

Protect your home

Tornadoes are powerful hazards. But you can improve the chances of your home surviving high winds, and reduce the risk of damage.

Inside your home

- ❖ The safest doors to withstand strong winds have three or more hinges, and a dead-bolt security lock with a bolt at least 2.5 cm long. Door frames should be securely anchored to wall framing. Double doors should be secured with head and foot bolts.
- ❖ Window glass covered with protective film will not shatter if it breaks.

The home itself

- ❖ Install impact resistant windows and/or storm shutters.
- ❖ Garage doors are highly susceptible to wind damage because of their size. A qualified inspector can determine if the door and the track system can resist high winds. Permanent wood or metal stiffeners can be installed to strengthen the door. Alternatively, the door manufacturer may recommend temporary supports that can be attached when severe weather threatens.
- ❖ If you are replacing your roof, take steps to ensure that the new roof covering and the sheathing it attaches to will resist high winds.
- ❖ Your roofing contractor should:
 - Remove old coverings down to the bare wood sheathing.
 - Confirm that rafters and trusses are securely connected to the walls.
 - Replace damaged sheathing.
 - Refasten existing sheathing according to the proper fastening schedule outlined in the building code.
 - Install a roof covering that is designed to resist high winds.
 - Consider using a double-layer application of heavier felt roofing paper, secured with sufficient sheet metal tabs, to avoid water damage.
 - Seal all roof-sheathing joints with self-stick rubberized asphalt tape to provide a secondary moisture barrier.
- ❖ If it is not time to replace your roof, you can still give your roof sheathing added protection by gluing the sheathing to the rafters and trusses.
- ❖ The end wall of a gable roof should be braced properly to resist high winds. Check your building code for appropriate guidance, or consult a qualified engineer or architect.
- ❖ The points where the roof and the foundation meet the walls of your house are extremely important if your house is to resist high winds and the pressures they place on the entire structure:
 - Anchor the roof to the walls with metal clips and straps (most easily done when replacing your roof).
 - Walls need to be properly anchored to the foundation. A qualified professional can determine if these joints need retrofitting. A qualified contractor should perform this work, if needed.
 - If your house has more than one storey it is important that the upper storey wall framing is firmly connected to the lower framing. The best time to do this is when you renovate.

Outside your home

- ❖ Shredded bark is a safer landscaping material than gravel or rock.
- ❖ Trees and shrubbery should be kept trimmed.
- ❖ Remove weak branches and trees that could fall on your house.

Protect yourself

Tornadoes are very dangerous windstorms. Take steps to protect yourself and your family by establishing a disaster safety plan:

If you are indoors

- ❖ Go immediately to the basement, storm cellar or the lowest level of the home.
- ❖ If there is no basement, go to a closet, a bathroom or under a staircase.
- ❖ Stay away from windows and doors.
- ❖ Get under a sturdy piece of furniture, such as a workbench or a heavy table. Hold onto the furniture with one hand. Use the other arm to protect your head and neck from falling or flying objects.
- ❖ Avoid being in the corners of the room because they attract debris.
- ❖ If you are in a mobile home, get out and seek shelter elsewhere.

If you are outdoors

- ❖ If possible, get inside a building.
- ❖ If there is no shelter, lie down in a ditch or ravine.
- ❖ Use your arms to protect your head and neck.
- ❖ Stay away from bridges and overpasses.

If you are in a vehicle

- ❖ Never try to out drive a tornado. Tornadoes can change direction suddenly and could lift up the car and toss it through the air.
- ❖ Immediately stop the car and turn off the engine.
- ❖ Get out of the car and seek shelter in a building, ditch or ravine.

Become familiar with your community's severe weather warning system. Every member of your family should know what to do when a tornado watch or warning sounds. Learn about disaster safety plans in your workplace and at your children's school and/or childcare centre.

Create a family disaster safety plan. Assemble a disaster survival kit. Together, identify escape routes from your home and neighbourhood. Choose an emergency meeting place for the family. Be prepared!

Research, the foundation for action

The Institute for Catastrophic Loss Reduction (ICLR) is a world-class centre for multi-disciplinary disaster prevention research and education. Through research, ICLR is working to strengthen the foundation for effective action to achieve its mission to reduce the loss of life, injuries and property damage due to natural hazards.

Building disaster research capacity

ICLR is an independent, not-for-profit research institute founded by the Canadian insurance industry. It is affiliated with The University of Western Ontario. Institute research networks are building the capacity of the research community. ICLR staff and research associates are internationally known for their expertise in wind and seismic engineering, atmospheric science, risk perception, hydrology, economics, geography, health sciences and public policy.

Many losses are preventable

Worldwide, natural disasters killed more than 650,000 people during the 1990s, and caused more than C\$1 trillion in damage. Disaster damage payments by insurance companies, governments and international aid organizations has been doubling every five to seven years since the 1950s, an alarming international trend. Perhaps the greatest tragedy is that many disaster losses are preventable.

Community and individual safety

Nature's extreme events are remarkable forces. They can be relentless and unforgiving, but they do not need to cause disasters. Hazards deserve respect. They demand that individuals prepare, and that communities invest in resilience. Resilient communities and knowledgeable individuals can best prevent hazards from becoming disasters, but are often not doing so.



building resilient communities

Be prepared.
Disasters can strike at any time.

Visit www.ICLR.org
and learn how to protect your family
and home.

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Disaster prevention research saves lives

Disaster prevention research protects property

Tornadoes



Be prepared!
Protect yourself
and your home

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