Earthquake Safety Checklist

FEMA B-526 / October 2023





Important Numbers and Addresses



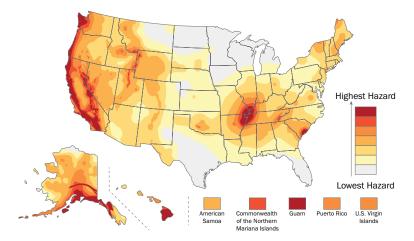
During an earthquake, your family might be apart, so use the sections below to write down important information that will help you get in touch with each other. During the first 24 hours after a major earthquake, for non-emergency communications, use text messaging, email or

social media instead of making voice calls. Refer to page 9 for more details.

Name and phon	e number						
Work Address							
Name and phon	e number						
Work Address							
Name and school phone number							
School Address							
School Policy:	□ Hold student	□ Release student					
Name and school phone number							
School Address							
		□ Release student					
Name and school phone number							
School Address							
School Policy:	□ Hold student	□ Release student					
Name and phone number of a nearby emergency contact:							
·							

Name and phone number of an out-of-town relative or friend who can act as a point of contact for separated family members:

Earthquake Hazards in the United States



U.S. Geological Survey 2018 Long-term National Seismic Hazard Map https://www.usgs.gov/programs/earthquake-hazards/science/2018-unitedstates-lower-48-seismic-hazard-long-term-model#overview

Are You Prepared for the Next Earthquake?



This booklet is designed to help you and your family plan for and survive a major earthquake. By preparing beforehand, you can reduce the effect of an earthquake on you and your family. Take action by setting aside emergency supplies and making a plan for what to do at

home, work, and school before, during and after an earthquake. You need to be prepared to manage on your own for a minimum of 72 hours, but it might even be necessary to be self-reliant for up to two weeks. After a major earthquake, emergency services could be overwhelmed, making it difficult to access supplies for an extended period. Being self-sufficient during this time is extremely important.

Movement of the ground is seldom the actual cause of death or injury. Many casualties result from partial building collapse or falling objects and debris, such as toppling chimneys, falling bricks, ceilings, and light fixtures. Many of these hazards are easily preventable.

Earthquakes can happen suddenly and unexpectedly. It's crucial to take action right away to prepare, especially if you live in areas with a very high or high risk of earthquakes.

Learning actions you can take to protect yourself, your family, and your home can increase safety during an earthquake. For more information about the earthquake risk in your area, consult your local building department or visit <u>www.usgs.gov.</u> FEMA's <u>Ready.gov</u> website has information on how to protect yourself before, during and after an earthquake.

You can also visit <u>Ready.gov</u> for low and no-cost ways to prepare using common household items.

Emergency Kit Ideas for Home, Work, and Car

Because you don't know where you will be when an earthquake occurs, prepare a Disaster Supplies Kit for your home, workplace, and car.



□ **Food.** It's a good idea to keep a supply of non-perishable food on hand that can be rotated into your diet and replenished regularly. Keep a sufficient supply of canned or dehydrated food, powdered milk, and canned juices that will last at least 72 hours, preferably two weeks. Dried

cereals or granola, dried fruit, protein or fruit bars, ready-to-eat canned foods, and non-salted nuts are good sources of nutrition. Keep the following points in mind:

- Avoid foods that will make you thirsty. Choose salt-free crackers, whole grain cereals, and canned goods with high liquid content.
- Stock foods that do not require refrigeration, cooking, water, or special preparation. You may already have many of these on hand.
- Remember to include foods for infants and those with special dietary needs.
- You should also have kitchen accessories and cooking utensils, especially a manual can opener.



□ Flashlights and spare batteries. Keep a flashlight and spare batteries beside your bed, at your place of work, and in your car. Only use matches or candles once you are confident that no gas leaks exist. Use a wind-up powered generator to have unlimited emergency power. If you have a portable generator, only use it outdoors and more than 20 feet away from any building opening.



