



**GET READY
GET THRU**



HOW TO GET READY...

- 1** Learn about the disasters that can affect you
- 2** Create and practice a household emergency plan
- 3** Assemble and maintain emergency survival items
- 4** Have a getaway kit in case you have to leave in a hurry

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GET READY NOW SO YOU CAN GET THROUGH

"Disasters such as earthquakes, tsunamis, volcanic eruptions, floods and storms can strike at any time, sometimes without warning. All disasters have the potential to cause disruption, damage property and take lives."



"Get ready now to protect yourself, your family, home, business and community."

HOUSEHOLD EMERGENCY PLAN

Plan to look after yourself and your loved ones for at least 3 days or more



Many disasters will affect essential services and possibly disrupt your ability to travel or communicate with each other. You may be confined to your home, or forced to evacuate your neighbourhood. In the immediate aftermath of a disaster, emergency services will not be able to get help to everyone as quickly as needed.

This is when you are likely to be most vulnerable. So it is important to plan to look after yourself and your loved ones for at least three days or more in the event of a disaster.

Get your family or household together and agree on a plan. A functional emergency plan helps alleviate fears about potential disasters, and can help you respond safely and quickly when a disaster happens.

Make a start on your plan today. Use the plan template on page 18 or get a copy of a household emergency plan and checklist from your local council, or download a copy from www.getthru.govt.nz.

A household emergency plan will help you work out:

- What you will each do in the event of disasters such as an earthquake, tsunami, volcanic eruption, flood or storm.
- How and where you will meet up during and after a disaster.
- Where to store emergency survival items and who will be responsible for maintaining supplies.
- What you will each need to have in your getaway kits and where to keep them.
- What you need to do for members of the household, family or community with a disability or special requirement.
- What you will need to do for your pets, domestic animals or livestock.
- How and when to turn off the water, electricity and gas at the main switches in your home or business.
 - ▶▶ *Turn off gas only if you suspect a leak, or if you are instructed to do so by authorities. If you turn the gas off, you will need a professional to turn it back on and it may take them weeks to respond after an event.*
- What local radio stations to tune in to for civil defence information during an event.
- How to contact your local council's civil defence emergency management office for assistance during an emergency.
 - ▶▶ *If life or property is threatened, always dial 111.*

Ask civil defence emergency management staff at your local council about your community's civil defence warning system, and the location of civil defence or public shelters. It is also useful to learn first aid and how to deal with small fires.

Talking to children about disasters

Parents and caregivers should consider talking to children about the disasters that could happen in your community and what to do to keep safe. This can help to reduce fear and anxiety and helps everyone know how to respond.

Insurance

Make sure your insurance cover is adequate and up to date and that important documents can easily be gathered if you have to evacuate.

EMERGENCY SURVIVAL ITEMS AND GETAWAY KITS

In most emergencies you should be able to stay in your home. Plan to be able to look after yourself and your household for at least three days or more.

Assemble and maintain your emergency survival items for your home as well as a portable getaway kit in case you have to leave in a hurry. You should also have essential emergency items in your workplace and in your car.

Emergency Survival items

- Torch with spare batteries or a self charging torch
- Radio with spare batteries
- Wind and waterproof clothing, sun hats, and strong outdoor shoes.
- First aid kit and essential medicines
- Blankets or sleeping bags
- Pet supplies
- Toilet paper and large rubbish bags for your emergency toilet
- Face and dust masks



Check all batteries every three months. Battery powered lighting is the safest and easiest. Do not use candles as they can tip over in earthquake aftershocks or in a gust of wind. Do not use kerosene lamps, which require a great deal of ventilation and are not designed for indoor use.

Food and water for at least three days

- Non-perishable food (canned or dried food)
- Food, formula and drinks for babies and small children
- Water – at least 3 litres per person per day – for drinking (see page 14 for advice on how to store water)
- Water for washing and cooking
- A primus or gas barbeque to cook on
- A can opener

Check and replace food and water every twelve months. Consider stocking a two-week supply of food and water for prolonged emergencies such as a pandemic.

Getaway Kits

In some emergencies you may need to evacuate in a hurry. Everyone should have a packed getaway kit in an easily accessible place at home and at work which includes:

- Torch and radio with spare batteries
- Any special needs such as hearing aids and spare batteries, glasses or mobility aids
- Emergency water and easy-to-carry food rations such as energy bars and dried foods in case there are delays in reaching a welfare centre or a place where you might find support. If you have any special dietary requirements, ensure you have extra supplies
- First aid kit and essential medicines
- Essential items for infants or young children such as formula and food, nappies and a favourite toy
- Change of clothes (wind/waterproof clothing and strong outdoor shoes)
- Toiletries – towel, soap, toothbrush, sanitary items, toilet paper
- Blankets or sleeping bags
- Face and dust masks
- Pet supplies
- Include important documents in your kit: identification (birth and marriage certificates, driver's licences and passports), financial documents (e.g. insurance policies and mortgage information), and precious family photos.



