

PREPARING FOR THE UNEXPECTED
An Emergency Planning Guide
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Emergencies and disasters come in all shapes and sizes and can happen anytime. An emergency could be as simple as a traffic accident that knocks out power for a day to a catastrophic earthquake that destroys all basic services for an extended period. But in this age of paid professional police and fire departments, ambulance and air ambulance services, readily available commercial resources and interconnected forms of communications, many people take government services and private enterprise capabilities for granted and are ill prepared for an emergency. One just has to remember the chaos of Hurricane Katrina, and the collapse of government and private services on all levels, to realize that we all need to be prepared to take care of ourselves in the event of a major disaster. The key to coping with an emergency is planning and preparation.

Emergency Planning

So how do you plan for an emergency? The first thing to do is to plan for the worst so you are prepared for anything. It is better to be prepared for a 9.0 earthquake and have a 3.0 than to prepare for a 3.0 earthquake and have a 9.0. By having a plan, you will not be caught off guard and feel the panic of wondering what you should do. You will have a plan, have things in place and be able to take action.

Assess the Situation

Begin by assessing the possible emergencies that could arise. Earthquakes, forest fires, floods and landslides and, with the current world-wide fiscal situation, civil disturbance, are all emergencies that could occur in our community. So begin by thinking about what you would do in each situation and put your plan in writing.

Checklist

By having a written plan, or checklist, you will not forget some important part of your plan. It will also give you a timeline so you know how much of your plan can be implemented in the time you have to respond. You can prepare individual plans for each emergency, or prepare a multi-staged

plan so you can move from one stage to another based on the time available and the situation.

Print a hard copy of your plan and put it in a safe place where all family members have access. In an emergency, time can be critical and having a hard copy can save a lot of time. This also allows any family member to start implementing the plan in the event you are absent. We have our plan in a manila envelope taped on the inside of a kitchen cabinet door. There is also a mechanical pencil (will not dry out) attached to the envelope to mark off items as they are completed.

While we are discussing checklists, I should mention having lists in stored items and kits. When you prepare a food storage box, first aid kit, or other box with stored emergency items, you should make a list of the items contained in the box and pack it inside the box. This can be done on your word processor. To protect the list from the elements, you can print the list and seal it. I use clear plastic shelf paper on both sides of the list with a little overlap on the edges so the two glue areas stick together. This makes a good water-tight seal and will protect the list.

Be Proactive

You can be proactive with your plan. If you think there is a possibility that you may have to evacuate (forest fire, flood, mudslide, etc), don't wait until the sheriff shows up and says you need to leave. You may want to initiate part of the plan. You can either move your important items to a location close to a door, or even load them into your vehicles. This can save time if you are told to evacuate. The most you lose is having to unload your vehicles and put everything back.

Immediate Emergency Evacuation

The sheriff just showed up at your door and said you have to leave due to a forest fire or impending landslide. You have 15 minutes to pack a vehicle and leave. What do you do now? You can run around your house and look at everything and try to decide what to take. Or you can take out your plan that lists important items, where they are in the house and into which vehicle they go. You can go one step further and designate who will load the items into each vehicle so everyone knows their responsibility.

Example List:

Immediate

Emergency cash (car)

Bankbook from desk (car)

Credit cards in wallet (on person)

Photo boxes from closet (truck)

Tax forms and important papers from filing cabinet (truck)

Guns and ammo from office (truck)

Phase Two

Jewelry from bedroom (car)

Stamp collection from office (car)

Computer CPU, Monitor (truck)

You should make this a multi-staged list with the most important items listed first. The following stages will list other items that will be taken if you have additional time. Remember to make sure that the items you are listing will fit into the vehicle listed. The 60" plasma TV will NOT fit in the Volkswagen.

Emergency Money

The first item in this example is "emergency cash". You should have a minimum of \$100.00 in \$1.00's and \$5.00 on-hand for an emergency. If there is no power, there will be no ATM's, credit card readers or cash registers. It is better to give someone \$4.00 for a \$3.15 item than to give them a \$20.00 bill.

Vehicle Preparation

One thing that can help and really speed up an immediate evacuation is to have some emergency supplies pre-loaded in your vehicle. These include a first aid kit, some basic tools, a blanket and a "Go-Bag".

