



Extended Food & Water Storage: Disaster Preparedness

Building a Three-Month Supply (Normal Diet)

- Build a small supply of food that is part of your normal, daily diet.
- Purchase a few extra items each week to build a one-week supply of food. Then gradually increase the supply until it is sufficient for three months.
- These items should be rotated regularly to avoid spoilage.

Freeze Dried

- #10 Cans: 25 Year Shelf Life
- Freeze-drying process retains more of the food's color, flavor, and nutrition than other methods of drying.
- Meat, vegetables, fruit, milk, butter

Grains & Beans

- Food at low cost with a 30+ year shelf-life
- Beans are one of the most nutritionally-complete staple foods, inexpensive and widely available.
- Grain is a good source of fiber, vitamins, minerals, and protein.
- Consuming foods rich in fiber, such as whole grains, as part of a healthy diet, reduces the risk of coronary heart disease. (USDA)

Meal, Ready-to-Eat (MRE)

- MREs have approximately 1300 calories per meal.
- MREs are shelf stable for a minimum of 3 years at 80°F
- MREs meet the military recommended daily allowance (RDA) guidelines established by the surgeon general.
- Developed for a healthy and extremely active population.

3,600 Calorie Food Bar

- 5 year shelf life.
- Non-Thirst Provoking
- One bar is designed for a 72-hour supply/3 Days
- Ready to Eat: Each package contains 9 pre-measured 400 calorie meals.



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- Enriched with vitamins and minerals exceeding the RDA requirements.

Angel Food Ministries

- Angel Food can fit into a medium-sized box at \$30 per unit.
- Each month's menu is different than the previous month and consists of both fresh and frozen items with an average retail value of approximately \$60.
- Generally, one unit of food assists in feeding a family of four for about one week or a single senior citizen for almost a month.
- Many of the food items are perishable and must be canned immediately

Angel Food Ministries: Sample Menu

- 4 lb. IQF Leg Quarters
- 4 oz. Beef Back Ribs
- 1 lb. 80/20 Lean Ground Beef
- 2 lb. Breaded Chicken Tenders
- 1.5 lb. Bone in Pork Chops (4 x 6oz.)
- 1 lb. Ground Turkey
- 18 oz. Stuffed Manicotti (Cheese)
- 12 oz. Smoked Sausage
- Betty Crocker Seasoned Potatoes
- 7 oz. Cheeseburger Dinner
- 16 oz. Green Beans
- 16 oz. Baby Carrots
- 2 lb. Onions
- 1 lb. Pinto Beans
- 1 lb. Rice
- 7 oz. Blueberry Muffin Mix
- 10 ct. Home-style Waffles
- Dessert Item

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Food Options: Pros & Cons

	Normal Diet	Freeze Dried	Grains & Beans	MRE's	Food Calorie Bar	Angel Food
Pros	<ul style="list-style-type: none"> • Family is used to eating • Low cost • Easy to get 	<ul style="list-style-type: none"> • Shelf-life • Variety • Nutritious • Storability 	<ul style="list-style-type: none"> • Shelf-life • Nutritious • Storability • Low Cost 	<ul style="list-style-type: none"> • Variety • Convenient 	<ul style="list-style-type: none"> • Great Storability • Shelf-life • Convenient • Low Cost 	<ul style="list-style-type: none"> • Low Cost
Cons	<ul style="list-style-type: none"> • Need for continual rotation • Short Shelf-Life 	<ul style="list-style-type: none"> • Rehydration: Will require 1 gallon per person per day 	<ul style="list-style-type: none"> • Limited variety • Extended Staples • Allergies 	<ul style="list-style-type: none"> • Generates excessive waste • Shelf-life: reduced with heat by 1/2 • Cost • For active 	<ul style="list-style-type: none"> • No variety 	<ul style="list-style-type: none"> • Must can immediately • No control of items



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“7 Mistakes of Food Storage”

From: Backwoods Home Magazine

1. Variety: Based storage of wheat, milk, honey, and salt
 - Many people are allergic to wheat and may not be aware of it until they are eating it meal after meal
 - Wheat is too harsh for young children.
 - We get tired of eating the same foods over and over
2. Extended Staples:
 - Make sure you add cooking oil, shortening, baking powder, soda, yeast, and powdered eggs. You can't cook even the most basic recipes without these items.
3. Vitamins:
 - Have a good quality Multi Vitamin and Vitamin C.
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4. Quick and easy and “psychological foods”
 - Quick: ready to eat without preparation: MRE
 - Items in storage to “normalize” situations; goodies — Jell-O, pudding, candy, etc.
5. Balance: buy a variety of items each time, rather than a large quantity of one item.
6. Containers:
 - Always store your bulk foods in food storage containers. Bags are highly susceptible to moisture, insects, and rodents.
 - When using plastic buckets make sure they are lined with a food grade plastic liner available. Never use trash can liners as these are treated with pesticides.
 - Don't stack them too high.
 - Best containers are the #10 tin can
7. Use Your Storage:
 1. It's vital that you and your family become familiar with the things you are storing. You need to know how to prepare these foods.



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2. Your family needs to be used to eating these foods.