First Aid

If someone you care for is injured in a disaster, your knowledge of first aid will be invaluable. Many organisations provide first aid training courses. Consider taking a first aid course, followed by regular refresher sessions.

You can buy ready-made first aid kits or make up your own. A list of the minimum recommended items for first aid kits can be downloaded from www.getthru.govt.nz.

EVACUATION

In some situations you may be forced to evacuate your home, office, school or neighbourhood at short notice.

Before an evacuation

- Find out about your community's warning systems and evacuation routes from civil defence emergency management staff at your local council.
- Consider your transportation options in case you have to evacuate. If you do not own or drive a car, ask emergency management staff about plans for people without private vehicles.
- Know which local radio stations to listen to during an event for announcements from your local emergency management officials.
- Discuss and practice your evacuation plans with everyone in the household.
- Make in-case-of-evacuation arrangements with friends or relatives in your neighbourhood as well as outside the area you are in.
- Know the evacuation routes you could take and plan several evacuation routes in case roads are damaged or blocked.
- Know where the emergency or welfare shelter locations are in your community
- If you have pets, domestic animals or livestock, include them in your emergency plans.
- If there is a possibility of an evacuation, fill your car's fuel tank. Keep in mind that if there are power cuts in an event, fuel stations may not be able to operate pumps.

If you are in an area that is being evacuated

- Listen to your local radio stations as emergency management officials will be broadcasting the most appropriate advice for your community and situation.
- Evacuate quickly if told to do so by authorities. Take your getaway kit with you. If you are outside the evacuation zone when a warning is issued, do not go into an at-risk area to collect your belongings.
- If there is time, secure your home as you normally would when leaving for an extended period.



Severe snowstorms in 2006 isolated several South Island communities resulting in either evacuation or emergency supplies delivered via helicopter.

- Turn off electricity and water at the mains if there is time.
 - ▶▶ *Do not turn off natural gas unless you smell a leak or hear a blowing or hissing sound, or you are advised to do so by authorities.*
- Take your pets with you when you leave if you can safely do so.
- If you have livestock, evacuate your family and staff first. If there is time, move livestock and domestic animals to a safer area.
- In some emergency situations, such as a tsunami or wildfire, it is better to leave by foot than to drive or wait for transportation.
- Use travel routes specified by local authorities. Some areas may be impassable or dangerous so avoid shortcuts. Do not drive through moving water. If you come upon a barrier, follow posted detour signs.

PEOPLE WITH DISABILITIES OR SPECIAL REQUIREMENTS

If you, or a member of your household or community has a disability or any special requirement that may affect the ability to cope in a disaster, make arrangements now to get the support needed.



Build a Personal Support Network

- Organise a personal support network of a minimum of three people to alert you to civil defence warnings, or to help if you need to be evacuated. This could be family members, carers, friends, neighbours or co-workers.
- Ensure you have an emergency plan before a disaster happens and practice it with your support network. Plan for various disasters and situations you could encounter.
- Discuss your needs with the support network and make sure everyone knows how to operate necessary equipment.
- Inform your support team if you are travelling or away from home.

Consider also

- Ensuring you have emergency survival items, including any specialised items you need, and a getaway kit in case of evacuation.
- Keeping at least seven days' supply of essential medications and making provisions for those that require refrigeration.
- Wearing a medical alert tag or bracelet to identify your disability or health condition.
- When travelling, letting a hotel or motel manager know of your requirements in case of an emergency.
- Knowing where to go for assistance if you are dependent on a dialysis machine or other life-sustaining equipment or treatment.

Hearing impairment

Radio and television stations will broadcast civil defence information and advice before and during a disaster. Ask your support network to alert you to warnings and keep you informed. Contact the emergency management staff at your local council to find out what local warning systems are in place in your community.



Consider installing a system appropriate to your needs such as an alarm with flashing strobe lights to get your attention. Replace the batteries once a year. You may want to consider giving a key to a neighbour so they can alert you to a warning. Keep a writing pad and pencils and a torch in your getaway kit so you can communicate with others.

Sight impairment

People who are blind or partially sighted may have to depend on others if they have to evacuate or go to an unfamiliar Civil Defence Centre. If you have a guide dog, make sure you have a getaway kit for your dog with food, medications, vaccination records, identification and harnesses to take with you. Keep extra canes at home and in the workplace even if you use a guide dog. Be aware that animals may become confused or disoriented in an emergency. Trained service animals will be allowed to stay in emergency shelters with their owners. Check with your local council for more information.



