
 - a. 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!
 - b. Flushing toilets
 - c. Laundry

- d. Water garden (fruits and vegetables!)
- e. 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. 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 happen 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. They might 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. There is one factor, though, that will most certainly sideline all vehicles eventually and that is the lack of fuel, both gasoline and diesel.

An EMP 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 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 you have any operating vehicles 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.

Are all your motorized vehicles disabled? Then 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. If an EMP event has occurred and the power grid is down, all electrical outlets throughout the house will be dead and the circuitry in your landline phone is probably fried.

8. Voltage overloads, caused by the EMP, may cause fires to break out. Be aware of this and be ready to deal with fires, both on your own property as well as your neighbor's. Quickly unplug all appliances, TVs, computers, and everything else that connects to an electrical outlet.

Desktops with long cords act as an antenna to conduct a charge. Power cords, internet, mouse, keyboard, speakers, and printers are real problems. This isn't just for computers, but televisions, appliances, etc. Every yard of cable will funnel that much extra charge to whatever it is connected to. All cords and cables in the entire house will need to be unplugged and secured or there are going to be secondary fires from the voltage overload on those cords and whatever they are attached to. Also remember: it's not just your house that will be subjected to EMP. All of your neighbors will as well, so if they're still plugged in and not aware, they'll need a lot of extinguishers or sand-buckets handy.

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 a neighbor's. Moving forward, 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 minutes/hours following an EMP, practice family fire drills.

9. If you are away from home, get there as quickly as possible. Try to band together with others heading in the same direction. Carry whatever supplies you can in order to make the trek. If you don't have a Get Home Bag packed, it should include:
 - a. Flashlight with extra batteries. A headlamp is a good choice, too. A UVPaqlite provides ambient light without requiring batteries and would be impervious to the effects of EMP.
 - b. Knife
 - c. Multitool
 - d. Water – Most important. You'll need at least 2 liters per day.
 - e. Small water filter, such as a LifeStraw or Sawyer Mini Water Filtration System.
 - f. Small first aid kit
 - g. Extra pair of wool socks, not cotton
 - h. High calorie snacks/energy bars
 - i. Cash in small bills
 - j. Prescription medications, if you need them

- k. Hand sanitizer
- l. Toilet paper or a couple of packets of tissues
- m. Personal protection gear, e.g. handgun with extra magazines, taser, etc.
- n. Map of area with alternate routes identified
- o. A compass
- p. Sunglasses
- q. Rain poncho
- r. Portable ham radio
- s. A change of comfortable clothes and shoes for walking, suitable for the current season, if your usual work attire isn't.

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, if possible.

I like and recommend the UVPaqlite brand of lights for providing ambient light. 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. 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 in an article titled, "Post-EMP Survival: What if you can't get home?"

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 an EMP 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.

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. 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:

- a. Flashlight, light stick, or UVPaqlite
- b. Hard candies
- c. Package or two of tissues
- d. Hand sanitizer or sanitizer wipes
- e. A few bandages – If they have to walk home and develop blisters on their feet, these will be helpful.
- f. Laminated, simplified map showing route home.
- g. 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.

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. Save as much cash as you possibly can.

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, 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.
- 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 better to prevent a pregnancy than to have

- 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.

*This is a controversial suggestion, with some people believing I'm completely nuts for suggesting that some commerce will still exist following an EMP or other form of power grid failure. I think that's short-sighted. The country is made up of tiny villages of only a few dozen or few hundred people, towns of all sizes, and cities of varying sizes. Most people will simply not realize the enormity of what has happened and will attempt to continue with business as usual. This will happen in entire small towns to individual neighborhoods in larger cities. As with every other survival suggestion, you will have to decide on the safest course of action, depending on the swiftly changing circumstances around you.

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. 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 post-EMP life.

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.

15. 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.

16. 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. If it's not possible for these loved ones to bring everything, here are a few top priorities:
 - a. Cash, gold, silver, jewelry. Cash will 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.
 - b. Nonperishable food
 - c. 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.

- d. Firearms, ammunition, knives, and other defensive/hunting weapons
- e. Extra clothing, sturdy shoes, winter wear
- f. Cast iron skillets and pots. Heavy, but they last nearly forever and can be used safely over campfires
- g. Stored fuel, such as kerosene, gasoline, propane, and even firewood
- h. Camping gear
- i. Bleach and water filters and purifiers
- j. Any electronics that were not ruined by the EMP
- k. Any and all "survival" supplies, such as duct tape, rope, paracord, flashlights, emergency radios, tarps, multi-tools
- l. Hand tools, especially those that you don't already own
- m. Prescription and over the counter drugs
- n. Medical supplies, first aid kits
- o. Soap and detergent
- p. 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.
- q. 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.

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.

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 is to spend all the cash you have. 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. 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. It may seem very strange to realize, but once the grid goes down, time will become irrelevant, 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.

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.

19. Check to see 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.

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.

20. Use a 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 from the EMP surge, they will most likely be operational.

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.

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. However, for survival purposes, it would be extremely smart to learn Morse code in order to send coded 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.

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

21. If you have a generator, 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.

There's a possibility that older generators, made

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.

22. Before the food in your refrigerator goes bad, use up as much of it as possible. Eat the most nutritious foods you have. All the physical activity and high emotional levels will be draining for everyone and there's still a lot of work to be done.

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-power grid 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.

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,

In the days and weeks following the EMP, 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.

23. Your new workday 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.

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-EMP 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 not only because I wouldn't want my children scattered throughout the house, making them, individually, more vulnerable to

intruders, fire, or some other danger, but 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, 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.

24. 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.

25. 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.

ACTION STEP: Set aside the electronics you want to protect from EMP and get them safely stored in a Faraday container.

26. At some point, after the initial shock has worn off, you'll need to 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.

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. A bit of charitable kindness will long be remembered.

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 when the power grid goes down. For your best chances of survival, get started establishing those supportive relationships now.

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.

ACTION STEP: Post-EMP survival depends, in part, on effectively forming small communities. The sooner this begins happening, the better your chances are of survival, and you can sow the seeds for this type of group right now.

Think about the groups that you are already a part of: church, Scouting, homeschooling, clubs, neighborhood watch groups, CERT, etc. People that you already know, trust, and with whom you share common ground are the most logical folks to consider. 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.

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 – 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.

I'd also like to suggest assigning to one or two people the task of journaling, writing the history of this post-EMP 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.

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.

Survival beyond the first 72 hours

In a post-power grid world, life is going to become a matter of day-to-day survival. One meal at a time. One night of safety at a time. Nothing will be taken for granted, and nothing will be wasted.

Long-term survival will be a matter of hard work, community building, and pure luck. In large part, the first 72 hours, will determine who ultimately survives and who doesn't. The preparedness suggestions listed here apply to multiple emergency and worst case scenarios, not just power grid failures. Each "Action Step" you take now will help insure the safety and health of your loved ones one second after the lights go out, and beyond.