

An introduction to Prepping and mid to long term emergency food storage.

What follows is a basic introduction to prepping, briefly touching on the 5 pillars of Prepping and then focus on Water and Food Storage with an example of a months tinned and dried food supply for 1 adult to see them through 1 month (30 days) and meet an average of 2400 calories per day, from the point of being for a long term emergency storage supply.

It is only an example and items can be chopped and changed to meet individual preference.

At the end of the article I have listed a number of foods and their calorific value per 100gm of weight.

It can be multiplied up for more adults or longer time period. It's not necessarily a healthy diet, just one that you can survive on and meets the recommended calorific intake.

I have not recommended foods for children – you know what your children will or will not eat, so I leave that in your hands.



Prepping can be done on an individual basis, or as a family, or a community.

Some Preppers prefer to go it alone to keep their Prepping under the radar, for operational security purposes - so that in times of SHTF (Shit hits the fan) they don't get the whole street knocking on the door for help - others form MAG's (Mutual Assistance Groups) and/or work within the local community. There is no wrong or right way to Prep. It's all down to what suits the individual.

A simple way to look at Prepping is as a form of Risk Management. You ask yourself a simple "what if" question.

E.G. what if there was a major earthquake/power grid failure/flood/volcanic eruption/pandemic/invasion/government over-reach etc....how would it affect me/us....what can be put in place now, to lessen that risk.

A lot of it is common sense.

There are so many potential events or hazards that can affect the food supply chain, for example, so it pays to put down a supply of shelf stable foods - tinned, dried, (...freeze dried - with a 20 year plus storage life - if you can afford it)...and to grow as much fresh fruit and veg as you can...(you could also include raising animals if you have the space to do so along with hunting, fishing and gathering wild edibles) in order to get by over a sustained period of time.

Civil Defence used to advise everyone to have a 72 hour (3 day) emergency food supply, but I believe that has been expanded out to 3 weeks after the Christchurch quakes. Most experienced Preppers would advise a 3 month minimum supply of food as a start point and keep adding to it until you get up to a year (like the Mormons do) and then go beyond that. The three month minimum is to give you time to start to grow or otherwise acquire an alternate food source, if it turns out that there are long

term conventional supply problems.

The important things to remember about Prepping your food storage is to -

1. If possible, only store what you usually eat, because SHTF situations are stressful enough without making your body adjust to a new diet...and
2. apply the rule of Fi-Fo - First in, first out, to rotate your food supply and keep it up to date, so you don't have to throw away any spoiled food.

The way we organise our emergency supply at home is this.

We have our kitchen pantry with our weekly groceries and then separately we have our emergency supplies. If we run out of coffee beans for example, we go to our Prepper storage, take out the packet of coffee with the closest use by date and use that. We have a chalk board on which we write up what items we have borrowed from the storage and the next time we go shopping we buy 2 of whatever we've used in order to both replace and expand our food supply. It's simple and effective.

Most preppers follow the **5 (or more) Pillars of Prepping** - which are:-

Food

Water

Shelter

Fire (and light)

Defence/Security - of yourself, your family and your home

Other considerations are -

First Aid/Medical (including prescription meds or natural alternatives)

Health and Sanitation

Alternative power sources

Finance and alternative currency

Communication

and Transport

A number of these "Pillars" come up in the Prepper rule of three's.

"You can survive 3 weeks without food

3 days without water

3 hours without shelter from the elements (in adverse conditions)

3 minutes without air

But only 3 seconds without hope....."

There are a number of phrases that Preppers use and one of them is "Prepare for the worst, but hope for the best". It may seem that Preppers are pessimistic by looking at all the things that can go wrong, but by doing this and taking steps to counter those hazards we are for ever optimistic about the future and our ability to survive and thrive.

But Prepping isn't limited to being disaster or apocalypse ready, it can also be applied to things such as retirement, job loss, ill health or anything that could affect your finances etc.

For each scenario, apply the "what if" principle.....and work out how it could affect your way of life and what steps can be taken to soften the blow.

Being a Prepper is not about being afraid, it's about being prepared.

I've been asked to give tips and advice about Prepping and being ready, so will tackle all the Prepper Pillars over the next few weeks. Right now though we'll look at the first two - Food and Water.

WATER - As you've seen from the rule of 3's, water is extremely important for our survival.

Generally speaking, we need 3 litres of water per person, per day - for drinking and cooking. In hot weather, or if doing physical work, you will need more.

Additional water is needed for sanitation - washing ourselves, our clothes, cleaning around the home and if you have a flush toilet....some of the older models of toilet use up to 14 litres every time you flush. The newer ones are more efficient, but are

still a terrible waste of clean water. And you'll need even more stored water if you have a veggie garden and there is an interruption in the water supply.

