

# Background Information on Lightning

- Lightning is usually associated with thunderstorms.
  - The turbulent wind environment of a thunderstorm with updrafts and downdrafts allows electric fields to form and grow between the cloud and the ground, and within the cloud itself – all necessary conditions for lightning to occur.
- If you can hear thunder, you can get hit by lightning.
- Contact by lightning can cause catastrophic injuries and death.
- Contact with lightning can be a result of:
  - Direct strike - occurs when lightning attaches itself directly to the victim. (3-5% of all lightning deaths/injuries)
  - Ground current - occurs when lightning hits the ground, spreads out and sends a current through a victim 10-30 metres away. (40-50% of all lightning deaths/injuries)
  - Side splash - occurs when lightning hits a tall object, travels part of the way down the object and then jumps to a nearby victim (who may be seeking shelter near a tall object such as a tree). (20-30% of all lightning deaths/injuries)
  - Contact to an object that is struck by lightning (for example, wire fence, corded telephone, water pipe) (15-25% of all lightning deaths/injuries)
  - Blunt trauma - occurs when a shock wave on the ground throws a person a distance of up to two meters and results in bodily harm/injury (percentage of all lightning deaths/injuries is unknown).
- Lightning can strike as far as 8 to 16 kilometers either ahead or behind the thunderstorm, and even when skies are blue.
- About 1/3 of lightning related casualties occur after the storm because people return to outdoor activities too soon. Activities are not to resume until at least 30 minutes after the last rumble of thunder is heard.