Earthquake Preparedness Checklist

A Practical Guide: Before, During, and After

Based on guidance from the U.S. Geological Survey (USGS), FEMA, CDC, and other official sources. This document is for informational purposes to help individuals prepare.

Illustration: Drop, Cover, and Hold On under a sturdy desk.

1. What to Do When an Earthquake Strikes (During)

According to the USGS and FEMA/Ready.gov, the primary action is **Drop, Cover, and Hold On**.

Drop, Cover, and Hold On:

- **DROP** down onto your hands and knees before the earthquake knocks you down. This protects you from falling and allows you to move if needed.
- **COVER** your head and neck with one arm and hand. If a sturdy table or desk is nearby, crawl underneath it. If not, crawl next to an interior wall away from windows.
- **HOLD ON** to your shelter (or your head and neck) until the shaking stops. Be ready to move with the shelter if it shifts.

USGS Specific Recommendations:

- **If you are INDOORS** — STAY THERE! Get under a desk or table and hang on to it, or move into a hallway or against an inside wall. Stay clear of windows, fireplaces, and heavy furniture or appliances. Get out of the kitchen. Do not run downstairs or rush outside while the building is shaking.
- **If you are OUTSIDE** — Get into the open, away from buildings, power lines, chimneys, and anything that might fall on you.
- **If you are DRIVING** — Stop carefully. Move as far out of traffic as possible. Do not stop on or under a bridge or overpass, or under trees, light posts, power lines, or signs. Stay inside the car until shaking stops.
- In mountainous areas: Watch for falling rock, landslides, trees.
- Near the ocean: Be aware of tsunami risks; follow NOAA guidance and move to higher ground if needed.

Examples of Recommended Furniture / Places to Get Underneath or Next To:

Sturdy, heavy furniture provides a protective void against falling debris (ceiling plaster, light fixtures, objects). Prefer solid wood or reinforced construction.

- Solid wooden dining table or kitchen table
- Sturdy office desk or conference table
- Against an interior wall or in an interior corner (if no table available)
- In bed: Stay in bed, turn face down, cover head and neck with a pillow.

Avoid: Doorways (not stronger in modern buildings), exterior walls, windows, kitchens, tall unsecured furniture, hanging objects.

Recommended sturdy places: solid dining table, office desk, interior wall corner.

2. What to Do AFTER an Earthquake Strikes

Aftershocks are common and can cause additional damage. Always be ready to Drop, Cover, and Hold On again. Assess your situation carefully before moving.

Immediately After:

- Expect aftershocks. Drop, Cover, and Hold On if you feel shaking.
- Check yourself and others for injuries. Provide first aid if trained; do not move seriously injured people unless in further danger.
- If trapped, attract attention: send a text, bang on a wall or pipe, use a whistle. Cover mouth from dust.
- If in a tsunami risk area, move inland or to higher ground immediately.
- Wear sturdy shoes to protect from broken glass and debris.

Exiting the Building vs. Staying in Place:

- If the building is damaged (cracks in foundation, unusual noises, shifting), evacuate carefully once shaking stops. Move away from the building to an open area.
- Do not re-enter damaged buildings until authorities declare them safe.
- If the building appears intact and you are safe inside, you may stay, but be prepared to evacuate if conditions worsen.
- Similar to fire drill principles: have a pre-planned outdoor meeting place.

Hazards to Avoid Outside (or When Going Outside):

- **Power lines:** Stay far away from downed or hanging power lines. They may be live/energized. Report them.
- **Gas lines:** If you smell gas or see broken lines, leave the area, do not use matches, lighters, or electrical switches. Shut off main gas valve from outside if safe and trained; only the gas company should restore service.
- **Damaged buildings, chimneys, facades:** Stay clear; they may collapse.
- **Roads and ground:** Watch for cracks, breaks in pavement, fallen rocks. Avoid driving on damaged roads. Be aware of possible sinkholes or sewer line collapses in urban areas where underground water can erode soil under roads.
- Trees, streetlights, signs that could fall.
- Move to clear open spaces away from all these hazards.

Other After Actions:

- Listen to battery-powered radio, NOAA weather radio, or official alerts for instructions.
- Use text messages rather than phone calls to conserve battery and avoid overloading networks.
- Check utilities carefully. Do not turn gas back on yourself.
- Avoid using candles; use flashlights. Prevent carbon monoxide by not using generators or grills indoors.

Post-earthquake outdoor hazards: power lines, damaged buildings, cracked roads/sinkholes. Stay in open areas.

3. Before an Earthquake: Be Prepared with an Emergency Kit

Prepare in advance. Store supplies in an accessible location (home, car, work). Aim for at least 3 days (72 hours); more is better in high-risk areas. Practice your plan.

Official guidance from FEMA/Ready.gov and Red Cross emphasizes water, food, first aid, light, and communication.

Basic Emergency Kit Checklist (for 2-3 Days):

Check off items as you acquire and pack them. Store in a sturdy container or backpack.

