

Food and Water Storage Considerations

*“Preparedness is not just about stockpiling,
it's about having an actual plan.”*

Mike Ryan



What are the water needs for adults and children?

The General MINIMUM is 1 Gallon per person per day

This General Average is based on: Minimum of 2 liters or 8 cups of water each day to maintain efficiency; In general one quart of water is needed daily for every 50 pounds of body weight; Children require about 4-6 cups of fluid per day on average.

There are many factors that determine the water needs of adults, children and pets; such as age, weight, activity and health.



- **Water weighs a little over 8 pounds per gallon.**
- **An average healthy adult needs about 1 gallon per day.**
- **A gallon of water per person per day, for two weeks (14 days), equates to 14 gallons per person and weighs slightly more than 116 pounds for the recommended two-week period of water needs.**

The survival quantity of 1 gallon per person - is just that – the bare, very basic, best case MINIMUM!

But no matter how you look at it *that is a lot of water, a lot of weight and a lot of storage space that is needed for just a two week supply for an individual, yet alone a family and pets.*



When eating a high fiber diet, extra water is needed to process the additional roughage. ... Fever, vomiting and diarrhea cause the body to lose extra fluids that must be replaced with water or other solutions such as Gatorade. ...

Women who are pregnant or breast-feeding need additional water. The Institute of Medicine recommends that pregnant women drink nearly 10 cups of fluids a day, and women who breast-feed should get about 13 cups of fluids daily. ... **Drink the following amounts of fluids when exercising rigorously or in very hot weather:**

- 2 cups during the two hours before exercising;
- 1 to 2 cups within 15 minutes of the activity;
- ½ to 1 cup every 15 to 20 minutes during exercise. (One medium mouthful of fluid equals about 1 ounce, and 8 ounces equals 1 cup.)
- 3 cups for each pound of body weight lost. ...

As a general guideline, ***children require about 4-6 cups of fluid per day.*** (If you are breastfeeding or formula feeding your child less than a year old, you will not need to give supplemental water or other fluids.) ... ***The best way to determine if you or your child is staying hydrated is to check the color of urine.*** If your child's urine is pale in color and plentiful, he is well-hydrated. If he is not urinating frequently throughout the day or his urine is dark yellow or tinted brown, he is not getting enough fluids. **But to find out exactly how much fluid your child needs, you can follow this simple chart based on body weight. So if your child weighs**

- * 15 lbs, give 3 cups per day of fluids
- * 22 lbs, give 4 cups per day of fluids
- * 33 lbs, give 5 cups per day of fluids
- * 44 lbs, give 6 cups per day of fluids
- * 55 lbs, give 6.5 cups per day of fluids
- * 66 lbs, give 7 cups per day of fluids
- * 77 lbs, give 7.5 cups per day of fluids



How much Food is needed and how long does it last?

If you're doing nothing, as in laying in bed *your body can consume about 1000-3000 calories a day depending on weight*. So assuming you will be doing some activity you would need about 2000 up to 5000 (sometimes more) of healthy calories to maintain your weight. Basically:

- 130 lbs – 3000 calories
- 150 lbs – 3200 calories
- 180 lbs – 3500 calories
- 200 lbs – 3650 calories
- 220 lbs – 3800 calories

Here's a calculator that will pick your daily caloric intake based on age, height, weight and exercise frequency.

http://www.freedieting.com/tools/calorie_calculator.htm



How long does all of this stored food last?

Proper canning or packaging and storage conditions will play a major role in shelf life. For actual shelf life of opened and unopened food items, in ideal conditions, the most comprehensive list I have found so far is a downloadable PDF

from FoodStorageMadeEasy.net called ShelfLife.pdf. It is a fantastic two page quick reference that breaks items down into groups like grains, vegetables, fruits, dairy, basics and misc beans, legumes, lentils and the like then tells you the optimum shelf life and opened shelf life expectancy for each item.

Otherwise the best place to look is on each purchased canned or boxed food item. The FDA web site and for some reason the University of Wisconsin and the Wisconsin state government sites have a good amount of data on canning, dehydrating, smoking game meat, etc and how long the items can last.

Here is some new information on a few selected items based on a recent long term storage study by LDS and Brigham Young University.

Food	New Shelf-Life "Life Sustaining" Estimates (In Years)
Wheat	30+
White rice	30+
Sugar	30+
Pinto beans	30
Apple slices	30
Macaroni	30
Rolled oats	30
Potato flakes	30
Pasta	30
Powdered milk	20
Dehydrated carrots	20

Medicine Storage

According to a Medical Study in the UK (<http://www.medicalnewstoday.com/articles/10168.php>) the **recommended maximum storage and transit temperatures for most medications is 25 degrees C or 77 degrees F** and are set by the pharmaceutical manufacturers. ... Others, however, 'do seem temperature sensitive.' Many drugs, including cefalexin, ampicillin and erythromycin have shown a reduction in efficacy when exposed to high temperatures. **Aspirin, for example, degrades under increased temperature conditions.** ...

- Store medicines in a cool, dry place, protected from sunlight and out of reach of children. A good spot is the top shelf of a linen closet. A bad spot is a bathroom cabinet, due to the high humidity.
- Organize. Group meds by category so the one you need doesn't get lost in the shuffle. Put cold remedies, tummy soothers, and pain relievers into labeled plastic storage boxes for easy retrieval.
- Once a year, throw away outdated drugs. Some old medicines lose potency, while others may undergo chemical changes that could make them unstable or even risky.
- Contact the American Pharmaceutical Association for more information if lacking from the pharmacists or missing on the label.

Tips For Storing And Handling Vitamins (focus on bulk generic) from ArticlesBase.com

It is vital that all drugs, even vitamins, are kept out of the reach of children. Excessive amounts of vitamins such as A, D and K can be exceptionally harmful to children.

When vitamins are stored properly, they can usually remain at their best for four to five years. So, what are the most important things to know about supplying and handling vitamins?

- **First and foremost, the majority of discount vitamins and supplements should be tightly sealed, at a cool temperature, dry and away from light.** The information for the specific requirements for the vitamins can usually be found on the packaging and the manufacturer's website or customer service line.
- *The best place to keep vitamins is in the linen closet, which can accommodate all of the requirements for storage.*

Vitamins should only be placed in the refrigerator when long-term storage is necessary. According to Glen Shue, a nutritionist for the Food and Drug Administration (FDA), *a three-month supply of the discount vitamins should be kept out of the refrigerator, with the remaining sealed tightly. For all others when it comes time to retrieve more vitamins, the storage bottle should be taken out of the fridge, allowing it to get to room temperature before opening.* A helpful money saving tip is to ensure that when buying in bulk, the specific types of vitamins and/or minerals being purchased will be used on a daily basis to ensure that they do not go too far out of date and thus disposed of.