Physical disability or mobility impairment

If you or someone you are caring for has a physical disability or difficulty with mobility, include mobility aids in the emergency getaway kit. This will help in the event of an evacuation. In a major earthquake the ground-shaking will make it difficult or impossible for you to move any distance. If you cannot safely get under a table, move near an inside wall of the building away from windows and tall items



that can fall on you, and cover your head and neck. Lock your wheels if you are in a wheelchair. In bed, pull the sheets and blankets over you and use your pillow to protect your head and neck.

Asthma and respiratory problems

People with asthma or a respiratory disorder will be more susceptible to dust, volcanic ash, or the stress of an emergency. Make sure you have dust masks at home and in your emergency getaway kit and sufficient medicines for at least seven days.



Special food requirements

If you, or someone you are caring for, have special dietary needs, make sure there is sufficient stock of these food items for at least seven days at home, and in the emergency getaway kit. If you have to be evacuated, emergency shelters are unlikely to have the special food items you may need.



PETS AND LIVESTOCK

If you have pets, domestic animals or livestock, include them in your emergency planning.

- Attach a permanent disc to your pet's collar that clearly states your phone number, name and address. Microchip your pets.
- Ensure you have a carry box, towel or blanket, emergency food and a lead and muzzle as part of your pet's emergency getaway kit. Put your name, phone number and address on the box.
- In the event of an evacuation take your pets with you if you can safely do so. Take their vaccination records and essential medications with you as this will help your pet be re-housed if necessary.
- Welfare or Civil Defence Centres generally will not accept pets except for service animals such as guide dogs. Some communities have established sheltering options for pets.
- Make in-case-of-evacuation arrangements with friends or relatives outside your neighbourhood or area.
- Keep a list of "pet-friendly" hotels and motels and their contact details in case you have to evacuate your home or neighbourhood.
- If you have domestic animals (such as horses, pigs or poultry) or livestock, know which paddocks are safe to move livestock away from floodwaters, landslides and power lines. In the event of an evacuation, ensure you have a plan in place so that they will be secure and have food, water and shelter. The responsibility for animal welfare remains with the owner.
- Check with your council about local arrangements for assisting with domestic animal issues.



STORING WATER

3 litres per person per day for drinking

Household water supplies, including drinking water, could be affected in a disaster so having a supply of stored water is absolutely essential. You need at least three litres of drinking water for each person each day. You will also need water for washing and cooking.



You can purchase bottled water or prepare your own containers of water. Purchase food-grade water storage containers from camping or hardware stores or recycle plastic soft drink bottles. Do not use milk containers as protein cannot be adequately removed with washing, and may harbour bacteria.

You can also fill plastic ice cream containers with water, cover, label and keep in the freezer. These can help keep food cool if the power is off and can also be used for drinking.

Your hot water cylinder and toilet cistern are valuable sources of water. Check that your hot water cylinder and header tank are well secured.

Do not put chemical cleaners in the cistern if you want to use the water. If you use collected rain water make sure that you disinfect it with household bleach.

If you are uncertain about the quality of water, e.g. from a well that has been flooded, or if it might have been contaminated by smoke or volcanic ash, do not drink it.

Instructions for safely storing water

- Wash bottles thoroughly in hot water.
- Fill each bottle with tap water until it overflows.
- Add five drops of household bleach per litre of water (or half a teaspoon for 10 litres) and put in storage. Do not drink for at least 30 minutes after disinfecting.
- Label each bottle with dates showing when the bottles were filled and when they need to be refilled.
- Check the bottles every 12 months. If the water is not clear, throw it out and refill clean bottles with clean water and bleach.
- Store bottles away from direct sunlight in a cool dark place. Keep them in two separate places and where there is not likely to be flooding.

EMERGENCY SANITATION

In some emergency situations the water supply may be cut off, or water and sewage lines may be damaged, and you may need to use improvised emergency toilets.

How to make an emergency toilet

- Use watertight containers such as a rubbish bin or bucket, with a snug-fitting cover.
- If the container is small, keep a large container with a snug-fitting cover available for waste disposal.
- Line bins with plastic bags if possible.
- Pour or sprinkle a small amount of regular household disinfectant such as chlorine bleach into the container each time the toilet is used to reduce odour and germs. Keep the toilet covered.



GET YOUR CAR READY

Plan ahead for what you will do if you are in your car when a disaster strikes. In some emergencies you may be stranded in your vehicle for some time. A flood, snow storm or major traffic accident could make it impossible to proceed.

