



# What do you need to know?

## Where you live

Italy is an entirely seismic country but its territory is classified in areas with a different dangerousness. Who builds or modifies the structure of a house must comply with the seismic regulations of their own area, in order to protect the lives of its inhabitants. To know the seismic area where you live and which regulations to follow, ask to the relevant office of your Region or your Municipality.

### Safety at home

It is important to know when and how your house was built, on which type of soil and with which materials. Above all, you need to know whether any modification was carried out in compliance with seismic regulations.

If you have any doubt or wish to know more, you can ask to the technical office of your Municipality or to an expert technician.

## What to do before

#### With the advice of a technician

Sometimes you might just need to reinforce loadbearing walls or improve connections between walls and floors: to make the right choice, seek the advice of a qualified technician.

## On your own, immediately

- Move heavy furniture away from beds or sofas
- Fix to the wall shelves, bookcases and other tall furniture; hang pictures and mirrors with closed hooks, in order to prevent them to come off the wall
- Put heavy items on lower shelves; on the higher ones, you can hold objects with double-sided tape
- In the kitchen, secure the cupboard flaps where plates and glasses are contained, so that they do not open during the shake
- Learn where are and how to close the taps of gas and water and the master switch of the light
- Keep at home a first aid kit, a flashlight, a battery-powered radio and make sure everyone knows where they are
- Get informed if there is a Local Emergency Plan of your Municipality and what it provides for; should it not be available, ask for it, in order to know how to behave in case of emergency
- Delete any factor that, in case of an earthquake, can be a danger to you or your family
- Learn the correct behaviour to adopt during and after an earthquake and, in particular, pinpoint safe places in the house, where you can find a shelter in case of a shake

## **LEARNING TO PREVENT AND REDUCE** THE EFFECTS OF AN EARTHQUAKE IS **EVERYBODY'S TASK**

Share your knowledge with your family, your schoolmates and your colleagues: each of us should contribute to the dissemination of information on earthquake risk.





#### ITALY IS A SEISMIC COUNTRY

Over the last thousand years, some 3,000 earthquakes have provoked damages more or less severe. About 300 of them (with a magnitude over 5,5) have caused destructive effects and one every 10 years has had catastrophic effects, with an energy comparable to L'Aquila earthquake of 2009. Every Italian municipality can be subject to earthquake damages, despite the strongest earthquakes concentrate in precise areas: Northern-Eastern Italy (Friuli Venezia Giulia and Veneto), Western Liguria, Northern Apennines (from Garfagnana to the Rimini area), and, above all along the Central and Southern Apennines, in Calabria and Eastern Sicily. You too live in a dangerous area, where, in the past, earthquakes occurred or their effects have been perceived. And it could happen in the future too.

#### WHAT HAPPENS TO A BUILDING?

A seismic shock provokes oscillations, more or less strong, that move buildings in various ways. The most damaging oscillation are the horizontal ones. The oldest buildings and the ones without seismic protection cannot bear such oscillations and, therefore, represent a danger for people. Collapsing houses kill people, not earthquakes. Today, every new building must be built in compliance with seismic regulations.

#### WILL THE NEXT EARTHQUAKE PROVOKE DAMAGE?

It depends on the magnitude of the earthquake (thousands occur every year, and the majority has a low energy) and on the vulnerability of buildings. The area where you live has already suffered damages to things or people. It is possible that the next earthquake will provoke damages: this is why being informed is fundamental, as well as prevention and preparedness for a possible new shock.

#### WHEN WILL THE NEXT EARTHQUAKE OCCUR?

Nobody knows, it could happen in any moment. We know lots of things on earthquakes but we can't predict exactly when, with which energy and where they will occur. However, we know which are the most dangerous areas and what to expect from a seismic shock: being prepared is the best way to prevent and reduce the consequences of an earthquake.

#### THE EFFECTS OF AN EARTHQUAKE ARE THE SAME EVERYWHERE?

On equal distance from the epicentre, the intensity of the shock provoked by the earthquake depends on the conditions of the territory, in particular on the type of soil and structure of the landscape. Generally, the shock is greater where the soil is softer, and minor in case of stiff soils as rock; the position is also important for the effects of the shock: it will be greater on the edge of mountains and along the borders of slopes.

#### WHAT DOES THE STATE DO FOR SEISMIC RISK REDUCTION?

It improves the knowledge of the phenomenon and its effects, through territorial monitoring and by developing specific projects; it promotes and carries out policies to reduce the vulnerability of public and private buildings, to make houses, schools, hospitals, cultural heritage and structures for emergency management safer; it updates seismic classification and regulations, indicating criteria for buildings in areas at risk and for a correct territorial planning; it carries out education programmes, drills and awareness activities for the population: being aware and prepared is a starting point for risk reduction.