- **The only supplements that don't fall under the "no fridge rule" are fatty acids and antioxidants, especially Carotenoids (luteins, beta-carotene, etc.) and Vitamin E.** These must be must be protected from air oxidation thus storing in the refrigerator in a dark bottle/container is best.
- **Never store vitamins in the kitchen or in the bathroom.** The bathroom is a bad idea because of the amount of heat and humidity caused by showers or bathing. Kitchens also contain a large amount of moisture as well as vaporized fats. These collect on the vitamins, *causing them to lose their potency.*
- **Packaging does make a difference!** As often as possible discount vitamins and minerals need to be kept in the original container it was sold in. in order to avoid deterioration of its strength.

The Food and Drug Administration does NOT require expiration dates or storage instructions on bottle on vitamins. While most manufacturers indicate the dates anyway, it is not a requirement.

**** Vitamins that are out of date are not dangerous to a person's health. These vitamins simply lose their effectiveness and potency.**

Food and Water Storage Containers



From the experts at ProvidentLiving.org and TheIdeaDoor.com

Basic Container Guide Lines

- Use only food-grade containers. Smaller containers made of PETE plastic or heavier plastic buckets or drums work well.
- Clean, sanitize, and thoroughly rinse all containers prior to use. A sanitizing solution can be prepared by adding 1 teaspoon (5 ml) of liquid household chlorine bleach (5 to 6% sodium hypochlorite) to one quart (1 liter) of water. Only household bleach without thickeners, scents, or additives should be used. *Do not use* color safe bleach.
- *Do not use* plastic milk jugs, because they do not seal well and tend to become brittle over time.
- *Do not use* containers previously used to store non-food products.

Any of these containers will allow you to safely store food

- #10 Cans
- Foil Pouches
- Plastic Buckets
- Glass Jars
- Original Containers
- PETE Plastic Containers

If storing water yourself consider the following:

Water Pretreatment

- Water from a chlorinated municipal water supply does not need further treatment when stored in clean, food-grade containers.
- Non-chlorinated water should be treated with bleach. Add 1/8 of a teaspoon (8 drops) of liquid household chlorine bleach (5 to 6% sodium hypochlorite) for every gallon (4 liters) of water. *Only household bleach without thickeners, scents, or additives should be used.*

Storing and Stored Water

- Containers should be emptied and refilled regularly.
- Store water only where potential leakage would not damage your home or apartment.
- Protect stored water from light and heat. Some containers may also require protection from freezing.
- The taste of stored water can be improved by pouring it back and forth between two containers before use.

Recommended containers for longer-term (30 years or more) storage includes the following:

- # 10 cans (available at Church home storage centers)
- Foil pouches (available through LDS Church Distribution Services)
- PETE bottles (for dry products such as wheat, corn, and beans)

These containers, used with oxygen absorber packets, eliminate food-borne insects and help preserve nutritional quality and taste. Oxygen absorber packets are available at Church home storage centers or through Church Distribution Services.

Under certain conditions, you can also use plastic buckets for longer-term storage of wheat, dry beans, and other dry products.

Properly packaged, low-moisture foods stored at room temperature or cooler (**75°F/24°C or lower**) remain nutritious and edible much longer than previously thought according to findings of recent scientific studies. Estimated shelf life for many products has increased to 30 years or more (see chart for new estimates of shelf life). Previous estimates of longevity were based on "best-if-used-by" recommendations and experience. Though not studied, sugar, salt, baking soda (essential for soaking beans), and vitamin C in tablet form also store well long-term. Some basic foods do need more frequent rotation, such as vegetable oil every 1 to 2 years.

While there is a decline in nutritional quality and taste over time, depending on the original quality of food and how it was processed, packaged and stored, the studies show that even after being stored long-term, the food will help sustain life in an emergency.

Warning: Botulism poisoning may result if moist products are stored in packaging that reduces oxygen. When stored in airtight containers with oxygen absorbers, products must be dry (about 10% or less moisture content).

There are several documents for getting started and I highly recommend all of them.

- For a great way to get started on just about \$5.00 a week go to TheIdeaDoor.com and down load [FoodStoragefor5aWeek.pdf](#).
- [Obtain3MonthSupply12Weeks.pdf](#) from TheIdeaDoor.com
- [ArkProject_MonthlyFoodStoragePlan.pdf](#) from TheIdeaDoor.com This contains a 72 hour kit goal as well as the food storage goal.



What About Pets?

Pet food and water are essential if you plan to include your entire family in the preparedness and food storage plan.

When it comes to the food needs, you know your pet best. Determine how much it eats in a given day or week. Then multiply it out to get whatever length of time supply you will need. Most common dry dog and cat food will store just as long as any un-ground/whole grain (maybe even longer), if kept in an air tight, insect, rodent and water proof container. Generally consider the same type of storage containers as you would for grain. However, a good clean trash can (metal or plastic) with a secure top will work well, especially if you leave the dry food in its original bag too.

- **Remember if you feed your dog or cat only dry food, they will need MORE water than if being served wet food.**

If you use canned, wet dog or cat food, this will store for years and years and your pet will need less water to boot. Just keep them in a cool, dry place to avoid rust and other issues and keep an eye out for bulging can bottoms and tops and toss those when you run across one.

Some types of pets may need fresh fruit, moist meat or live grasses and algae, as that is where they get their hydration from. You will need to consult with your veterinarian for specifics for emergency situations.

Pet water needs will vary with the type of pet and its age, health, weight or activity and special needs. Basically you will need to determine how much water your pet consumes in a given day or week and then multiply that out for the length of time you plan to sustain your pet. *This water amount will need to be added to your overall water needs to ensure you have enough water for your entire family.* When estimating, always estimate on the too much side.

Keep in mind some pets, like cats, *hate* standing water and prefer very fresh or running water. *Other pets may need water to actually live in, like turtles, crabs, some reptiles and of course fish.* If you have these kinds of pets to account for you will need to know how much water you use per week for their living habitat and add that to your total family water needs for the length of time you plan to “survive” on stored supplies.

It is a good idea to make a **special 72 hour go-bag for each one of your pets**, it may even need to include a smaller or larger cage or travel crate than you normally use. If your dog is large enough put their go-bag supplies in a “doggie backpack” and let the animal carry its own supplies.