- Consider having essential emergency survival items in your car. If you are driving in extreme winter conditions, add windshield scrapers, brush, shovel, tire chains and warm clothing to your emergency kit.
- Store a pair of walking shoes, waterproof jacket, essential medicines, snack food, water and a torch in your car.
- When planning travel, keep up-to-date with weather and roading information



GET YOUR BUSINESS READY

Under the Health and Safety in Employment Act, businesses have an obligation to be prepared for an emergency. Put together a Workplace Emergency Plan for your business.

- Get your staff ready. Encourage staff to keep essential items they may need at work, including sturdy walking shoes, waterproof jacket, torch, snack food and water.
- Get involved in business continuity and emergency plans at industry level.

Your plans should cover these areas:

- How to protect your business assets: staff, equipment, facilities, IT systems, reputation, market share, liquidity.
- How to protect external service, particularly in support of civil defence emergency management critical activities, such as emergency services and medical facilities.
- Forecasting and prioritising external demand for your services before an emergency occurs.
- Cooperative planning with those you depend on so that responsibilities and roles are clearly understood.

There is more information on Workplace Emergency Planning at www.civildefence.govt.nz.

WHO TO CONTACT

The primary responsibility for civil defence emergency management (CDEM) at a local level rests with your local council. Local and regional councils work with emergency services (Police, Fire, Ambulance) and other relevant agencies to plan for, and respond to disaster events.

CDEM Groups are a consortium of local councils and agencies in each region and they have a responsibility to plan for, and manage regional hazards and risks.

Contact the civil defence emergency management office at your nearest local council for information on local hazards and community response arrangements.

During a disaster event telephone lines need to be kept clear for emergency calls to get through so please avoid making calls unless absolutely urgent.

If life or property is threatened always dial 111 for Police, Fire or Ambulance.

RADIO STATIONS TO LISTEN TO

The following radio networks work collaboratively with civil defence emergency management authorities to broadcast important information and advice in an emergency:

- National Radio
- Newstalk ZB
- Classic Hits
- More FM
- Radio Live



Ensure you have a battery operated radio. In an emergency find, and tune in to, your local radio station as they will broadcast official civil defence information that is appropriate for your community and situation.

Record the frequencies for your local stations in your Emergency Plan.

HOUSEHOLD EMERGENCY PLAN

Complete this plan with all

Our address:

Name

Phone no.

.....
.....
.....
.....

1. If we can't get home or contact each other we will meet or leave a message at:

Name

Contact details

2. The person responsible for collecting the children from school

Name

Contact details

Name(*back-up*)

Contact details

3. Emergency Survival Items and Getaway Kit

Person responsible for checking water and food items

(*name*)

Items will be checked and replenished on (*date*)

(*check and replenish at least once a year*)

The Getaway Kits are stored

4. The radio station (inc AM/FM frequency) we will tune in to for local civil defence information during an emergency

.....

EMERGENCY PLAN

members of your household

5. Friends/neighbours who may need our help or who can help us

Name

Address

.....

Phone

6. Important phone numbers

For Police, Fire or Ambulance call 111

Council Emergency Helpline

Local Police station

Medical Centre

Insurance Company 24 hour

Vet/Kennel/Cattery

Electricity Supplier

Water Supplier

Gas Supplier

Electrician

Plumber

Builder

7. If we have to evacuate we will:

- Take our Getaway Kit
- Turn off electricity and water.
- Turn off gas only if we suspect a leak or if asked to do so by the authorities
- Take our pets with us

On a separate sheet of paper draw a plan of the house showing places to shelter in an earthquake or storm, exits and safe assembly areas and where to turn off water, electricity and gas.

FLOOD



Floods are New Zealand's number one hazard in terms of frequency, losses and declared civil defence emergencies. Floods can cause injury and loss of life, damage to property and infrastructure, loss of livestock, and contamination of water and land.



Flooded farm properties, Hawke's Bay, 2007

Floods are usually caused by continuous heavy rain or thunderstorms but can also result from tsunami and coastal storm inundation. A flood becomes dangerous if:

- the water is very deep or travelling very fast
- the floods have risen very quickly
- the floodwater contains debris, such as trees and sheets of corrugated iron

Getting ready before a flood strikes will help reduce damage to your home and business and help you survive.

Before a flood

- Find out from your local council if your home or business is at risk from flooding. Ask about evacuation plans and local public alerting systems; how you can reduce the risk of future flooding to your home or business; and what to do with your pets and livestock if you have to evacuate.
- Know where the closest high ground is and how to get there.

- Develop a household emergency plan. Assemble and maintain your emergency survival items for your home as well as a portable getaway kit.
- Check your insurance policy to ensure you have sufficient cover.