The GO-BAG

The "Go Bag" can be a simple back-pack containing a pair of pants, shirt, socks, shoes, change of underwear, sweater, gloves and a rain poncho. This will provide a complete change of clothing plus some extra protection for warmth and to remain dry. You can add a couple of bottles of water and some granola bars and have a nice 24-hour emergency kit. If you are taking daily medications, don't forget to add a 7-day pill container. If you keep it in your vehicle, it can also come in very handy if you are stranded on the road in a storm

Emergency Notifications

Have an emergency rallying point for evacuations so everyone in the household knows where to meet if they cannot return to the house. Make the rallying point a good distance from your residence in the event the evacuation area is a significant size.

Out-of-Area Point-of-Contact

In the event that you are separated from loved ones in an emergency, have a person that people can contact who is out of the area. All members of the household should have the Point-of-Contacts telephone number so they can call and let that person know where they are located and their status. There is nothing more stressful than wondering where a loved one is located and if they are alright. A simple phone call to the Point-of-Contact can relieve that stressful situation.

EXTENDED EMERGENCIES

In the event of a major disaster such as an earthquake, major flooding, or other disruptions of the general system of goods and services, we have to be prepared to provide our own support for the necessities of life which are food, water, shelter, clothing, first-aid and protection (self-defense).

Food:

Supermarkets receive new product daily, and often times, they receive more than one daily delivery. It is estimated that a standard supermarket will rotate a preponderance of it's stock every four days. In the event of an emergency, that stock can be depleted within 24 hours as people rush to the store for food. Depending on the duration of the event, you could need to feed yourself from your own stored food for a considerable time. When considering food storage, there are two main things that have to be taken into consideration - shelf life and ease of preparation.

Food Shelf Life:

Most people will have a supply of food items available in their refrigerator and pantry. The US Department of Agriculture estimates that a refrigerator will keep food safely cold for about 4 hours if it is unopened. A full freezer will hold the temperature for approximately 48 hours if full and 24 hours if it

is half full if the door remains closed. In the event of a prolonged power loss, the frozen items should be prepared and consumed.

Immediate Use Items

If the power is out, you will not have a microwave, electric range or other methods of heating food that require electricity and heat. Check the items in the freezer and find the ones that are already cooked and just require heating. These should be safe to eat until they are completely defrosted due to the lack of refrigeration. Once you pass this time limit, you should dispose of any remaining food items that required refrigeration or freezing. Don't risk adding food poisoning to the emergency situation.

Short Shelf Life Items

The items in the pantry are most likely to be perishable, short shelf life items that are boxed or in plastic bags. These should be the next series of items to be consumed. This food supply could last from a few days to a couple of weeks depending on when you last purchased food. Again, food preparation must be considered. Boxed breakfast cereal can be eaten dry, boxed macaroni and cheese can't. Again, check the expiration dates on items and do not eat the ones that are past their date, or from cans that are dented or swollen. Once those items are depleted, you will need to rely on long shelf life food.

Long Shelf Life Items

Canned items and items sealed in air tight containers that do not require refrigeration are the items with the longest shelf life. Canned meats, breads, fruits and vegetables, and liquids like canned broth and milk normally have a shelf life of approximately two years. Some emergency supply companies also prepare items that are packed in nitrogen and can have a shelf life of up to 25 years. Dried items, such as rice and pasta, that are sealed in air and water tight type packaging also have an extended shelf life. Try to keep the items simple. Combining a can of meat with a package of noodles or rice can make a nourishing one pot meal.

Food Storage:

One of the first considerations is where you will store your emergency food. Stocking up on large cans of food is not a viable option if you only have space for small cans. Your initial supply of emergency food should be kept in your house. It can be kept in your cupboards or in a closet. An additional larger supply should be kept in another building or multiple locations. The

adage "Don't keep all of your eggs in one basket" applies here. Having a months supply of food in your house will do you no good if your house is the first building that is destroyed.

