



An Extended Guide · No. 1774

The Water-Jug Trick

Why a full freezer
holds cold longer

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! Read this first — when in doubt, throw it out

Here is the one rule that keeps your family safe when the power goes out: when in doubt, throw it out. Keep the refrigerator and freezer doors shut, and know the clock — a closed refrigerator keeps food safe for about 4 hours, and a full freezer holds its cold for about 48 hours (about 24 hours if it is only half full). Any perishable food — meat, poultry, fish, eggs, milk, soft cheese, cut fruit, and leftovers — that has been above 40 degrees Fahrenheit for 2 hours or more should be thrown out. Never taste food to decide whether it is safe; many of the germs that cause food poisoning leave no smell, taste, or change you can see. This whole guide is about one nearly free trick that can double how long your freezer holds its cold.

The cheapest outage trick there is

Of everything I teach folks about outages, this is the one that costs the least and helps the most: a full freezer simply holds its cold longer than a half-empty one.

I'm Bill, and I run Bill's Home Tech here in Portage County, Ohio. When I'm out on a visit and see a freezer with a lot of empty air inside it, I bring this trick up, because it costs next to nothing and takes just a few minutes to set up.

All it takes is a few jugs of water, frozen ahead of time and tucked into the empty space. This guide walks you through exactly how to do it, and why it works so well.

★ Want a hand setting this up?

If you'd like me to walk through your freezer with you and figure out how many jugs make sense, call or text me at (330) 200-8042. No charge just to talk it through.

The whole trick, on one page

If you remember only these things, you already know most of what matters.

- ❑ A full freezer holds safe temperatures for about 48 hours closed; a half-full one, about 24.
- ❑ Frozen food acts like one giant block of cold — the more of it, the longer it holds.
- ❑ Fill empty space with jugs of frozen water.
- ❑ Leave headspace at the top of each jug — water expands as it freezes.
- ❑ Use plastic, not glass — glass can crack as the water turns to ice.
- ❑ Move frozen jugs to a cooler later for free ice.
- ❑ When in doubt about any food, throw it out.

✓ Freeze a few jugs today, storm or no storm

You don't have to wait for a forecast. Freeze a handful of jugs this week, and they'll already be doing their job the next time the power blinks.

Why a full freezer wins

It comes down to one simple idea: cold mass. The more frozen food, or frozen water, packed into your freezer, the longer all of it stays cold together.

Empty air doesn't hold cold nearly as well as frozen food does. Every time the compressor stops, whether because the power's out or the thermostat just cycled off, that air warms up fast. Frozen food warms up slowly, and it helps keep its neighbors cold too.

That's why a freezer packed with food, or packed with food plus a few frozen jugs, simply outlasts one that's sitting half empty. It isn't a special trick so much as basic physics working in your favor.

✓ More frozen mass, more time

Think of a full freezer as one big cold block instead of a box of separate items. The bigger and more solid that block is, the longer it takes to warm up.

The numbers behind the trick

These are the two figures worth remembering, and they're the reason this whole guide exists.

Freezer	Holds Cold For
Full freezer	About 48 hours
Half-full freezer	About 24 hours

✓ **Both numbers assume the door stays closed**

These times are for a freezer that stays shut the whole time. Every time the door opens, some of that hard-won cold escapes, and the clock moves a little faster.

The water-jug trick, step by step

This whole guide could fit on an index card. Here's the process itself, start to finish.

- Start with clean jugs, bottles, or heavy-duty freezer bags.
- Fill with water, leaving room at the top for it to expand as it freezes.
- Freeze them solid a day or two ahead, so they're ready when you need them.
- Tuck the frozen jugs into empty space around your food.
- Once they're frozen, just leave them be until you need the cold, or the ice.

✓ Keep a small stock frozen all the time

You don't need to wait until a storm is coming. A handful of frozen jugs living in your freezer year-round means you're always ready.

What to freeze the water in

Almost anything plastic and clean will do the job — with one big exception.

- Plastic jugs or bottles with lids — easy to stack and reuse.
- Freezer bags, filled partway — handy for filling odd-shaped gaps.
- Clean plastic tubs or containers — good for bigger blocks of ice.
- Skip glass entirely — it can crack or shatter as the water expands.

! Never freeze water in glass

Water expands as it turns to ice, and glass doesn't give the way plastic does. A cracked or shattered jar in the freezer is a mess and a hazard — stick with plastic.

Leave room at the top

This is the one step people skip, and it's the one that matters most.