Still Need Help? Look at the “Food Storage Planner” Software

- Calculates exactly what you need for your family's food and equipment storage
- Fully customizable for specific individual needs, gender, and age, such as diapers, allergies, toiletries, etc.
- More than 250 recipes to cook with your storage. Add your own.
- Link recipe ingredients to items in your pantry so you know what you can fix for dinner based upon your storage.
- Rotation. Enter purchases as you go along and this report tracks expiration dates to keep your storage rotated and fresh.
- Provides a shopping list based on what you need and how much you want to spend.

www.foodstorageplanner.com (can download a free trial)



Extended Food & Water Storage: Disaster Preparedness

Emergency Water Supply: FEMA Government Standards

- Having an ample supply of clean water is a top priority in an emergency.
- A normally active person needs to drink at least two quarts (half gallon) of water each day.
- People in hot environments, children, nursing mothers, and ill people will require even more.
- You will also need water for food preparation and hygiene.
- Store at least one gallon per person, per day.
- Consider storing at least a two-week supply of water for each member of your family.
- If supplies run low, never ration water. Drink the amount you need today, and try to find more for tomorrow. You can minimize the amount of water your body needs by reducing activity and staying cool.
- 1 gallon per person per day (this includes consumption & hygiene)
- Consider storing at least a two-week supply of water for each member of your family
- Safest and most reliable emergency supply of water
 - Purchase commercially bottled water (PETE (or PET) plastic containers
 - Observe the expiration or "use by" date
 - Purchase food-grade water storage containers
- Using other water sources
 - Preparing container: 1 tsp. of bleach to one quart of water, swish solution covering all the surfaces, and pour out
 - Storing Water: two drops of bleach per gallon from an eye dropper
- Avoid water with floating material, an odor, or dark color



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Preparing to Stay...and Preparing to Go

STORING WATER

- Purchase commercially bottled water...most reliable...I prefer distilled for longer storage, but not for long term use.
- Preparing your own containers of water
 - Food Grade Containers...camping stores...2 liter soda bottles...NOT used Milk or OJ Jugs. Milk Protein and Fruit Sugars hard to completely remove and therefore provide environment for bacterial growth.
 - Prepare containers by washing with dishwashing soap and water, rinse completely! CLEAN
 - ADDITIONALLY: SANITIZE w/ a teaspoon of bleach to quart of water, swish, drain, and rinse.
 - FILL THE CONTAINERS...to the top...NO AIR. Tap water has enough chlorine for 6 months. Well or other untreated water source, add two drops (or 16?) per gallon.
 - Tightly close using original cap. Don't contaminate inside of cap with fingers. Write date and store in cool dark place
 - Duration of Storage: About 6 months if not commercially bottled. Up to several years.

WATER SOURCES WITHIN THE HOME (Learn to break down wall if trapped by fire)



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- Protect water supply by shutting off main water valve if contaminated. This can be done at the Street or House depending on your shutoff valve us located. You can then use the clean water in the pipes in your home.
- Hot Water Tank, Pipes, Ice Cubes (**NOT** Toilet flush tanks or bowls, steam radiators, water beds, or pools)

WATER SOURCES OUTSIDE THE HOME (Must be Treated!)

- Rain water from roof down spouts, catch containers...barrels
- Rivers, creeks, streams, (moving water)
- Lakes, ponds, springs... mud puddles, even SALT WATER (distill it. Never drink it)
- Plants

MAKING SAFE DRINKING WATER...Purifying Germs, Bacteria, and viruses.

- Protozoa (Giardia, Cryptosporidium)
- Bacteria (EColi, Salmonella)
- Viruses (Hepatitis, Norwalk)

Treating Water

Many ways to treat water, though none are perfect. Combination of methods is best solution.

- First, let the particles settle to the bottom, and siphon from the top and filter w/ cloth, coffee filter.



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- 1) **BOILING**...safest method of treating water Kills Most Microorganisms. One minute and cool 30 minutes, or 10 minutes (plus 1 per 1000 feet)
- 2) **DISTILLATION** ...AND Solar distillation. Removes Microorganisms plus heavy metals, salts, and most other chemicals. Boil water and collect the vapor that condenses back to water.
- TASTE BETTER if you shake in oxygen.
- 3) **CHEMICAL WATER TREATMENT**
 - Chlorine..Chlorination is the most commonly used substance for water treatment worldwide. Clorox (Sodium Hypochlorite) Micropur MP1 Water Purification Tablets (Chlorine Dioxide,) 16 drops/gal, and let stand for 30 minutes.
 - Silver...kills bacteria
 - Iodine...12 drops/gal.
 - Hydrogen Peroxide (use with activated carbon to eliminate bad taste)
 - Ultra Violet Light
 - Mechanical Water Treatment
 - Katadyn Ceramic Filters with impregnated silver .2 microns
 - Activated Carbon...removes chlorine, pesticides, bad tastes and odors
 - Glassfiber (superfine) mechanically filters all bacteria and protozoa .3 micron pore size



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Resources

- Emergency Essentials - Group Discounts
 - www.beprepared.com
 - Can purchase Freeze Dried, Grains & Beans, MRE's, & Food Calorie Bars
 - Water storage
 - Many additional personal preparedness items
- Katadyn Portable Water Filters
 - Tracey Hart (803) 802-5455
- Angel Food Ministries
 - www.angelfoodministries.com
- Food Storage Planning Software:
 - www.foodstorageplanner.com
- Bird Flu Personal Protection Equipment:
 - OBBCO Safety Supply, Inc.
 - Dennis Wenger (757) 420-4000
 - N95 Masks (3M),
 - Tyvek - Hood, Boots & Coveralls (\$80 case - 25/Sets per case)
 - Latex Gloves \$5 box 100/Box
- Other helpful resources:
 - www.morningstarministries.org (Disaster Response)
 - www.cdc.gov (Centers for Disease Control)
 - www.who.int (World Health Organization)
 - MorningStar Disaster Response: Personal Preparedness DVD (MFR07-502D) \$10 CALL (800) 542-0278