



PLANNING
AHEAD

PLAN. PREPARE. PRACTICE.

Earthquakes are a powerful, unpredictable, destructive force of nature. Proper planning, preparation and practice will improve the chances that you and your loved ones will remain safe.

EARTHQUAKES

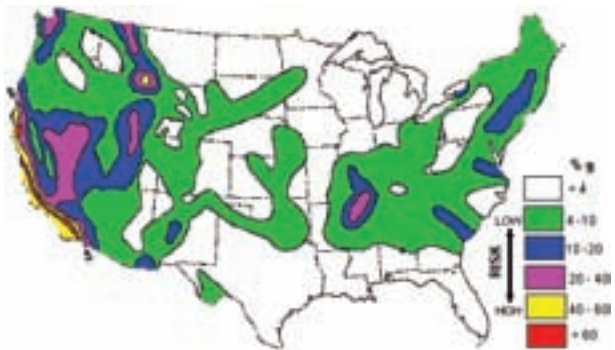
WHAT IS AN EARTHQUAKE?

An earthquake is the violent vibration of the Earth's surface following a release of energy from the Earth's crust. Earthquakes are caused by the sudden movement of huge tectonic plates. Over millions of years, these plates move and shift against one another. Sometimes this movement is gradual, while at other times, plates lock together, seizing motion, and allowing pressure to build up. When the pressure between tectonic plates grows strong enough, the plates break free, causing a sudden and devastating release of energy: an earthquake.

THE RICHTER SCALE

The severity of earthquakes is measured by the amount of energy released.

Magnitude	Description	Effects	Estimated Frequency
Less than 2.0	Micro	Not felt.	8000 per day
2.0-2.9	Minor	Usually not felt.	1000 per day
3.0-3.9	Minor	Often felt but rarely causes damage	135 per day
4.0-4.9	Light	Shaking and rattling of indoor items. Damage unlikely.	17 per day
5.0-5.9	Moderate	Major damage to poorly constructed buildings. Slight damage to well-constructed buildings.	800 per year
6.0-6.9	Strong	Major damage in areas 100 miles from epicenter.	120 per year
7.0-7.9	Major	Serious damage over large areas.	18 per year
8.0-8.9	Great	Serious damage over areas several hundreds of miles across.	1 per year
9.0-9.9	Great	Devastating damage over areas several thousands of miles across.	1 per 20 years
10.0+	Epic	Never recorded.	Unknown



RISK LEVELS OF AN EARTHQUAKE IN THE US

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Earthquakes and their after effects are one of the most frightening and destructive forces in nature.

BEFORE AN EARTHQUAKE

Plan and practice what you and your family will do if an earthquake strikes. Collapsing buildings and falling objects, such as a bookcase or cabinet, cause most earthquake deaths and injuries. Identify “Safe Spots” in every room of your home. Have your entire family practice getting to these “Safe Spots” with frequent **Earthquake Drills**. Make sure that every member of your family is familiar with earthquake procedures at their places of work or school.

If you need to evacuate an earthquake-damaged building, develop an **Escape Plan**. You should:

- Discuss the Escape Plan with your family. Visit each room of your home and identify exits.
- Draw a floor plan of your home with at least two exits from each room.
- On your plan, mark the location of emergency supplies and first aid kits.
- Mark the location of utility cut offs.
- Select an outdoor Safe Meeting Place, where everyone will go, and mark it on the escape plan.
- Have a plan to handle your pets. Public shelters won’t allow animals.

Be prepared to survive on your own for up to three days after an earthquake. While emergency workers are likely to be on the scene right away, it may take several days for aid to reach you. Create a **Disaster Supply Kit** and include the following:

- Enough drinking water for three days (one gallon of water per household member, per day)
- Nonperishable emergency food supplies for three days
- Battery operated flashlights and radio
- A first-aid kit and any essential prescription medications
- A change of clothing for each member of the household
- Any special items for infants and the elderly
- A list of important phone numbers including neighbors, friends, family, insurance companies, utility companies and emergency services
- All insurance documents, policies and policy numbers
- Important medical, prescription and allergy information

Check your home for potential earthquake hazards and do what you can to reduce those hazards.

- Inspect and secure windows and other glass objects that might shatter.
- Anchor bookcases, cabinets, air conditioners and other large objects that may fall and cause injury.
- Install flexible cable or metal strapping to secure appliances, and connect them with flexible gas and water hoses.
- Secure water heaters with metal straps or plumber’s tape to at least two stud walls.
- Replace glass bottles in kitchens and bathrooms with plastic containers.
- Inspect and anchor light fixtures and ceiling fans.
- Move or secure heavy pictures or mirrors in areas where you sleep or frequently sit.
- Attach wood or metal railings to shelves to keep items from falling off.
- Place heavy, large items on lower shelves.
- Secure cabinet doors with locks or child-proof latches.
- Hazardous and flammable materials should be stored in approved containers in well-ventilated storage areas.
- Inspect the structure of your home. Check the foundation, roof, chimney, beams, posts, joists and plates for damage or poor construction and correct any deficiency.

DURING AN EARTHQUAKE

If you are inside a building during an earthquake:

- Take cover under a heavy table or desk and hold on tightly
- Or, brace yourself against an inside wall away from heavy objects such as cabinets or bookshelves.
- Cover your head and neck with your arms.
- Steer clear of windows and other glass objects that may shatter.
- Never use an elevator in an emergency. Use the stairs.
- If you are in a crowded public place, don’t head immediately to a doorway, as others will have the same idea. Instead, seek shelter and avoid falling objects.
- If you are inside a building, stay inside! Many people are injured at building exits by falling debris.

If you are outside when an earthquake strikes:

- Avoid buildings as most debris falls around the perimeter and doorways of a building.
- Avoid utility poles and power lines.
- Once in the open, stay there until the shaking ceases.
- If you are in an automobile during an earthquake, safely pull over to a spot clear of buildings and utility poles. Once the earthquake is over, be alert to hazardous driving conditions.

AFTER AN EARTHQUAKE

Aftershocks usually occur after an earthquake and may cause additional damage, so be prepared. Fires, chemical spills, dam breaks and landslides are typical after effects. To be safe after an earthquake, you should:

- Listen to local broadcasts with a battery operated radio for important emergency updates.
- Never move an injured person unless they are in immediate danger. Apply emergency first-aid or CPR if you are certified to do so.
- If trapped, do your best to let others know where you are.
- Be aware of damage to utility lines. If you smell gas, open a window, exit the building and turn off the main gas valve. If electric wiring is shorting, kill the main breaker and call a licensed electrician. Shut off the water at the main valve if water pipes are damaged.
- Clean up any hazardous materials that may have spilled.
- Stay clear of damage-affected areas; let the emergency workers do their job unhindered.
- Cooperate with local emergency officials. If instructed to evacuate, do so at once.

If forced to evacuate your home:

- Post a message letting everyone know where you’ve gone.
- Be sure to bring your Disaster Supply Kit and important documents.
- Follow evacuation procedures and monitor broadcasts for updates.
- Don’t return to your home until emergency officials have given the all clear.