In the modern world we just turn on a tap and there the water is and it is (usually) drinkable straight from the tap. We take it for granted and so it's often overlooked, or the amount needed underestimated, when making preparations. An earthquake or other disaster, could mean that when you turn on a tap, nothing comes out.

Store as much drinkable water in clean containers as you have the space for. If it's already treated water from the town supply it should be good for a year, but try to replace it every 6 months to give you a little more security. Other water may be best stored safely by adding a couple of drops of bleach per litre of water. It would also be helpful to set up a rainwater collection system by diverting water from your down-pipes into barrels, or other containers, for use in emergency - or just for watering your garden in times of drought.

Rainwater collected from your roof could contain pathogens and leaf debris so it would need to be strained/filtered and treated to make it safe to drink. There are a number of filters on the market from individual "life straws" - a sort of drinking tube with a built in filter that removes 99.9% of pathogens, or family sized counter top filter systems like the Big Berkey which is a stainless steel container with ceramic filters - again very effective.

If you don't have access to commercially designed and produced filter systems you can get by, by straining the debris out through a cotton cloth and treating the water with a couple of drops of unscented bleach per litre and/or boiling the water for 5 minutes. Boiling will kill parasites and bacteria but will not remove heavy metals, salts, chemicals or radiation, whereas some filters will.

You can also buy water purification tablets which are either chlorine or iodine based. Hydrogen peroxide can also be used. Water treated with bleach etc should be left for 30 minutes after treatment before consuming.

Another way is to build your own bio-filter.

A bio-filter is a three stage filter, allowing each stage to provide a finer level of filtration.

1. The first level consists of gravel and is there to remove larger solids, such as leaves, twigs, bugs and even pieces of feces that might be in the water.
2. The second layer is sand, which will remove floating and dissolved particles of solids as the water passes through it.
3. At this point, all that is left to be a problem is the microscopic pathogens, which are reduced by over 99 percent by the final layer, that of activated charcoal.

You can make this filter in something the size of a 2 litre soft drinks bottle by turning the bottle upside down and removing the base of the bottle. Into the neck of the bottle put a layer of cotton cloth/cheese cloth or something similar.

On to this, add your activated charcoal

Above this layer goes the sand and finally the gravel - needless to say these ingredients all need to be washed prior to use so set this up now rather than after a SHTF situation.

Punch a few holes into the lid of the bottle and then pour the contaminated water over the gravel layer....the gravel will trap things like leaf material and large contaminants, the sand will take out smaller items and finally the activated charcoal will purify the water. Clean water should flow out of the holes in the bottle cap. If it still looks unclean, repeat the process.

Something the size of a soft drink bottle should work, but for peace of mind it would be better to use 3 food grade buckets stacked on top of one another with gravel in the top one, sand in the middle one and the activated charcoal in the bottom one. Small holes in the bottom of each bucket allowing water to flow from one to the next, and a final clean container under the lot, to catch the clean water.

More than anything, you want a thick layer of activated charcoal, so that it can

remove the pathogens from the water.

Activated charcoal is an amazing material. It is charcoal or carbon, in which the pores have been opened, expanding the surface area. The surface area of activated charcoal is a minimum of 500 square meters per gram and can be three times that much.

That's what makes it so effective. The large surface area traps the pathogens, preventing them from passing through.

Activated charcoal can be purchased commercially, but it can also be made. The easiest way to make it is to treat charcoal with a hot acid or a strong base. This will cause the pores in the charcoal to open up. Commercially, the wood is usually impregnated with acid, a base or salt, by soaking the wood in it, before burning. Then, as the wood burns, the pores are opened.

Here is a link to a short YouTube video showing how to make your own activated charcoal. I will warn you that the music accompanying the video is terrible.

Activated Charcoal - How To Make It - YouTube

<https://youtu.be/1kySEZxA3Gc>

The only point I would like to make about the above video is that the end product looks to me like the particles are too large. It needs to more like a powder so perhaps use a mortar and pestle to grind it down further before use.

FOOD – Long term food storage can be achieved easiest, but also most expensively, by purchasing ready made freeze dried emergency meals in individual packets and stored in airtight sealed buckets from specialist suppliers. These will store for 20 to 30 years and still be good to eat. Just add water and heat.

