The household survival handbook

Practical civilian guidance for war, evacuation, prolonged outages and disrupted supplies.

Water. Shelter. Food. Sanitation. Health. Small-scale power.

Prepared 8 November 2026 | UK and cool-temperate climate starting point

An offline reference built from government, public-health, humanitarian, horticultural and energy sources. Start with the action card on page 3, then use the numbered sections. Print a copy and keep it somewhere dry.

Scope and limits

No book can cover every disaster or guarantee survival. This guide focuses on realistic household actions and safe low-voltage projects. Local evacuation, contamination and public-health instructions take priority. Growing food takes time; a small garden and improvised generator cannot immediately replace normal infrastructure.

Emergency help in the UK: 999 or 112 when reachable. Tell the operator your location, hazard and number of people affected. Elsewhere, write in your local emergency number before printing.

Hydrogen is covered as an engineered energy-storage system, with an explanation of why improvised gas production and storage are poor emergency choices. This handbook does not provide homemade pressure-vessel or mixed-gas construction instructions.

Find the right action

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Reading key: numbered citations [01] refer to clickable links in the directory. Example quantities are planning tools, not promises of yield or supply. Medical advice here is basic first aid; take practical training before an emergency.

Immediate action card

Protect life first. Do not begin a DIY project while the building, air or route is unsafe.

First minutes

- Move away from fire, smoke, floodwater, damaged wiring and unstable structures. Follow shelter or evacuation alerts. Do not enter damaged buildings to retrieve supplies.

- Call for help if possible. Check responsiveness, breathing and major bleeding without exposing yourself to the same hazard. Use the first-aid section.

- Gather household members, essential medication, footwear, lights and phone. Use a torch. Keep exits clear.

First hour - planning guidance

- Listen to official broadcasts. Write down the message, time and source; distinguish an actual instruction from a rumour.

- Identify your safest usable room and two escape routes. If safe to stay, close unused rooms, collect bedding and organise a handwashing point.

- Inventory potable water and ready-to-eat food. Fill food-safe containers while the supply is confirmed safe. Label drinking and non-drinking water separately.

- Keep fridge and freezer doors shut. Note the outage start time. Switch off unnecessary loads and charge communications devices if power remains.

Before sleeping

Check everyone for cold stress, dehydration and missed medication. Set smoke and CO alarms, put a torch beside the bed, and establish a watch/check-in arrangement if needed. Record water remaining, next information check and the condition that would make you leave. Seek assistance before critical supplies run out.

Evidence and further reading: [01], [02], [06], [10], [14]. Source numbers link to the reference directory. Procedures and example calculations marked as planning guidance are the author's synthesis.

Build supplies in layers

Start with three days, then extend toward two weeks as space, money and household needs allow.

Water: count people, days and uses

UK Be Ready gives 3 litres per person per day for drinking, plus extra for cooking and washing [01]. CDC recommends at least one US gallon (about 3.8 litres) per person daily for emergency drinking and sanitation, and more for illness, heat or pregnancy [02]. These are different planning baselines; neither is a full normal household water allowance.

Worked example: four people x 14 days x 3 litres = 168 litres for drinking alone. An illustrative 5 litres per person/day allocation totals 280 litres and still requires very restricted washing. Keep toilet-flushing water separate. Water weighs about 1 kg/litre: spread containers safely and avoid overloading shelves.

Core kit - adapt to the household

- Water containers, treatment tablets with instructions, manual can opener, familiar shelf-stable food, utensils and soap.

- Head torches, spare batteries, radio, power banks, charging cables, printed map and paper contacts.

- Warm layers, rain protection, sleeping bags, insulating mats, sturdy shoes, work gloves and repair tape.

- First-aid dressings, personal medicines, glasses, hearing-aid supplies, menstrual products, nappies and pet supplies.

- Copies of IDs, prescriptions and equipment instructions; cash in manageable denominations.

Rotate, do not simply accumulate

Date purchases, use the oldest stock first and inspect seals, leaks and pest damage. Self-filled stored water should be replaced every six months [02]. Establish prescription and electrically powered medical-device backup plans with your care provider now.

Evidence and further reading: [01], [02]. Source numbers link to the reference directory. Procedures and example calculations marked as planning guidance are the author's synthesis.

Make water safe

Clear-looking water may contain pathogens. Water treatment must match the hazard.

