

Introduction

In Australia, lightning accounts for five to ten deaths and well over one hundred injuries annually. A large percentage of lightning strike victims survive but many of these suffer from severe life-long injury and disability. Statistics show that approximately 25% of people killed by lightning are playing sport. When thunderstorms threaten, officials and coaches must not let the desire to start or complete a carnival or a coaching session hinder their judgment when the safety of athletes, officials or spectators is in jeopardy.

Lightning Facts

- All thunderstorms produce lightning and are dangerous.
- Lightning often strikes outside the area of heavy rain and may strike as far as fifteen kilometres from any rainfall.
- Any time thunder is heard, the thunderstorm is close enough to pose an immediate lightning threat to your location.
- When thunderstorms are in the area but not overhead, the lightning threat can still exist even when overhead it is sunny, not raining, or when clear sky is visible.
- Many lightning casualties occur before the thunderstorm rains have moved into the area. This is often due to people not seeking shelter soon enough.
- Large numbers of casualties occur after the rain dissipates. This can be due to people being in too much of a hurry to go back outside and resume activities.

Emergency Action Plan Requirements

1. Chain of Command

Identify who has the authority to call for the suspension and subsequent resumption of activities.

2. Weather Watcher

Appoint a weather watcher to monitor the weather forecasts in the days leading up to the event, and who also on the day looks for signs of developing local thunderstorms such as high winds, darkening clouds and any lightning or thunder.

3. Provide Warnings

Activity organisers should promote lightning safety to athletes, officials and spectators. A protocol needs to be in place to warn all individuals at risk from a lightning strike.

Consider placing lightning safety tips and/or emergency procedures in programs, flyers, handbooks and placing lightning safety warning signs around the venue. Consider reading lightning safety messages over the PA system if thunderstorms are forecast or are imminent. The information should contain: -

- the criteria for the suspension and resumption of activities; and
- the location of safe shelters and the best way to access them.

4. Safe Structures and Locations

Define and list safe structures and locations to evacuate to in the event of lightning. No place is absolutely safe from a lightning threat however some places are safer than others.

Safe structures:

- The primary choice for a safe structure is a large, fully enclosed building.
- If a building is not available, a fully enclosed vehicle with a metal roof and the windows completely closed is a reasonable alternative.

Unsafe locations and situations:

- An open field
- Close vicinity to the tallest structure in the area (e.g. tree/s, light pole, discus cage)
- Small structures such as rain/picnic shelters, tents, equipment sheds
- Use of indoor phones
- Use of electrical appliances
- Umbrellas or any object that increases a person's height

5. Criteria for the Suspension and Resumption of Activities

The sound of thunder should serve as an immediate warning of lightning danger. Generally speaking, if an individual can see lightning and/or hear thunder he/she is already at risk.

A procedure for announcing the suspension and resumption of activities should already be in place and needs to be implemented once thunder is heard or lightning is seen. Activities need to be suspended at this time and people need to seek shelter under a safe structure.

The National Lightning Safety Institute in the US recommends the saying: *"If you can see it, flee it; if you can hear it, clear it"*.

The 30 – 30 rule

By the time the flash-to-bang count approaches 30 seconds, all individuals are to be inside a safe structure.

Wait at least 30 minutes after the last sound (thunder) or observation of lightning and ensure conditions are completely safe before leaving shelter to resume activities. Each time lightning is observed, or thunder is heard, the 30-minute clock must be re-started.

Little Athletics NSW reminds all parties that they must act responsibly and operate in accordance with the requirements of this policy. You must follow your set procedure for the suspension and resumption of activities whenever lightning and/or thunder is observed, **without exception**.

6. First Aid

Lightning victims do not carry an electrical charge, are safe to handle, and need immediate medical attention. Cardiac arrest is the immediate cause of death in lightning fatalities. Some deaths can be prevented if the victim receives the proper first aid:

- Call 000 at once.
- Check the victim's pulse and breathing. Begin CPR if necessary.
- If possible, move the victim to a safer place. Be aware that the thunderstorm may still be dangerous. Don't let the rescuers become victims.

More Information

Contact Little Athletics NSW on 02 9633 4511 or via admin@lansw.com.au.

References and Further Reading

- American Meteorological Society, "Updated Recommendations for Lightning Safety – 2002", The National Weather Service
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- National Athletic Trainers' Association Inc., National Athletics Trainers' Association Position Statement: Lightning Safety for Athletics and Recreation", Journal of Athletic Training, 2000, 35 (4), pp 471-477
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