Storage Containers

A good method for storing food is in military surplus ammunition cans, military foot lockers, lidded plastic storage containers and large portable ice chests. The military makes many sizes of ammo cans and they are normally available from army surplus stores. These are metal water-tight cans and can be stored anywhere. They prevent moisture, insects and rodents from access to the stored food. Military foot lockers, lidded plastic storage containers and large portable ice chests have the same basic properties as the military ammunition cans. Military foot lockers, lidded plastic storage containers and large portable ice are normally lighter in weight but are not water tight. One thing to always remember when storing food, or any other items, in a large container is the weight of the container when loaded. In a major disaster, you may be forced to relocate. You need to make sure your food storage is light enough to be portable.

Maintaining Freshness

Rotate your food items annually. Pick a month each year when you will do this and mark the date on the storage containers. Since most canned items have a two year shelf life, you can replace one half of the stored items with new items and use the older items for daily consumption. Always check the expiration date on food before consuming it. Don't forget to add an extra pound of table salt and can of pepper to your stored food. A little spice can go a long way to make the meal taste better.

Food Preparation:

The best laid plans can be ruined for the lack of the appropriate means to prepare your food. By keeping the meals simple, the food preparation items needed can be kept to a minimum. Here is a list of the basic food preparation items:

1. Pot to cook simple meals (Teflon for ease of cleaning)
2. A large spoon for cooking (Compatible with Teflon pot so you don't damage the Teflon)

3. One metal or non-breakable bowl per person (can be used for soups and broths, a plate can't)
4. One metal spoon per person (can be used for liquids, a fork can't)
5. One metal or non-breakable cup per person
6. A can opener
7. A large knife (for slicing canned bread and other items)
8. A coffee pot or tea pot for heating water (Use for water only - needed for sanitation)
9. Coleman type propane stove (two burner is best for cooking and heating water at the same time)

NOTE: Don't forget to buy a spark igniter.

Emergency Cooking

The Coleman type propane stove is included because natural gas or propane deliveries could be disrupted. A single small propane camping cylinder should last a week, if used sparingly (two hot meals and heating water daily). Avoid using too many propane burning items in an enclosed space. Always have an open window or door near the item when in use to avoid a build-up of fumes.

Alternate Hot Water Method

Another means for heating water, during periods when the sun shines, is a solar shower. A five gallon solar shower should be able to provide hot water for hygiene purposes for two people daily. Do NOT use the hot water from a solar shower for cooking unless the solar shower is dedicated for drinking water use only. This will also save on propane use and extend the life of your propane cylinders.

Food Hygiene:

You will need the following to maintain your food preparation equipment:

1. Large plastic bucket with lid for washing (It can also be used to store the food preparation equipment)
2. Nylon/sponge scrubber (use only for cleaning food preparation items.)
3. Liquid soap (hand soft soap can be used for personal hygiene and cleaning kitchen items)
4. Towels for drying items and cleaning the tops of cans before opening.

Use drinking quality water (sparingly) to clean food preparation equipment.

Water:

Water is a necessity of life, and the warmer the temperature, the more water a person needs to survive. We are all used to turning the faucet and having the water flow freely. But in an emergency this may not occur. It is always wise to have a few gallons, or a couple cases, of bottled water on-hand. This gives you an immediate source of fresh drinking and cooking water. These can be consumed and replaced annually in the summer months when we consume more water daily.

All urban water systems and most rural water systems require electrical power. You need power to pump the water from the well, or other water source, and you need power to pressurize the water lines into the house. While an electrical generator is invaluable in emergency situations, the requirement for gasoline can curtail the length of time this power source will be available.

The alternatives are to use a bucket and draw water from a local water source (i.e. stream, pond, etc.), a solar water pump, or a manual water pump. Each method has advantages and drawbacks. To draw water from a stream or pond requires a method to carry the water and a method to store water at the site where you will use it. A solar pump also requires a storage method so water is available when you want to use it. The drawbacks with a solar pump are the weather and availability of sunlight and the initial cost. The manual water pump is available most of the time but does require manual labor to pump the water. Manual pumps are also more subject to freezing in cold weather because they are above ground.

There are a number of manufacturers who make manual water pumps that use the same wellhead cap that your existing electric pump uses. They can be used to pump water directly for use or pumped into a storage container.