Choose the source

Prefer sealed drinking water or an officially safe supply. Rainwater and surface water can contain germs; roofs may add chemicals. Floodwater, water near industrial damage and visibly oily water are poor candidates. Do not drink heating-system water. Boiling or disinfecting cannot make fuel-, toxic chemical- or radioactively contaminated water safe [03, 04]. Find a different source.

Boil for microbial contamination [03]

- Let cloudy water settle; pour off the clearer water through a clean cloth or coffee filter. This removes particles, not all germs.

- Bring to a rolling boil for 1 minute; above about 1,980 metres elevation, use 3 minutes.

- Cool covered and store in a clean, sanitised food-grade container. Pour instead of dipping cups or hands into it.

When fuel is scarce

Use drinking-water disinfectant tablets exactly as labelled for water volume, temperature and contact time. A filter must have an appropriate pathogen-reduction rating; many portable microfilters do not remove viruses. Keep its clean outlet separate from raw water. A sand/charcoal bottle filter alone is not a dependable purifier.

If using household bleach, consult the concentration-specific EPA table [05] and the product label. Use only a suitable unscented product without cleaning additives; do not guess a dose across different strengths. Never mix bleach with acids, ammonia or other cleaners. Print the EPA instructions before relying on this fallback.

Evidence and further reading: [03], [04], [05]. Source numbers link to the reference directory. Procedures and example calculations marked as planning guidance are the author's synthesis.

Food stocks and low-fuel meals

Plan complete meals that you already tolerate. Count cooking water and fuel as well as food.

A practical pantry - planning guidance

Combine ready-to-eat beans, lentils, fish or meat with oats, crackers, couscous, quick-cooking grains, nut butter, oil, nuts, dried fruit, canned vegetables and fruit. Include suitable fortified or specialist foods where needed. Dry pulses are useful stores but require safe cooking, water and fuel; canned pulses reduce that burden. Follow packet instructions, especially for dried kidney beans.

Calculate from labels

Illustrative arithmetic: 2 adults x 14 days x 2,000 kcal/day = 56,000 kcal. This is an example, not a ration prescription; needs vary with age, health, pregnancy, cold and physical work. Add the calories on actual packs and check protein, fats, fibre and variety. Do not plan a household diet around rice alone.

Three meal patterns

- No cooking: crackers, canned fish or beans, canned vegetables, fruit and nuts. Open only what can be eaten promptly.

- Minimal cooking: couscous prepared with safe hot water according to its label, with canned chickpeas and a little oil.

- One pot: quick-cooking lentils and grain with canned vegetables, cooked thoroughly and eaten immediately. Avoid making leftovers that need refrigeration.

Reduce fuel demand

Use a lid, heat only the water required, and shelter an outdoor stove from wind without enclosing it or overheating its fuel canister. Use only appliances approved for their location. Never use camping stoves or barbecues as indoor heaters. Do not eat unknown plants or mushrooms based on a photograph or phone app.

Evidence and further reading: [01], [06], [11]. Source numbers link to the reference directory. Procedures and example calculations marked as planning guidance are the author's synthesis.

Meal selection and calorie arithmetic are illustrative household planning, not a clinical nutrition plan.

Protect food during an outage

Record time and temperature. Smell and taste cannot establish safety.

Situation	Action based on UK power-cut guidance [06]
Fridge, closed	Usually stays cold for up to 4 hours; conditions vary. Keep the door shut.
Full / half-full freezer	May retain freezing for about 48 / 24 hours with doors closed. These are estimates.
Normal operation	Aim for a fridge temperature of 5 C or below.
Fridge reaches 8 C or above	Food requiring refrigeration should be used within 4 hours; discard it after that period. Track actual exposure, not just the time power returns.

Use chilled foods first while they remain safe, then suitable defrosted foods, then shelf-stable stores. Keep raw foods apart from ready-to-eat foods. If temperature history is unknown, discard high-risk perishables. Restoring power or cooking spoiled food does not automatically make it safe.

Protect the supply

Keep a fridge/freezer thermometer and a written temperature log. A sealed cool box with sufficient ice can help maintain cold storage, but verify temperature. Outdoor air is variable and food needs protection from animals, sunlight and contamination. A cool-feeling cupboard or evaporative pot is not verified refrigeration.