If your pet is the “tank” type, you will need to be inventive. I was unable to find any specific information on these types of pets beyond for the short trip to the vet. Your Vet would be a good choice for information of this type.



General Information: <http://www.weather.com/outlook/homeandgarden/pets/articles/c128>;
<http://www.peteducation.com/article.cfm?c=1+2243+2244&aid=697>

A general rule of thumb is that most animals should have about 28 milliliters (or one fortieth of a liter) of water per pound of body weight per day. A forty-pound dog needs about a liter of water every day; a ten-pound cat needs about a quarter of a liter.

Some exotic animals, particularly amphibians like frogs and salamanders, can't or won't drink water from a bowl. *These guys need a drip watering system, which drips or sprays temperature-controlled moisture into a cage for a few hours at a time. To select the right watering system for your exotic pet, consult your veterinarian.*

Reptiles often need a long, shallow dish of water in their cages. They use this water both to drink and to soak in, so it needs to be checked several times a day for dirt or fecal matter.

Just like you, pets need more water when they're exercising. If you take your dog out for a long walk or run, bring along some water for him. Most pet stores sell light, collapsible travel water bowls that are easy to carry.

As dogs age, their metabolism changes and their need for calories decreases. The same is NOT true for cats. Their energy needs stay basically the same throughout adulthood. Obesity is one of the main health problems of middle age (6-8 years of age) cats; it occurs less often by the age of ten, and greatly decreases after that. ...

The protein needs of cats are higher than the protein needs of many other animals. Inadequate amounts of protein in the diet can impair immune function. ... Water - Older cats may not drink sufficient amounts of water, which can exacerbate constipation problems and contribute to dehydration in cats with kidney disease. Getting a cat to drink more water may not be easy. Offering more sources of water and adding flavoring or ice cube to the water may entice some cats to drink more. ...

As animals go, cats require less water than many others, and we often have a difficult time getting cats to drink as much as we would like. Place a number of water dishes for your cat around the house. You can even place the water bowls in some unusual places. Cats seem to pay more attention to things that are different. Vary the types of bowls – low ones, high ones, a drinking glass, a big dog bowl. Again, if it is unusual, cats may try it. Try running water ... Add water to the food ... **Fresh water is usually the key.**

Dogs: <http://pets.webmd.com/dogs/guide/dog-dehydration-water-needs>; http://www.medicinenet.com/pets/dog-health/dehydration_and_water_needs_in_dogs.htm;

At least one ounce of water for each pound of body weight per day.

What Causes Dehydration in Dogs? Dehydration occurs when fluid levels drop to less than normal. This is due to either reduced water intake or increased fluid loss. Fluid loss can be due to overheating in hot weather or a bout of vomiting or diarrhea, especially in puppies.

What Are the General Symptoms of Dehydration in Dogs?

* Sunken eyes

- * Lethargy
- * Loss of appetite
- * Dry mouth
- * Depression

Cats: <http://cats.about.com/od/waterforcats/f/waterneeds.htm>; http://www.superhappypets.com/article_cat_drink_water.html

To **understand your cat's water needs**, let's review some basic biology. Your cat's distant ancestors were desert dwellers. They got most of their water from their prey—birds and small mammals—which were also composed of two-thirds water. There was little or no need to drink water on the side. ... Fast-forward to today's housecat eating commercial cat food. **Canned or "wet" food contains a high percentage of water, similar to a cat's ancestral diet. If the mainstay of a cat's diet is wet food, the cat will naturally drink less water, perhaps only 1-2 ounces daily.** In fact you may rarely see her drink at all. Dry food, on the other hand, contains only about ten percent water. **If a cat eats all or mostly dry food, he or she must drink more—several ounces of water a day—to meet the dietary requirement.** ... Feeding your cat an all-dry diet, in effect, places a burden on your cat to drink much more than normal each day. ... Ceramic, glass, or stainless steel bowls are preferred.

How much water does an adult cat need to drink? How much water does a large cat need to drink? I know they do need water, but haven't been able to learn exactly how much. **Water Needs Depends on Diet - Cats' body tissues consist of about 67% water. Coincidentally, that is approximately the percentage of water in the prey they catch and eat in the wild. In contrast, dry cat food contains around 10% water, and canned cat food around 78%.** Therefore, a cat on an all-dry food diet would obviously require more supplemental drinking water than a cat on an exclusive raw or canned food diet. Likewise, a cat on a combination of dry and canned cat food also needs more drinking water. ...

Keep fresh, clear water available at all times for all cats, regardless of diet - preferably with an automatic water dispenser.

Watch for signs of dehydration. A good test is to pull up the loose skin at the nape of the neck. If it springs right back, the cat is sufficiently hydrated. If it is slow to recede, suspect dehydration.

Birds: http://pet-birds.suite101.com/article.cfm/the_basics_of_providing_fluids_for_pet_birds

Learn **How to Prevent Dehydration in Feathered Pets**, from finches to parrots, exotic pet **birds need fresh clean water at all times.**

Here's what to do when traveling or illness makes taking adequate fluids a problem. ... Wholesalers who ship pet store birds from aviaries do not provide fresh water in transit. Instead, *they leave bits of lettuce, apples, carrots, and grapes in cages to provide moisture.* Fresh seeding grasses are also full of moisture, though they may be messy.

Matthew Vriend's Guide to Pet Birds *warns against feeding avocado to bird pets*, as the fruit contains poisonous substances near the peeling.

Small pet birds become dehydrated quicker than a pet bird parrot. When traveling inside a car, (house pet birds should never be placed in an open truck bed), a pet bird cage should be seat belted in case of sudden stops. **A shower of fresh water with a spray bottle will help birds stay hydrated;** they will preen and swallow some of the water on their feathers.

Take care to protect birds from chill or drafts. ... **Pet bird supplies need to be appropriate for each species.** Budgies (parakeets) will not eat or drink if dishes are partially covered, as instincts prevent putting their heads under anything. Most birds will not know how to drink out of the kind of water bottle commonly used for rodents. If pet owners wish to use these bottles, another water dish should be in the cage until the bird has been observed drinking from the bottle.

Most birds appreciate having a shallow bathing dish as well as a drinking cup. ... The Eyes Show Signs of Dehydration - According to Stroud's Digest on the Diseases of Birds, a bird will show signs and symptoms of dehydration in the skin around their eyes. It will be crinkly, and skin on their legs may not snap back when pinched. The bird will have low energy and may be sitting on the floor of its cage looking fluffed up to conserve warmth. Accidental causes of dehydration may be extended traveling without water or a pet owner's forgetfulness. Illness may also cause dehydration. A veterinary consult should be a priority, but some first aid measures are also appropriate. ...