□ Water. FEMA recommends considering storing at least a 2-week supply of water for each member of the family. A normally active person needs at least a half gallon of water each day just for drinking. In determining adequate quantities, take the following into account:

 Individual needs vary depending on age, physical condition, activity, diet, and climate.

- Children, nursing mothers, and those who may be ill will need additional water.
- Very hot temperatures can double the amount of water needed.
- A medical emergency might require more water.

Bottled Water

Have commercially bottled water on hand for emergencies. Keep bottled water in its original container, and store in a cool, dark place. Do not open it until needed. Pay close attention to the expiration or "use by" date. Store water in plastic containers.

If you choose to prepare your own containers of water, buy airtight, food-grade water storage containers from surplus or camping supply stores. Clean them with dish soap and water and rinse them thoroughly before filling them. Keep all water in a cool dark place. Water stored in your own containers should be replaced about every six months.

Purifying Water

If bottled water is unavailable or you have questions about water quality, purify it before drinking. Below are three ways to purify water:

Boiling. Boiling is the best and safest method of purifying water. First, if the water is cloudy, let it settle and then filter it through a clean cloth or coffee filter. Then, heat the water to a rolling boil for one full minute. At altitudes above 5,000 feet, boil water for three minutes. For each additional 1,000 feet of altitude, add one minute to the boiling time.

Bleach. If you are not able to boil water, you can use regular household bleach to purify it. Do not use scented, color safe bleach or bleach with added cleansers, as the added chemicals might be harmful. The amount of bleach depends on the strength of the bleach and how clear the water is, as shown below.

Volume of Water	Amount of 6% Bleach to Add*	Amount of 8.25% Bleach to Add*
1 quart/liter	2 drops	2 drops
1 gallon	8 drops	6 drops
2 gallons	16 drops (1/4 tsp)	12 drops (1/8 teaspoon)
4 gallons	1/3 teaspoon	1/4 teaspoon
8 gallons	2/3 teaspoon	1/2 teaspoon

*Assumes bleach contains 6% or 8.25% sodium hypochlorite. (Source: www.epa.gov/ground-water-and-drinking-water/emergency-disinfection-drinking-water).

If the water is cloudy, let it settle and filter through a clean cloth or coffee filter. Add bleach according to the table above, stir, and let stand for 30 minutes. Water should have a slight bleach odor. If it doesn't, repeat the dosage and let it stand for another 15 minutes. If it still does not smell of chlorine, discard it and find another source of water.

Water disinfection tablets. You can disinfect water with tablets that contain chlorine, iodine, chlorine dioxide, or other disinfecting agents. These are available online or at pharmacies and sporting goods stores. Follow the instructions on the product label as each product may have a different strength.



□ Portable, battery-powered radio or television and spare batteries. Most telephones will be out of order or only used for emergency purposes, so portable radios or digital televisions will be your best source of information. You may also want to have a battery-powered citizens band (CB) radio, other two-way radio, or wind-up powered radio.



□ **First aid kit and manual.** Keep a first aid kit and emergency reference material such as a first aid book or free information on the publication page of <u>Ready.gov</u> (www.ready.gov/ publications) at home and in your car. Have members of your household take basic first aid and CPR courses.



□ **Fire extinguishers.** Keep a fire extinguisher at home and in your car. Some extinguishers are good only for certain types of fires – electrical, grease, or gas. Class ABC extinguishers are designed for safe use on any type of fire. Your fire department can show you how to properly use an extinguisher. Fire extinguishers should be inspected annually, recharged as needed, and replaced every 12 years.



□ **Special needs.** Keep a supply of special needs items, such as medications, extra eyeglasses, contact lens solutions, hearing aid batteries, items for infants (formula, diapers, bottles, and pacifiers), sanitation and hygiene items (moist towelettes and toilet paper), and any other items unique to your family's needs.