Flood and packaging damage

Discard food contacted by floodwater if its packaging cannot safely exclude contamination. Discard bulging, leaking or badly damaged cans and jars; do not taste them. Use intact stock in the order opened, then oldest first. Buy small containers if refrigeration may be unavailable.

Evidence and further reading: [06], [07]. Source numbers link to the reference directory. Procedures and example calculations marked as planning guidance are the author's synthesis.

Make food last longer

Choose methods you can control and practise before depending on them.

Lowest-complexity storage

Keep dry foods cool, dry, dark and protected from rodents in clean food-safe containers. Retain product labels and dates. Inspect regularly. Separate damp produce from dry staples; remove spoiled items promptly. Do not assume vacuum packaging alone makes a food shelf-stable.

Harvest storage [08, 09]

Store only sound, dry potatoes in darkness with ventilation; remove damaged or rotting tubers. Do not eat green potatoes. Cure onions until properly dry before storage, with air circulation. Keep checking crops: one rotting item can spoil nearby stock. Actual storage life depends on cultivar, maturity and conditions.

Drying [12, 13]

Use tested preparation, blanching and drying instructions for the crop. Humid UK weather makes passive outdoor drying unreliable. A controlled dehydrator is easier to verify. Cool dried food before airtight packing; residual moisture can cause spoilage. Use small packs and inspect for condensation or mould. Drying does not rescue spoiled food.

Bottling, pickling and fermentation [14]

Follow a current tested recipe exactly, including acidity, jar size, equipment, time and altitude adjustments. Low-acid vegetables and meat require a proper pressure canner; boiling-water processing is insufficient. An ordinary pressure cooker is not automatically a suitable pressure canner. Do not invent processing times, bottle soups by guesswork, or use an oven to can food.

Salt, vinegar or fermentation is not a universal preservation formula. If you lack the correct equipment or tested process, use commercial shelf-stable products, grow storage crops, or eat and share fresh produce while safe.

Evidence and further reading: [08], [09], [12], [13], [14]. Source numbers link to the reference directory. Procedures and example calculations marked as planning guidance are the author's synthesis.

Start a food garden

Gardens supplement stores first. Land, water, season and experience determine whether they can supply substantial calories.

Site and soil - practical synthesis [15, 16]

- Choose a sunny accessible site near a dependable water source. Use containers with drainage if ground soil is unsuitable; avoid containers that held chemicals.

- Where flooding, industry or conflict may have contaminated soil, seek testing and local advice. Do not assume washing removes absorbed contaminants.

- Remove weeds and loosen compacted ground. Add mature compost as appropriate. Keep paths so you do not repeatedly tread on planting soil.

- Start a manageable area and record each planting, variety and harvest. Expand after learning how much water and work it requires.

Sow, establish, maintain

Follow the seed packet for season, depth and spacing. Sow into moist prepared soil or compost; label the row. Keep the seedbed evenly moist without waterlogging. Thin seedlings so roots and leaves have space. Harden indoor-grown plants gradually to outdoor conditions before planting out after appropriate frost protection.

Sow small repeat batches of suitable quick crops instead of everything at once. Water at soil level, control weeds early and protect vulnerable plants from slugs, birds and frost. Clean tools between diseased plants; identify problems before treating them. Use only approved products as labelled.

Household materials you can reuse

Clean pots, drainage-holed food buckets, trays, labels cut from clean packaging, sticks for supports and suitable mesh can reduce cost. Containers dry faster than ground beds. Leaves regrown from kitchen scraps provide small harvests, not a replacement for stored calories.

Evidence and further reading: [15], [16]. Source numbers link to the reference directory. Procedures and example calculations marked as planning guidance are the author's synthesis.

Choose crops for continuity

Approximate cool-temperate planning: follow local weather and each variety's instructions.

Crop group	Why grow it / principal limitation
Potatoes	Useful energy crop. Plant seed potatoes in spring; protect from frost, earth up and keep tubers covered. Harvest timing depends on variety.
Peas and beans	Useful variety and protein contribution. Need appropriate season, support and water; dry beans need thorough cooking.
Kale, chard and hardy greens	Repeated leaf harvests; modest calories. Establish ahead of winter.
Carrots, beetroot, turnips	Roots plus storage potential; direct sow appropriate varieties and thin.
Onions and garlic	Flavour and storage value; require months and suitable planting material.
Winter squash	Stores well when mature and sound; needs warm growing time and significant space.
Radish and salad leaves	Relatively quick fresh food in the growing season; little energy.