During a flood or if a flood is imminent

- Listen to your local radio stations as emergency management officials will be broadcasting the most appropriate advice for your community and situation.
- If you have a disability or need support, make contact with your support network.
- Put your household emergency plan into action and check your getaway kit. Be prepared to evacuate quickly if it becomes necessary.
- Where possible, move pets inside or to a safe place, and move livestock to higher ground.
- Consider using sandbags to protect your home.
- Lift valuable household items and chemicals as high above the floor as possible.
- Fill bathtubs, sinks and storage containers with clean water in case water becomes contaminated.
- Turn off utilities if told to do so by authorities as it can help prevent damage to your home or community. Unplug small appliances to avoid damage from power surges.
- Do not attempt to drive or walk through floodwaters unless it is absolutely essential

After a flood

- It may not be safe to return home even when the floodwaters have receded. Continue to listen to your local radio station for civil defence instructions.
- Help others if you can, especially people who may require special assistance.
- Throw away food including canned goods and water that has been contaminated by floodwater.
- Avoid drinking or preparing food with tap water until you are certain it is not contaminated. If in doubt, check with your local council or public health authority.
- Look for and report broken utility lines to appropriate authorities
- If your property is damaged, take notes and photographs for insurance purposes. If you rent, contact your landlord and your contents insurance company as soon as possible.

STORMS



Major storms affect wide areas and can be accompanied by strong winds, heavy rain or snowfall, thunder, lightning, tornadoes and rough seas. They can cause damage to property and infrastructure, affect crops and livestock, disrupt essential services, and cause coastal inundation.



Severe weather affecting the Taranaki coast, 2009

Severe Weather Watches and Warnings are issued by the MetService and available through the broadcast media, by email alerts, and at www.metservice.com.

Before a storm

- Develop a household emergency plan. Assemble and maintain your emergency survival items for your home as well as a portable getaway kit if you have to evacuate.
- Prepare your property for high winds. Secure large heavy objects or remove any item which can become a deadly or damaging missile. Get your roof checked regularly to make sure it is secure. List items that may need to be secured or moved indoors when strong winds are forecast.
- Keep materials at hand for repairing windows, such as tarpaulins, boards and duct tape.
- If you are renovating or building, make sure all work complies with the New Zealand building code which has specific standards to minimise storm damage.
- If farming, know which paddocks are safe to move livestock away from floodwaters, landslides and power lines.

When a warning is issued and during a storm

- Stay informed on weather updates. Listen to your local radio stations as civil defence authorities will be broadcasting the most appropriate advice for your community and situation.
- Put your household emergency plan into action and check your getaway kit in case you have to leave in a hurry.
- Secure, or move indoors, all items that could get blown about and cause harm in strong winds.
- Close windows, external and internal doors. Pull curtains and drapes over unprotected glass areas to prevent injury from shattered or flying glass.
- If the wind becomes destructive, stay away from doors and windows and shelter further inside the house.
- Water supplies can be affected so store drinking water in containers and fill bathtubs and sinks with water.
- Don't walk around outside and avoid driving unless absolutely necessary.
- Power cuts are possible in severe weather. Unplug small appliances which may be affected by electrical power surges. If power is lost, unplug major appliances to reduce the power surge and possible damage when power is restored.
- Bring pets inside. Move livestock to shelter. If you have to evacuate, take your pets with you.

Snowstorms

In a snowstorm, the primary concerns are the potential loss of heat, power and telephone service, and a shortage of supplies if storm conditions continue for more than a day. It is important for people living in areas at risk from snowstorms to consider the need for alternative forms of heating and power generation.

- Avoid leaving home unless absolutely necessary when a snow warning is issued.
- If you have to travel make sure you are well prepared with snow chains, sleeping bags, warm clothing and essential emergency items.
- At home, check fuel supplies for woodburners, gas heaters, barbeques and generators.
- Bring pets inside. Move domestic animals and livestock to shelter.
- If you are caught in your car or truck in a snowstorm stay in your vehicle. Run the engine every ten minutes to keep warm. Drink fluids to avoid dehydration. Open the window a little to avoid carbon monoxide poisoning. Make yourself visible to rescuers by tying a bright-coloured cloth to your radio aerial or door, and keeping the inside light on.

Tornadoes



Tornadoes sometimes occur during thunderstorms in some parts of New Zealand. A tornado is a narrow, violently rotating column of air extending downwards to the ground from the base of a thunderstorm. Warning signs include a long, continuous roar or rumble, or a fast approaching cloud of debris which can sometimes be funnel-shaped.

- Alert others if you can.
- Take shelter immediately. A basement offers the greatest safety. If underground shelter is not available, move to an interior room without windows on the lowest floor. Get under sturdy furniture and cover yourself with a mattress or blanket.
- If caught outside, get away from trees if you can. Lie down flat in a nearby gully, ditch or low spot and protect your head.
- If in a car, get out immediately and look for a safe place to shelter. Do not try to outrun a tornado or get under the vehicle for shelter.