Water expands as it freezes — there's simply more volume in ice than there was in the liquid. Fill a jug all the way to the brim and seal it tight, and the ice has nowhere to go but out, cracking or splitting the container.

Leave a couple of inches of empty space at the top of any jug or bottle before you freeze it. That little gap is all the room the ice needs, and it's the difference between a jug that lasts for years and one that splits the first time you use it.

✓ A good rule of thumb

Fill a jug most of the way, not all the way. If you're ever unsure, leave a bit more headspace rather than less.

Where to put the jugs

Once they're frozen, tuck them where they'll do the most good.

Fill the empty gaps around your food — a bare shelf, a corner, wherever there's open air instead of something already frozen. The goal is simply to replace empty space with cold mass.

- Fill open shelves and corners first.
- Tuck smaller jugs into gaps between larger items.
- Keep jugs away from the vents or fan, so cold air can still circulate.
- Leave a little breathing room — don't pack it so tight that air can't move at all.

✓ Don't block the airflow

Every freezer has a vent or fan that moves cold air around. Jamming a jug right up against it can make the freezer work harder instead of better.

Double duty: free ice for a cooler

Here's the part that makes this trick even better — those frozen jugs aren't just sitting there for nothing.

When you need a cooler, whether for a longer outage, moving fridge food out of harm's way, or just a day out, those frozen jugs come right out of the freezer and into the cooler as ready-made block ice. Block ice melts slower than cubes, so it holds cold longer.

Once a jug has done its job in the cooler, rinse it out, refill it, and freeze it again for next time. It's about as close to free ice as you can get.

✓ Keep the cooler at 40 degrees or below

If you move food into a cooler, a thermometer tells you it's actually staying cold. Add more ice as needed to keep it at 40 degrees or below.

Two kinds of homes, two sets of needs

The water-jug trick scales to whatever kind of freezer you're protecting, whether that's a small kitchen freezer or a big chest freezer out in a barn.

If you live in town or the suburbs

In town or the suburbs, the kitchen freezer is often the only one in the house, and it doesn't take many jugs to fill the gaps.

- A smaller freezer needs only a handful of jugs to go from half-full to packed.
- Bottles and jugs you already have on hand are usually enough — no special shopping trip required.
- A single trip to the freezer to tuck a few jugs in takes just a few minutes.
- If outages are rare where you live, this trick alone often covers you.

If you are out in the country on a well

Out in the country, freezers tend to be bigger and fuller with garden produce or meat, so there's more room to fill and more at stake if the power stays off. If you're on a private well, remember the well pump shares the same backup plan as the freezer.

- A big chest freezer holds a lot of harvest, so more jugs mean more cold hours if the power goes out.
- More freezer space to fill means it's worth freezing a good supply of jugs ahead of time, not just a few.
- If a generator or battery station also runs your well pump, plan the freezer and the pump together, not separately.
- A chest freezer already holds cold well since it opens from the top — a full one, packed with jugs, holds it even longer.

★ Not sure how many jugs you need?

Tell me the size of your freezer and how full it usually runs, and I'll help you figure out a sensible number of jugs to keep frozen. Call (330) 200-8042.

The same trick works in the fridge

A fridge with a lot of empty shelf space loses its cold quickly too — and the fix is the same one.

Fill empty fridge space with jugs of water, just like you would in the freezer. It gives the fridge more cold mass to draw on, so it holds its temperature longer if the power goes out or the door gets opened one too many times.

✓ Cold water works fine in the fridge

The fridge jugs don't need to be frozen solid the way freezer jugs do — just cold. A few bottles of water sitting on an empty shelf still help.

How full is full enough?

The goal isn't to cram in every last inch — it's to replace empty air with cold mass.

Aim to fill the open space in your freezer, not to pack it so tight that air can't move around inside. A freezer full of food and jugs, with just enough room for air to circulate, is exactly where you want to be.

- Fill the gaps, don't fight the shelves.
- Leave the vents and fan area clear.
- A snug, organized freezer beats a jammed, disorganized one.

✓ When in doubt, leave a little room

A freezer that's a little too full but still lets air move around beats one so packed that the compressor has to work overtime.

A quick word on freezer burn

Since this guide has you thinking about long-term freezer storage, it's worth a quick mention.

Freezer burn happens when food is exposed to air over a long stretch of time in the freezer, drying out the surface and changing the texture. It isn't a safety problem, just a quality one — freezer-burned food is still safe to eat, if not at its best.

Wrapping food well, in an airtight bag or container, is the simplest way to guard against it, whether or not you've ever had an outage.

