What is an earthquake?

An earthquake is a sudden release of energy that creates a movement in the earth's crust. Most earthquake-related property damage and deaths are caused by the failure and collapse of structures due to the ground shaking. The level of damage depends upon the extent and duration of the shaking. Other damaging earthquake effects include landslides, the down-slope movement of soil and rock (in mountain regions and along hillsides), and liquefaction.

What happens to the buildings?

An earthquake causes vibrations that shake the buildings. Older buildings and those not designed to resist earthquakes are usually not capable to survive to strong ground shaking. It is the collapse of the structures that kills, not the earthquake. Today, all new buildings must be designed and built according to seismic design codes.

When could the next earthquake happen?

No one can know. It could occur at any time. But we know the location of the most dangerous areas and the effects of a strong ground shaking. Being prepared is the best way to prevent and reduce the consequences of an earthquake.

Are the effects of an earthquake the same everywhere?

At equal distance from the epicenter, the intensity of the shaking caused by the earthquake depends on the conditions of the area, in particular the type of soil and the shape of the landscape. Usually, the shaking is stronger in areas where the soil is soft and less if there is rock. Also the location of a structure affects the intensity of the shaking that is greater on the tops of hills and along the edges of steep cliffs.

EUCENTRE

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Seismic Risk Mitigation

SASPARM

Support Action for Strengthening Palestinian-administrated Areas capabilities for seismic Risk Mitigation

SEVENTH FRAMEWORK PROGRAMME

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BEFORE

With the advice of an expert

It is important to know:

- When and how was your home built?
- What type of soil?
- What materials have been used?
- Was your home built or subsequently modified in accordance with seismic standards?
- Is the property in an earthquake prone area and what prevention measures should be taken?
- Can the house withstand an earthquake or is retrofit required?

Sometimes it is enough to strengthen the structural walls or improve connections between walls and floors.

Alone

- Move heavy furniture away from beds or sofas.
- Fix shelves, bookcases and other tall furniture to the walls.
- Hang pictures and mirrors with closed hooks.
- Put heavy objects on lower shelves of the furniture.
- Learn the location of control points of gas, water and electricity and how to turn them off.
- All family members should know First Aid.
- Identify the safest places in your house where take over in the case of an earthquake: the doorway, the corners of the walls, under the table or under the bed.
- Keep in your home an emergency kit, a flashlight and make sure everyone knows where they are located.
- Emergency supplies and equipment should be set aside.

Seismic Risk Mitigation

DURING

- If inside a building, stand in a strong doorway or get under a desk, table or bed.

- Move away from windows, glass doors, heavy mirrors, pictures, bookcases, hanging plants and heavy objectives.
- Pay attention to the objects that could fall and hit yourself.

- Protect head and face.
- Pay attention to the use of the stairs: often they are characterised by low resistance and could suffer strong damage.

- It is better to avoid the elevator since it can stop.

- If in a shop or a store, move away from display shelves containing bottles, cans or other objects that may fall.
- Try to remain calm and reas-sure others.
- If you are outdoors, move away from buildings, trees, streetlights, power lines.

- Check for other possible consequences of the earth-quake: collapse of bridges, landslides, gas leaks, etc.

AFTER

- Worry about the state of health of the people around you and, if necessary, provide First Aid.
- Remain calm.
- Check for fires.
- Go out with caution and, if feasible, with shoes.
- Check your house for serious damage and evacuate if there is threat of collapse.
- Be prepared for additional earthquake shocks.
- Restrict the use of the car and keep the streets clear for rescue services.
- Do not use telephone lines.
- Do not collect children from school.
- Check utilities and shut off if necessary.
- Turn on a transistor radio for emergency bulletins.
- Stay away from landslide prone areas.
- Stay away from buildings that might have been weakened by the earthquake.

Earthquake