

Emergency Preparedness Alternative Cooking Methods

**Bam! An emergency event just occurred.
How are you going to cook, Heat or boil?**

Rewind – let’s plan for the disruption!

Cooking Needs - What are my cooking needs?

- Cold meals like sandwiches and salads, energy-dense snacks like nuts and dried fruits
- MRE – Meals Ready to Eat (Nuts and dried fruits).
- Boiling water for freeze dried meals
- Boiled foods (Oatmeal, Hot drinks, pasta or eggs)
- One-pot meals
- (soups, stews, chili), canned or pre-cooked foods that can be easily heated.
- Grilled or roasted meats and vegetables.
- Fry it (Eggs, bacon, pancakes)

Safety – Safety precautions to think of

- Always use cooking devices outdoors or in well-ventilated areas to prevent carbon monoxide poisoning.
- Keep cooking devices >20 feet away from windows, doors, and flammable materials.
- Store fuels away from heat sources and open flames.
- Use stable level surfaces to prevent tipping and spills.
- Keep a fire extinguisher nearby (plan for fire emergencies).
- Monitor children and pets around cooking areas.
- Ensure food is cooked thoroughly to safe temperatures.
- Avoid use of candles or open flames near flammable materials.
- Check weather conditions before using outdoor cooking methods to ensure safety.

Fuel Availability – What fuel is available? What can I safely Store?

- Choosing fuels that are readily available and easy to store .
- Considering the shelf life and storage requirements of the fuel (e.g., propane tanks, butane canisters, charcoal, wood).
- Have enough fuel to last duration of the emergency.
- Storing fuels in approved containers away from heat sources and living areas.
- Having multiple fuel options if possible to increase.
- Considering the ease of transport if evacuation is necessary.
- Being aware of local regulations for fuel storage and usage.
- Plan for fuel conservation i.e. efficient cooking methods
- Avoiding fuels that produce excessive smoke or toxic fumes.
- Regularly checking and maintaining fuel storage to prevent leaks or degradation.

Fuels

Liquid Fuels

Alcohol

- Denatured alcohol
- Ethanol or ethyl (Everclear)
- Methanol (wood alcohol)
- Rubbing alcohol (isopropyl)
- Canned

Coleman Fuel/White Gas

Diesel

Gasoline (Unleaded)

LP Propane

Kerosene

Lamp Oil

Lighter Fluid

Liquid Paraffin

Fuel Stabilizers

Solid Fuels

Charcoal

Coal

Debris

Fuel Tablets

Firewood

Gel Fuel

MRE Heaters

Newspaper

Paraffin (Wax)

Trioxane Fuel Bar

Wood Pellets

Miscellaneous Energy Sources

Batteries

- Household (alkaline)
- Rechargeable (NiCd, NiMH)

Battery Bank

Portable Electric Generator

Solar (generator) active & passive

Wind

Natural Gas

- Mainly methane,
- Delivered via pipelines
- Lower energy content per volume,
- Depends on infrastructure availability.
- Flame temperature around 1960°C (3560°F).
- Less portable and typically used in fixed installations.

Propane

- A liquefied petroleum gas (LPG) Higher energy content,
- Vaporizes at very low temperatures (boiling point about -42°C or -44°F), making it suitable for cold weather and outdoor use.
- Flame temperature around 1967°C (3572°F).
- Portable and reliable for emergency cooking in cold climates.

Butane

- Also an LPG
- Higher boiling point (around -0.5°C to 1°C or 31°F to 34°F),
- Vaporizes less effectively in cold temperatures
- Better suited for indoor or warmer climate use.
- Flame temperature around 1970°C (3578°F).

Which one

- Propane is generally preferred for emergency cooking in cold environments due to its low boiling point and high energy content,
- Butane is better for warmer conditions.
- Natural gas requires infrastructure and is less portable.