Treating Dehydration at Home - Replace water with pediatric electrolyte solution, if possible. Keep the bird warm with an overhead low-wattage colored electric light bulb or covered heating pad under the cage, or at least by covering the cage with a towel or blanket. If the bird drinks voluntarily, dehydration signs will probably resolve quickly.

For some extremely basic facts on exotic pets: <http://www.examiner.com/x-24362-Buffalo-Exotic-Pets-Examiner~y2009m9d21-Top-5-exotic-pets-for-the-beginner-and-5-pets-the-novice-should-avoid>



Medicine Storage for Pets and Livestock from FoodAssurance.teagasc.ie

Medicine Storage: Best Practice

Secure, segregated and safe storage of medicines/remedies and equipment (e.g. needles) is important.

Suitable Storage

- The medicine store (s) should be of a sufficient size and strength to hold all the livestock remedies on the farm.
- Store livestock medicines in accordance with manufacturer instructions. Some medicines may need to be stored within a specified temperature range. (e.g. vaccines) and may require refrigeration. Medicines from a refrigerator that were inadvertently frozen should be discarded.

- The medicine store should not be located in direct sunlight or adjacent to any source of direct heat.
- The medicine store should be located indoors (e.g. in an adequately lit shed)

Safe Storage

- Livestock medicines must be kept out of the reach of children
- The medicine store should be locked when not in use. The key should be kept in a safe location. All farm workers should know the store location.
- The medicine store should contain a clear warning label.
- Do not store medicines in close proximity to animal feed. Any medicated feed (if prescribed) should be clearly labelled and stored away from ordinary feed.
- Dairies are an unsafe place to store medicines, accidental contamination of milk could potentially occur.
- Do not store medicines near household food (e.g. deep freezes, fridges) in case of accidental contamination of food.
- Store medicines separately to other farm chemicals (e.g. weedkillers, disinfectants). Animals have been poisoned where farm chemicals were given by mistake.
- Segregate and preferably remove expired medicines from 'in use' medicines.
- All spillage's should be removed immediately from the medicine store and disposed of in accordance with manufacturer recommendations.

“Despair is most often the offspring of ill-preparedness “ Don Williams, Jr

Recommended Resources:

Food Storage Calculator <http://foodstoragemadeeasy.net/fsme/docs/foodstoragecalculator.pdf>

Food Storage Shelf Life Quick Reference <http://foodstoragemadeeasy.net/fsme/docs/shelflife.pdf>

One Year Supply Guide http://www.dealstomeals.com/docs/One_Year_Supply_Guide.pdf

The Ultimate Food Storage Calculator from Survival-Spot <http://www.survival-spot.com/survival-files/ultimate-food-storage-calculator.xls>

Disaster Planning Calendar from Survival Ring (great checklist for food and preparedness supply acquisition)

<http://www.survivalring.org/allhazards/index.php?file=Disaster%20Planning%20Calendar.pdf>

Seven Mistakes of Food Storage <http://www.survivalring.org/allhazards/index.php?file=SURVIVAL%20-%20THE%20SEVEN%20MAJOR%20MISTAKES%20IN%20FOOD%20STORAGE.PDF>;

<http://www.backwoodshome.com/articles/tate55.html>

DIY Cardboard Rotating Food Storage Holders: <http://foodstoragemadeeasy.net/2009/02/16/build-your-own-can-rotating-rack/> download the cutting instructions <http://foodstoragemadeeasy.net/fsme/docs/shelfplan.pdf>

Free Downloads from Deals to Meals http://www.dealstomeals.com/free_downloads.cfm

Food Storage Inventory Sheet http://www.dealstomeals.com/docs/Food_Storage_Inventory_Sheet.pdf

The best food storage inventory sheet around! It works like a checkbook—totals on the gray line, and subtractions and additions on the white line. Keep a running total of all the most commonly used foods in your food storage and pantry. This works best when you have your “food storage” in the basement, or in another place, other than your kitchen. Whenever you take food from your “food storage room” and put it in your pantry, you subtract it off your list and assume it will be eaten. This way you will always know how much of each item you have in your supply, and which items you need to stock up on. If there are any items we have left out, that your family uses, write them in on the empty lines.

This sheet also helps you know which foods are part of which food storage categories, and how much you need of each item for a year supply. For example, “Grains” includes more than just wheat and flour, it includes cereal, germade, pancake mixes, rice, instant potatoes, oats, pasta, soup mixes, etc. When we break up the individual categories into foods our family eats, it is much less overwhelming to figure out how we will obtain a year supply. The thought of 300 lbs. of wheat per person/per year is daunting to most, but divide that 300 lbs. into each of those items, then it is much more doable.

Meal Planning Tips & Cooking Calendar http://www.dealstomeals.com/docs/Cooking_Calander.pdf

Want to save money on your grocery bill each month? Start planning your meals. Here is a great form to use when planning your grocery list and some easy tips to save you money.

Food Storage Outline http://www.dealstomeals.com/docs/Food_Storage_Outline.pdf

Where should you begin? What is the best way to get your families year supply of food? Here are some of the most common questions and answers on how to get started.

Food Storage Recipes http://www.dealstomeals.com/docs/FOOD_STORAGE_RECIPES.pdf

When obtaining a year supply of food it is important to have foods that will be able to make complete meals for your family. Here are a few meals and easy recipes that will help you know which “staple” items to add to your food storage. In an emergency it won’t help your family to have a few random cans of food. You will need to be able to turn the food you have in your food storage into meals. Here are some great ideas to start!

One Year Supply Guide http://www.dealstomeals.com/docs/One_Year_Supply_Guide.pdf

Many people feel obtaining a year supply of food is too overwhelming. This One Year Supply Guide will help you know how much you need of each food storage item, tell you the shelf life of each item, and give you other good information to help you begin your food storage shopping. We have broken down how much of each food storage items you will need. For example, ‘Grains’ is not just wheat, it is flour, oats, cornmeal, cereal, mixes, pasta, rice etc. When each food storage category is broken down into smaller groups, it makes it MUCH easier to begin obtaining your year supply of food. Print this form off and keep as a reference when doing your food storage shopping.

72 Hour Kits http://www.dealstomeals.com/docs/72_Hour_Kits.pdf

How do you put a 72 hour kit together? What should be in your kit? Click here to get a list of items to be put into your family’s 72 hr. kit.