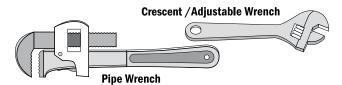


□ Prepare customized emergency plans for people with disabilities in advance.

Whether small or widespread, emergencies can pose special challenges for individuals with disabilities. Plan to include any medical equipment, medications, or other items to assist those with disabilities in your disaster kit. Visit the People with Disabilities page on Ready.gov (www.ready.gov/disability) for more information.



□ **Tools.** In addition to a pipe wrench and crescent/adjustable wrench (for turning off gas and water valves), you should have a pry bar in case of jammed doors, a lighter, a supply of matches in a waterproof container, and a whistle for signaling rescue workers.





□ Important papers and cash. Be sure to have a supply of cash for use if ATMs, banks, and credit card systems are not operating. Also, keep copies of credit and identification cards and important documents, such as insurance policies and financial records in a safe location, such as a fire-proof lock box.



□ **FEMA App.** The FEMA App will update you with the latest news and emergency alerts in your area.

□ **Clothes.** If you live in a cold climate, think about warmth because you might not have heat after an earthquake. Think about your clothing and bedding supplies. Be sure to have one complete change of clothing and shoes per person, including the following:

- jacket or coat
- Iong pants
- Iong sleeve shirt
- sturdy shoes
- hat, mittens or gloves, and scarves
- sleeping bag or warm blanket (one per person

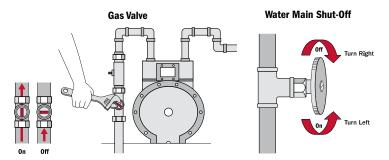


□ **Pet needs.** Identify a shelter area for your pet, gather the necessary supplies, ensure that your pet has proper ID and up-to-date veterinarian records, and make sure you have a pet carrier and a leash. Visit <u>Ready.gov/pets</u> to learn how to prepare your pets.

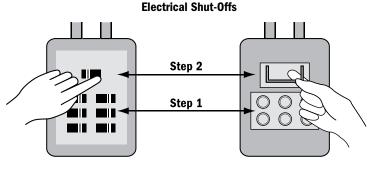
According to the Humane Society: It is also recommended that pets be chipped along with proper identification. Source: www.humanesociety.org/resources/pet-disaster-preparedness

Home Preparedness

In the event of an earthquake, you may be instructed to shut off the utility services at your home. You should also be able to shut off the gas supply if you hear or smell gas escaping inside your home or shut off the water supply if you see a broken water pipe. Teach responsible members of your family how to turn off the gas,



Caution: Do not shut off gas unless an emergency exists. If gas is ever turned off, a professional must restore service.



Circuit Box with Shut-Off Step 1: Shut off individual breaker.

Step 2: Shut off main breaker.

Pull Out Electrical Cartridge Fuses

Step 1: Pull out individual fuses. Step 2: Pull out main fuses.

electricity, and water at valves and main switches. Consult your local utility provider if you need more information.

In most instances, you can shut-off all water to your property by locating the main water shut-off valve. The main water shut-off valve is located within the water meter box where the main water line enters your home. Within the water meter box, you should see a valve, similar to the valve on your gas meter. Shut-off the water by turning the valve to the right. If you are able, turn it in the direction you would your gas valve.

Earthquake Hazard Hunt

You can identify potential dangers in your home by conducting an earthquake hazard hunt. Knowledge of the issues below and actions taken to mitigate them can decrease your risk of damage or injury from an earthquake.

Some possible hazards are:

- Tall, heavy furniture that could topple, such as bookcases, China cabinets, or modular wall units.
- Water heaters that could be pulled away from pipes and rupture.
- Appliances that could move enough to rupture gas or electrical lines.

- Hanging plants in heavy pots that could swing free of hooks.
- Heavy picture frames or mirrors over a bed.
- Latches on kitchen cabinets or other cabinets that will not hold the door closed during shaking.
- Breakables or heavy objects kept on high or open shelves.
- A masonry chimney that could crumble and fall through an unsupported roof.
- Flammable liquids, such as painting or cleaning products, would be safer in a garage or outside shed.

