# EARTHQUAKES

BE READY

## WHAT IS AN EARTHQUAKE?

An earthquake is a sudden, rapid shaking of the earth caused by the breaking and shifting of rock beneath the earth's surface.

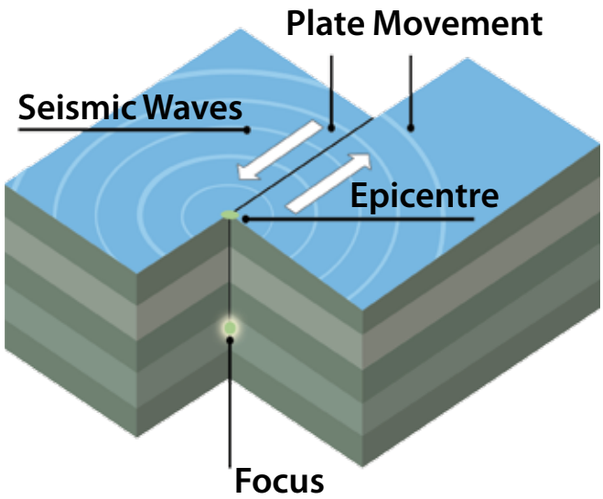
## EARTHQUAKE FACTS

- Earthquakes strike suddenly, without warning, and can occur any time of the year; day or night.
- On a yearly basis, 70 to 75 damaging earthquakes occur throughout the world.
- Ground movement during an earthquake is seldom the direct cause of death or injury. Most earthquake-related casualties result from collapsing walls, flying glass, and falling objects. Most injuries occur when people are hit by flying objects when entering into or exiting from buildings.

## DANGER ZONES

- 41 states/territories are at moderate risk of earthquakes. They occur most frequently west of the Rocky Mountains.
- California experiences the most frequent damaging earthquakes; however, Alaska experiences the greatest number of large earthquakes – most are located in uninhabited areas.
- The greatest danger exists directly outside buildings, at exits, and along exterior walls.

***The formation of earthquakes is the collision or shifting of rocks along the earth's surface layer. This is caused by convergent boundaries colliding with one another and the pressure of the rocks that cannot sustain the force of the shifting, causing them to shift or crack.***




## ACTIONS TO CONSIDER

### BEFORE

- Fasten shelves securely to walls. Store breakable items (bottled food, glass, china, etc.) in low, closed cabinets with latches.
- Hang heavy items (pictures, mirrors, etc.) away from beds, couches, and anywhere people sit.
- Brace overhead light fixtures.
- Install flexible pipe fittings to minimize breakage of gas and water lines.
- Secure your water heater by strapping it to the wall studs and bolting it to the floor.
- Store flammable products securely in closed cabinets with latches on the bottom shelves.
- Choose a safe place in every room (e.g., under a sturdy table or against an inside wall) where nothing can fall on you.

### DURING

**If Indoors**

- Drop, cover, and hold on. Move only a few steps to a nearby safe place.
- Stay indoors until the shaking stops and you are sure it is safe to exit.
- If you are in a high rise building, do not use the elevators.
- Stay away from glass, windows, outside doors and walls, and anything that could fall such as lighting fixtures or furniture.
- If you are in bed, stay there. Hold on and protect your head with a pillow. If there is a heavy light fixture that could fall on you, move to the nearest safe place.
- Use a doorway for shelter only if it is in close proximity to you and if you know it is strongly supported and load bearing.

**If Outdoors**

- Move into the open, away from buildings, streetlights, and utility wires.
- Once in the open, stay there until the shaking stops.

**If in a Vehicle**

- Stop as quickly and safely as possible, and then remain in your vehicle.
- Avoid stopping near or under buildings, trees, overpasses, and utility wires.
- Proceed cautiously once the earthquake has stopped, watching for road and bridge damage.

**If Trapped Under Debris**

- Do not light a match or lighter.
- Do not move about or kick up dust.
- Cover your mouth with fabric or clothing.
- Tap on a pipe or wall so rescuers can locate you or use a whistle if one is available.
- Shout only as a last resort – shouting can cause you to inhale dangerous amounts of dust.

### AFTER

- Provide first aid and CPR if trained to do so.
- After-shocks can occur in the first hours, days, weeks or even months after the quake. They can cause further damage to weakened buildings, so proceed with caution.
- Be aware that some earthquakes are actually fore shocks - a larger earthquake might occur.
- Open cabinets cautiously. Beware of objects that can fall off shelves.
- Be aware of possible tsunamis if you live near the coast.
- Pets' behavior may change dramatically after an earthquake. Normally quiet and friendly cats and dogs may become aggressive or defensive. Leash dogs and place them in a fenced yard.

### *DID YOU KNOW...*

***From 1975-1995 there were only four states that did not have any earthquakes. They were: Florida, Iowa, North Dakota, and Wisconsin.***

Contact your Installation Office of Emergency Management for further information.