



## Drop, Cover and Hold is still the right action to take

If you are in an earthquake in New Zealand, Drop, Cover and Hold is still the right action to take. This is the drill that has been taught to school children for many years, and is what civil defence agencies have promoted around the country. The advice has been reviewed and is still:

- If you are inside a building, move no more than a few steps, then Drop, Cover and Hold. Stay indoors till the shaking stops and you are sure it is safe to exit. In most buildings in New Zealand you are safer if you stay where you are until the shaking stops.
- If you are outside, move no more than a few steps away from buildings, trees, streetlights, and power lines, then Drop, Cover and Hold. Stay there until the shaking stops.
- If you are driving, pull over to a clear location, stop and stay there with your seatbelt fastened until the shaking stops. Once the shaking stops, proceed with caution and avoid bridges or ramps that might have been damaged.

### Respond quickly

In a severe earthquake it is absolutely vital that people respond immediately. Confusion about what to do can result in people being seriously injured or killed.

Look around you now, before an earthquake. Identify safe places such as under a sturdy piece of furniture or against an interior wall in your home, office or school so that when the shaking starts you can respond quickly.

An immediate response to move to the safe place can save lives. And that safe place should no more than a few steps or less than three metres away, to avoid injury from flying debris.

### Building code

New Zealand experiences about 15,000 earthquakes every year. Most are too small or too deep to be noticed but over 100 earthquakes a year are big enough to be felt, and a severe one can occur at any time.

The 1932 7.8 Hawke's Bay earthquake caused significant damage and loss of life, and resulted in New Zealand's first earthquake-resistant building design code. Several times since 1931 the code has been upgraded and strengthened. It will be further strengthened with lessons learned from the Canterbury earthquakes of 2010 and 2011.

However, we know from earthquake tragedies in the United States, Taiwan, Japan and Canterbury that the best building codes in the world do nothing for buildings built before the modern codes were enacted. Fixing problems in older buildings – retrofitting – is in most cases the responsibility of the building owner. Planned well, small improvements can make big differences.

When earthquake shaking exceeds the design limit of the building there is a risk of catastrophic collapse. In these rare cases there are few actions that will guarantee survival.

### Injuries

Ground shaking during an earthquake is seldom the direct cause of injury. Most earthquake-related injuries and deaths are caused by collapsing walls, flying glass and falling objects caused by the shaking.

Preliminary research into actions taken by people during the Canterbury earthquakes of 2010 and 2011 is confirming that Drop, Cover and Hold is the right action to take during an earthquake. New Zealand and international researchers have been assessing the responses of individuals to the earthquakes, injury data and closed-circuit television footage in their analysis.

In a major earthquake much masonry and glass falls off buildings and into the streets. If you are inside, Drop, Cover and Hold – do not run outside. If you are outdoors when the shaking starts, you should find a clear spot away from buildings, trees, streetlights, and power lines, then Drop, Cover and Hold. Stay there till the shaking stops.

### Discredited earthquake safety information

You will find other information (not Drop, Cover and Hold) on the Internet about what to do in an earthquake. Much of it has been discredited, and does not apply to New Zealand. However, be aware that after any major earthquake such information resurfaces and is widely emailed.

One email (which has been widely discredited), often known as the "triangle of life", goes as far as discouraging people from taking cover under sturdy furniture. Research from the United States, Taiwan, Japan and Christchurch (all places with modern, earthquake resistant building design codes), recommends the same message for New Zealand: Drop, Cover and Hold is right action to take in an earthquake.

### More information

- For what to do before, during and after an earthquake, go to [www.getthru.govt.nz](http://www.getthru.govt.nz)
- [www.eq-ig.org.nz](http://www.eq-ig.org.nz) (home>earthquake>be prepared) provides information about how to make your house quake safe.

You can also contact your regional, city or district council to get local information about earthquake preparedness in your area.

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*Published March 2012 by the Ministry of Civil Defence & Emergency Management, with advice from GNS Science and the New Zealand Society for Earthquake Engineering.*