Water Storage Information http://www.dealstomeals.com/docs/Emergency_Water_Supply.pdf

Find out the best and safest way to store water, filter water, etc.

Personal Spending Plan & Personal Spending Plan 2 http://www.dealstomeals.com/docs/Personal_Spending_Plan.pdf & http://www.dealstomeals.com/docs/Personal_Spending_Plan2.pdf

Here are two personal spending worksheets to help plan and budget your monthly expenses. These worksheets will help you track and figure out your monthly expenditures. Part of being self reliant is having your families finances in order, as well as having a year supply of food.

“If it is to be, it is up to me.” William H. Johnsen



Water Purification Methods: <http://www.princeton.edu/~oa/manual/water.shtml>

Dipping your head into a cold mountain stream and taking a long refreshing drink is an experience that has basically vanished from the wilderness areas of America. With the increased use of the wilderness there has also been an increase in the amount of bacteriological contamination of backcountry water supplies. The U.S. Environmental Protection Agency reports that 90 percent of the world's water is contaminated in some way. There are a variety of microscopic organisms that can contaminate water supplies and cause potentially serious, even fatal, illnesses among wilderness travelers. The major danger in the backcountry from these infections is fluid loss due to diarrhea and vomiting, which can lead to hypovolemic shock and possibly death.

In order to drink the water, you should be prepared to treat it. There are numerous methods of water purification, described below in order of effectiveness. Remember, however, that infections can also be spread through poor personal hygiene, something that purifying your water won't prevent.

Biologically Contaminated vs. Toxic Water

Biologically contaminated water is water that contains microorganisms such as *Giardia* (a common microorganism that, if not killed, leads to intestinal disorders), bacteria, or viruses that can lead to infections (see *Gastrointestinal Infections*, page 316). *Toxic* water sources contain chemical contamination from pesticide runoffs, mine tailings, and so on. Boiling, filtering, or chemically treating water can remove or kill microorganisms, but it will *not* remove chemical toxins. This is also the case when using a solar still.

Boiling

Boiling is the most certain way of killing all microorganisms. According to the Wilderness Medical Society, water temperatures above 160° F (70° C) kill all pathogens within 30 minutes and above 185° F (85° C) within a few minutes. So in the time it takes for the water to reach the boiling point (212° F or 100° C) from 160° F (70° C), all pathogens will be killed, even at high altitude. To be extra safe, let the water boil rapidly for one minute, especially at higher altitudes since water boils at a lower temperature.

- kills all pathogens, including viruses
- no special equipment required
- requires fuel (electricity assumed not available)
- time consuming
- impractical for all but a limited amount of water



Although some sources indicate shorter times, we recommend **bringing water to a rolling boil and maintain for a minimum of 10 minutes. For every 1000 feet above sea level, add one minute of boiling to the initial 10 minutes.** If the water pot is covered, it will shorten the time to reach a boil. Although this method is recognized as the safest treatment under survival or emergency conditions, it is impractical for all but a limited amount of water.

Chemical Purification

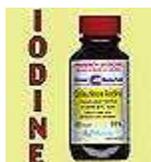
There are two types of chemical treatment: those using iodine and those using chlorine. There are a variety of products on the market, so follow the directions on the bottle. Be advised that many of the tablets have an expiration date and become ineffective after that point. Also, once the bottle has been opened, the tablets must be used within a certain period. When in doubt, buy a new bottle. Remember that chemical purification methods may only be partially effective, depending on the water temperature.

General Chemical Treatment Procedures

- The effectiveness of all chemical treatment of water is related to the temperature, pH level, and clarity of the water. Cloudy water often requires higher concentrations of chemical to disinfect.
- If the water is cloudy or filled with large particles, strain it, using a cloth, *before* treatment. Large particles, if swallowed, may be purified only "on the outside."
- Add the chemical to the water and swish it around to aid in dissolving. Splash some of the water with the chemical onto the lid and the threads of the water bottle so that all water areas are treated.
- The water should sit for *at least* 30 minutes after adding the chemical to allow purification to occur. If using tablets, let the water sit for 30 minutes *after* the tablet has dissolved.
- The colder the water, the less effective the chemical is as a purifying agent. Research has shown that at 50° F (10° C), only 90 percent of *Giardia* cysts were inactivated after 30 minutes of exposure. If the water temperature is below 40° F (4° C), double the treatment time before drinking. It is best if water is at least 60° F (16° C) before treating. You can place the water in the sun to warm it before treating.
- Chemically treated water can be made to taste better by pouring it back and forth between containers, after it has been adequately treated. Other methods include adding a pinch of salt per quart or adding flavorings (e.g., lemonade mix, etc.) after the chemical treatment period.

Iodine Treatment

Iodine is light sensitive and must always be stored in a dark bottle. It works best if the water is over 68° F (21° C). Iodine has been shown to be more effective than chlorine-based treatments in inactivating *Giardia* cysts. *Be aware that some people are allergic to iodine and cannot use it as a form of water purification.* Persons with thyroid problems or on lithium, women over fifty, and pregnant women should consult their physician prior to using iodine for purification. Also, some people who are allergic to shellfish are also allergic to iodine. If someone cannot use iodine, use either a chlorine-based product or a non-iodine-based filter, such as the PUR Hiker Microfilter, MSR WaterWorks, or the Katadyn Water Filter.



IODINE/CHLORINE(CHLOROX) TREATMENT - when properly performed, it is effective against almost all pathogens, including viruses- affects taste of water

- inexpensive
- temperature sensitive
- not recommended for long term use
- dosage: using ordinary 2 percent tincture of iodine from the medicine chest, 3 drops per quart of CLEAR water, or 6 drops to each quart of cloudy water, and stir thoroughly, allow water to stand for at least 30 minutes before using or filtering for additional protection.

Generally, the procedure is as follows:

- **Liquid 2% Tincture of Iodine** Add 5 drops per quart when the water is clear. Add 10 drops per quart when the water is cloudy.
- **Polar Pure Iodine Crystals** Fill the Polar Pure bottle with water and shake. The solution will be ready for use in one hour. Add the number of capfuls (per quart of water treated) listed on the bottle, based on the temperature of the iodine solution. The particle trap prevents crystals from getting into the water being treated. It is important to note that you are using the iodine *solution* to treat the water, not the iodine crystals. *The concentration of iodine in a crystal is poisonous and can burn tissue or eyes.* Let the treated water stand for 30 minutes before drinking. In order to destroy *Giardia* cysts, the drinking water must be at least 68° F (20° C). The water can be warmed in the sun before treating or hot water can be added. Refill the treatment bottle after use so that the solution will be ready one hour later. Crystals in the bottle make enough solution to treat about 2,000 quarts. Discard the bottle when empty.
- **Potable Aqua** This is an iodine tablet product. Follow the manufacturer's instructions for use.