Great if you have oodles of cash to throw at it, but for most of us the easiest and cheapest way to build a shelf stable mid to long term (2 to 5 years safe storage) emergency food supply is through stocking canned foods and dried foods. Check the "best before" date on the packaging. It doesn't mean that it won't be safe to eat after that date, just that the optimum nutritional value will decline with age. The simple rule is, if it looks or smells bad – don't eat it. Avoid dented or bloated cans. You can extend the shelf life of your dried foods such as rice, pasta, rolled oats etc. by vacuum packing them in strong food grade plastic bags...or ideally in Mylar bags (which have a layer of aluminium foil between the layers of plastic to ensure they remain air tight over a number of years). Adding purpose bought oxygen absorbers before sealing the bags will extend the shelf life further. By using Mylar bags and oxygen absorbers the shelf life of rice, for example, can be pushed to 20 years and beyond. BUT as with many things these days, that come from overseas and have been affected by supply chain issues, Mylar bags – the good ones, not cheap Chinese knock offs – are not easy or cheap to come by.

Your dried foods may also have contamination by weevils or other egg laying insects at the point of packing/processing. A way to kill the eggs and larvae is to put the bags of rice or oats etc. into your freezer for 48 hours prior to storing on your shelves or in your cupboards.

As mentioned in the introduction about Prepping you should, where ever possible, make your emergency food supply as similar as your usual diet as possible so that your body doesn't have to deal with a sudden change in food under already stressful circumstances.

An average adult needs between 1800 to 2500 calories of food per day to maintain weight and survive. If you are a larger or more active person than average your needs will be more. But for the purpose of this exercise we're assuming we're dealing with Mr. or Mrs. average.

What follows is an example only of a months food supply for one adult. Obviously if

there are some foods included in this list that you can't, don't or won't eat, substitute it for something of similar calorific value.

Because I am assuming that in a SHTF situation there could be an interruption to the power supply I am not including any foods that need to be refrigerated or frozen for long term storage....AND you can, when/if available supplement or replace these suggested foods with fresh fruit and veg if you grow your own or fresh fish or meats if you can source it during the disaster scenario, for a more balanced diet.

I am not claiming that the following food combination is ideal or in any way for optimum health, but it will provide the number of calories needed to survive and function.

Example of 1 month (30 days) food supply for one average adult. Based on 2400 calories per day for a total of 72,000 calories for a month. Exclusively made up of dried and canned foods. If you have 2 adults in your household, double it.

Rolled oats - 3 kilos (11,070 calories)

White Rice - 3 kilos (10,620 calories) white rice stores much longer than brown rice because there is less oil/fat in it.

Pasta - wheat (or buckwheat for the gluten intolerant) 3 kilos (10,440 for wheat or 10,890 cal for buckwheat).

Note - if you were to have for example 100gms of rolled oats as part of your breakfast, 100gm of rice for lunch and 100gm of pasta for dinner (all dry weight measurements) that would give you half of your daily calorific requirement. By doubling each serving you have your daily allowance but it would be a very boring, bland and unhealthy diet.

To add variety we rely on canned foods such as Beans, Fish, Meat and Fruit. I will list several examples of different types of these and their calorific content at the end.

A suggestion to meet the additional calorific requirements is -

Tuna in cans your choice of sizes totaling 800gm (1000 cal)

Mackerel 1 x 400gm can (800 cal)

Sardines 2 x 125gm cans (520 cal)

Beans (most beans have similar calorific values) any mix of baked bean, black bean, red kidney bean, cannellini beans, green sliced beans have between 86 cal per 100gm for baked beans to 113 cal per 100gm for black beans. 15 x 400gm cans (6,000 cal)

I use canned beans rather than dried beans simply because they are already partially processed and are already in liquid so no additional water is needed and the cooking time is far less than that required for dry beans. The advantage of dried beans is that they are lighter and take up less storage space and potentially store for longer, so decide what ever is best for you.

Chicken breast canned 8 x 100gm cans (800 cal)

Corned Beef canned 2 x 400gm cans (1,664 cal)

Canned fruit - peaches, pineapple, fruit salad etc 15 x 400gm cans (3,000 cal)

Soups - Chicken, pumpkin, tomato. Chicken soup will give you one and a half times the calories of Pumpkin and twice that of Tomato soup. 6 x 400gm cans - 2 of each - (1168 cal)

Canned tomatoes - Not a high calorie count, but makes pasta or rice far more edible and they are cheap. 7 x 400gm cans (448 cal)

Powdered Milk (1 kilo of powder will give you 8.5 litres of liquid milk.) 2 kilos (9,920 cal)

Coconut oil or olive oil - 1 kilo or 1 litre (8,880 cal)

Peanut butter 1 x 500gm jar (3,000 cal)

Honey 1 kilo (3,040 cal)

A list of canned and dried foods with calorie count for each 100gm of weight follows, so you can substitute things you don't like for similar valued things you do like. For anything not on the list try Google.... Or DuckduckGo search engine.