Take steps to correct these hazards — secure or relocate heavy items, as appropriate. To learn more about home hazards, and what to do about them, view the Earthquake Home Hazard Hunt poster (FEMA 528) online: www.fema.gov/sites/default/files/2020-07/fema_earthquake_earthquake-home-hazard-hunt-poster-fema-528. pdf

Family Earthquake Drill

It's important to know what to do for protection when the earth starts to shake. By planning and practicing what to do before an earthquake occurs, you can condition yourself and your family to react correctly and spontaneously when the first jolt or shaking is felt. An earthquake drill can teach your family what to do in an earthquake.

- Each family member should know to **Drop, Cover, and Hold On** when they feel an earthquake. If they can cover in a safe spot, they should do so, but they should not attempt to move during an earthquake, as the risk of injury is much higher.
- **Safe spots:** The best places are under heavy pieces of furniture, such as a desk or sturdy table and against inside walls.
- Danger spots: Be aware of the dangers associated with breaking window glass, falling objects, falling mirrors, falling chimneys, and toppling of tall, unsecured pieces of furniture.
- Reinforce this knowledge by physically placing yourself in the safe locations. This is especially important for children. In the days or weeks after this exercise, hold surprise drills.

Great ShakeOut earthquake drills are an opportunity to practice how to be safer during earthquakes. Learn more at www.shakeout.org!



- Be aware of a possible tsunami if you live in a coastal area. Some communities have local tsunami hazard maps and warning systems.
- Be prepared to evacuate in a tsunami emergency. Some communities have high ground or safe areas identified as Tsunami Vertical Evacuation Sites.
- Be prepared to deal with what you and your

family may experience after an earthquake — both physically and emotionally. There are guidance publications listed in the References section of this booklet to help.

During an Earthquake

In the event of an earthquake limit the amount of steps you take and get to a nearby safe place promptly. Stay indoors until the shaking has stopped and you are sure it is safe to leave.

If you are indoors:



- Drop, Cover, and Hold On Take cover under a sturdy desk, table, or bench, or against an inside wall, and hold on. If there is no desk or table near you, cover your face and head with your arms and crouch in an inside wall of the building.
- Do not use elevators.
- Stay away from glass, windows, outside doors and walls, and anything that could fall, such as lighting fixtures and tall furniture.
- If you are in bed when the earthquake strikes, stay there. Hold on and protect your head with a pillow. If you fall out of bed, stay on the floor against the bed. If you are under something heavy that could fall, then move to the nearest safe place.
- Stay inside until the shaking stops and it is safe to exit the building. Most injuries during earthquakes occur when people are hit by falling objects while trying to leave a building during an earthquake.
- Be aware that electricity may go out, that pipes, including fire sprinkler systems, may break or that fire alarms may turn on.

If you are outdoors:

- Remain outside.
- Move away from buildings, trees, streetlights, and utility wires.

If you are in a car:

- Stop as quickly as safety permits, pull to the side of the road, and stay in the car.
- Avoid stopping near or under buildings, trees, overpasses, and utility wires.
- Do not attempt to drive across or under bridges or overpasses that have been damaged.





- Use a GPS tracking device or satellite messenger to send an emergency assistance request if there is a severe medical emergency. A satellite messenger device is an advanced GPS, which is able to send your exact GPS coordinates and selected messages over commercial satellites to tell others of your location and status.
- Proceed cautiously after the earthquake has stopped, watching for road and bridge damage.

If you are in a public transportation vehicle:

 Listen to or become familiar with public transportation emergency plans and follow instructions.



If you are trapped under debris:

- Do not light a match.
- Cover your nose and mouth with a handkerchief or clothing. Do not move about or kick up dust.
- Tap on a pipe or wall so that rescuers can find you. Use a whistle if one is available.
- Shout only as a last resort shouting can cause you to inhale dangerous amounts of dust.