A seasonal rhythm

Winter: inventory seeds, maintain tools and plan beds. Spring: establish hardy crops and potatoes when conditions allow. Late spring/summer: plant tender crops after frost risk and sow succession batches. Summer/autumn: harvest, preserve safely and establish next season's hardy crops. Winter crops generally need planting months before winter [17].

Measure reality

Weigh edible harvests and record water and crop losses. Illustrative calculation: a hypothetical 100 kg potato harvest at 750 kcal/kg gives 75,000 kcal, about 37.5 adult-days at the example 2,000 kcal/day. This is not a yield prediction or balanced diet; seed, pests and storage losses reduce usable supply. Save seed from suitable healthy plants only after learning pollination and isolation needs.

Evidence and further reading: [08], [09], [15], [16], [17]. Source numbers link to the reference directory. Procedures and example calculations marked as planning guidance are the author's synthesis.

Stay warm without creating a fire

Dry clothing, insulation and shelter reduce energy demand more reliably than improvised heaters.

Create a warm living area - planning guidance

- Use one suitable room; close internal doors and curtains. Reduce draughts without blocking required vents, flues or exits.

- Wear a dry base layer, insulating middle layers and a wind/rain shell outdoors. Change wet socks and clothing. Avoid sweating heavily into insulation.

- Insulate underneath sleeping areas with mats or dry folded blankets. Keep bedding dry and off damp floors. Maintain safe access to the door.

- Eat regularly, drink safe fluids and check babies, older people and anyone with limited mobility frequently. Seek a warmer safe location before exhaustion develops.

Recognise hypothermia [10]

Shivering, confusion, slurred speech, slow breathing or unusual drowsiness after cold exposure are warning signs. A cold, floppy or unusually quiet baby also needs urgent help. Call 999. Move the person into shelter, remove wet clothes and wrap in dry insulation with the head covered. Stay with them. Offer a warm non-alcoholic drink and sugary food only if fully awake and able to swallow.

Do not rub limbs or use a hot bath, hot-water bottle or heat lamp to treat hypothermia. Handle gently and monitor breathing.

Combustion precautions [11]

Never run a fuel generator, barbecue or camping stove inside a home, tent, garage or enclosed shelter. A partly open door does not make it safe. Place fuel generators outdoors at least 6 metres from doors, windows and vents, exhaust directed away. Use working CO alarms. Never heat a room with a cooking oven or a candle-and-flowerpot device.

Evidence and further reading: [10], [11]. Source numbers link to the reference directory. Procedures and example calculations marked as planning guidance are the author's synthesis.

Sanitation keeps people alive

Keep human waste away from hands, food and water. Plan the toilet before it stops working.

If sewage service fails - temporary household plan

Stop flushing if drains back up or the sewer/septic system is unsafe. Follow local waste instructions. For short-term containment, use a stable lidded portable toilet or lined bucket with a secure seat, strong liners and absorbent material. Keep children and pets away. Close and contain waste securely; use a second robust container against leaks. Arrange approved disposal as soon as possible. This is containment, not treatment.

Keep the toilet away from food preparation and stored water. Do not put human waste in a food-garden compost heap, watercourse or storm drain. Do not dig a latrine where it can contaminate groundwater, flood, or encounter buried services or explosive hazards. Longer outages require coordinated sanitation provision.

Handwashing and cleaning [18, 19]

- Set up a water-pouring container over a catch basin with soap and clean drying material. Wash after toileting or handling waste and before preparing or eating food.

- Alcohol hand sanitiser is a fallback when water is unavailable, but is less reliable on visibly dirty hands and against some diarrhoeal pathogens.

- Clean frequently touched surfaces. Keep cleaning chemicals labelled and separate from food. Do not combine products.

- Use gloves for waste handling, remove them without touching dirty surfaces, then wash hands. Protect cuts and avoid floodwater.

Reduce illness transmission

Separate a person with vomiting or diarrhoea from food preparation. Give them their own towel and toilet arrangement where feasible. Use safe drinking water for oral hygiene and food. Keep a written record of illness, fluid intake and urgent warning signs, and seek medical help early.

Evidence and further reading: [18], [19]. Source numbers link to the reference directory. Procedures and example calculations marked as planning guidance are the author's synthesis.

Bucket arrangement is temporary practical synthesis; local sanitation and disposal rules take precedence.

