

# Week 3

A Season of Resilience in Emergency Preparations

## Weekly Focus

<b>WHAT</b> Start to prepare for a stay-at-home event vs an evacuation.	<b>WHY</b> - A variety of events can cause situations where... - You need to remain in your residence (bad road conditions, severe storms, or public health concerns). - There is a temporary shortage of supplies or interruption to utilities & services where having basic needs removes risk & strain for your household.
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### Make A Plan

There may be situations when it's best to stay where you are and avoid any uncertainty outside. Local authorities may not be able to provide immediate information so use common sense and available information to assess the situation and determine if there is immediate danger. (source: [ready.gov](https://www.ready.gov))

General precautions

- \_\_ Step 1: Identify the safest spot in your home for each type of disaster (no windows, structural supports, etc.).
- \_\_ Step 2: Assess what your household needs are for a minimum of 72 hours (food, water, medical, etc.).
- \_\_ Step 3: Discuss what to do about power outages and personal injuries.
- \_\_ Step 4: Assess what electrical devices are critical and plan to have appropriate backup power sources.
- \_\_ Step 5: Create a checklist to ensure you lock doors, close windows, air vents and fireplace dampers, if applicable.
- \_\_ Step 6: Once inside your safe spot, inform your emergency contact(s) where you are, if anyone is missing, & how everyone is doing.

### Be Informed

"If any type of unexpected emergency strikes your community, you may not have access to fresh food, water or electricity for days, maybe weeks. ... Remember, preparation is the key!" – [USDA](https://www.usda.gov)

#### Water Storage

Know how to prepare and store water safely before a disaster if you are not purchasing commercially bottled water.

- \_\_ Step 7: Read through the included: "St Michael's Water Treatment, Storage, and Use Safety Sheet"

#### Food Storage & Preparation

Know how to store and prepare food safely during a disaster.

- \_\_ Step 8: Check to ensure that the freezer temperature is at or below **0° F**, and the refrigerator is at or below **40° F**.
- \_\_ Step 9: Make sure you have appliance thermometers in your refrigerator & freezer.
  - In case of a **power outage**, the appliance thermometers will help you determine if the food is safe.
- \_\_ Step 10: Know where dry ice and block ice can be purchased in case it should be needed.
- \_\_ Step 11: Read through the included: "St Michael's Food Storage and Preparation Sheet"

**Avoid carbon monoxide poisoning by using generators & grills ONLY outdoors, 20 ft from house & windows.**

### Make A Kit

The focus for this week is to start to collect supplies for a stay-at-home event. Official guidance is to have enough supplies for each household member for at least 72 hours. As we have experienced a pandemic and supply chain interruptions, it is suggested by FEMA to have enough basic supplies to last everyone for up to 2 weeks.

- We will assume that your evacuation kit items can also be used as part of your stay-at-home kit.
- Be sure to store your kits in a location that can be accessed if you are limited to a safe location in your home.

Typical supplies fall under: food, water, communication equipment, tools, first-aid & medical supplies, sanitary supplies, clothing, and miscellaneous.

**Remember the following is for 1 person, multiply as needed for each member.**

Evacuate
Water <input type="checkbox"/> 3 gallons of water - include some in gallon jugs and some in smaller bottles. <input type="checkbox"/> Optional: water treatment tablets and/or filter
Food <input type="checkbox"/> 3 cans/packages of food such as beans, meat, fish, pasta or soup that would taste good cold. <input type="checkbox"/> 1 can/package of fruit or veggies. <input type="checkbox"/> Several snacks such as dried fruit, nuts, seeds, crackers, granola/protein bars, and peanut butter. <input type="checkbox"/> Eating utensils / mess kit. <input type="checkbox"/> Manual can opener. <input type="checkbox"/> Hand sanitizer. <input type="checkbox"/> Optional: compact camping cooking system (stove and fuel source).

