

Simple Disaster Preparedness For Homeowners

The amount of information regarding disaster preparedness on the Internet is imposing. Much of it is geared towards those living in rural areas, with an emphasis on long-term preparation on a scale that is simply not useful for the average city or suburban homeowner.



There is also a lot of information out there from “Survival” vendors who sell various expensive products to the ill informed, feeding on panic and disinformation. These vendors invite you to plunk down \$2000 for their all-encompassing survival food packs.

In reality, the average homeowner in a suburban or city dwelling can do a lot to prepare for disaster, whether it be earthquake, wildfire, weather emergencies, or terrorism. This preparation does not have to be expensive or time-consuming.

Water



Water is the most basic element of survival. We use it not only to drink but also to cook and preserve our hygiene. During a disaster, water supplies may be disrupted or contaminated. Since our pumping stations rely on electricity, longer-term interruption of electricity will cause the water pressure to fail. Those of us who lived through the Northridge earthquake in northern Los Angeles and Ventura county areas remember how quickly the water pressure was affected by electricity outages. Below are some basic guidelines to storing water.

Existing Water Storage

Water heaters- Most water heaters in homes hold 30-40 gallons of potable water that can be used in the event of an emergency.



Swimming pools or Jacuzzis-the water and swimming pools or Jacuzzis is not suitable to drink, however it could be used for washing or hygiene purposes as long as the pool has been properly maintained.

Emergency Water Storage

Drinking Water - Bottled water-While commercial bottled water is fine to store for drinking purposes, it is simply not economical to store enough for hygiene purposes. When using bottled water for emergency storage, make sure that you pay attention to the expiration date on the outside of the bottles, and rotate your supply.

Hygiene Water – Washing and bathing require larger amounts of water. You don't want to use your purified drinking water for this purpose. By purchasing brand-new 20 gallon plastic trash cans, and lining them with **two layers of extra heavy duty trashcan liners**, you can create an excellent long-term storage system suited for **hygiene** water. Since trashcan liners are not rated to store potable water, you probably would not want to use this water for drinking. You can place these containers on the side of your house, or in the backyard so they won't be in the way.

When filling up the trashcans with liners, place a few drops of non-scented household bleach in the water. This will help ensure the water will last longer. It is important to seal up the container extremely well. After filling up the bags inside the trash container, try to get as much air out the bags as you can, twist the bags ends then seal it with a heavy-duty zip tie. After placing the trash can lid on the trashcan, you can then place another bag over the top of the trashcan, and then duct tape this about halfway down the trash can.



Water purification- In an emergency, you can purify existing questionable water by boiling or by using **non-scented household chlorine bleach**. Do not use non-chlorine bleach to disinfect water. Typically, household chlorine bleaches will be 5.25% available chlorine. Follow the procedure written on the label. When the necessary procedure is not given, find the percentage of available chlorine on the label and use the information in the following table as a guide. (Remember, 1/8 teaspoon and 8 drops are about the same quantity.)

Available Chlorine	Drops per Quart/Gallon of Clear Water	Drops per Liter of Clear Water
1%	10 per Quart - 40 per Gallon	10 per Liter
4-6%	2 per Quart - 8 per Gallon (1/8 teaspoon)	2 per Liter
7-10%	1 per Quart - 4 per Gallon	1 per Liter

(Source: <http://www.epa.gov/ogwdw000/faq/emerg.html>)

Water Purifiers- Water purifiers such as Brita pitchers and other household filters do not remove harmful bacteria, but they can improve the taste of stored water. It is a good idea to have extra filters on hand.



Quick List:

- 3-4 cases bottled drinking water
- 2 20-gallon Rubbermaid trash cans (or equivalent)
- 1 box extra heavy-duty 20 – 30 gallon trashcan liners

1 bag long zip ties

1 bottle non-scented chlorine bleach

1 Brita pitcher with 3 extra filters

Food

You don't have to go out and purchase expensive dehydrated survival food packs to prepare for disruption in the food supply. You should simply maintain a well-stocked pantry with the ability to sustain you and your family for at least two weeks. Taste and nutrition are factors along with the ability to prepare the food without benefit of electricity.



I've found that large plastic containers used for storage are great places to store your emergency food. You should **not** put this away and forget it, but rather use your survival food as a pantry, continually rotating out food items. Therefore, purchase food items that you like, but are canned, dried, or otherwise suited for preparation and storage without the benefit of electricity.