Ease of Use

- If evacuation is possible, lightweight and portable cooking options.
- Require minimal assembly and maintenance
- Have easy-to-connect fuel sources are preferable to minimize user error and enhance safety.
- Select devices that are simple to operate, especially under stressful emergency conditions. (Come with clear instructions). Devices that can be quickly started and stopped
- Straightforward ignition systems,
- Practice using the device beforehand to build familiarity.
- Which fuel do you feel safe using?

Alternative Cooking and Food Heating Methods During an Emergency

1. Propane or Butane Camp Stove

Portable stoves are commonly used for camping. They provide controlled heat for cooking Meals.

Safety Practices: Use outdoors or in well-ventilated areas only. Keep away from flammable materials and check for gas leaks before use.

2. Charcoal Grill

Uses charcoal briquettes or lump charcoal to cook food.

Safety Practices: Never use indoors. Allow proper airflow and fully extinguish coals after use.

3. Wood-Burning Campfire

Description: Cooking directly over an open fire using wood as fuel.

Safety Practices: Build fires away from structures, keep water nearby, and follow local fire regulations.

4. Fireplace Cooking

Using an indoor fireplace to heat food with cookware or foil.

Safety Practices: Ensure chimney is clear and ventilated. Use fire-safe cookware only.

5. Rocket Stove

Highly efficient wood-burning stove that uses small sticks.

Safety Practices: Operate outdoors and avoid touching hot surfaces.

6. Solar Oven

Uses sunlight to heat and cook food with reflective panels.

Safety Practices: Place on stable surfaces and monitor food temperatures carefully.

7. Sterno or Canned Heat

Gel fuel cans used to heat food slowly.

Safety Practices: Use in ventilated areas and avoid refilling cans.

8. Alcohol Stove

Lightweight stoves use denatured alcohol or ethanol.

Safety Practices: Keep fuel away from flames and extinguish carefully.

9. Portable Gas Grill

Small grills powered by propane tanks.

Safety Practices: Use outdoors only and check hose connections regularly.

10. Electric Generator + Hot Plate

Uses generator power to run electric cooking devices.

Safety Practices: Operate generators outdoors to prevent carbon monoxide poisoning.

11. Thermal Cooking (Haybox)

Food is brought to a boil then insulated to continue cooking.

Safety Practices: Ensure food reaches safe temperatures before insulating.

12. Dutch Oven Over Coals

Heavy cast-iron pot placed on hot coals.

Safety Practices: Use heat-resistant gloves and stable surfaces.

13. Tea Light Stove

DIY stove using multiple tea candles for low heat.

Safety Practices: Fire hazard—use on non-flammable surfaces only.

14. Vehicle Engine Cooking

Food wrapped in foil cooked using engine heat.

Safety Practices: Avoid toxic fumes and ensure food is well sealed.

15. Flameless Ration Heater

Chemical heaters used in military meals.

Safety Practices: Do not ingest chemicals and avoid skin contact.

16. Microwave via Inverter

Vehicle inverter powers a microwave.

Safety Practices: Ensure inverter capacity is sufficient and engine is running.

17. Biomass Stove

Uses organic material like pellets or crop waste.

Safety Practices: Operate outdoors and manage ash.

Food Preparation Plan

What is the event that has caused shortage/ disruption? _____

How has this event affected my food preparations? What supplies do I need? _____

Will I be able to transport my cooking methods if I had to evacuate? _____

What types of food will I prepare?

Primary: _____

Alternate: _____

Contingency: _____

Emergency: _____

What type of cooking device will I use?

Primary: _____

Alternate: _____

Contingency: _____

Emergency: _____

What type of fuel will I use for cooking?

Primary: _____

Alternate: _____

Contingency: _____

Emergency: _____

What cooking device will I use if I had to evacuate?

Primary: _____

Alternate: _____

Contingency: _____

Emergency: _____

What sanitary supplies do I need for cooking?

Primary: _____

Alternate: _____

Contingency: _____

Emergency: _____

What is my way to ignite my fire?

Primary: _____

Alternate: _____

Contingency: _____

Emergency: _____