- ■ Change of seasonal-specific clothing (including layers for temperature changes)
- ■ Sturdy pair of shoes or boots (keep near bed; protect from glass/debris)
- ■ Flashlight + extra batteries (do NOT rely on mobile phone flashlight — save phone battery for communication)
- ■ First aid kit (bandages, antiseptic, gauze, pain relief, any personal medications for several days)
- ■ Sanitation supplies for cleaning wounds (antiseptic wipes, hand sanitizer, soap, disposable gloves)
- ■ Lightweight portable battery pack / power bank for charging mobile devices
- ■ Battery-powered or hand-crank radio (NOAA Weather Radio capable if possible)
- ■ Whistle (for signaling if trapped)
- ■ Copies of important documents (ID, insurance, medical info) in waterproof bag
- ■ Cash (small bills) and local maps
- ■ Dust mask or N95 for debris/dust
- ■ Work gloves
- ■ Multi-tool or basic tools (wrench for utilities)

Food Recommendations (2-3 days, lightweight, long-shelf-life, high-protein/energy):

- ■ Granola bars, energy bars, or protein bars
- ■ Freeze-dried meals or dehydrated foods (add water)
- ■ Canned goods with pull-tabs or easy-open (if weight allows) + manual can opener
- ■ Nuts, dried fruit, jerky, or peanut butter
- ■ Ready-to-eat non-perishable items that require no cooking or minimal preparation

Water Recommendations (2-3 days; ~1 gallon per person per day):

- ■ Stored water in canteens, water bottles, or collapsible containers
- ■ Water jugs or larger storage containers (rotate stock periodically)
- ■ Reliable water purification methods:
- ■ • Pump or gravity filters (backpacker/hiker style, common at camping stores)
- ■ • Chemical purification tablets or drops (iodine or chlorine-based)
- ■ • Portable water filter bottles or straws for backcountry use
- ■ • Ability to boil water if fuel is available
- ■ Note: Filters suitable for freshwater sources; specialized filters for brackish or contaminated water if needed

Basic emergency kit essentials: flashlight, first aid, water, food, battery pack, clothing, shoes, sanitation.

4. Earthquake Preparedness for Schools

Schools require specific planning because large numbers of children are present, and staff must account for all students. Regular practice through drills (such as the Great ShakeOut) is essential. Guidance draws from FEMA, USGS, Earthquake Country Alliance, and ShakeOut resources.

During an Earthquake at School:

- Students and staff should immediately Drop, Cover, and Hold On under sturdy desks or tables.
- Stay away from windows, bookshelves, and heavy objects that could fall.
- If outdoors, move to an open area away from buildings, trees, and power lines.
- Teachers should take attendance and account for all students after shaking stops.

School Preparedness Checklist:

- ■ Conduct regular Drop, Cover, and Hold On drills (participate in Great ShakeOut)
- ■ Secure all bookshelves, file cabinets, TVs, and heavy objects to walls or floors
- ■ Store heavy items on low shelves; restrain contents of shelves
- ■ Identify safe spots in each classroom (under desks) and outdoor assembly areas away from buildings
- ■ Develop and practice evacuation routes and reunification plans with parents
- ■ Prepare classroom or school emergency kits (first aid, water, flashlight, class roster, radio)
- ■ Train staff on roles: student accounting, first aid, utility shutoff, communication
- ■ Address needs of students with disabilities or special requirements
- ■ Post emergency procedures visibly in classrooms
- ■ Review building structural safety and non-structural hazards periodically
- ■ Establish communication methods with parents and district emergency management
- ■ Have a plan for aftershocks and potential building damage assessment before re-entry

Parents: Ask your school about their earthquake plan, reunification procedures, and how you will be notified. Practice Drop, Cover, and Hold On at home as well.

Students and teacher practicing Drop, Cover, and Hold On under classroom desks during a drill. Secure bookshelves are shown.

5. Extended Survival Checklist (Backpacking / Hiking Style for Longer Scenarios)

For scenarios where help is delayed or you may need to shelter outdoors, incorporate backpacking and camping principles. Focus on lightweight, multi-use items. Practice skills in advance.

Navigation (Analog — no reliance on electronics):

- ■ Magnetic compass (and know how to use it with a map)
- ■ Topographic maps of your local area
- ■ Star chart or knowledge of basic celestial navigation for night orientation
- ■ Whistle and signal mirror for rescue signaling

Shelter and Camping Equipment (Summer vs. Winter considerations):

- ■ Tent (3-season for milder weather; 4-season or sturdy for winter/wind/rain)
- ■ Ground tarp or footprint for waterproofing and protection from moisture/cold
- ■ Sleeping bag rated for expected temperatures (warmer bag for winter; lighter for summer)
- ■ Sleeping pad or insulating layer under you (critical for warmth)
- ■ Emergency blanket or bivy sack as backup
- ■ Stakes, cordage, and repair kit for shelter
- ■ Summer: lightweight mesh tent, breathable layers, bug protection
- ■ Winter: heavier insulation, windproof outer layers, snow/rain protection, extra dry clothes

Food Storage and Preservation:

- ■ Modern: Freeze-dried, dehydrated, or vacuum-sealed long-shelf-life meals
- ■ Airtight containers or bags to protect from pests and moisture
- ■ Historical/low-tech: Salt for curing/preserving meats (if applicable and knowledge available)
- ■ Methods to keep food elevated or protected from animals and insects
- ■ Calorie-dense foods prioritized for energy

Additional Extended Items:

- ■ Water filter (backpacker style) + containers
- ■ Fire starter (matches in waterproof container, lighter, ferro rod)
- ■ Knife / multi-tool
- ■ Headlamp with extra batteries
- ■ Extra clothing layers (moisture-wicking base, insulating mid, waterproof shell)
- ■ Hygiene and sanitation supplies for longer periods
- ■ Basic repair tools and duct tape
- ■ Knowledge of local safe areas and skills practice (shelter building, water purification, etc.)