Tornado damage, Greymouth, 2005

After a storm

- Listen to your local radio stations as emergency management officials will be broadcasting the most appropriate advice for your community and situation.
- Check for injuries and help others if you can, especially people who require special assistance.
- Look for and report broken utility lines to appropriate authorities.
- Contact your local council if your house or building has been severely damaged.
- If your property or contents are damaged take notes and photographs and contact your insurance company. Inform your landlord if there is damage to the rental property.
- Ask your council for advice on how to clean up debris safely.

EARTHQUAKE



New Zealand lies on the boundary of the Pacific and Australian tectonic plates. Most earthquakes occur at faults, which are breaks extending deep within the earth, caused by movements of these plates.

There are thousands of earthquakes in New Zealand every year, but most of them are not felt because they are either small, or very deep within the earth. Each year there are about 150 – 200 quakes that are big enough to be felt. A large, damaging earthquake could occur at any time, and can be followed by aftershocks that continue for days or weeks.

Most earthquake-related injuries and deaths result from falling debris, flying glass and collapsing structures such as buildings and bridges. Earthquakes can also trigger landslides, avalanches, flash floods, fires and tsunamis.

Before an earthquake

- Develop a Household Emergency Plan. Assemble and maintain your emergency survival items for your home and workplace, as well as a portable getaway kit.
- Practice **Drop, Cover and Hold**.
- Identify *safe places* within your home, school or workplace.

A safe place is:

- somewhere close to you, no more than a few steps or less than three metres away, to avoid injury from flying debris.
 - under a strong table (hold on to the table legs to keep it from moving away from you).
 - next to an interior wall, away from windows and tall furniture that can fall on you (protect your head and neck with your arms).
- Keep in mind that in modern homes, doorways are no stronger than any other part of the structure and usually have doors that can swing and injure you.
 - Check your household insurance policy for cover and amount.
 - Seek qualified advice to make sure your house is secured to its foundations, and ensure any renovations comply with the New Zealand Building Code.





Gisborne earthquake damage, 20 December 2007. Inset: The city clock stopped at 8:55pm, the time of the magnitude 6.8 earthquake.

- Secure heavy items of furniture to the floor or wall. Visit www.eq-iq.org.nz to find out how to quake-safe your home.

During an earthquake

- If you are inside a building, move no more than a few steps, **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 in an elevator, drop, cover and hold. When the shaking stops, try and get out at the nearest floor if you can safely do so.
- If you are outside, move no more than a few steps away from buildings, trees, streetlights and power lines, then drop, cover and hold.
- If you are at the beach or near the coast, drop, cover and hold, then move inland or to higher ground immediately in case a tsunami follows the quake (*see also: Tsunami, p28*).
- 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.
- If you are in a mountainous area or near unstable slopes or cliffs, be alert for falling debris or landslides.

After an earthquake



- Listen to your local radio stations as emergency management officials will be broadcasting the most appropriate advice for your community and situation.
- Expect to feel aftershocks.
- Check yourself for injuries and get first aid if necessary. Help others if you can.
- Be aware that electricity supply could be cut, and fire alarms and sprinkler systems can go off in buildings during an earthquake even if there is no fire. Check for, and extinguish, small fires.
- If you are in a damaged building, try to get outside and find a safe, open place. Use the stairs, not the elevators.
- Watch out for fallen power lines or broken gas lines, and stay out of damaged areas.
- Only use the phone for short essential calls to keep the lines clear for emergency calls.
- If you smell gas or hear a blowing or hissing noise, open a window, get everyone out quickly and turn off the gas if you can. If you see sparks, broken wires or evidence of electrical system damage, turn off the electricity at the main fuse box if it is safe to do so.
- Keep your animals under your direct control as they can become disorientated. Take measures to protect your animals from hazards, and to protect other people from your animals.
- If your property is damaged, take notes and photographs for insurance purposes. If you rent your property, contact your landlord and your contents insurance company as soon as possible.



A locomotive tipped on its side during the 1987 Edgecumbe earthquake.

TSUNAMI



New Zealand's entire coast is at risk of tsunami. A tsunami can violently flood coastlines, causing devastating property damage, injuries and loss of life.

A tsunami is a natural phenomenon consisting of a series of waves generated when a large volume of water in the sea, or in a lake, is rapidly displaced. A tsunami can be caused by large submarine or coastal earthquakes; underwater landslides which may be triggered by an earthquake or volcanic activity; large coastal cliff or lakeside landslides; or volcanic eruptions beneath or near the sea.

