

YOUR BODY MAKES 80 WATTS ALL NIGHT. YOUR BEDROOM SWALLOWS IT.

A foam pad, a blanket canopy on a cord, and one rule about your layers keep you warm through a blackout with no flame at all.

You are a heater. Two thousand calories a day works out to about 97 watts of heat, nonstop. Asleep you drop about 15 percent, to roughly 80 watts. That heat is not the problem. The problem is where it goes. A bedroom is too much air for one body to warm, so every watt that gets through your blankets vanishes into the room. The fix is not more heat. It is a smaller, better wrapped space: shrink the room, then wrap it.

THE HONEST NUMBERS

80 watts	A sleeping adult: 40 watts per square meter of skin, about 2 square meters on an average adult.
1 cubic meter	About 35 cubic feet, roughly the air under a blanket over a single bed. About 1,200 joules lifts it one degree Celsius.
4 C a minute	How fast 80 watts warms that pocket with nothing escaping, 7 Fahrenheit a minute. The no loss case: a speed, not a promise.
33 cubic meters	A 12 by 12 foot bedroom, 8 foot ceiling, about 1,150 cubic feet. The same 80 watts moves it a tenth of a degree a minute. A 1,600 square foot house needs 15 hours to rise 10 degrees Celsius with zero losses.

Volume sets how fast the air warms. Insulation and leaks set how warm it finally gets. A loose canopy leaks, but through a small surface into a room still warmer than outdoors.



A pad under you, a blanket over a cord, foot end open. Your 80 watts warm the pocket instead of the room.

WHY THIS IS DANGEROUS

- Texas, February 2021.** The grid failed in a hard freeze. The state health department confirmed 246 deaths from that storm. 158 died of hypothermia, and 107 of those 158 were 60 or older. The report names the risks: not enough layers, refusing to go to a warming center, and homelessness.
- Improvised heat killed people too.** 19 more Texans died of carbon monoxide from generators, grills, heaters, and cars run in closed spaces. 10 more died in fires, some with a space heater next to something that burns.
- Buffalo, December 2022.** Erie County counted 47 dead, some of hypothermia inside their own apartments. A 74 year old man was found in his unheated apartment days after the blizzard cut the power.
- Any year.** Storm or no storm, cold exposure kills about 1,300 Americans.

Blankets slow the loss. In a room that has gone to the outside temperature, they do not stop it.

THE BUILD, IN THE ORDER YOU WOULD DO IT TONIGHT

PAD, CANOPY, LAYERS

Three jobs. The pad stops the floor and the crush, the canopy shrinks the room, the layer rule keeps your insulation dry.

26 to 50 dollars

Closed cell foam pad. A serious camping brand pad rates about R 2 and costs around 50 dollars. A bargain foam pad is thinner, about 26 dollars, with no published rating. Either one beats nothing. No pad yet? A folded wool blanket or a yoga mat under the sheet beats nothing.

about 14 dollars

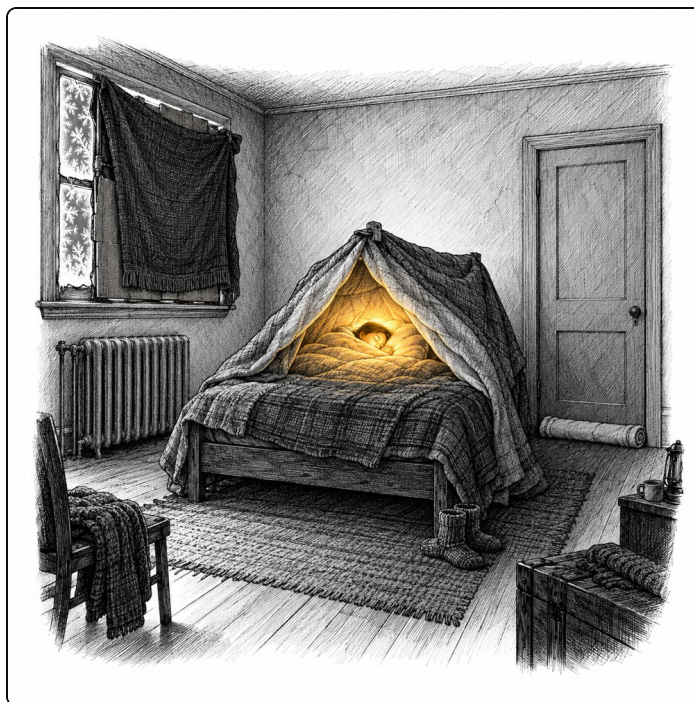
Paracord and spring clamps. A length of cord and the 9 dollar bag of spring clamps from any hardware aisle. Bedposts, wall hooks, or the backs of two sturdy chairs hold the line.

free

The blankets already in your closet. The roof can be thin, so use the blanket you would miss least. Never take a layer off your body to make it. Two cheap thermometers prove it worked.

BUILD STEPS

- 1 Pad first.** Lay the foam pad on top of the mattress, under your sheet, and sleep on it. On a floor, a cot, or an air mattress it is the whole game. On a floor, stack two; the ratings add.
- 2 Stay up off the floor.** Cold air sinks, so the floor holds the coldest air in the room. A bed frame is a sleeping platform. Keep the sleeper on it.
- 3 Close the bedroom door** and roll a towel against the gap under it.
- 4 Cover the window at night** with a blanket or cardboard. Glass is usually the weakest wall in the room. Close off the rooms you do not need.
- 5 String the line.** Run paracord from bedpost to bedpost, or wall hook to wall hook, about 20 inches above the mattress.
- 6 Drape the roof.** Hang a blanket, sheet, or comforter over the line and pin it with spring clamps. Let it hang to the mattress on both sides.
- 7 Head end shut, foot end open.** Push the head end against the headboard or the wall. Leave the foot end open. Never seal it.
- 8 Check nothing can fall on your face.** Using chairs instead of bedposts? Make sure they are sturdy.
- 9 Build it before you are too cold to bother,** then get in. Two people under one canopy is twice the watts in the same pocket.