If there is no expiration on the package, I typically will write the current date using permanent marker on the outside of the package. This will allow you to more effectively rotate out your pantry.

You should also not forget your pets and their needs during emergency. Therefore, maintain a rotated stock of extra pet food.

Quick list:

1 or 2 larger Rubbermaid storage containers (or equivalent)

Assorted canned foods, such as soups, beans, vegetables, fruit

Dried pasta, rice, couscous, or other starches that can be prepared in boiling water

Assorted nuts, such as almonds, peanuts or cashews

Jars of sauces and flavorings such as spices

Multiple vitamins

Salt and baking soda

Pet food

Cooking

Propane Stoves - Coleman propane stoves make excellent emergency cooking appliances, but you need to make sure to use them outside or in a well-ventilated area, since they produce carbon monoxide. You will need extra propane cylinders for your stove. There are adapters to connect Coleman stoves to large propane tanks.



Gas Barbecues- Propane barbecues are also very useful as emergency cooking appliances. However, gas barbecues that use domestic or house hook up natural gas are not useful since you cannot rely on a steady supply of domestic natural gas during an emergency. Gas barbecues that use portable propane tanks are useful, but they consume a relatively large amount of fuel compared to Coleman stoves. Therefore, always have some extra propane tanks on hand.

Quick list:

Coleman propane stove

Extra propane cylinders or tanks

Hygiene

Preparation for personal hygiene is critical during an emergency. With a little bit of preparation is possible to ensure comfort in sanitation for many days during an emergency. Hygiene is one area for you to invest in some specialized equipment. Good preparation in this area can make the difference between misery and comfort.



Toilet- Since it is possible that water supply will be interrupted to your household plumbing system, you should prepare for the eventuality that you will have to use some other system for toilet needs. Liquid waste is relatively simple to deal with. A large bucket retrofitted with a conventional toilet seat and provide the utility, and the waste can easily be disposed of in a shallow hole dug in your backyard. The bucket can be flushed with a small amount of your hygiene water for cleanliness.

Solid waste requires more preparation. Camping toilets can provide some utility in this matter, but dedicated systems are always best. For example, the PETT toilet (www.thepett.com) is a complete compact portable system that provides bags containing special chemicals that deodorize and neutralize the waste rendering it suitable for disposal in a normal landfill situation. PETT toilets also solidify liquid waste.

Quick list:

PETT toilet (www.thepett.com) w/ Extra bags for PETT system

Extra toilet tissue

Large, brand-new, sturdy, leak-proof bucket (i.e. Utility buckets from Home Depot)

First Aid

A well-equipped first aid kit with fresh supplies and a medical handbook is critical in times when first responders may be overwhelmed. To save money, you can purchase the items on your own and store them in a duffle bag or storage box. In addition, taking a first aid and CPR course is a very good idea.



Quick list:

Red Cross First Aid Supplies List and Kits
(<http://www.redcross.org/services/hss/lifeline/fakit.html>)

Red-Cross Training (<http://www.redcross.org/services/hss/courses/>)

Power, light, and communication

During even short-term emergencies, electricity can be critical, especially to maintain your cold and refrigerated food supply. During even a moderate earthquake, electricity can be disrupted for several days.

Portable generator- A modest investment in a name brand portable generator can be a great asset to your preparation. Purchase the generator with sufficient extra amperage to supply your refrigerator and a few small appliances with electricity. For example, one should purchase a generator with at least 5000 Watts of capacity. When filling your generator with fuel, make sure to use fuel stabilizer such as Stabil brand fuel preservative. Run your generator periodically, for example at least every two months, to ensure its operation and to maintain engine lubrication.



Emergency lighting- While it is tempting to rely on candles, candles can be a source of fire ignition and should not be the main source of your light. For **outside lighting**, Coleman brand pressurized gas mantle lanterns can provide sufficient external light, but these should not be used inside due to their consumption of oxygen and production of carbon monoxide.

LED flashlights, especially quality ones like Mag-Light, can provide bright light and longer battery life. Chemical glow sticks can provide modest lighting and reduce your

need to consume your battery-operated lighting supplies. Maintain a sufficient number of extra batteries, and rotate these regularly, for your flashlights.

