

# Do water bottles expire? What you need to know when the power goes out

October 31 2022, by Cynthia McCormick Hibbert

---



Credit: Unsplash/CC0 Public Domain

Flashlights and candles aren't the only things people should have on hand during natural disasters and storms.

A [food safety](#) plan is a must, says Darin Detwiler, associate teaching professor at Northeastern University.

"When we have an earthquake or a storm or a hurricane or a tornado, we're usually dealing with a loss of utilities. The loss of electricity and the loss of water," says Detwiler, a national expert on food safety and policy.

Unrefrigerated, unheated perishable food that remains in the danger zone of 41 to 140 degrees Fahrenheit for more than a couple of hours could see enough pathogen growth to cause another disaster: that of food-borne illness, Detwiler says.

With power outages on the upswing over the past decade—mostly due to [natural disasters](#) aggravated by [climate change](#), CNN reports—it's important to plan for what to consume when the power goes out, Detwiler says.

"We don't want to make things worse by contaminating our food and making ourselves sick," he says.

## **Pack your freezer with bread and cheese**

"Make sure your freezer is as packed as possible. It acts as its own insulation," Detwiler says. "A more packed freezer is going to stay frozen longer than if there are very few things in the freezer."

The Centers for Disease Control and Prevention says if a fully packed freezer isn't opened and closed, the frozen products will remain good for 48 hours compared to 24 hours for a less densely populated freezer, Detwiler says.

Cheese, sandwich meats and bread can be frozen and make for

convenient meals that don't require heating when the electricity is out, Detwiler says.

Not only will loaves of bread help pack the freezer space, freezing the bread extends its life in damp conditions such as the aftermath of hurricanes, when mold will otherwise quickly take hold.

## **How a quarter can tell you if freezer foods thawed**

In the aftermath of natural disasters that caused structure damage and bodily injury, survivors are thrilled to have their power turned back on.

"They're not thinking about the fact their food may no longer be safe," Detwiler says.

There is a simple way to tell whether freezer food stayed frozen or whether it was subject to a dangerous thawing and refreezing process, he says.

When a possible [power outage](#) is predicted, take a "little teeny container of water," freeze it, put a coin on top and put it back in the freezer, Detwiler says.

"If your freezer got too hot (the ice) would melt. If it froze again, that coin would not be at the top, it would be in the bottom or the middle," he says. "That's one way you could tell if your food stayed cold enough in the [freezer](#). It's a very low tech way of doing it."

## **Forget about the mini-fridge**

Don't bother with trying to determine whether food in a mini-fridge is safe after a power outage. Toss everything inside, Detwiler says.

"They are never at the right temperature" anyway, he says.

"Those are not really designed to keep food very long. If you had leftovers for lunch, it will hold you until you take it home for dinner at the end of the day."

In a statement that is food for thought for college students who may have a mini-fridge in their rooms, Detwiler says, "I would not trust anything kept in that for more than 24 hours."

## **Have a manual can opener on hand**

Canned foods, [peanut butter](#), crackers and energy bars are excellent examples of non-perishable items to have on hand in case the power goes out.

Just make sure to have a manual can opener on hand, Detwiler says.

He says he was at a training during which a person said they kept microwave popcorn on hand for emergencies.

"How are you going to cook that" with no electricity, asks Detwiler, who is scheduled to address the FDA's Rapid Response Team annual meeting Dec. 5 in Long Beach, California.

"We've got to think about those things," he says.

## **Do water bottles expire?**

"When you see an expiration date on [water bottles](#), that's not the expiration date for the water. That's the expiration date for the plastic," Detwiler says.

Over time, plastic will leach into the water.

Doomsday preppers have the right idea when they stock up on water in aluminum cans, Detwiler says. "Those will last forever."

A basic rule of thumb is to have a gallon of water per person per day, Detwiler says.

The duration of a power outage can be hard to predict, but he suggests stocking four to five gallons of water per household resident.

Water purification tablets, another favorite of doomsday preppers, can help in a pinch, Detwiler says.

"It's like adding bleach. You're trying to avoid getting dysentery. You're trying to avoid getting sick from the invisible bugs in the water," he says.

## **Add some bleach and wash your hands**

Speaking of bleach, it's also a good item to stock, Detwiler says.

Water can be stored up in advance in pails and bathtubs for bathing and flushing the toilet, and in winter snow can be melted for that purpose in fireplaces and wood stoves, he says.

Just to be on the safe side, Detwiler says he would add a cap or spoonful of bleach to each gallon of water used for washing hands.

The antibacterial cleansers it seems every household has been stocked with since the COVID pandemic broke out are also good to use, he says.

## **Portable lighters make good utensil cleaners**

"I would go with paper and plastic" when hot water is not available for cleaning plates and utensils, Detwiler says.

If disposable items aren't available, consider wiping utensils down with alcohol and running forks and spoons over cigarette lighters, "just as if you were going to sanitize a needle before you try to get a splinter out of your foot," he says.

## **Rising water? Toss everything in the fridge**

"If water touches your refrigerator (everything inside) is off the list. Even if it only touches the bottom," Detwiler says.

"If [water levels](#) rose enough to get into your kitchen," assume that all perishables are unsafe to eat, including fruits such as apples and bananas unless they were stored in plastic or other impermeable containers, he says.

The humidity will cause mold that will infest food before it becomes visible, as well as bring insects and rodents into the home, Detwiler says.

Never eat food in an area with rising water levels, he says.

## **Remember baby and pet food**

Make sure you have a reserve of baby food and pet food for members of the household who depend on you, Detwiler says.

"It's the most vulnerable populations—the very young, the elderly, those who are pregnant and those with compromised immune systems—who are most likely to end up having a reportable, clinically verifiable case (of [food-borne illness](#)) and to be hospitalized and to die," he says.

During natural disasters, people scramble to find food and water, Detwiler says. "The last thing we want to do is render food useless."

Scientists say that [power outages](#) climbed by 64% in the last decade compared to the 10 years prior to that, with natural disasters being responsible for the great majority, according to CNN.

CNN reports that during the cold snap of February 2021, 10 million people across the U.S. South went without power.

"Food safety in natural disasters is a concern," Detwiler says.

"The big message here is we can't predict when natural disasters are going to happen, but we can think more logically" around food safety planning, he says.

Provided by Northeastern University

Citation: Do water bottles expire? What you need to know when the power goes out (2022, October 31) retrieved 10 February 2023 from <https://medicalxpress.com/news/2022-10-bottles-expire-power.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.