## **FACILITY & OPERATIONS**



ightning safety has been little studied and less practiced. In ancient times thunder and lightning were audible and visible signs of the gods' displeasure: there was no defense whatsoever. Today more than 45 different USA lightning protection codes exist that promulgate ambiguity and confusion concerning reduction of the hazard. There is no Utopia in lightning safety. The dearth of objective data about lightning safety contributes to accidents and injuries. Common misconceptions include: "Lightning never strikes twice in the same place" and "Lightning rods prevent lightning strikes." The ignorance and misinformation about lightning safety increase lightning's social cost in deaths and injuries and economic cost. A disciplined and systematic approach to lightning safety may result in better management of the hazard and reduced costs.

Editor's note: The following information first appeared in the Sports Turf Managers Association's October 2007 electronic newsletter and was provided to them courtesy of the Middletown (PA) Area School District's athletic department.

Lightning strikes to people are rare but often fatal when they do occur. Lightning is the most consistent and significant weather hazard affecting athletic participation. In an effort to protect the student athletes, coaching staff, fans and officials from the possibility of a lightning strike, this policy has been designed for the safety of all those involved with Middletown Athletics.

The National Severe Storms Laboratory recommends that athletic participation cease when lightning is detected within 6 miles. For our purposes, this will be indicated by the flash to bang method as assessed by the game official, ATC or Athletic Director.

#### Designated chain of command

During an athletic competition, it will be the responsibility of the game event administrator in conjunction with the athletic director and athletic trainer to decide if the event needs to be delayed or cancelled due to the possibility of a lightning strike occurring. Prior to the start of an athletic competition the decision rests with the Athletic Director.

During practices the athletic trainer and athletic director will determine if the team needs to be removed from outdoor facilities. If the trainer is not present, the head coaches or their designated assistant in charge will be responsible for removing a team from an outdoor athletic site. It is recommended that coaches check the weather report before going outside every day, as storms often move very quickly.

### Methods for detecting lightning

 Flash-to-Bang: This is the easiest way to estimate how far away lightning is. Count the seconds from the time the lightning is sighted to the time that thunder is heard. Divide this number by five to figure out how

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far away the lightning is in miles. Example: If there is 30 seconds between the flash of lightning and hearing the thunder, the lightning is approximately 6 miles away.

It is the policy of Middletown Area High School that if the lightning is 6 miles away or less, athletes must be taken indoors and practice suspended.

2. Strike Alert: This is an electronic portable device used to detect lightning in the area; it detects an approximate distance of lightning. The athletic director and athletic trainer have strike alert devices. If the strike alert detects lightning within a 6-mile range, all athletes must seek shelter indoors immediately.

It is considered safe to return to play 30 minutes after the last flash of lightning or sound of thunder, or as determined by game official, athletic director, and athletic trainer.

If a game or practice has been delayed or cancelled, athletes must report to a designated safe shelter. A safe shelter is defined as "any building normally occupied or frequently used by people, i.e., a building with plumbing and or electrical wiring that acts to electrically ground the structure." Athletes should remain in their assigned shelter until told it is safe to move.

#### Facts regarding lightning safety

• Blue sky and no rain are not protection from lightning. Lightning can strike as far as 10 miles away from rain. It does not have to be raining for

- a lightning strike.
- Avoid using a land line telephone except in emergency situations. A cell phone is a safe alternative.
- Avoid using showers in a safe facility, the water and plumbing can be conductors of electricity.
- Minimize your body's surface area and minimize contact with the ground if caught far from a safe shelter. DO NOT LAY FLAT. Lightning current often enters through the ground.
- If unable to reach a safe shelter stay away from tall trees or objects (light poles, flag poles, etc), standing pools of water, open fields, or individual trees. Do not be the tallest object in a field. Crouch down with only the balls of your feet touching the ground. Try to minimize your body's surface area and minimize contact with the ground.
- People who have been struck by lightning don't carry an electrical charge, administering first aid and/or CPR is safe for the responder.