When the Ground Stops Shaking



Check for Injuries. In the event of serious injuries, call 9-1-1, but be aware that they may well be overwhelmed, and you may be on your own for some time. If anyone has stopped breathing, follow the American Heart Association's guidelines on CPR (<u>https://cpr. heart.org/en/resuscitation-science/cpr-andecc-guidelines</u>). Stop any bleeding injury by applying direct pressure to the wound. Do not move seriously injured people unless they are in immediate danger of further injury. Cover injured persons with blankets to keep them warm. Follow instructions from your first aid kit.



Be aware of possible tsunamis if you live in a coastal area. When local authorities issue a tsunami warning, assume that a series of dangerous waves is on the way. Move inland to higher ground as quickly as possible. If high ground is not available, move into a Vertical Evacuation Refuge or a multistory concrete building and climb up at least three floors.



You may not be able to use the telephone as telephone lines may be down and service limited. However, if a telephone landline is available, it will continue to work even if there is no power.

Call 911 to report emergencies. Be aware that wireless network traffic during emergencies can cause congestion and block calls.



Keep a battery-powered radio with you so you can listen for emergency updates and news reports.



Wear sturdy shoes in areas near fallen debris or broken glass.

Check for Hazards



Be prepared for aftershocks. These secondary earthquakes are usually less violent than the main quake, but they can be strong enough to cause additional damage and weaken buildings. Be aware that aftershocks can continue for weeks or even months after an earthquake. Stay away from damaged areas unless the police, fire, or relief organizations have specifically requested your assistance.



If possible, put out small fires. If this is not possible, leave your home immediately, notify the fire department if possible, and alert your neighbors.



Use a battery-powered flashlight to inspect your home. Turn the flashlight on outside, before entering, because the battery may produce a spark that could ignite leaking gas. Do not enter the home if you see large cracks in the foundation or if the home is leaning. Small diagonal cracks in the walls are normal after an earthquake and are usually not a safety hazard.



Check water and food supplies. If the water is cut off, use emergency water supplies — in water heaters and melted ice cubes. Throw out all food that may be spoiled or contaminated.



Do not use your car unless there is an emergency. Keep streets clear for the passage of emergency vehicles.



Switch off electrical power if there is damage to your home's electrical wiring. If the situation is unsafe, leave your home and seek help.



Have a building professional check the building for cracks and damage, particularly around the foundation, chimneys and masonry walls. Leave immediately if it looks like the building might collapse. Use fireplaces only if the chimney does not have damage and cracks.



ECTRICAL

HAZARD

Check to see that water and sewage lines are intact before using the toilet. Plug bathtub and sink drains to prevent sewage backup.

Do not touch or drive over downed power lines. Beware of broken appliances as they may be an electrical hazard.

Check closets and cupboards. Open doors cautiously. Beware of objects tumbling off shelves.

Clean up spilled medicines, bleaches, gasoline, and other flammable liquids.



Use charcoal or gas grills for emergency cooking, only outdoors.



Check gas, electrical, and water lines and appliances for damage. If you smell gas or see a broken line, shut off the main valve from the outside. Wait to switch on the electricity again until the power company has first checked your home. Remember, if the gas is turned off, a professional must restore service.

Caution: Do not use electrical switches or appliances if gas leaks are suspected; sparks can ignite gas from broken lines.

Plan to Reunite

In the event of an earthquake having a message in clear view that states where you can be found can help you be reunited with family or loved ones. Take your Disaster Supplies Kit. List reunion points in case of separation. Such points may be the homes of neighbors, friends, or relatives, schools, or community centers. Use the blanks below to list reunion points You can also add your number to the the Next of Kin Registry (https://pleaseno.ipower.com/nok/restricted/ reg.php) or by calling 1-800- 915-5413.