Water Purification

Regardless of the method you use to obtain the water, you are going to have to purify it. While there are numerous small water filter systems for personal use, the best methods for purifying a large quantity of water are boiling and using chemicals. Boiling water is both time consuming and requires a fire, and thus, burns fuel. Chemical purification is the quickest and easiest but also requires chemicals. The easiest and cheapest chemical is common household laundry (Clorox) bleach. Whether you use

Clorox Bleach in an emergency or for everyday chores, it's always an environmentally sound choice. After its work is done, Clorox Bleach breaks down to little more than salt and water so it is environmentally friendly.

How to Purify Using Bleach

First, let water stand until particles settle. You can also strain water through a cloth (T-shirts work very well for this). Pour the clear water into an uncontaminated container and add Regular Clorox Bleach (8 drops per gallon or 1/2 teaspoon per 5 gallons). Mix well. Wait 30 min. Water should have a slight bleach odor. If not, repeat dose. Wait 15 min. Sniff again. Keep an eyedropper taped to your emergency bottle of Clorox Bleach, since purifying small amounts of water requires only a few drops. One gallon of Regular Clorox Bleach will purify 3,800 gallons of drinking water. Do **NOT** use scented bleach.

Water Storage

Drinking and cooking water should always be stored in a clean container dedicated for that purpose. Water can be gathered or pumped into an initial container and then transferred to the storage container after it has been purified. Never put unpurified water directly into the drinking and cooking water container. A 30 gallon plastic drum with a small hand pump can provide drinking and cooking water for two people for a week.

Shelter

Since the beginning of time, man has found methods to shelter himself from the elements. We have moved from caves to cabins to condominiums but the reasons have always been the same - To provide shelter from the elements and for protection from predators. In major disasters, there are normally shelters set up by emergency services personnel to assist the people in the disaster area. But the nature of the disaster could cause delays in establishing these shelters and they may also not be accessible from your location.

In major events, your primary residence may be damaged or destroyed. The best option is to have a secondary building that can be used for

temporary living quarters. This can be a garage, storage building or some other structure that is in close proximity to your house. It should meet the same basic requirements as your house in that it should have a means to provide warmth, keep you dry, and have food and water available. If you have such a building in close proximity to your house, this would also be the perfect location to store a portion of your other emergency supplies.

You should also have a good quality sleeping bag available for each person in your family in the event you need to relocate to another person's house, or they need to relocate to yours. When choosing a sleeping bag, choose one for the coldest anticipated temperature. You can always open it a little if it gets too warm.

Sanitation

With the loss of water or of your primary shelter, you will need some place for sanitary purposes. This can be as simple as a bucket and plastic bags to a ready-made portable toilet. There are places that make portable toilets for emergency and survival purposes. These are normally a short plastic barrel with a top and a toilet seat. They are used by putting a plastic bag inside the bottom half and using it as a temporary toilet. If you obtain one of these, it can be used as a container for all of your sanitary needs. You should add a box of kitchen trash bags, a gallon bottle of bleach, a few rolls of toilet paper and some Handi-wipes for washing your hands after use. If appropriate, feminine hygiene needs can also be added to the barrel. If you don't have a dedicated porta-potty, you can use any container of sufficient size and line it with a plastic bag.

Clothing

When discussing shelter and warmth, we should also consider clothing, since its primary function is to provide protection from the elements. There are few things worse than being in an unexpected situation and also being cold and wet.

Dressing for an Evacuation

If you anticipate that you may have to evacuate, dress appropriately. Wear a long-sleeved shirt, long pants and boots or hiking shoes. Flip-flops are not good footwear to try to outrun a fire. In a fire situation, a handkerchief to cover your face, eye protection, a hat and gloves are also advisable.

What is a "Go-Bag"?

Preparation of a "Go Bag" can help to save time. It's called a "Go-Bag" because it is packed and ready to go at a moments notice. The "Go Bag" can be a simple back-pack containing a pair of pants, shirt, socks, shoes, change of underwear, sweater, gloves and a rain poncho. This will provide a complete change of clothing plus some extra protection for warmth and to remain dry. You can add a couple of bottles of water and some granola bars too it and have a nice 24-hour emergency kit. I would recommend making one and keeping it in your primary vehicle. You can never tell when you might be stranded somewhere and some food, water and extra clothing will be handy.

