

PREPARE YOUR HOUSE FOR AN EARTHQUAKE

PRACTICAL GUIDE

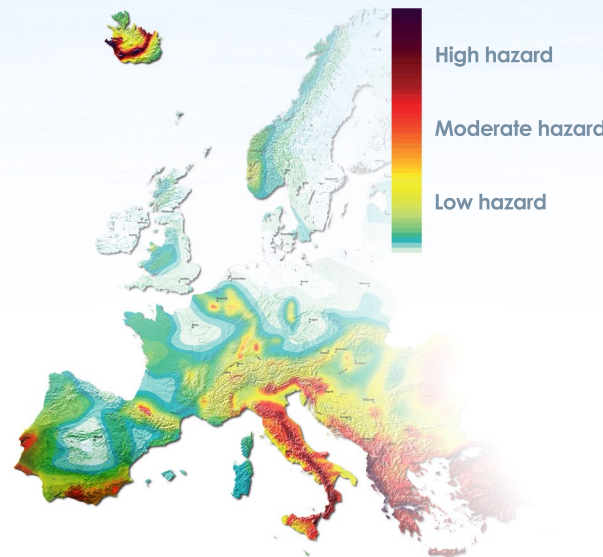


KNOW
RISK

If you live in an area prone to EARTHQUAKES

If you live in a seismic hazard prone area, whether you are at home, work or school, you are exposed to injuries, damage and long-term financial consequences.

European Seismic Hazard map:



Source: European Seismological Commission, 2003

Be safer by taking measures before an earthquake occurs. Earthquakes cannot be prevented, but the damage and number of victims can be greatly reduced.

How to prepare YOUR HOUSE

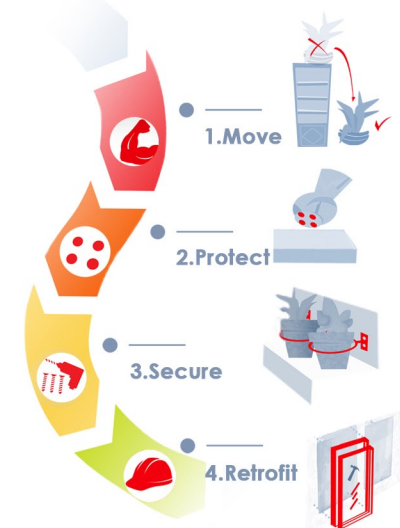
Damage occurs even when a building does not collapse

Falling building components, heavy furniture or equipment, cause most of the damage, losses and injuries, during and after an earthquake.

This guide shows you easy steps you can take for a safer house

Starting at no cost and without any expertise

The following 4 steps provide progressive solutions that prioritize affordability and life safety.



YOU NEED

€ € € cost
 ● ● ● expertise



physical
strength

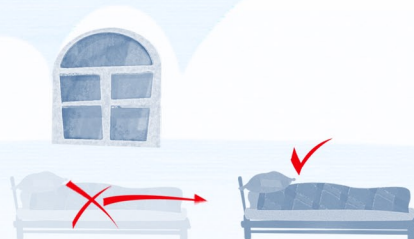
Start by moving furniture. You can greatly increase your chances of safety and survival, at no cost and with no expertise needed.



Always move heavy or fragile objects to lower shelves or low closed cabinets.



Avoid placing heavy objects above beds.



Move beds away from windows and keep exit passages free.



Avoid sitting plants on top of tall furniture.

1. MOVE your furniture

2. PROTECT

YOU NEED

€ € € cost
 ● ● ● expertise

Take further precaution by protecting valuables fragile or expensive enough to be a significant loss if it falls, with inexpensive and easy to use materials.



glazing film



curtains



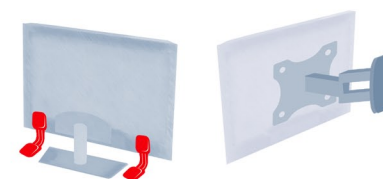
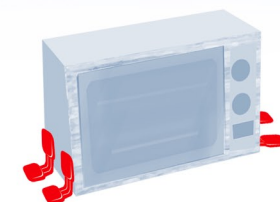
restraint straps



adhesives

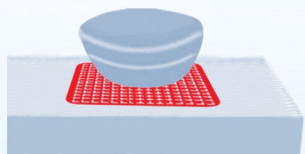


anti-slip mat

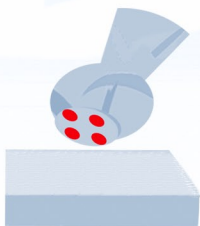


Fasten appliances with restraint straps. Opt for a TV monitor with mounting brackets.

your valuables



For lower heavier objects, use anti-slip mats.