Uncooked rolled oats 100gm 369 calories
uncooked White long grain rice 100gm 354 cal
Brown rice 100gm 367 cal
Buckwheat Pasta (Macro) 100gm 363 calories
Whole wheat flour 100gm 340 cal (will not keep anywhere near as long as white flour)
White flour 100gm 360 cal
Black beans organic tin 100gm 113 cal
Baked beans tin 100gm 86 cal
cannellini beans tin 100gm 101 cal
Red Kidney Beans org 100gm 100 cal
Sliced green beans canned 100gm 22 cal
Beans listed are all based on tinned beans....for 100gm dried beans add 25% extra calories
Split peas dried 100gm 352 cal
Lentils green/brown raw 100gm 297 cal
Chickpeas 100gm 180 cal
Tuna in oil 100gm 120 cal
Tuna in spring water 100gm 118 cal
Sardines in oil drained 100gm 206 cal
Sardines in water drained 100gm 156 cal
Mackerel in oil drained 100gm 200 cal
Salmon in brine drained 100gm 144 cal
Chicken breast canned in water drained 100gm 104cal
Corned beef canned 100gm 208 cal
Chicken soup condensed canned 100gm 65 cal
Pumpkin soup canned 100gm 48 cal
Tomato soup 100gm 33 cal
canned peaches in juice 100gm 39 cal
canned peaches in syrup 100gm 55 cal
canned pineapple in juice 100gm 56cal
Pasta white wheat flour dry 100gm 348 cal
Milk Powder 100gm 496 cal Table spoon is 10gm about 50 cal. (1 kilo will make 8.5 litres of liquid milk)
Dark Chocolate 72% cocoa 100gm 505 cal
Canned tomatoes 100gm 16 cal
Marmalade 100gm 265 cal
Peanut butter 100gm 598 cal
Sugar white 100gm 387 cal
Honey 100gm 304 cal
Olive oil 100gm 884 cal
Coconut oil 100gm 892 cal
Cheddar cheese 100gm 403 cal
Hard mature cheeses can be kept for months unrefrigerated if they are well wrapped and taped. See Notes below.

If you can source fresh meat etc to supplement or replace the canned meats.....

Venison 100gm 190 cal
Pork 100gm 220 cal
Rabbit 100gm 114 cal

Beef steak 100gm 252 cal

Goat 100gm 109 cal

Ham 100gm 263cal

Bacon 100gm 541 cal

Lamb 100gm 200 cal

Beef Jerky 100gm 410 cal

1 hens egg 75 cal

Potato 1 x large 275 cal or for 100gm 74 cal

Hot drinks such as Tea, Green tea or Coffee have negligible calorie count until you add sweeteners or milks etc.

Notes -

Check the expiry dates on your oils and peanut butter – as they are oily they will go off faster than the other products listed.

You could substitute any of the rice, pasta, or oats for an equal amount of flour and then bake bread or make crackers or hard tack for example.

Hard Tack Recipe

4.5 cups White Flour

3 Tbsp Salt

1.5 cups of water

Add water gradually. Mix into a paste. Rollout and use cookie cutter to cut to shape.

Cook on baking tray.

Cook for 30 mins at 375F or 190 C until golden brown. Leave to cool and dry off.

Will store for years. In a cool dry place.

Beef jerky will last 1 to 2 months in airtight container but months longer if vacuum packed. Do not refrigerate as keeps better in a dry environment. There are many recipes available on line for beef jerky. A link to one recipe is here -

Homemade Beef Jerky | Allrecipes

<https://www.yummly.com/recipe/The-Ultimate-Beef-Jerky-Allrecipes?prm-v1>

Cheese....

To store cheddar cheese without refrigeration, the cut surface of cheese needs to be wiped with white vinegar and then dried to remove all traces of vinegar. Next step is to wrap the cheese inside cheesecloth. However, special attention might be required, while soaking up the cheesecloth in white vinegar, making sure it is merely damp instead of wet. Merely wrapping up the cheese in cheesecloth is not enough. You have to lay the wrapped cheese inside the cheese paper, butcher's paper, parchment or wax paper. Make sure you wrap at least two layers of paper and seal the whole unit shut using tape.

Once this is done, you can store the cheese for extended duration without bringing any sort of harm to it. Make sure you do not keep it anywhere near a source of heat or under direct sunlight.

Well-matured sharp cheddar cheese works best for storing without refrigeration. The age old custom of rinsing cheese in white vinegar once every week can be practiced if you want to extend the storage duration further.

Disclaimer – I am not a nutritionist. These food examples are suggested for their calorific content only. Try to supplement the dried and canned foods with fresh green veg and fruits where possible. Do your own research or consult a health professional/natural health practitioner, particularly if you have any underlying health conditions.