



## **EARTHQUAKE SAFETY PROCEDURES**

### **Introduction**

It is not possible to prevent earthquakes or change the likelihood of an earthquake occurring. However, we can greatly increase our chances of safety and survival, by being aware and prepared. Since knowledge and preparation are keys to your survival during and after an earthquake, you should take steps to become informed.

### **Dangers Associated with Earthquakes**

- The actual movement of the ground in an earthquake is seldom the direct cause of injury or death. Most casualties result from falling objects and debris or collapsing structures. Injuries are commonly caused by:
  - Partial building collapse, such as falling masonry, collapsing walls, falling ceiling plaster, etc.
  - Flying glass from broken windows.
  - Overturned bookcases, filing cabinets, fixtures, furniture, office machines and appliances.
  - Fires, broken gas lines, etc. These dangers may be aggravated by lack of water due to broken mains.
  - Fallen power lines.
  - Inappropriate actions resulting from panic.

### **Earthquake Safety Guidelines**

- Remain Calm. Sound usually precedes earthquake motion by a split second. If you have developed the correct earthquake responses in your mind before a quake, this split second is enough time to activate your automatic reactions. If you stay calm, you will be better able to assess your situation. The rolling and roaring may terrify you, but unless something falls on you, the sensations probably won't hurt you. Try talking yourself through the violent motion phase. This will release stress and others may take courage and follow your reasoned restraint. Think through the consequences of any action you plan to take.
- If you are indoors, stay there. If you are in danger:
  - Get under a sturdy table, desk or bed.
  - Brace yourself in an inside corner away from windows.
  - Move to an inner wall or corridor. (A door frame or the structural frame or inner core of the building are its strongest points and least likely to collapse. They will also break the impact of any falling objects).
  - In an apartment building the safest place is by the central reinforced core of the building, which is usually located by the elevator well.
  - Choose shelter which will provide an airspace if it collapses. If your furniture shelter moves, stay under it and follow it around the apartment.
  - Watch for falling objects - plaster, bricks, light fixtures, pots and pans, etc.
  - Stay away from tall shelves, china cabinets and other furniture, which might slide or topple over.
  - Stay away from windows, sliding glass doors, mirrors.
  - Grab anything handy (blanket, pillow, tablecloth, newspapers, box, etc.) to shield your head and face from failing debris and splinting glass.
  - Don't be alarmed if the fire alarm or sprinklers go off.

- Do Not Rush Outside. Stay on the same floor that you are on. Stairways may be broken and exits jammed with people. Do not use elevators as the power for elevators may go out and leave you trapped. The greatest danger from falling debris is just outside doorways and close to outer walls. If for safety reasons you must leave the building, choose your exits as carefully as possible.
- If you are outside, stay there. Move away from the building, garage, walls, power poles and lampposts. Electric power lines are a serious hazard - stay away from fallen lines. If possible, proceed cautiously to an open area.
- If you are in a moving car, stop. Stop as quickly as safety permits in the best available space. Stay in your car. Don't stop where buildings can topple down on top of you. A car is an excellent shock absorber and will shake a lot on its springs during an earthquake, but it's a fairly safe shelter from which to assess your situation.
- Avoid Fallen Power Lines. The possibility of encountering fallen live wires is great during and after an earthquake. If you are on foot, make a wide path around the wires. If you are in the car and live wires have fallen across the car, remain where you are. Your car is usually well insulated and will protect you from electric shock. Never assume that downed power lines are dead.

## After An Earthquake

Within the First Several Minutes:

- Remain Calm. Don't Panic. Try to calm and reassure others. Stop and take time to think. Wait until all motion has stopped. Do not run down stairs or outdoors. Be prepared for additional shockwaves.
- Do not light matches, cigarettes or turn on electrical switches. Flashlights are one of the best light sources after a damaging earthquake. Proceed with extreme caution.
- Protect hands and feet from broken glass or debris. Keep head and face protected (hard-hat, blanket, tablecloth, etc.)
- Make a quick check for injuries or trapped people. Provide emergency first aid if needed. Do not try to move seriously injured persons unless they are in immediate danger from further injury.
- Turn off all appliances and office machines. Extinguish all open flames. Check power lines and cords. If problems exist in electrical lines or gas lines the mains should be shut off.
- It may be necessary to draw a moderate amount of cold water in bathtubs and sinks and other containers, in case service should be disrupted.



### During the Next Several Hours:

- Do not operate electrical switches, appliances or open-flame equipment if gas leaks are suspected. Sparks or flames can ignite gas from broken lines causing an explosion.
- Tend further to injured or trapped persons. Try to get help if necessary. If a person is trapped and you can free him without injury to yourself, remove debris piece-by-piece starting with the top of the pile.
- Be prepared for aftershocks - they are weaker than the main shock but can cause additional damage and psychological trauma. Watch out for other possible dangers, which may follow an earthquake, such as fire, flood, landslide or TSUNAMI (tidal wave).
- Turn on a battery radio to receive disaster instructions. Use telephones only to report extreme emergency situations.
- Inspect your work area carefully for structural damage. Carefully open exit doors - they sometimes jam. The initial quake may damage the structure and an aftershock could knock down weakened walls. Use extreme caution when moving around in damaged areas - they may collapse without warning. Check to see that sewage lines are intact before flushing toilets.
- You should not try to get home until government authorities say it is safe, which will be when the worst fires are under control and the streets have been cleared. This may happen quickly or it may take longer (perhaps 72 hours or more). You should advise your family that in the event of a major earthquake you maybe retained at work. When possible notify your family about your well being.
- Don't go outside sightseeing. Keep streets clear for passage of emergency vehicles. Your presence might hamper rescue and other emergency operation