Door shut, towel at the gap, window covered. The bedroom becomes a warmer box, and the canopy a warmer box inside it.

MEASURE IT, THEN DRY IT

- ☐ Put one cheap thermometer inside the pocket and one on the nightstand. Read both after an hour.
- ☐ You want the pocket warmer than the room. If it reads the same, close the head end first, then check the sides.
- ☐ In the morning, throw the roof back and open the bedding so the night's moisture dries out instead of soaking in.
- ☐ Suffocation worry: a sleeping adult breathes out about 11 liters of carbon dioxide an hour. A blanket over a rope with the foot end open is not sealed. Warm air rises out and fresh air comes in low. That is why the foot end stays open.

WHY IT WORKS, AND WHERE IT STOPS

The canopy buys you a survivable night, not a warm winter.

THE WRAP TEST

A UK mountain rescue team filled a human shaped manikin with 32 liters of water at about 42 degrees Celsius, laid it on a stretcher in still air at about 12 degrees, and logged it for 130 minutes. Bare, it lost 12.2 degrees. Inside a rescue mattress, a windproof shell, and a fleece blanket, it lost 3.2. Same heat, same air, nearly four times slower. The thin orange survival bag lost 9.5, barely better than nothing, because a thin sheet traps almost no air. The thick system won, with a mattress underneath.

THE CRUSH

Insulation works by trapping air. Your body weight squashes the air pockets under you flat, so the layer under you loses most of its insulation while the layer over you keeps its loft. That is why a pile of blankets loses on both sides, and why the pad comes first.

THE LAYER RULE

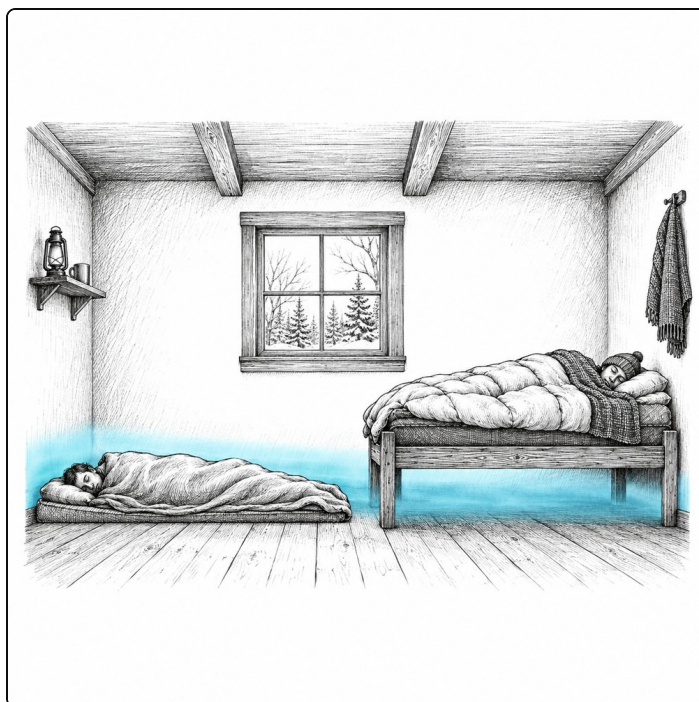
- ☐ Dry clothes on. A hat on. Wool or fleece next. Blankets over that.
- ☐ Nothing plastic on the outside. You lose about 200 milliliters of water a night breathing and through your skin. Plastic or mylar outside your blankets condenses that water inside your insulation, and wet insulation is the crushed kind. Leave the mylar in the kit.
- ☐ A sleeping bag is the same idea shrunk to your body, with the same crush problem under you. The canopy is for the bed you already have.

Watch the full video: youtube.com/@SketchySurvival101

More free sheets: sketchysurvival101.com/free

Subscribe so the next blackout does not catch you flat footed.

Sketchy Survival 101. Physics first survival. Numbers here come straight from the video. Prices move, so check the current listing. Total build: a 26 to 50 dollar pad, about 14 dollars of rope and clamps, and the blankets you already own. The furnace that died with the grid runs about 4,800 dollars installed on average.



Left, blankets crushed flat on a floor mattress in the cold pool. Right, up on the frame, pad under, hat on, nothing plastic outside.

LINES YOU DO NOT CROSS

- ☐ **Nothing burns inside or under the canopy.** No candle, no camp stove, no fuel heater. The CDC says never use a camping stove inside a home, a tent, or a camper. A blanket canopy is a tent.
- ☐ More than a third of home candle fires start in the bedroom, and 58 percent of candle fires start with something burning too close to the flame, bedding for example. You just hung bedding from a rope.
- ☐ Portable generators kill close to 100 Americans a year with carbon monoxide.
- ☐ **Adults only.** Hanging fabric and cord over a child's bed is an entanglement hazard. Never anything over a crib. If you cannot keep a child warm, that is the night you go to a warming center.
- ☐ **Hypothermia warning signs are a 911 call,** not a better canopy: confusion, shivering that stops while still cold, slurred words.
- ☐ **Over 60 is the group to trust this with least.** One person alone in a big bedroom is one furnace in 33 cubic meters with nobody to double it. If that is your parent, they need the canopy tonight and you under it, or a warming center before the confusion starts.
- ☐ The World Health Organization recommends 18 degrees Celsius, 64 Fahrenheit, as the indoor floor in a cold season. Older guidance says 20 to 21 for the elderly.