Chlorine Treatment

Chlorine can be used for persons with iodine allergies or restrictions. Remember that water temperature, sediment level, and contact time are all elements in killing microorganisms in the water. Halazone is an example of a chlorine tablet product. To use, follow the manufacturer's instructions.



The addition of iodine or chlorine is another option for rendering contaminated water drinkable. Some experts discuss the use of chlorine in the form of bleach, which must contain (and be so marked) 5.25% sodium hypochlorite without soap or phosphates. However, in addition to its immediate poisonous effects, bleach can kill microorganisms that are a natural and vital part of your digestive system. Iodine is preferable to bleach when one has a choice in the matter.

If you choose to use bleach to purify water, the recommended dosages are 8 drops (1/8 tsp or .5ml) for 1 gallon of CLEAR water; 18 drops (1/4 tsp/1.25 ml) for CLOUDY water. When storing water in 55 gallon drums or inflatable bags, use 55 ml or a stinging, 1/4 cup per 55 gallons of capacity.

Remember, these doses above are for treated city water which has (or should) have a chlorine demand of zero. Water obtained from other sources (lake, stream, etc.) will need more. GET A TEST KIT for free chlorine so guesswork is gone. Target your treatment at 3-5 parts per million (ppm) free chlorine for city water and 5 ppm for field water.

For use during an emergency, it is recommended that for drinking and cooking, this water be further filtered (see section below) to remove any residual bacteria as well as chlorine prior to use. Bleach loses its strength with time: products which have been on the shelf for one year will be only 50% as effective. In that case the amount used will have to be doubled.

Use a magic marker to indicate date of purchase. Use an eyedropper for dosage, mix well and allow water to stand at least 30 minutes before filtering (for chlorine removal) and usage. Back to iodine for a moment, as it is the preferred process for virus control. Iodine crystals or tablets are inexpensive, lightweight, compact and effective at destroying viruses and most bacteria.

Iodine in tincture or tablet form has difficulty in dealing with the protozoa we noted before (*Cryptosporidium* and *Giardia*) because these rascals have a hard, egg-shell shield around them and even straight Clorox will not affect them. Iodine thus needs to be combined with a special filtration process (described below) in order to remove all three types of pathogens we listed earlier.

There are limitations to iodine. It takes time to work, its effectiveness is dependent on the pH (acidity/alkalinity) of the water, temperature (cold water reduces its effectiveness) as well as the amount of dirt and/or silt in the untreated water. Taste is also objectionable, but can be removed when used in combination with the filters described below. Also of concern are the possible health risks associated with its use.

Although iodine is considered an essential nutrient, long term ingestion is not recommended. Limitations of a few days to a couple of weeks is suggested, with individuals having weak immune systems on the short side of that limit. Pregnant women and individuals with thyroid problems should consult a physician before using iodine in this situation.

Liquid Clorox Bleach

In an emergency, think of this (one gallon of Regular Clorox Bleach) as 3,800 gallons of drinking water.

When the tap water stops flowing, Regular Clorox Bleach isn't just a laundry-aid, it's a lifesaver. Use it to purify water, and you'll have something to drink.

It's the same in any natural disaster. As the shock wears off and the days wear on, the biggest demand is for drinking water. Time after time, relief crews hand out free Clorox Bleach with simple instructions: use it to kill bacteria in your water and you'll have purified water to drink. Here's how: (Store these directions with your emergency bottle of Clorox Bleach.)

First let water stand until particles settle. Pour the clear water into an uncontaminated container and add Regular Clorox Bleach per the chart.* 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. See chart* suggestions for storage bottle replacement.

Don't pour purified water into contaminated containers. To sanitize water jugs first, see instructions** at right. Without water and electricity, even everyday tasks are tough. In lieu of steaming hot water, sanitize dishes with a little Clorox Bleach. Just follow the directions below to keep dishes clean.

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, which is good news anytime.

***Ratio of Clorox Bleach to Water for Purification**

2 drops of Regular Clorox Bleach per quart of water

8 drops of Regular Clorox Bleach per gallon of water

1/2 teaspoon Regular Clorox Bleach per five gallons of water

If water is cloudy, double the recommended dosages of Clorox Bleach.

(Only use Regular Clorox Bleach (not Fresh Scent or Lemon Fresh). To insure that Clorox Bleach is at its full strength, replace your storage bottle every three months.)

** (Clorox Bleach Sanitizing Solution)

Mix 1 tablespoon Regular Clorox Bleach with one gallon of water. Always wash and rinse items first, then let each item soak in Clorox Bleach Sanitizing Solution for 2 minutes. Drain and air dry.



STABILIZED OXYGEN One final chemical process which might be considered is called "Stabilized Oxygen". A wide variety of manufacturers are producing oxygen-enriched "concentrates" which, when added to water are intended to increase oxygen levels in the body but also act as a mechanism for killing bacteria. Some of the products on the market include Aerox, Genesis 1000, Dynamo 2, Aerobic 07, Aquagen and others.

Some reports indicate that these products are quite effective in treating water, without the possible side effects of iodine or chlorine/clorox. That issue is one which is still evolving. My viewpoints on these types of products are mixed and I am not making a recommendation for or against any of the above manufacturers. But, I feel that [the verdict on oxygen-enriched concentrates is yet to be rendered for situations as might be encountered in a full scale water emergency.](#)

What IS known is that excessive amounts of oxygen may dramatically reduce expected body cell lifetimes as well as damage DNA. If you use and feel confident with these product, we encourage you to proceed as you see fit.

Aqua Technology's personal view is that when the rubber meets the road---real hard---one should rely on tried and tested methodologies which have proven that they can keep individuals alive and well during the most horrendous water conditions. [Oxygen-enriched concentrates may have some intrinsic advantages for day-to-day health enhancement but in our opinion have not met trial by fire yet.](#)

Tricks of the Trail

- **Backups** Always have at least one backup method for water purification in case one fails. This can be any combination of methods. I'm the cautious type, so I always have two backup methods: water filter and 2% tincture of iodine or Polar Pure iodine crystals. And I can always boil the water. If boiling is your backup method, make sure you have enough fuel.
- **Fix the Taste** Adding vitamin C (about 50 milligrams) to iodized water completely eliminates any taste or color of iodine. You must wait until the iodine has purified the water before adding the vitamin C. The vitamin C in drink mixes like Tang™ has the same effect.

