LIGHTNING PROTECTION PROGRAM FOR SCHOOLS

From 2006 through 2021, there were 444 lightning strike deaths in the United States (CDC). With high concentrations of students, teachers and the public assembling outdoors an event can be extremely dangerous and costly from bodily injury standpoint. It is essential that school administrators, department heads, principals, educators and buildings/grounds staff are aware of the exposures and controls of this natural occurring phenomenon.

Areas of high risk for lightning for schools include open fields, sports fields, playgrounds and recess outdoor areas. Marching band activities pose additional risks to each band member. School activities and operations such as golf teams, heavy equipment operations and grounds keeping are at high risk of lighting strike events. Physical structures posing increased attraction to lightning include metal bleachers, long metal fences and metal playground equipment.



ADMINISTRATIVE MANAGEMENT ROLE

District management should develop and communicate the site-specific lightning protection program to the staff.

LIGHTNING PROTECTION PROGRAM ELEMENTS

- Emergency response plans should be in place addressing all related issues (i.e. decision-making responsibilities, communication methods, safe structures or locations, emergency and first aid methods).
- A chain of command needs to be designated to monitor threatening weather and make the key decisions as to removing a team, spectators, and discontinuing outside events. When a decision is made to evacuate or terminate an event or activity, a systematic approach should be in place to properly coordinate and supervise the school staff, students and public. All such groups should clearly understand their role in this process. Effective lines of communication should be in place to properly alert all parties to orderly event dispersal.
- Weather reports should be reviewed before outdoor events and activities are staged. The National Weather Service issues Thunder-Storm “Watches” and “Warnings”, as well as signs of storm development nearby, should be reviewed to determine if an outdoor activity should be canceled or postponed.

- Students and staff should know where the closest “safe structure” or location” is to outdoor fields and playing areas. The time it takes to get to these locations should be determined. Safe structures tend to be buildings normally occupied by people such as buildings with plumbing and/or electrical grounding. In the absence of an inhabited building with adequate grounding, vehicles with a hard metal roof and rolled up windows can provide an alternate shelter.
- Follow the 30/30 Rule. Count the seconds between the time lightning is seen and thunder is heard. Individuals should begin moving to a safe location if that time is less than 30 seconds. Individuals should stay in a suitably protected area until 30 minutes after the last thunder is heard.
- Seek shelter when thunder is first heard, dark threatening clouds develop overhead or lightning appears. Once the approaching storm reaches five miles or a 25 second count between lightning and thunder the evacuation to a safe structure or location should be completed.
- Should a person be struck by lightning and suffer cardiac arrest, prompt and aggressive CPR can be effective. The injured person should be moved to a safer location before starting CPR.

ACTIONS NOT TO BE TAKEN:

- Do not seek shelter under isolated trees.
- Do not seek shelter in partially enclosed buildings.

Refer to the NCAA Guideline on Lightning Safety (2014) Lightning Safety - NCAA.org for more information.

ASSOCIATED WEBSITES ON THIS TOPIC INCLUDE THE FOLLOWING:

- Center for Disease Control - When Thunder Roars, Go Indoors! (cdc.gov)
- National Lightning Safety Xouncli - Lightning Safety | National Lightning Safety Council
- National Weather Service - Lightning Tips (weather.gov)

Proper planning is the key to an effective “Lightning Protection Program”
Don’t be Reactive...Strive to be “Proactive” to All Events

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