✓ Good wrapping pays off twice

The same tight wrapping that fights freezer burn also helps food refreeze better after a real outage, since less air reached it in the first place.

Timing it before a storm

This trick only works if the jugs are already solid when the power goes out — so timing matters.

Water takes time to freeze all the way through, especially in a jug or a bigger tub. If you know a storm is coming, freeze your jugs a day or two ahead of time, not the night before.

✓ Keep a rotation going

The easiest approach is to just keep a few jugs frozen in your freezer all the time, storm or no storm, so you're never caught waiting for them to freeze solid.

During the outage itself

Once the power's out, the jugs you already froze keep doing their job without any help from you.

The compressor stops, but the cold doesn't disappear right away — especially with all that frozen mass inside. Keep the door closed just like you would anyway, and let the jugs and the food work together to hold the temperature.

✓ Keep the door closed the whole time

Every peek lets some of that hard-won cold escape. The jugs help most when the door stays shut and the cold has nowhere to go.

When the power comes back on

Once things are back to normal, there's one small chore left.

Check on your jugs along with your food. If any partly thawed, just pop them back in the freezer to refreeze — there's no harm in refreezing plain water.

✓ Refill and refreeze for next time

If a jug leaked or you used it in a cooler, rinse it out, refill it, leave headspace, and freeze it again. Future-you will be glad it's ready.

Common mistakes people make

A few small slip-ups explain most of the trouble people run into with this trick.

- **Overfilling the jugs**, so they split or crack as the water expands.
- **Using glass instead of plastic**, which can shatter as it freezes.
- **Blocking the vents or fan** with jugs jammed too close.
- **Not freezing them early enough**, so they're still slushy when a storm hits.
- **Letting a half-empty freezer sit half empty**, when a few jugs would have doubled its cold hours.

! The easiest fix is also the cheapest

Every one of these mistakes is avoidable, and fixing them costs nothing more than a few jugs and a little planning ahead.

Make it a year-round habit

This isn't just an outage trick — a fuller freezer is simply easier on itself, all year long.

A freezer with less empty air inside doesn't have to work as hard to stay cold, since there's less warm air rushing in every time the door opens. Keeping it reasonably full, jugs and all, is a good habit whether or not a storm is ever in the forecast.

✓ Treat the jugs as permanent residents

Instead of thinking of the jugs as something you freeze only before a storm, just let a few live in your freezer full-time. You'll barely notice them, and they're always ready.

If you want to add backup power

The water-jug trick helps no matter what else you do for backup power — it simply buys you more hours either way.

Some folks stop right there, with jugs and a cooler as their whole plan. Others add a gas generator or a battery power station for longer or more frequent outages. A gas generator must always run outdoors, well away from the house, because its exhaust carries carbon monoxide, an invisible gas that can kill in minutes.

✓ A battery power station is safe to use indoors

Unlike a gas generator, a battery or solar power station makes no exhaust and no carbon monoxide, so it is safe to run inside the house right next to the refrigerator. A gas generator is the opposite — it must always run outdoors, well away from doors, windows, and vents.

Whichever path you choose, the frozen jugs already in your freezer keep doing their job the whole time — they don't care where your power is coming from.

Print this page and stick it on the fridge

Keep this where you'll actually see it — the fridge door is a fine spot.

- ☐ Keep the freezer full. Empty space is wasted cold.
- ☐ No food to fill it? Use frozen water jugs instead.
- ☐ Leave headspace at the top — water expands as it freezes.
- ☐ Plastic jugs and bags only. Never glass.
- ☐ Full freezer holds about 48 hours; half-full, about 24.

★ Keep my number nearby too

Tape my number right next to this checklist: (330) 200-8042. If you're ever unsure how many jugs makes sense, a quick call costs you nothing.

Common Questions

The questions I hear most often about the water-jug trick.

Q: Does a full freezer really last twice as long as a half-empty one?

Pretty close to it. A full freezer holds safe temperatures for about 48 hours with the door closed, versus about 24 hours for one that's only half full.

Q: What if my freezer is only half full right now?

That's exactly when this trick pays off. Fill the empty space with a few frozen water jugs, and you've turned a half-empty freezer into a much fuller one.

Q: Can I use plastic milk jugs?

Yes. A rinsed-out plastic milk jug works fine — just leave headspace at the top and make sure the lid seals well.

Q: How much water should go in each jug?

Fill it most of the way, but leave a couple of inches of headspace at the top for the water to expand as it freezes.

Q: Will the frozen jugs hurt my food?

No. A clean, sealed jug of plain frozen water sitting next to your food is no different from the food itself being frozen.

