



Earthquakes

A Fact Sheet prepared by the National Telecommunications Safety Panel

Introduction

An earthquake is a sudden, rapid shaking of the Earth caused by the breaking and shifting of rock beneath the Earth's surface. For hundreds of millions of years, the forces of plate tectonics have shaped the Earth as the huge plates that form the Earth's surface move slowly over, under, and past each other. Sometimes the movement is gradual. At other times, the plates are locked together, unable to release the accumulating energy. When the accumulated energy grows strong enough, the plates break free causing the ground to shake. Most earthquakes occur at the boundaries where the plates meet; however, some earthquakes occur in the middle of the plates.

Ground shaking from earthquakes can collapse buildings and bridges; disrupt gas, electric, and phone service; and sometimes trigger landslides, avalanches, flash floods, fires, and huge destructive ocean waves (tsunamis). Buildings with foundations resting on unconsolidated landfill and other unstable soil, and trailers or homes not tied to their foundations are at risk because they can be shaken off their mountings during an earthquake. When an earthquake occurs in a populated area, it may cause deaths and injuries and extensive property damage.

In the Event of a Pending Earthquake, Be Prepared For the Following:

- Power failures and elevator malfunctions.
- Activation of fire alarms and/or sprinkler systems.
- Natural gas leaks/odors.

How Long will it Last?

- The shaking will last only a minute or two.
- There may be aftershocks (smaller earthquakes that follow the main shock and cause further damage to weakened buildings) over the next several hours, days, weeks, or months.

During the Earthquake:

- **Drop:** When you feel an earthquake, drop under a sturdy desk or table. Try to stay away from windows, tall bookcases, and other heavy objects that might fall. If you cannot find a desk or table, get into a doorway or hallway or brace yourself against an interior wall.

- **Cover:** Stay under cover until the shaking stops. If you are in a doorway, watch out for the swinging door. If you are in an open area, kneel down and cover your head with a book or anything else you can find.
- **Hold:** Hold onto a desk or table. As it moves, move with it. Hold on until the shaking stops.
- **Outdoors:** If you are outdoors, move to a clear area away from trees, power lines, signs, and buildings.
- **High-Rise Buildings:** If you are in a high-rise building, and cannot get under a desk, move to an interior wall. Do not use the elevators. Do not be surprised if the electricity goes out, or if fire sprinkler systems activate.
- **Sidewalk Near a Building:** Duck into a doorway to protect yourself from falling bricks, glass, and other debris.
- **Driving:** Pull over to the side of the road. Avoid bridges, power lines, and other hazards. Stay in the car until the shaking stops. **DO NOT** stop under bridges, overpasses or trees.
- **Do Not Panic:** Above all, remain calm.

After the Earthquake:

- **Aftershocks:** Be prepared for aftershocks. Keep clear of damaged buildings and debris that could topple in future tremors.
- **Check for Injuries:** Check yourself and those around you for injuries. Administer first aid as needed. Do not attempt to move seriously injured persons unless they are in immediate danger of further injury.
- **Check Utilities:** Use a flashlight or lightstick to check your utilities. **DO NOT** use matches, candles, or other open flame. If you suspect that the gas, water, or electricity is damaged, turn it off. Check the sewer lines before flushing toilets.
- **Monitor Emergency Alert System (EAS):** Do not go sightseeing. Cooperate with public safety officials. Use a battery-operated radio to monitor the EAS for news and information. EAS was formerly known as the Emergency Broadcast System (EBS).
- **Telephones:** Try to minimize your use of telephones. If you see telephones off the hook, hang them up. This will help the telephone company to restore service.

Earthquakes, continued

- **Cabinets and Cupboards:** When opening cabinets and cupboards, use caution. The contents of the cabinet might be heaped up against the door, and may fall on you when the door is opened.
- **Stay Out of Damaged Buildings:** Do not go into damaged buildings until local building officials have pronounced them safe.

Additional Information:

American Red Cross

http://www.redcross.org/services/disaster/0,1082,0_583_00.html

United States Geological Service

<http://earthquake.usgs.gov/>

Occupational Safety and Health Administration

<http://www.osha.gov/SLTC/emergencypreparedness/guides/earthquakes.html>

Earthquake Preparedness - Federal Emergency Management Agency (FEMA)

<http://www.fema.gov/hazards/earthquakes/>

Earthquake Preparedness - Los Angeles Fire Department

<http://www.lafd.org/eqindex.htm>