Stay-At-Home
Habits <input type="checkbox"/> Try to keep phones and other devices charged. <input type="checkbox"/> Inspect emergency water & food supplies for damage and expiration dates, rotate inventory w/ daily use.
Water & Water Treatment <input type="checkbox"/> 3-to-14 day supply of safe water; 1 gallon of water per person per day. (Very hot temperatures can double the amount of water needed.) <input type="checkbox"/> Attachable spout for containers or clean ladle or scoop to safely access water for use. <input type="checkbox"/> 1 bottle unscented household liquid bleach that contains 5.25 to 6.0 percent sodium hypochlorite. <input type="checkbox"/> Dropper or milliliter liquid dispenser. <input type="checkbox"/> Powdered drink mixes. <input type="checkbox"/> Kettle or pot w/ lid to boil water. <input type="checkbox"/> Coffee filters or pieces of cloth for filters. <input type="checkbox"/> Optional: water treatment tablets and/or filter.
Food & Food Preparation <input type="checkbox"/> 3-to-14-day supply of ready-to-eat foods, such as canned meats, fruits, vegetables, & soups, freeze dried meals, oatmeal, and powdered milk or ultra-high temperature milk (also called UHT milk). <input type="checkbox"/> High-energy foods such as peanut butter, nuts, dry cereal, granola, protein bars, crackers, and dried fruit. <input type="checkbox"/> "Stress foods" such as hard candy or cookies <input type="checkbox"/> Eating utensils / mess kit. <input type="checkbox"/> Manual can opener. <input type="checkbox"/> Hand sanitizer. <input type="checkbox"/> Soap and/or dish soap. <input type="checkbox"/> Garbage bags. <input type="checkbox"/> Cooler. <input type="checkbox"/> Pre-frozen gel packs (stored in freezer for future use). <input type="checkbox"/> Alternate (non-electric) cooking stove. <input type="checkbox"/> Pot and/or pan for cooking.

# St Michaels's Water Treatment, Storage, and Use Safety Sheet

**KEEP THIS WITH YOUR EMERGENCY SUPPLY KIT**

## Sources

- [www.ready.gov/water](http://www.ready.gov/water)
- [www.cdc.gov](http://www.cdc.gov) : “Making Water Safe in an Emergency” & “Creating and Storing an Emergency Water Supply”
- [www.epa.gov](http://www.epa.gov) : “Emergency Disinfection of Drinking Water”

## Use

- If water is NOT from a trusted source, treat it as if it is containment.
- Use only treated water for drinking, food washing/preparation, washing dishes, brushing teeth, making ice.
- Taste can be improved by pouring the water back and forth between two clean containers.
- Tips for removing safe water out of the container:
  - If using a scoop or other device, use a clean one each time you remove safe water from the storage container to help avoid contaminating the water.
  - Before scooping out the safe water, try not to touch the water or insides of the container with your hands.
  - Never scoop safe water with your hands.

## Storage

- Store water in cool (50–70°F), dark place, in food-grade water containers.
- Do not store water containers in areas where toxic substances, such as gasoline or pesticides, are present.
- Water that has not been commercially bottled should be replaced every six months.
- Observe the expiration dates for store-bought & ensure seals & containers are not damaged.

## Bottled water

- Water labeled with any of the four messages below has been processed by a method effective against Crypto: Reverse osmosis treated, Distilled, Filtered through an absolute 1 micron or smaller filter, “One micron absolute”
- Water labels reading “well water,” “artesian well water,” “spring water,” or “mineral water” do not guarantee that the water does not contain Crypto.

## Pre-disaster water preparation

- Purchase food-grade water storage containers.
- Thoroughly clean the containers with dishwashing soap.
- Sanitize the container with a solution made by mixing 1 teaspoon of unscented liquid household chlorine bleach in 1 quart of water. Use bleach that contains 5%–9% sodium hypochlorite.
- Cover the container tightly and shake it well. Make sure the sanitizing bleach solution touches all inside surfaces of the container.
- Wait at least 30 seconds and then pour the sanitizing solution out of the container.
- Let the empty sanitized container air-dry before use OR rinse the empty container with safe water.
- Fill containers from a clean faucet or food-grade hose.
- Pour clean, chlorinated water into the sanitized container and cover with a tight lid.
- Label container as “drinking water” and include storage date.

## Emergency water treatment

If you have no remaining safe water & your water source has been compromised, you will need to take proper steps to disinfect water prior to drinking. There are many ways to treat water; it is often best to use a combination of methods.

- Before treating, let suspended particles settle to bottom or strain through coffee filters or layers of clean cloth.

Methods	Kills Microbes	Removes other contaminants (heavy metals, salts, and most other chemicals)
Boiling	Yes	No
Chlorination	Yes	No
Distillation	Yes	Yes

## Boiling

- Boiling is the surest method to kill disease-causing organisms, including viruses, bacteria, and parasites.
- In a large pot or kettle, bring water to a rolling boil for 1 minute, keeping in mind that some water will evaporate. (at elevations above 6,500 feet, boil for 3 minutes).
- Let the boiled water cool.
- Water will taste better if you put oxygen back into it by pouring the water back & forth between 2 clean containers.