First aid and medical continuity

Attend practical first-aid training. Keep printed instructions for your household's conditions and devices.

Immediate threats [20, 21]

Unresponsive and not breathing normally: call 999 on speaker, send for an AED and begin CPR following dispatcher/AED instructions. For an adult, compress the centre of the chest 5-6 cm at 100-120/minute; if trained and willing give 30 compressions to 2 breaths, otherwise continuous compressions. Gasping is not normal breathing. Children and drowning need specific training and rescue-breath guidance.

Severe bleeding: press firmly on the wound with a dressing or clean cloth. Maintain pressure. Do not pull out an embedded object; press around it. For life-threatening limb bleeding not controlled by pressure, a manufactured tourniquet should be used promptly according to its instructions and training; record the time and do not loosen it.

Unresponsive but breathing normally: keep the airway open, call for help and monitor continuously. Use the recovery position where appropriate; minimise movement if major trauma is suspected unless needed for airway safety.

Burns and dehydration [22, 23]

Cool a thermal burn with cool running water for 20 minutes. Keep the rest of the person warm; do not use ice or creams. Seek urgent help for deep, extensive, chemical/electrical or airway burns. Do not remove material stuck to skin.

For diarrhoea use packaged oral rehydration salts with exactly the labelled water volume. If unavailable: 1 litre safe water + 6 level teaspoons sugar + 1/2 level teaspoon salt [23]. Measure accurately; excess salt is dangerous. Give frequent small sips only if awake and able to swallow. Make fresh daily. Inability to drink, confusion, very little urine, bloody diarrhoea or a worsening child needs urgent care.

Keep prescription lists, allergies and supplies; arrange refrigeration and power contingencies with clinicians. Do not ration, substitute or stop essential medicines without professional guidance.

Evidence and further reading: [20], [21], [22], [23]. Source numbers link to the reference directory. Procedures and example calculations marked as planning guidance are the author's synthesis.

Power: reduce demand first

A panel generates electricity. A battery stores it. Neither guarantees power through a dark winter.

Example daily load	Energy calculation
Two 3 W lights for 5 hours	30 Wh
Phone recharge allowance	15 Wh (illustrative; check device)
2 W radio for 4 hours	8 Wh
Total delivered energy	53 Wh/day; allow about 70 Wh/day from storage with losses

Energy (Wh) = watts x hours. Battery nominal Wh = volts x amp-hours. A 12.8 V, 20 Ah battery stores about 256 Wh nominal; at an illustrative 80% usable allowance that is 205 Wh, or about 2.9 days at 70 Wh/day before ageing and cold effects. Use the manufacturer's actual usable capacity and temperature limits.

A small solar system [24, 25]

Concept: PV panel -> compatible charge controller -> protected battery -> fused DC distribution -> regulated USB/lights. Use an inverter only for loads that require AC. Select controller PV voltage/current limits, battery chemistry/charging profile, wire size and fuse ratings as a matched design. Fit appropriate overcurrent protection near the battery positive terminal. A battery management system does not replace cable protection.

Example generation: 100 W panel x 2 equivalent peak-sun-hours x 0.70 overall allowance = 140 Wh/day. At 0.5 hours the same assumptions give only 35 Wh. These are calculations, not a UK winter forecast. Shade, orientation and weather matter; measure actual performance and retain spare storage.

Use a complete compatible kit if you lack electrical experience. Never connect a panel directly to a battery, backfeed a wall socket, or assemble a pack from damaged scavenged lithium cells. Follow lithium low-temperature charge limits. Protect terminals against shorts; keep batteries dry and correctly ventilated where required. Medical loads need a separately verified backup plan.

Evidence and further reading: [24], [25]. Source numbers link to the reference directory. Procedures and example calculations marked as planning guidance are the author's synthesis.

All load and capacity examples are illustrative engineering arithmetic.

A small home motor-generator

A low-voltage learning project using a salvaged motor. Expect a light demonstration first, not household power.

Suitable parts

An intact small brushed permanent-magnet DC hobby/toy motor, a hand wheel or crank, a wooden mounting block, insulated wire, a multimeter, and a red LED with a 1,000-ohm series resistor. Use only disconnected low-voltage toys or known hobby components. Do not open mains appliances, microwaves or power supplies for parts; internal capacitors can retain dangerous charge.

