

What to do During a Lightning Storm.

What is Lightning

Safety Tips During a Storm

- If Caught Outside

- Indoor Precautions

Lightning Stories for around the Maritimes

Lightning Storm Quiz

Answers to Quiz



What is lightning?

- Lightning is a discharge of atmospheric electricity which is triggered by a buildup of differing charges within a cloud and accompanied by a bright flash and typically also thunder. A bolt of lightning can travel at speeds of 220,000 km/h (140,000 mph) and can reach temperatures approaching 30,000°C (54,000°F), hot enough to fuse silica sand into glass channels.
- How lightning initially forms is still a matter of debate, scientists have studied root causes ranging from atmospheric disturbances (wind, humidity, friction, and atmospheric pressure) to the impact of solar wind and accumulation of charged solar particles. Ice inside a cloud is thought to be a key element in lightning development. This may cause a forcible separation of positive and negative charges within the cloud, thus assisting the formation of lightning.
- There are approximately thirteen different types of lightning. Of those thirteen, the most commonly observed is streak lightning. This is nothing more than the return stroke, the visible part of the lightning stroke. The majority of strokes occur inside a cloud so we do not see most of the individual return strokes during a thunderstorm.
- Cloud-to-ground lightning is the best known and second most common type of lightning. Of all the different types of lightning it poses the greatest threat to life and property since it strikes the ground.
- Each year lightning kills approximately 10 Canadians and injures approximately 100 to 150 others.

Safety Tips for Lightning Storms:

- The first and most important thing to remember is that if you can hear thunder, you are within striking distance of lightning. Take shelter immediately, preferably in a house or all-metal automobile (not convertible top).

If Caught Outdoors:

- If caught outside and are far from a safe shelter, stay away from tall objects, such as trees, poles, wires and fences and avoid proximity (minimum 15 ft) from others.
- Avoid putting yourself above the surrounding landscape: seek shelter in low-lying areas such as valleys and ditches but be aware of flooding.
- Stay away from objects that conduct electricity: such as tractors, golf carts, golf clubs, metal fences, motorcycles, lawnmowers and bicycles.
- Stay away from water: don't go boating or swimming if a storm threatens, and get to land as quickly as possible if you are already on the water. Lightning can strike the water and travel a substantial distance from its point of contact.
- Avoid being the highest point in an open area: swinging a golf club, or holding an umbrella or fishing rod can make you the tallest object and a target for lightning.
- You are safe inside a car during a lightning storm; but do not park under tall objects that could topple, and be aware of downed power lines which may be touching your car as you may receive a shock if you step outside.
- In a forest: seek shelter in a low-lying area under a thick growth of small trees or bushes.
- Keep alert for flash floods, sometimes caused by heavy rainfall, if you are seeking shelter in a ditch or low-lying area.

- Remember, there is no safe place outdoors during a thunderstorm. Once in a safe location, remain there for 30 minutes after the last rumble of thunder is heard before resuming your outdoor activities.

Indoor Precautions:

- Before the storm hits, disconnect electrical appliances including radios, television sets and computers and do not touch them during the storm.
- Stay away from doors, windows, fireplaces, and anything else that will conduct electricity such as sinks, tubs and showers. Avoid using a telephone that is connected to a landline. Use battery operated appliances only. Cordless telephones are safe however you could receive a very loud noise on the phone which may seem like a shock. This would be consistent with the house or somewhere nearby being struck by lightning.
- Do not go outside unless absolutely necessary.
- Keep as many walls as possible between you and the outside.

People who have been struck by lightning do not carry an electrical charge and can be safely handled, but victims may be suffering from burns or shock and should receive medical attention immediately. If you come across someone who has been struck, call for medical attention immediately and, if breathing has stopped, administer mouth-to-mouth or cardio-pulmonary resuscitation.

Lightning Stories from Around the Maritimes:

Prince Edward Island:

June 19th, 2008,

Lightning killed five cows in South Melville. The electric current first hit nearby trees then jumped to the animals. The damage could have been worse with 20 or 30 cows commonly gathering together during foul weather. The farmer suffered emotional as well as financial hit: he had milked some of the cows for more than 20 years.

New Brunswick:

July 20th, 2003

During a soccer tournament in Fredericton, lightning struck and instantly killed a 14-year-old female player from Maine, USA. The blast threw the teenager more than a metre into the air; she came down in a rumble. More than 20 others were injured or dazed and taken to hospital. Eyewitnesses said the thunder and lightning occurred at the same time.

Nova Scotia:

August 16th, 1922

The worst lightning in years passed over Yarmouth. At one home, it split a chimney, tore plaster from walls and burst windows. It damaged the outside of a local church before entering it. A barn was set on fire but rain kept it smouldering until morning, when it was put out. A wire fence was struck, shattering fence posts for 35 m, and the town's telephone system was disabled.

Lightning Storm Quiz

1) Cloud-to-ground lightning is the most commonly observed lightning?

True or False

2) People who have been struck by lightning do not carry an electrical charge?

True or False

3) If you hear thunder, you are within striking distance of lightning?

True or False

4) It is ok to use your landline telephone during a lightning storm?

True or False

5) If outside, the proximity you should keep between yourself and others is minimum of 10 ft?

True or False

6) Lightning can travel speeds up to 220,000km/h and reach temperatures of 30,000°C

True or False

7) It is not necessary to unplug your electrical appliances during a lightning storm?

True or False

Quiz Answers

- 1) False - Streak lightning is the most commonly observed lightning
- 2) True
- 3) True
- 4) False - Using your cordless phone is ok during a lightning storm, but not a landline phone.
- 5) False - Minimum proximity is 15 ft
- 6) True
- 7) False - You should unplug all electrical appliances before the storm hits