

Appendix F

Lightning Protocol

Sample Lightning Procedures

The following safety protocol is a sample of what can be developed for individuals and groups participating in outdoor activities.

Chain of Command

The persons filling the roles listed below are responsible for making the decision to remove a group or individuals from the playing field, stopping the activity, and determining when/if it is safe to resume the activity:

- Curricular activities - teacher
- Intramurals - teacher, intramural supervisors
- Interschool - *Practices*: teacher/coach; *Games*: teacher/coach in consultation with official
- Outdoor Education Trips - teacher in consultation with trip Leader
- Off-Site Activity Providers - teacher in consultation with facility Monitor
- Camps - teacher in consultation with camp director

Plan Your Evacuation and Safety Measures in Advance

A lightning response plan must be planned in advance of the outdoor activity. The following must be taken into consideration:

1. Weather Conditions:

Monitor weather conditions prior to outdoor activity or event. Be aware of potential thunderstorms that may form during scheduled outdoor physical education activities, (e.g., local weather forecasts from The Weather Channel, local radio/TV stations, Weather One-on-One at 1-900-565-5555). This is a user-pay consultation service from Environment Canada (www.weather.gc.ca).

2. Shelter:

Know where the closest 'safe structure or location' is to the field or playing area, and know how long it takes to get to that safe structure or location.

Safe structure or location is defined as:

- Any building normally occupied or frequently used by people (e.g., a building with plumbing and/or electrical wiring that acts to electrically ground the structure.)
- In the absence of a safe structure, any vehicle with a hard metal roof (not a convertible or golf cart) and rolled-up windows can provide a measure of safety. (It is not the rubber tires that make a vehicle a safe shelter, but the hard metal roof which dissipates the lightning strike around the vehicle.)
- DO NOT TOUCH THE SIDES OF THE VEHICLE.

Alternate location:

If there is no safe structure or location:

- Find the low ground. Seek cover in clumps of bushes or a dry ditch.
- Remove all metal objects.
- Minimize your body's surface area in contact with the ground. Do not lie flat on the

ground. (Lightning current often enters a victim through the ground rather than by a direct overhead strike).

- PLACE YOUR FEET TOGETHER, LOWER YOUR HEAD, CROUCH DOWN WITH ONLY THE BALLS OF YOUR FEET TOUCHING THE GROUND, AND WRAP YOUR ARMS AROUND YOUR KNEES.
- If you are in a group in the open, spread out, keeping people several metres apart.

Unsafe shelter includes:

- all outdoor metal objects (e.g., football standards)
- near flag poles
- fences and gates
- near light poles
- metal bleachers
- golf carts
- machinery, etc.

AVOID trees, water (ponds, creeks), open fields, and high ground.

Detection and Response:

- **When you first see lightning or hear thunder, activate your emergency plan and seek shelter immediately (go to a building or a vehicle).** Lightning often precedes rain, so don't wait for the rain to begin before suspending activities.
- Apply the following lightning safety slogan: **'IF YOU SEE IT, FLEE IT; IF YOU HEAR IT, CLEAR IT'**.

Resumption of the Activity:

- Wait a **minimum** of 30 minutes from the last visual observation of lightning or sound of thunder before resuming activities.
- Injured persons do not carry an electrical charge and can be handled safely. Call 911 or send for help immediately. Apply first aid procedures if you are qualified to do so.

Source of information: U.S National Severe Storms Laboratory (NSSL) National Lightning Safety Institute, Louisville, CO.