Build and test - author's low-voltage project

- Secure the motor firmly to the block. Fit a hand crank or wheel without exposed sharp edges. Keep fingers, hair and clothing out of moving parts.

- With nothing connected to the two motor terminals, connect the meter in DC voltage mode across them. Turn gently and note voltage; reversing rotation reverses polarity.

- Use only a motor/speed that remains below 5 V for this demonstration. If output exceeds that, slow down or choose a different motor.

- Disconnect the meter. Connect motor positive -> 1,000-ohm resistor -> LED anode (normally the longer leg); LED cathode -> motor negative. Turn in the tested direction. The resistor limits current.

- If it does not light, check rotation, polarity, connections and measured voltage. Stop if anything heats, binds or sparks excessively. Do not short the terminals to test output.

Why this works, and where it stops

Motion between magnetic fields and coils generates electricity [26]. You provide the mechanical energy. Small motors may need fast rotation and produce very little useful power. Output voltage alone does not prove usable wattage: loaded voltage and current determine power. Never put a meter in current mode directly across a battery or generator.

Do not attach the raw output to a phone or battery. Charging needs a suitable regulated converter, reverse-current protection and the correct charger. A complete bicycle dynamo/USB unit or hand-crank charger is a more dependable route. Wind and water drives introduce moving-part and siting hazards; they are separate engineering projects.

Evidence and further reading: [26] (physical principle); project and limitations are engineering synthesis. Source numbers link to the reference directory. Procedures and example calculations marked as planning guidance are the author's synthesis.

Hydrogen with solar and batteries

Hydrogen stores energy that you already generated. It is not an extra source of free electricity.

An engineered system [27, 28, 29]

Concept only: solar PV -> controller/battery or managed DC supply -> purpose-built electrolyser -> separated gases and engineered hydrogen handling/storage -> compatible fuel cell -> regulated electrical output. Water electrolysis consumes electricity. Converting that hydrogen back to electricity incurs further losses, so less electricity returns than went in.

Why an improvised mini-system is a poor emergency choice

Hydrogen ignites easily, has a wide flammable range and can burn with a hard-to-see flame. Safe systems need suitable materials, ventilation, leak detection and other engineered controls. A simple jar with two electrodes is not a safe storage or power system. Mixed hydrogen/oxygen gas is particularly hazardous. A battery adds short-circuit and ignition hazards alongside the gas.

Do not collect mixed gases in bottles or balloons, compress gas with a household pump, use improvised sealed pressure containers, or modify a stove or engine to burn it. Do not use salt water as an improvised electrolyte: electrolysis can generate hazardous chlorine-containing products. Producing gas indoors is not an appropriate emergency experiment.

What to do instead

For emergency phone, radio and light power, direct solar-to-battery storage avoids an electrolyser, gas storage and fuel cell. Keep systems simple enough to inspect and repair. Hydrogen demonstrations should use a purpose-built educational kit operated exactly as specified, not be counted on for essential supply.

If hydrogen is a serious long-term goal, have a qualified designer specify a complete compliant system, including siting, gas separation, pressure protection, storage, ventilation, detection and shutdown. The requirements remain even at small scale. A survival outage is the wrong time to develop a new gas process.

Evidence and further reading: [27], [28], [29]. Source numbers link to the reference directory. Procedures and example calculations marked as planning guidance are the author's synthesis.

Recommendation for direct battery storage is the author's practical inference from the system complexity and conversion stages.

Civilian conflict precautions

Prioritise shelter, reliable information and safe movement. Never handle military debris.

Explosions, debris and routes [30]

Use designated civilian shelters and official safe-route information when available. Move away from windows during nearby attacks; take sturdy cover without entering a structurally damaged area. Keep shoes and a torch close. Do not approach wreckage, ammunition, suspicious packages or unexploded objects, including objects that look like toys. Do not touch, move or attempt to dismantle them. Warn others from a safe place and report the location to authorities when possible.

Do not leave established safe routes to scavenge fields or ruins where explosive contamination may exist. Ordinary fences, rubble and abandoned vehicles may conceal hazards. Clearing land is specialist work. A farm plot is unusable if reaching it or digging it is unsafe.

Radiological emergency [31]

Get inside a substantial building promptly, stay inside and listen for official instructions. Use a basement or central protected area away from windows where suitable; a vehicle is poor shelter. Close windows and doors and stop ventilation that brings outside air in when instructed. Do not remain in a building threatened by fire, gas leak or collapse.