Use adhesive pads or paste for fragile objects.



Install drapes or heavy blinds or apply safety glazing film to windows.

YOU NEED

€ € € cost
 € € € expertise



latches



picture hooks



hammer & nails



steel brackets



drill & screws



pot-holder

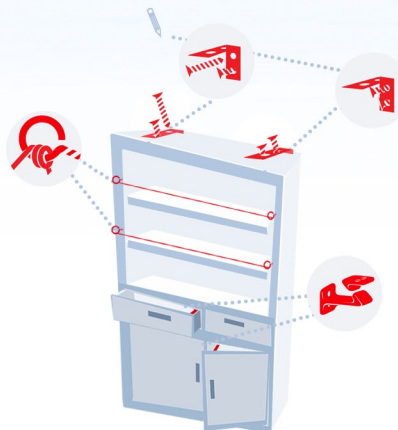


screw-eye

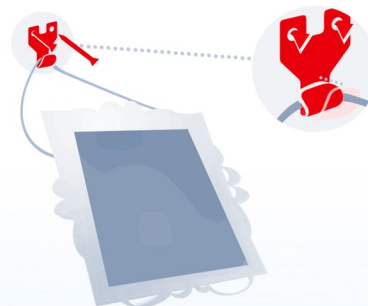


cord wire

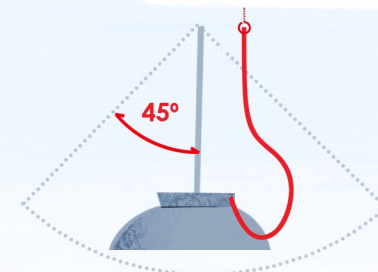
Identify large or heavy items that can pose serious danger when loose. What you need to secure them is available at most hardware stores.



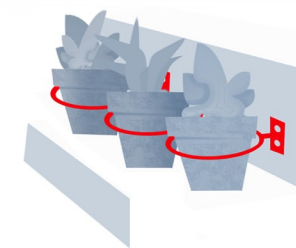
Fix tall wardrobes and bunk beds to the walls with brackets. Stretch cords in front of heavy books or other loose items on open shelves. Use resistant latches in drawers and cabinet doors.
 Usa fermi per cassetti e per ante.



Use picture hooks, close after hanging. Heavy mirrors or pictures may need screw-eyes or chains.



Secure hanging items with slack cables. Provide space to swing freely, at least 45°.



Use pot holders or strap to the wall.

3. SECURE tall furniture & heavy objects

4. RETROFIT your house

YOU NEED

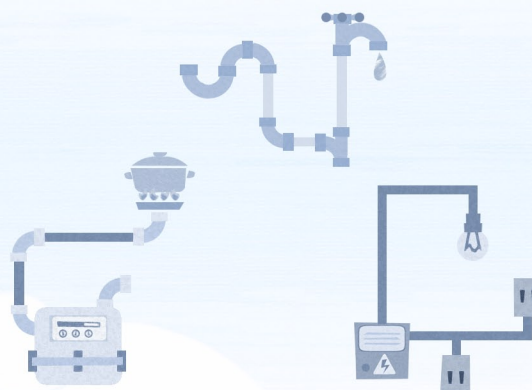


call a professional

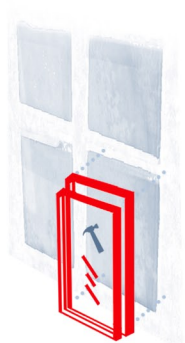
If you live in a high hazard area, retrofit critical elements. Consult a certified architect or engineer. The possible savings or pay-back are considerable.

For more details, consult the KnowRISK Solutions Portfolio:

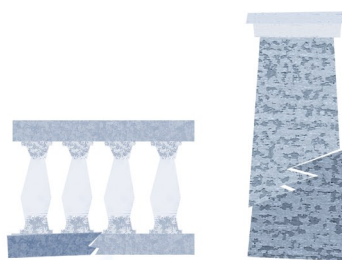
www.knowriskproject.com



Inspect gas lines, water plumbing and electrical systems.



Opt for tempered or laminated glass.



Verify balconies and chimneys for degradation signs.

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Seismic risk (having victims and material losses) in an area is the product of seismic hazard, the vulnerability of our buildings and respective contents, and the exposure (people and buildings).

Measures provided in this guide alone do not constitute a guarantee against any losses that may occur in future earthquakes and may not be applicable in all situations. Consult a specialist whenever necessary. You can find more information in the **KnowRISK Solutions Portfolio** and in the **Short Guide for Students**.

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LABORATÓRIO NACIONAL DE ENGENHARIA CIVIL



EARTHQUAKE ENGINEERING RESEARCH CENTRE UNIVERSITY OF ICELAND



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