## Chlorination / Disinfectants

- Disinfectants can kill most harmful or disease-causing viruses and bacteria, but are not as effective in controlling more resistant organisms, such as the parasites [Cryptosporidium](#) and [Giardia](#).
- Chlorine dioxide tablets can be effective against *Cryptosporidium* if the manufacturer's instructions are followed.
- You can use household liquid bleach to kill microorganisms IF it contains 5.25 to 6.0 percent sodium hypochlorite. Do not use scented bleaches, color safe bleaches or bleaches with added cleaners.
- Add 1/8 teaspoon of bleach per gallon of water & Stir the mixture well.
- Let it stand for at least 30 minutes before you use it for drinking.
- The water should have a slight bleach odor. If it doesn't, then repeat the dosage and let stand another 15 minutes. If it still does not smell of chlorine, discard it and find another source of water.
- "Other chemicals, such as iodine or water treatment products sold in camping or surplus stores that do not contain 5.25 or 6.0 percent sodium hypochlorite as the only active ingredient are not recommended and should not be used." – ready.gov
- If using iodine vs choline: Add five drops of 2% tincture of iodine per quart or liter of water. If the water is cloudy or colored, add 10 drops of iodine. Stir and let the water stand for at least 30 minutes before use.

**Making water safe to use with bleach having a 5%-9% concentration of sodium hypochlorite** (most common in the US).  
If the water is cloudy, murky, colored, or very cold, add double the amount of bleach listed below.

Measuring Device	1 quart/liter water	1 gallon water	5 gallons water
If you have a dropper	Add 2 drops of bleach	Add 8 drops of bleach	Add 40 drops of bleach
Liquid syringe in milliliters (mL)	Add 0.1 mL of bleach	Add ½ mL of bleach	Add 2½ mL of bleach
If you have a measuring spoon	Amount too small to measure	Add a little less than 1/8 teaspoon	Add ½ teaspoon of bleach

## Distillation

- Involves boiling water and then collection of only the vapor that condenses. The condensed vapor will not include salt or most other impurities.
- Will remove microbes (germs), heavy metals, salts & most other chemicals.
- Fill a pot halfway with water.
- Tie a cup to the handle on the pot's lid so that the cup will hang right-side-up when the lid is upside-down (make sure the cup is not dangling into the water)
- Boil the water for 20 minutes.
- The water that drips from the lid into the cup is distilled.



## Filters

- If using a certified filter, follow the directions exactly.
- After filtering, add a disinfectant such as iodine, chlorine, or chlorine dioxide to the filtered water to kill any viruses and remaining bacteria.

# St Michael's Food Storage and Preparation Sheet

**KEEP THIS WITH YOUR EMERGENCY SUPPLY KIT**

## Sources

- <https://www.ready.gov/food>
- <https://www.fda.gov/food>: "Food and Water Safety During Power Outages and Floods"
- <https://www.fsis.usda.gov/food-safety>: "A Consumer's Guide to Food Safety: Severe Storms & Hurricanes"
- <https://www.fns.usda.gov/disaste>: "Tips for Handling Food Following a Disaster"

**Food that is mishandled can lead to foodborne illness. Preventing foodborne illness by following these 4 easy steps: Clean, Separate, Cook and Chill.**

## Storage

- **Do not eat** any food that may have come into direct contact with flood water.
- **Discard any food and beverage** that is **not in a waterproof container** if there is *any* chance that it has come into contact with flood water.
- **Discard any food in damaged cans.**
- Store food on shelves that will be safely out of the way of contaminated water in case of flooding.
- Group food together in the freezer—this helps the food stay cold longer.
- Keep food in covered containers.

## Power Outage

### During a power outage

- Keep the refrigerator and freezer doors closed as much as possible to maintain the cold temperature.
  - Refrigerator will keep food cold for about **4 hours** if it is unopened.
  - Full freezer will keep the temperature for approximately **48 hours** (24 hours if it is half full) if the door remains closed.
- Fifty pounds of dry ice should hold an 18-cubic-foot full freezer for 2 days.

### After a power outage

- Check the temperature w/ appliance thermometer when the power comes back on.
  - Freezer is 40°F or below, the food is safe
  - Refrigerator that is above 40°F for 4hrs or more -> Discard any perishable food (meat, milk, seafood, etc)

## Food Preparation

- Thoroughly wash metal pans, ceramic dishes, and utensils (including can openers) with soap and water, using hot water if available. Rinse and then sanitize them by boiling in clean water or immersing them for 15 minutes in a solution of 1 tablespoon of unscented, liquid chlorine bleach per gallon of drinking water (or the cleanest, clearest water available).
- Thoroughly wash countertops with soap and water, using hot water if available. Rinse and then sanitize them by applying a solution of 1 tablespoon of unscented, liquid chlorine bleach per gallon of drinking water (or the cleanest, clearest water available). Allow to air-dry.

## Cooking

- Alternative cooking sources can be used in times of emergency including candle warmers, chafing dishes, fondue pots or a fireplace.
- Charcoal grills and camp stoves are for outdoor use only.
- To heat food in a can:
  1. Remove the label.
  2. Thoroughly wash and disinfect the can. (Use a diluted solution of one part bleach to 10 parts water.)
  3. Open the can before heating.