If contaminated outside, carefully remove outer clothing, bag it away from people and pets, and gently wash exposed skin. Do not scrub skin raw. Do not go outside to collect family members already sheltered in schools or care facilities. Do not take iodine tablets unless public-health authorities instruct you; they do not protect the whole body from radiation.

Different hazards need different shelters

A basement useful for shielding may be unsafe in a flood or some chemical releases. Follow incident-specific instructions. Ordinary masks do not remove toxic gases. Do not enter unknown atmospheres or make an airtight occupied room as a long-term solution.

Evidence and further reading: [30], [31]. Source numbers link to the reference directory. Procedures and example calculations marked as planning guidance are the author's synthesis.

General shelter and route precautions are conservative civilian planning, not a guarantee against weapon effects.

Leave safely and stay connected

Agree on decisions while calm. Keep supplies light enough to carry and plans simple enough to remember.

Leave when staying is unsafe - planning guidance

Fire, rising floodwater, structural damage, unsafe air, violence nearby or loss of essential medical support can make staying untenable. Follow evacuation instructions early. Have two destinations and routes, transport for people with reduced mobility, and a pet plan. Do not travel through floodwater or enter restricted areas. Tell a trusted contact your destination when safe.

A practical go-bag

Carry documents and medication, water and suitable food, torch, spare clothing and waterproof layer, compact insulation, first aid, phone/power bank, cash, hygiene supplies and a paper map. Add child, disability and pet needs. Test the load on a real walk. Heavy water storage belongs mainly at your shelter, with a realistic resupply plan for travel.

Communications [01]

Write contacts, meeting places and radio frequencies on paper. Agree check-in times and one out-of-area contact. Short text messages may be more practical than repeated calls; do not assume any network will work. Download local maps and key instructions. Use battery saving and schedule checks so you retain phone power.

Community and personal safety

Arrange neighbour checks, shared meal preparation, childcare and tool lending. Identify people who need additional support and agree how to assist them safely. Pool skills and verified information without advertising valuables or publicly sharing vulnerable people's details. Avoid confrontations; do not build traps. Secure doors, maintain safe escape routes and use modest task lighting.

Maintain sleep, meals and a daily routine, particularly for children. Allocate jobs and rest fairly. Keep an inventory and written decisions to reduce stress and disputes. If the household cannot maintain safe water, sanitation or critical treatment, seek organised assistance rather than waiting for complete exhaustion.

Evidence and further reading: [01]. Source numbers link to the reference directory. Procedures and example calculations marked as planning guidance are the author's synthesis.

Evacuation packing and community routines are adaptable planning guidance.

Practise and write your plan

A tested modest system is more useful than a large collection of unfamiliar equipment.

A staged rehearsal - planning guidance

- Today: count water and meals; write contacts and medicines; find torches and check alarms.

- This week: test your radio, power banks and can opener. Prepare one no-cook meal and practise safe water treatment using the actual equipment. Do not deliberately drink untreated test water.

- This month: try a supervised evening without mains lighting while keeping essential medical power operating. Measure actual battery use. Inspect sleeping insulation and practise evacuation routes.

- Each season: sow a small crop, track harvest, inspect stored produce and review winter power assumptions. Check stored water, food dates, batteries and household needs at least every six months.

Household worksheet - fill in by hand

Item	Your details
People / pets / additional support	_____
Safe room / two exits	_____
Evacuation destinations / routes	_____
Water stored / daily allocation	_____
Food days / cooking method	_____
Medicines / cold-chain plan	_____
Power budget / tested runtime	_____
Contacts / meeting point / radio	_____
Next inspection date	_____

Before an outage, save or print the source procedures for any method you intend to use. This handbook is an overview and working plan, not a replacement for full tested preservation recipes, equipment manuals or medical training.

Sources and offline library

Sources consulted online on 8 November 2026. Click a title to open its page.

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[03] CDC: Make water safe in an emergency

https://www.cdc.gov/water-emergency/about/

[04] CDC: Find clean water in an emergency

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[05] EPA: Emergency disinfection of drinking water; concentration-specific bleach table

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How this guide uses evidence

The handbook paraphrases source guidance and identifies its own calculations and practical synthesis. It does not reproduce complete source manuals. UK food temperatures are used consistently; equipment and crop examples need local adaptation. No precise garden yield, solar output or survival duration is guaranteed.