First Aid Kit

Accidents can happen anytime and anywhere. In a major disaster, there could be serious injuries and little or no immediate response from medical personnel. There are many companies that make individual and small group first aid kits.

Here is an example of the contents of a small first aid kit:

- 3 - Dressing Sterile 4" x 7"*
- 1 - Bandage Muslin 37" x 37" x 52"*
- 4 - Bandage 2" x 2"*
- 12 - Elastic Bandages 3/4" x 3"*
- 2 - Bandage Gauze 3" x 6 yd*
- 2 - Adhesive Tape 1" x 1 1/2 yd*
- 4 - Eyepads Sterile*
- 8 - Adhesive Strips for Eyepads*
- 12 - Providone - Iodine Wipes*
- 12 - Antiseptic Ointment*
- 7 - Ammonia Inhalants Ampuls*
- 30 - Ibuprofen 200mg Tab*

This first aid kit would be sufficient to handle most situations for two to three people and would be the type you would want to have in your vehicles. The size of the first aid kit you need would depend on the size of the group you need to support and the situation. As an example, a first aid kit carried by a professional forester could have more cut and broken bone

related items than the first aid kit carried by a fire department, which could have more burn related items.

Protection (Self Defense)

Civilization has a very thin veneer that is normally regulated by laws and controlled by a law enforcement presence. In the case of disasters and major emergencies, there is often a break down in society because the law enforcement presence is overwhelmed. One just has to look back at the riots in America and the recent riots in Europe to see what can happen. The need to protect yourself is even greater in a rural area where the number of law enforcement personnel is fewer and they are spread over a greater distance. There is also the added danger of encounters with animals.

The best defense against predators, after obtaining a habitat with solid walls that is securable from the interior, is a firearm. While the personal choices of firearms are many, I would recommend two types of firearms, a pistol and a shotgun, for overall protection.

Pistols:

In a number of general surveys of gun owners, the best overall pistol was determined to be a .357 magnum revolver. The reasons for this were:

1. Ease and reliability of operation, and;
2. Cost effectiveness, and;
3. Stopping power.

Revolvers are tried and true weapons and the .357 magnum chambers both the .357 magnum round and the .38 Special round. The .357 round has good stopping power while the .38 Special is less expensive and allows for more cost effective practice.

Shotguns:

I would also recommend a 12 gauge pump-model shotgun with interchangeable barrels. One barrel for buckshot and one barrel for slugs. The buckshot barrel can be used for self-defense and for hunting fowl and the slug barrel can be used for self-defense and hunting larger game.

Training:

If you are new or inexperienced with firearms, most gun clubs offer classes in safe handling procedures and practices. Contact a local gun club and find out if courses are available in your area.

Basic Utilities

Most people take the provision of basic utilities (i.e. electricity, water, natural gas or propane, etc.) for granted even though these require some form of delivery. In an emergency situation, these methods of delivery may be interrupted, and it could be for an extended period. Also remember that a number of items in your home require more than one utility to function. A forced air heating system requires both gas and electricity, a hot water heater requires both gas and water, etc. So if you lose one form of utility, you can lose the use of other forms also.

Let's look at each of these and what options are available to handle an extended loss.

Loss of Electrical Power

Every year, we normally have some power outages in the electrical utility. This causes the loss of the ability to light our homes, operate a number of appliances, run heater fans, operate well and pressure pumps, and disrupts normal means of communication. The normal means for supplying emergency power is a back-up generator. This is a good method as long as the outage is not prolonged since generators require fuel to operate. There are two things you can do to prolong your available fuel. One is to add a fuel stabilizer, such as Sta-Bil, to avoid fuel degradation. Stored fuel should be replaced at least annually.

The other thing is to run the generator on a schedule such as one hour on and three hours off, or an as-needed basis. Using the on/off schedule would allow most generators to function for seven to ten days on 20 gallons of gasoline.

Loss of Water

Loss of power will often mean the loss of water availability for those with wells and pressure tanks.

In addition to the use of a generator, there are small solar pump and panel systems designed for water systems. These systems will require a water tank as they do not function during the hours of darkness unless they have a battery storage system. The main drawback is the initial purchase price which could be in the thousand's of dollars.