There are three distinct types of tsunami:

- 1. Distant tsunami** are generated from a long way away, such as from across the Pacific in Chile. In this case, we will have more than three hours warning time for New Zealand.
- 2. Regional tsunami** are generated between one and three hours travel time away from their destination. An eruption from an underwater volcano in the Kermadec Trench, to the north of New Zealand, could generate a regional tsunami.
- 3. Local tsunami** are generated very close to New Zealand. This type of tsunami is very dangerous because we may only have a few minutes warning.

Tsunami warnings

Warning messages and signals about a possible tsunami can come from several sources – natural, official or unofficial.

Natural warnings

For a local source tsunami which could arrive in minutes there won't be time for an official warning. It is important to recognise the natural warning signs and act quickly.

If you are at the coast and experience any of the following:

- *Feel a strong earthquake that makes it hard to stand up, or a weak rolling earthquake that lasts a minute or more*
- *See a sudden rise or fall in sea level*
- *Hear loud and unusual noises from the sea*

Move immediately to the nearest high ground, or as far inland as you can.



Tsunami warning sign at Castlepoint, Wairarapa. New Zealand's entire coast is at risk of tsunami.

Official warnings

Official warnings are only possible for distant and regional source tsunami. Official warnings are disseminated by the Ministry of Civil Defence & Emergency Management to the national media, local authorities and other key response agencies. Your local council may also issue warnings through local media, siren and other local arrangements.

Unofficial/informal warnings

You may receive warnings from friends, other members of the public, international media and from the internet. Verify the warning only if you can do so quickly. If official warnings are available, trust their message over informal warnings.

Before a tsunami

- If you live in a coastal area, ask your council about your tsunami risk and local warning arrangements.
- If you have a disability or special requirements, arrange with your support network to alert you of any warnings and emergency broadcasts.
- Develop a household emergency plan and have a getaway kit ready.
- Know where the nearest high ground is and how you will reach it. Plan to get as high up or as far inland as you can. Plan your escape route for when you are at home, as well as for when you may be working or holidaying near the coast.

During a tsunami



- Take your getaway kit with you if possible. Do not travel into the areas at risk to get your kit or belongings.
- Take your pets with you if you can do so safely.
- Move immediately to the nearest higher ground, or as far inland as you can. If evacuation maps are present, follow the routes shown.
- Walk or bike if possible and drive only if essential. If driving, keep going once you are well outside the evacuation zone to allow room for others behind you.
- If you cannot escape the tsunami, go to an upper storey of a sturdy building or climb onto a roof or up a tree, or grab a floating object and hang on until help arrives.
- Boats are usually safer in water deeper than 20 metres than if they are on the shore. Move boats out to sea only if there is time and it is safe to do so.
- Never go to the shore to watch for a tsunami. Stay away from at-risk areas until the official all-clear is given.
- Listen to your local radio stations as emergency management officials will be broadcasting the most appropriate advice for your community and situation.



After a tsunami

- Continue to listen to the radio for civil defence advice and do not return to the evacuation zones until authorities have given the all-clear.
- Be aware that there may be more than one wave and it may not be safe for up to 24 hours, or longer. The waves that follow the first one may also be bigger.
- Check yourself for injuries and get first aid if needed. Help others if you can.
- Do not go sightseeing
- When re-entering homes or buildings, use extreme caution as floodwaters may have damaged buildings. Look for, and report, broken utility lines to appropriate authorities.
- If your property is damaged, take notes and photographs for insurance purposes. If you rent your property, contact your landlord and your contents insurance company as soon as possible.

VOLCANO



New Zealand is situated on the 'Ring of Fire', a geographic belt encircling the Pacific Ocean and containing about 90% of the earth's volcanoes. Volcanoes usually have short active periods, separated by longer dormant periods.

The three main types of volcanoes found in New Zealand are:

1. **cone volcanoes** such as Mounts Ruapehu and Taranaki;
2. **volcanic fields** such as the ones found in the Auckland area;
3. **calderas** such as Lake Taupo.

Volcanoes produce a wide variety of hazards that can kill people and destroy property nearby as well as hundreds of kilometres away. Hazards include widespread ashfall, very fast moving mixtures of hot gases and volcanic rock, and massive lahars.

GNS Science is responsible for monitoring volcanic activity and setting alert levels. If a life-threatening eruption is likely to occur, a civil defence emergency will be declared and the areas at risk will be evacuated.

Before a volcanic eruption

- Find out about the volcanic risk in your community. Ask your local council about emergency plans and how they will warn you of a volcanic eruption.
- Practice your evacuation plan with members of the household.
- Develop a household emergency plan. Assemble and maintain your emergency survival items for your home as well as a portable getaway kit.
- Include your pets and livestock in your emergency plan

When a volcanic eruption threatens

- Listen to your local radio stations as emergency management officials will be broadcasting the most appropriate advice for your community and situation.
- Put your emergency plan into action.
- If you have a disability or need assistance, make contact with your support network and keep informed of civil defence advice.
- Put all machinery inside a garage or shed, or cover with large tarpaulins to protect them from volcanic ash.