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Filtration

There are a number of devices on the market that filter out microorganisms. A water filter pumps water through a microscopic filter that is rated for a certain-size organism. The standard size rating is the micron (the period at the end of this sentence is about 600 microns). Depending on the micron rating of the filter, smaller organisms (like viruses) can pass through. Be cautious when selecting a filter. You should know what potential organisms you need to treat for. You don't want to go to an area where a virus like hepatitis A is present in the water (a problem in some developing countries) with a filter that will handle only a larger organism like *Giardia*.

Common microorganisms and the filter size needed:

Organism	Examples	General Size	Filter Type	Particle Size Rating
Protozoa	<i>Giardia, Cryptosporidium</i>	5 microns or larger	Water filter	1.0–4.0 microns
Bacteria	<i>Cholera, E. coli, Salmonella</i>	0.2–0.5 microns	Microfilter	0.2–1.0 microns
Viruses	Hepatitis A, rotavirus, Norwalk virus	0.004 microns	Water purifier	to 0.004 microns

There are two basic types of filters.

- **Membrane Filters** use thin sheets with precisely sized pores that prevent objects larger than the pore size from passing through. **Pro:** Relatively easy to clean. **Con:** Clog more quickly than depth filters. **Example:** PUR-Hiker.
- **Depth Filters** use thick porous materials such as carbon or ceramic to trap particles as water flows through the material. **Pro:** Can be partially cleaned by backwashing. Activated carbon filters also remove a range of organic

chemicals and heavy metals. **Con:** Rough treatment can crack the filter, rendering it useless. **Examples:** MSR WaterWorks II, Katadyn.

Note: There is a difference between a water *filter* and a water *purifier*. Filters do not filter out viruses, but there are water purifiers, like the PUR Scout, that pass the water through both a filter and an iodine compound that kills any smaller organisms that have passed through the filter. These purifiers kill all microorganisms down to 0.004 microns; however, the filter **should not be used by people who are allergic to iodine.**



Common Practices for Using a Water Filter

- Filter the cleanest water you can find. Dirty water or water with large suspended particles will clog your filter more quickly.
- Prefilter the water either through a prefilter on the pump or strain it through a bandanna.
- If you must filter dirty water, let it stand overnight for particles to settle out.

Crude Filters

Boiling or chemically treating water will actually be the real defense against water-borne disease, but filtration helps by removing many contaminants. If the water is cloudy, let it settle and filter it through layers of clean cloth. Boiling the water for one minute meets government standards for safe drinking, but other experts recommend boiling for ten. Five to eight drops of chlorine bleach per gallon of water will also kill harmful bacteria and viruses. Crude filters only remove obvious debris.

Ceramic Filters

Ceramic water filters that remove particles down to one micron in diameter effectively remove harmful organisms and provide immediately drinkable water. Not all filters sold for improving the quality of tap water meet these standards. Check with the manufacturer to find out what additional steps may be needed. Filters that depend upon a pressurized water system to operate won't be of help in a real emergency.

Homemade Filters

Homemade water filters built in stages filter water in large amounts but not perfectly. The filter stages should run from coarse to fine--first stages screen out large pieces of debris and later stages remove finer particles. If the last stage is a deep layer of activated charcoal, like that used in aquarium water filters, the result will be water that looks clean.

Disinfect it by boiling or treatment with chemicals before drinking it. Layered filters in clean 50 gallon drums can process rainwater from a gutter system for storage in tanks or cisterns. Rooftops catch more than rain--runoff may include grit and asphalt residue from shingles, bird droppings and dead insects. Gutters may conceal dead animals. Homemade filters are not enough to guarantee potable water.



Backpacking Filters

Though their total output can be as low as 200 gallons per filter, small backpacking water filters are a great idea for the home emergency kit as well as for a camping vacation. Combined with simple cloth filters to remove coarse debris, backpacking filters produce drinkable water from emergency sources like hot water heaters and even the reservoirs of toilets.

Survival Filters

Emergencies don't only happen in the cities--in a wilderness situation when clean water runs short, an emergency filter pit dug in the bank of a creek or the shore of a lake uses the ground itself as a primitive filter. Wait for the hole to fill and the water to clear before filling a container. Stage filters with found materials like dry grass or clean sand can be rigged from spare clothing.

Tricks of the Trail

Some water filters come as sealed cartridges, making it impossible to inspect the actual filter cartridge. If the filter takes a serious fall, it could crack internally. If the filter inside cracks, unfiltered water can flow through the crack. Treat your filter with care, and if it takes a significant impact, throw it away. Remember, any intake hose from a water filter has been submerged in unfiltered water. Treat this hose as "contaminated" and keep it in a separate plastic bag.

For additional information on this see: **Emergency Disinfection of Drinking Water**

http://www.epa.gov/safewater/faq/pdfs/fs_emergency-disinfection-drinkingwater-2006.pdf

Online Emergency Water Purification Calculator <http://www.csgnetwork.com/h2oemergencypurifycalc.html>

Examples of Backpacking, Camping, Emergency filters see: <http://www.campmor.com/gear/water-filtration.shtml>;

<http://www.sportsmansguide.com/net/cb/miniworks-water-filter.aspx?a=641271&pn=2>;

<http://www.rei.com/expertadvice/articles/water+treatment+international.html>; [http://www.filtersfast.com/Outdoor-Water-](http://www.filtersfast.com/Outdoor-Water-Filters-cat.asp)

[Filters-cat.asp](http://www.filtersfast.com/Outdoor-Water-Filters-cat.asp); <http://www.911water.com/>

Additional Resources:

Great Dreams Preparedness & Survival Links <http://www.greatdreams.com/survival.htm>

3 month Food Supply FoodStorageMadeEasy.NET

Ark Project Food Storage Plan Obtain a 3 Month Supply in 12 Weeks

Ark Project Monthly Food Storage Plan

Building A Starter Food Storage - An Online Plan myfavoriteezines.com/articles/how-to-start-food-storage.html

Emergency Water Purification i4at.ORG

Emergency Water Supply i4at.ORG

EVERYTHING UNDER THE SUN - Putting the Foods You Love Into Food Storage by Wendy DeWitt theideadoor.com or everythingunderthesunblog.blogspot.com