There are also hand pump systems that can be co-located with electrical pump systems in a well. While the hand pump will supply water directly or to a storage tank, they will not supply water pressure to a house. The main drawback with a hand water pump is the likeliness of freezing in cold weather since they are an above ground unit.

A bucket and storage tank are the most simple method for obtaining water. The drawbacks to this method are the time required and the availability of an open water source. A bucket can also be used to refill the tank on toilets and the toilets will remain functional. Use non-drinking water for this purpose.

Loss of Natural Gas/Propane

While most people who have propane have a tank that is at least 250 gallons, there is always the possibility of running out of propane. Since propane is used for cooking, heating water, heating the house and other things, it is always wise to have an alternate method to perform these tasks.

Coleman type propane stoves can be used to cook and heat moderate quantities of water. A small propane cylinder will last approximately one week if used for basic cooking. This type of stove will also be required if you have an electric range and lose electrical power. The Coleman type stoves should not be used to heat a house or room due to fumes. Don't forget to buy a spark igniter.

The best alternative to heat a home or room is a wood stove. If sized appropriately, these will heat the entire home and require neither gas or electricity. They can also be used to heat water and food. If they can not heat the entire house, close off rooms that are not in use.

Solar showers are a good source for heating water for bathing and general use. A solar shower should NOT be used to heat cooking water unless it is specifically dedicated for use with purified water.

COMMUNICATIONS

In an age where multiple forms of communications are standard, how would you communicate if they are suddenly removed? Most people rely heavily on their cell phones, iPads and other portable personal communications. But in a major emergency, such as a fire or earthquake,

those forms of communications can be disrupted. Radios are the best way to remain informed in the event of an emergency and also to provide some communications.

Portable AM/FM Radio

You should have a portable radio so you can keep informed on local occurrences. These radios can be battery, solar or hand-cranked in the event of a power outage. Remember to keep a supply of batteries with them so you can have at least one change of batteries.

Check to make sure the radio has reception at your residence or shelter-in-place location.

Use the radio sparingly in the event the emergency is of long duration.

Most updates on local events will be given on the hour or half-hour by your local radio stations.

FRS/GMRS Radios

The Family Radio Service/General Mobile Radio Service radios offer small two-way short-range radios for personal use. These radios, which are normally called handi-talkies, are available from many retailers and operate on AAA batteries or rechargeable battery packs. Most of the FRS/GMRS radios offer multiple frequencies and are very useful for communications between vehicles when you are told to evacuate and are using multiple vehicles. These are line-of-sight radios, so their capabilities can be masked by hills and tall structures.

If you use one of the first 14 frequencies on these radios you are not required to be licensed by the FCC.

Amateur (HAM) Radios

Amateur, or Ham, radios are a longer distance two-way communications system that can be installed in a building, vehicle or hand-held. These radios are a higher power than the FRS/GMRS radios and have more frequency bands. They can be used for two-way communications and to monitor emergency services frequencies. Many locations throughout the United States also have volunteer emergency radio nets that operate on these frequencies.

Amateur radios are licensed by the FCC and the use of one when you are unlicensed can result in prosecution, major fines and confiscation of your equipment.

You can contact a local amateur radio club for more information on amateur radios.

Other Forms of Emergency Communications

There are some other forms of communications that could be available in emergency situations. These include things such as satellite phones and satellite computer connections. The satellite computer connection will only be functional with a backup power source and if the satellite dish is not out of alignment.

SOURCES:

Disaster Supplies

<https://propacusa.com/>

CERT kits and general disaster supplies

Survival Food and First Aid:

<http://www.sosproducts.com/>

Just about anything you can think of in survival products

<http://www.nitro-pak.com/>

Food, Individual and Bulk - Short-term Survival Kits - Water Storage - First Aid

<http://www.survival-warehouse.com/>

Food, Individual and Bulk - Short-term Survival Kits - Water Storage - First Aid

<http://www.first-aid-product.com/>

First Aid Kits - First Aid Refills - Short-Term Survival Kits

Well Pumps:

<http://www.bisonpumps.com/>

<http://www.simplepump.com/>

<http://flojak.com/>

Generators:

<http://www.electricgeneratorsdirect.com/> (they stock 345 different generators)

Home Depot

Firearms:

I would recommend contacting your local gun club for recommendations.