Reunion Points

Reunion Points _____

Information about earthquake hazards and measures for reducing risks is available from the following:

Federal Emergency Management Agency

- FEMA helpline: 1-800-621-3362
- FEMA website: <u>FEMA.gov</u>
- FEMA Earthquake page: <u>www.fema.gov/earthquake</u>

National Earthquake Hazards Reduction Program

- FEMA NEHRP website: <u>www.fema.gov/emergency-managers/risk-management/earthquake/nehrp</u>
- NEHRP website: <u>www.nehrp.gov</u>

FEMA Resources

You can order printed copies of the following publications by calling the FEMA Warehouse at 1-800-480-2520 or emailing <u>femapubs@gpo.gov</u>.

FEMA 528, Earthquake Home Hazard Hunt. <u>www.fema.gov/sites/</u> default/files/2020-07/fema_earthquake_earthquake-home-hazardhunt-poster-fema-528.pdf

FEMA P-530. Earthquake Safety At Home. <u>https://www.fema.gov/</u> sites/default/files/2020-08/fema_earthquakes_fema-p-530earthquake-safety-at-home-march-2020.pdf

FEMA P-2064, Are You Ready? An In-depth Guide to Citizen Preparedness. <u>www.ready.gov/sites/default/files/2021-11/are-you-ready-guide.pdf</u>

FEMA P-2196, Building Codes Toolkit for Homeowners and

Occupants. https://www.fema.gov/sites/default/files/documents/ fema_building-codes-toolkit.pdf

FEMA Earthquake Insurance Webpage:

https://www.fema.gov/emergency-managers/risk-management/ earthquake/insurance

Ready.gov Earthquake Webpage: https://www.ready.gov/earthquakes

U.S. Geological Survey

For earthquake information, consult the USGS Earthquake Hazards Program at: <u>https://www.usgs.gov/programs/earthquake-hazards</u>

American Red Cross

Information about the American Red Cross can be found at: www.redcross.org

Ready.gov

There are many ways to take action and prepare before a disaster occurs. The 12 Ways to Prepare (https://www.ready.gov/sites/ default/files/2021-06/ready_12-ways-to-prepare_postcard. pdf) document includes some of the most important ways to help yourself, your family, and your community increase your preparedness.

You can easily fill out an emergency plan online or on your phone by visiting Ready.gov/plan. You can save your plan to your phone or even email it out to other family members.

Emergency Contact Information Wallet Card



- Call a friend or relative who lives outside the state and ask them to be your family's "outof-state contact."
- Explain to them that after a disaster they will be your means of communicating with other family members, both in and out of state. Make sure they understand it will be their responsibility to be available to take calls immediately following a disaster in your area.
- 3. Call your emergency out-of-area contact and:
 - Tell them how you are, where you are or plan to be.
 - Ask if other family members have checked in and left messages.
 - Let them know when you plan to call back

and check in again.

4. Notify all your friends and family members that this one person will be the person to contact if they need to get a message to you. Tell them not to call direct.

	C	Cut Line					
	EMERGENCY C	ONTACT INFORMATION					
1	rd Holder:		¦				
Ad	dress:	State: Zip:	i				
l Em	nail:		¦				
WO	RK						
Bu	siness Name:		1				
		City: State:	!				
l Zip):		I				
EM	ERGENCY OUT-OF-STATE CONTACT						
Ма	ain Contact:	Phone:					
		Phone:					
h	ILDREN						
		DOB: Sex:					
I Ide	entifying Characteristics:		1				
		School Phone:					
-		State: Zip:					
Na	me:	DOB: Sex:	!				
		School Phone:	i				
1		State: Zip:					
		DOB: Sex:					
I Ide	entifying Characteristics:		1				
		School Phone:					
		State: Zip:					
PEF	RSONAL MEDICAL INFORMATION		-				
I Me	edication:						
 _			i				
— Pr	escription #:		 				
	ergies:		— I — I				
1		Phone:	i				
· · · ·		Blood Type:					
1	otes:		i				
1 110			— I				