★ Still have a question?

This is one of the simplest tricks I teach, and I'm always glad to talk it through. Call or text me at (330) 200-8042.

You don't have to do this alone

You just have to remember that a friendly, patient person is one call away.

I hope this guide made keeping your freezer full so it holds cold longer feel a little less daunting and a lot more doable. Keep it in a drawer with your other home papers, come back to a page whenever you need it, and don't worry about memorizing anything.

When you'd rather have a hand, that's exactly what I do. I come to your home, work at your pace, and never make you feel rushed or silly for asking. A first visit is a flat \$99, and for the parts that don't need me on-site I can often help right on your screen for \$49. Every visit comes with a 30-day, come-back-free guarantee. I don't do the licensed electrical or gas work myself — for that I'll help you line up a trustworthy local pro.

★ Bill's Home Tech — real help, close to home

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Full vs Half-Empty Freezer

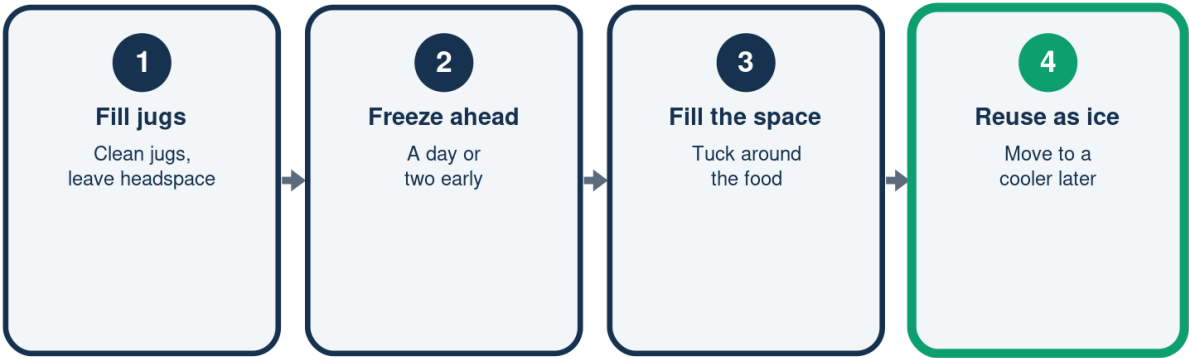
Doors closed the whole time

	Holds Cold For	Best Move
Full freezer	About 48 hours	Keep it packed
Half-full freezer	About 24 hours	Add frozen jugs
The reason	Frozen mass	Holds the cold
Free ice	Jugs to a cooler	Double duty

A full freezer outlasts a half-empty one -- fill the gaps.

The Water-Jug Trick

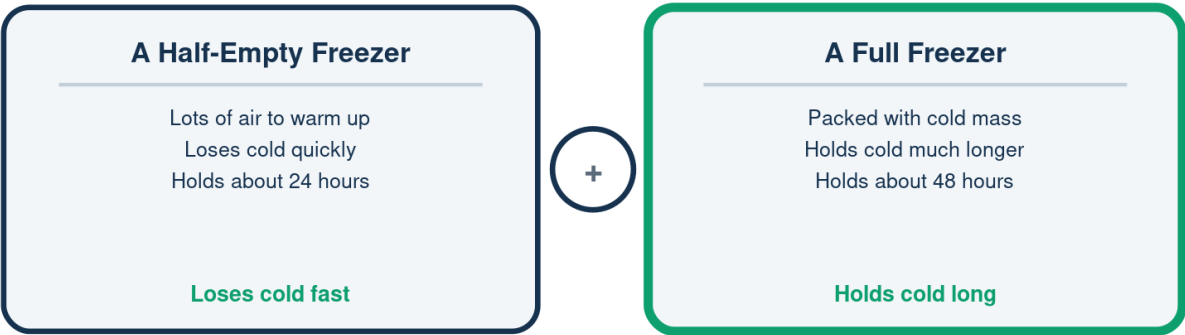
Cheap, simple, it works



Leave room at the top -- water expands as it freezes.

Freezer Space

More cold mass, longer hold



Fill the gaps with frozen water jugs -- plastic, with headspace.

The cheapest outage upgrade there is.

What to Freeze Water In

Simple and safe

	Use It?	Why
Plastic jugs	Yes	Won't crack
Freezer bags	Yes	Fill gaps well
Clean tubs	Yes	Big cold blocks
Glass	No	Can crack

Always leave headspace for the water to expand.



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A Note From Bill

A quick note from Bill.

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— *Bill*



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