



Hazard Factsheet: Thunderstorms and Tornados



Auckland
Emergency
Management

High intensity thunderstorms are formed when warm moist air rises rapidly into unstable conditions in the atmosphere.

Some thunderstorms can cause tornados. These are usually isolated and short lived but pose a major danger to property and life in their path.

Forecasting thunderstorms is challenging. They can produce localised flooding and damage buildings, trees, and cause injuries and deaths.

Met Service classifies a severe thunderstorm as: rainfall of **25mm/hr** or more, hailstones of **20mm** or more in diameter, gusts of wind of **110km/h** or stronger, damaging tornados of at least **116km/h** windspeed.

During a thunderstorm or tornado take shelter immediately. If you are inside, move to an interior room or hallway without windows, on the lowest floor putting as many walls as you can between you and the outside. Stay away from windows and exterior doors. For added protection, get under something sturdy such as a heavy table or workbench. If possible, cover your body with a blanket, mattress or sleeping bag, and protect your head with your hands.

If you are outdoors during a tornado, lie down flat in a nearby gully, ditch or low spot on the ground, where the wind and debris will blow over you, protecting your head with an object or with your arms.

If you are in a car during a tornado, pull safely onto the shoulder of the road, stop, and get out. Do not try to outrun a tornado in your car. Lie down flat in a nearby gully, ditch, or low spot on the ground. Do not get under your vehicle.

Places and objects to avoid during a thunderstorm are tall structures such as towers, trees, or hilltops. Lightning normally strikes the tallest objects in the area as well as open or exposed spaces (such as exposed sheds or construction sites). Avoid any electrically

conductive objects such as metal fences, clothes lines and electricity and telephone lines. Machinery or objects that have metallic contact with the ground such as tractors should also be avoided.

If you are in a car during a thunderstorm pull safely onto the shoulder of the road and stop, making sure you are away from any trees or other tall objects that can fall on the vehicle. Turn your hazard lights to alert other drivers that you have stopped. Stay in the vehicle with your windows closed. You are safer from lightning in a vehicle than out in the open. Avoid contact with metal or other conducting surfaces inside the vehicle to reduce your chance of being shocked.

If you are outdoors during a thunderstorm and hear distant thunder or see a flash of light, get indoors immediately. Avoid gazebos, rain or picnic shelters and other flimsy outdoor structures. These offer little protection from large hail, can be struck by lightning, and are often blown around in strong winds. A sturdy building is the safest location during a severe thunderstorm.

If you cannot find any suitable shelter, as a last resort, find a low-lying, open place away from single large trees, poles, or metal objects. Make sure the place you pick is not subject to flooding. If you are physically able to, crouch low to the ground on the balls of your feet. Place your hands on your knees and your head between your knees. Minimize your body's surface area and minimize your contact with the ground. Lightning currents often enter a victim through the ground rather than by a direct overhead strike.

If you are boating, fishing or swimming, get to land, get off the beach, and find shelter immediately.

Call 111 immediately if someone is struck by lightning.

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metservice.com/warnings/home