Extended survival gear inspired by backpacking: navigation, shelter for different seasons, food, water filtration.

6. Emergency Contacts and Official Resources (Seismic Preparedness Focus)

Use these official government, agency, and well-known institutional websites for further planning, alerts, maps, and detailed guidance. All are focused on or highly relevant to earthquake and related seismic hazards.

USGS Earthquake Hazards Program

https://www.usgs.gov/programs/earthquake-hazards
Official earthquake monitoring, maps, data, and preparedness.

USGS Prepare Page

https://www.usgs.gov/programs/earthquake-hazards/prepare
Before, during, and after guidance.

USGS Earthquake Notification Service

https://earthquake.usgs.gov/ens/
Sign up for alerts.

ShakeAlert Earthquake Early Warning

https://www.shakealert.org/
Early warning system information.

FEMA / Ready.gov Earthquakes

https://www.ready.gov/earthquakes
Comprehensive before/during/after tips and kits.

FEMA Main Site

https://www.fema.gov
Disaster assistance and preparedness resources.

CDC Earthquakes Safety

https://www.cdc.gov/earthquakes
Health and safety guidelines before, during, after.

American Red Cross Earthquake Safety

https://www.redcross.org/get-help/how-to-prepare-for-emergencies/types-of-emergencies/earthquake.html
Checklists, kits, and response information.

Great ShakeOut Earthquake Drills

https://www.shakeout.org/
Annual drills to practice Drop, Cover, Hold On.

Earthquake Country Alliance

https://www.earthquakecountry.org/
Seven Steps to Earthquake Safety and regional resources (esp. California).

National Earthquake Hazards Reduction Program (NEHRP)

https://www.nehrp.gov/
Federal program for reducing earthquake risks (FEMA, NIST, NSF, USGS).

NIST Earthquake Engineering

https://www.nist.gov/topics/earthquakes
Research and standards for resilient buildings.

NOAA Tsunami Warning Centers

https://www.tsunami.gov/
Related coastal hazards from earthquakes.

DisasterAssistance.gov

https://www.disasterassistance.gov/

Access to federal disaster help.

Central U.S. Earthquake Consortium (CUSEC)

https://www.cusec.org/
Resources for central U.S. seismic risks.

Western States Seismic Policy Council (WSSPC)

https://www.wsspc.org/
Western U.S. earthquake policy and preparedness.

Southern California Earthquake Center (SCEC)

https://www.scec.org/
Research and educational resources.

Incorporated Research Institutions for Seismology (IRIS) / EarthScope

https://www.iris.edu/
Educational materials on earthquakes.

Alaska Earthquake Center

https://earthquake.alaska.edu/
Regional monitoring and safety.

Pacific Northwest Seismic Network

https://www.pnsn.org/
Regional resources for Cascadia area.

California Governor's Office of Emergency Services (Cal OES)

https://www.caloes.ca.gov/
State-level preparedness.

FEMA Earthquake Safety at Home (publications)

https://www.fema.gov/emergency-managers/risk-management/earthquake
Building safety and mitigation.

Ready.gov Emergency Supply List

https://www.ready.gov/kit
Detailed kit recommendations.

USGS Did You Feel It?

https://earthquake.usgs.gov/data/dyfi/
Report felt earthquakes.

PAGER (Prompt Assessment of Global Earthquakes for Response)

https://earthquake.usgs.gov/data/pager/
Impact estimates.

National Weather Service / NOAA Weather Radio

https://www.weather.gov/nwr/
Alerts including some hazard info.

American Red Cross Survival Kit Supplies

https://www.redcross.org/get-help/how-to-prepare-for-emergencies/survival-kit-supplies.html
Kit building guidance.

Earthquake Engineering Research Institute (EERI)

https://www.eeri.org/
Professional resources and public info.

Building Seismic Safety Council (BSSC)

https://www.nibs.org/bssc
Standards for seismic safety.

Your local emergency management agency or office of emergency services

Search for '[Your City/County] Emergency Management'
Local plans, alerts, and shelters.

Additional Tips: Sign up for local alerts. Practice Drop, Cover, and Hold On regularly with family. Secure heavy furniture in your home in advance. Review and update your kit every 6-12 months (check expiration dates, batteries, clothing sizes).

This checklist is a starting point based on publicly available official guidance. Always follow instructions from local authorities during an actual emergency. Consult professionals for home retrofitting or specific medical needs.
Generated as an informational document. Stay safe and prepared.