Fluids And Hydration [Unv Minn](http://UnvMinn)

Food and Water Storage Considerations - Continued

Food Storage Calculator - Long Term Food Storage Calculator and Inventory Sheet foodstoragemadeeasy.net
Food Storage Checklist 1 foodstoragemadeeasy.net/fsme/checklists/bsc-1-gs.html
Food Storage for \$\$\$ dollars a Week theideadoor.com
Food Storage Inventory Sheet DealsToMeals.com
Hydrations Needs Throughout Lifespan jacn.ORG
It wasnt raining when Noah built the Ark Booklet - Monthly storage and 72 hour go bag plan theideadoor.com
Long Term Food Storage Shelf Life providentliving.org
Monthly Storage Calendar theideadoor.com
One Year Supply Guide - Suggested Amounts of Basic Foods for Home Storage-Per Adult for One Year DealsToMeals.com
Project Noah Food Storage Getting Started theideadoor.com
Starting Your Food Storage - Tips from the LDS Church providentliving.org
Shelf Life Food Storage FoodStorageMadeEasy.NET
Storage Montly Calendar theideadoor.com
Storage of Dry Foods TheIdeaDoor.COM
Storing Water theideadoor.com/
Three Month Menu Plan Worksheet foodstoragemadeeasy.net
Water Storage Container FAQ scribd.com/
WaterStorage.pdf Family-Survival.com
Where To Store Food theideadoor.com

Additional Information Regarding Food Storage, Animal Safety, Self-Reliance, and General Preparedness

100 Ways to Stretch Your Food Dollars theideadoor.com
72 Hour Contents List FoodStorageMadeEasy.NET
72 Hour Kit Shopping List FoodStorageMadeEasy.NET
Anything and everything self-reliant backwoodshome.com/
Apple Box Oven theideadoor.com
ASPCA Pet Disaster Preparedness aspca.org/pet-care/disaster-preparedness/
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BackHome Magazine backhome.com
Backwoods Home Magazine backwoodshome.com/
Backwoods Living backwoodsliving.com/
Backwoodsman Magazine backwoodsmanmag.com
Basic Water Information i4at.ORG
Be Prepared Emergency Essentials beprepared.com
Bishop's Storehouse Cookbook Food Storage Recipes theideadoor.com
BugOutBags-bugbag-survivalistbooksCOM.rar survivalistbooks.COM
COLLEGE STUDENT EMERGENCY KIT TheIdeaDoor.COM
College Student Emergency Kit theideadoor.com/
Consumer Reports & spin off Shop Smart consumerreports.com & shopsmartmag.org
Cooking with Basic Food Storage theideadoor.com
Country Magazine country-magazine.com
Countryside Magazine countrysidemag.com/
Disaster Preparedness - contains Readiness, Response, Survival, Recovery - Bug Out Bags/Grab & Go Bags, Safe Rooms...
knowledgehound.com/topics/survival.htm
Disaster Preparedness Auto Breakdown.pdf scribd.com/doc/16960644/Auto-Preparedness
Emergency Binder - Documentation Grab-n-Go Book - Contains links to detailed pages of each important thing needed in this grab-n-go documentation binder theideadoor.com

Emergency Binder Suggestions theideadoor.com
Emergency Checklist FoodStorageMadeEasy.NET
EMERGENCY DENTAL FIRST AID KIT theideadoor.com
Emergency-Sanitation-At-Home-DoD 1958.pdf snardfarker.ning.com
Enjoy Simple Living enjoysimpleliving.com
EPA_fs_emergency-disinfection-drinkingwater-2006.pdf EPA
FamilyDisasterSuppliesKitRedCross.pdf American Red Cross
FamilySurvivalCom.doc family-survival.com
Farm and Ranch Living Magazine farmandranchliving.com
Farming Friends farmingfriends.com/
Food Storage - Getting Started foodstoragemadeeasy.net/getting-started/
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Helping farmers and ranchers protect livestock (Preparedness) homeland1.com/disaster-preparedness/tips/397245-Helping-farmers-and-ranchers-protect-livestock/
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How to use Powdered Milk without having to Drink It theideadoor.com
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K9 First Aid Kit k9forensic.org/k9firstaid.html complements of srsi.ORG
LDS Preparedness Manual.pdf ldspreparedness.com/
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Making Emergency Ration Packs-FAST.pdf <http://www.itdg.org/>, <http://practicalaction.org/>, <http://www.fastonline.org/>
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New Findings for Longer-Term Food Storage theideadoor.com
NFPA_GetReady_facts_all.pdf Get Ready - Blackouts, Wildfires, Volcanoes, Tornados, Thunderstorms, Emergency Preparedness, Nuclear Power Plant Incidents, National Security, Landslides, Hurricanes, Home Fires, Hazardous Materials Incidents, Floods, Extreme Heat, Earthquakes, Relief Aid, Winter Storms and Extreme Cold NFPA - National Fire Protection Association
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Path to Freedom - Urban Homesteading pathtofreedom.com/
Pet Owners Homeland Security
Pets saving_family_brochure StealthSurvival.blogspot.com/
Preparedness Information - Emergency Survival, Many Subjects stealthsurvival.blogspot.com/
Preparing-And-Canning-Fermented-Food-And-Pickled-Vegetables-USDA.pdf snardfarker.ning.com/
Safe Water in Emergencies theideadoor.com
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Self-Sufficiency and Sustainable Living self-sufficiency-guide.com/
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shelf life guide Food Storage foodstoragemadeeasy.net
Small Farm Today smallfarmtoday.com/
Smallholder smallholder.co.uk/
Sprouting theideadoor.com
Starting Your Food Storage providentliving.org
The Homesteading Information Directory homesteadinginfo.com/homesteading/index.html
The Suburban Survival Guide -suburb.rtf Survivalists / Survival Network

The Walden Effect waldeneffect.org/
Tips For Storing And Handling Vitamins articlesbase.com/medicine-articles/tips-for-storing-and-handling-vitamins-167108.html
Two Week Cooking Calendar Menu DealsToMeals.com
Urban Farm urbanfarmonline.com
Urban Homesteading urban-homesteading.com
Urban-Survival-Kit.pdf scribd.com/doc/17338146/Urban-Survival-Kit
Water Barrels Storing Water theideadoor.com/
Water FAQs AusSurvivalist.COM
WATER PURIFICATION theideadoor.com
Water Storage Information Booklet theideadoor.com

TNT

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FormerlyNMUrbanHomesteader.weebly.com