Ruapehu erupting, 1995 (Image: GNS)

- Bring animals and livestock into closed shelters to protect them from volcanic ash.
- Protect sensitive electronics and do not uncover until the environment is totally ash-free.
- Water supplies can be affected so it is a good idea to store drinking water in containers and fill bathtubs and sinks with water.
- Check on friends and neighbours who may require special assistance.

During a volcanic eruption

- Listen to the radio for civil defence advice and follow instructions.
- If outside at the time of eruption, seek shelter in a car or building. If caught in volcanic ashfalls, wear a dust mask or use a handkerchief or cloth over your nose and mouth.
- Stay indoors as volcanic ash is a health hazard, especially if you have respiratory difficulties such as asthma or bronchitis.
- When indoors, close all windows and doors to limit the entry of volcanic ash. Place damp towels at thresholds.
- Do not tie up phone lines with non-emergency calls.
- If you have to go outside use protective gear such as masks and goggles and keep as much of your skin covered as possible. Wear eyeglasses, not contact lenses as these can cause corneal abrasions.

- Disconnect drainpipes/downspouts from gutters to stop drains clogging. If you use a rainwater collection system for your water supply, disconnect the tank.
- Stay out of designated restricted zones.



After a volcanic eruption

- Listen to your local radio stations for civil defence advice and follow instructions.
- Stay indoors and away from volcanic ashfall areas as much as possible.
- When it is safe to go outside, keep your gutters and roof clear of ash as heavy ash deposits can collapse your roof.
- If there is a lot of ash in the water supply, do not use your dishwasher or washing machine.
- Avoid driving in heavy ashfall as it stirs up ash that can clog engines and cause serious abrasion damage to your vehicle.
- Keep animals indoors where possible, wash away ash on their paws or skin to keep them from ingesting the ash, and provide clean drinking water.
- Use a mask or a damp cloth and eye protection when cleaning up. Moisten the ash with a sprinkler before cleaning.
- Look for and report broken utility lines to appropriate authorities
- If your property is damaged, take notes and photographs for insurance purposes. If you rent your property, contact your landlord and your contents insurance company as soon as possible.



Volcanic ash is a real hazard during and after a volcanic eruption.

LANDSLIDE



Landslides are a serious geological hazard throughout much of New Zealand. A landslide is the movement of rock, soil and vegetation down a slope. Landslides can range in size from a single boulder in a rock fall to a very large avalanche of debris with huge quantities of rock and soil that can be spread across many kilometres.

Heavy rainfall or earthquakes can cause a landslide. Human activity, such as removal of trees and vegetation, steep roadside cuttings or leaking water pipes can also cause landslides. Most landslides occur without public warning and it's important to recognise the warning signs and act quickly.

Before a landslide

- Getting ready before a landslide will help reduce damage to your home and business and help you survive.
- Find out from your council if there have been landslides in your area before and where they might occur again.
- Check for signs that the ground may be moving.
- Be alert when driving especially where there are embankments along roadsides. Watch the road for collapsed pavements, mud and fallen rocks.

WARNING SIGNS

- *Small slips, rock falls and subsidence at the bottom of slopes.*
- *Sticking doors and windows.*
- *Gaps where frames are not fitting properly.*
- *Outside fixtures such as steps, decks and verandahs moving or tilting away from the rest of the house.*
- *New cracks or bulges on the ground, road, footpath, retaining walls and other hard surfaces.*
- *Tilting trees, retaining walls or fences.*

If you think a landslide is about to happen

Act quickly. Getting out of the path of a landslide is your best protection.

- Evacuate and take your getaway kit with you. Take your pets with you and move livestock to safe paddocks if you can safely do so.
- Warn neighbours who might be affected and help those who may need assistance to evacuate.



A landslide following heavy rain, Whakatane, 2004

- Contact emergency services and your local council to inform them of the hazard.

After a landslide

- Keep in mind that further landslides may occur. Stay away from affected sites until it has been properly inspected and authorities give the all-clear.
- Look for and report broken utility lines to appropriate authorities
- If your property or contents are damaged take notes and photographs when it is safe to do so. Contact your insurance company and inform your landlord if there is damage to the rental property.

OTHER DISASTERS

What to do in a pandemic

For information on pandemics, see www.moh.govt.nz

What to do in a fire

For fire readiness and response, see www.fire.org.nz

Bomb threat, terrorism

For information on criminal acts and terrorism, see www.police.govt.nz

For more information visit the Civil Defence
Emergency Management office at your nearest
council or visit

www.getthru.govt.nz