Candles can provide sources of light if used carefully and away from combustible materials and small children. Don't purchase scented or craft candles, but rather purchase unscented long-lasting utility candles.

Olive oil lamps are brighter and safer than candles due to the low volatility of the fuel and the low center of gravity of the lamps.

Portable AM / Shortwave Radio- To obtain news and advisories from local authorities, one should retain a battery operated AM radio. Since it is possible that local AM radio stations may not be broadcasting during a major disaster, one should consider a short wave radio, which can receive broadcasts over thousands of miles.

Quick list:

Portable gasoline powered generator

Sabil fuel stabilizer or equivalent- enough to treat 20 gallons

Extra fuel stored in approved containers away from sources of ignition such as water heaters

Coleman gas mantle lantern, with extra gas cylinders and mantles

LED flashlights (<http://www.maglite.com>)

Extra batteries, alkaline

Chemical glow sticks

Candles, utility (purchased at Trader Joe's)

Olive Oil lamps (<http://www.lehmans.com> to purchase, make you own [http://awblaze.com/uploads/Olive Oil Lamp.pdf](http://awblaze.com/uploads/Olive%20Oil%20Lamp.pdf))

Battery-operated AM radio with extra batteries

(Optional) Shore wave battery operated radio - (<http://www.ccrane.com>)

Financial preparation

Long-term power disruptions or disruptions in the national infrastructure can mean none of your credit cards or debit cards will function. Therefore, you should have sufficient cash on hand stored in a secure location to get you through a few weeks until the system is repaired. You should also keep all of your important documents and a safe, portable location so that if you need to evacuate you can take these with you quickly.

Quick list:

Cash, stored in a secure, safe, portable location

Personal documents stored in a secure, safe, portable location

Keep a printed record of account numbers and current balances in secure, safe portable location

Home protection

The decision to own a firearm is a personal one, and requires training and understanding of safety and operation. Obviously all firearms should be kept securely with children and young adults not having access. In most cases, firearm should be disassembled or locked until needed.

Law enforcement and government authorities should be relied on as a first line of defense, however during a long-term emergency, civil authority can break down for periods, and you should be prepared for this possibility.

The best protection is to know your neighbors and to develop a neighborhood watch or some other meeting organization where you can watch the neighborhood together. Neighborhood protection is a shared responsibility among all of the residents.

Quick list:

(Optional) Personal firearm- (obtain training, store in firearm safe) – <http://www.egsw.com>

Neighborhood watch or neighborhood Association with phone number or contact database of neighbors – (<http://www.usaonwatch.org/>)

Nuclear preparedness

And a disaster or an attack, both domestic nuclear power plants and nuclear weapons can be sources of radiation. Even events that occur along distance away can create fallout that could affect the continental United States. The conventional wisdom is that this event would be so horrible that there is no point to prepare. This is definitely not true; history and past events show that it is possible and prudent to prepare for this eventuality. Experts and the federal government all agree that the United States will eventually face an attack or disaster involving radiation.

While it is beyond the scope of this short guide to describe the preparation for this eventuality, we can give some basic guidelines.

Potassium Iodine- One of the biggest dangers of nuclear fallout or byproducts of a nuclear power plant leak are radioactive elements that are absorbed by the thyroid. When exposed to these radioactive elements, the thyroid can be a source of cancer. This is especially true of small children. By taking doses of safe, Potassium Iodine, the thyroid can be saturated with a safe element so that it does not absorb dangerous radioactive elements.



In areas with a nuclear power plant, local authorities will typically stockpile Potassium Iodine in the case of a radiation leak. However, it is prudent to prepare your family yourself rather than relying on local authorities completely.

Quick List:

Obtain potassium iodine- Potassium iodine can be obtained over the counter, but one should buy from a reliable, reputable supplier. I have had good results with this supplier in the past with the IO- <http://www.nukepills.com/potassium-iodide.htm>

Further Research: Nuclear War Survival Skills –
(<http://www.oism.org/nwss/index.htm>)

Additional General resources

<http://www.Ready.gov> - Official Department of Homeland Security preparedness site

<http://www.redcross.org/services/disaster/> - American Red Cross preparedness site

<http://www.oc-redcross.org/show.aspx?mi=2925> - Orange County Red Cross preparedness site