

When Lightning Strikes: How to Protect People and Property



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Introduction

“You’ve got a better chance of being struck by lightning.” It’s a phrase often uttered to show how unlikely a series of events will actually happen. While it’s true that being struck by lightning is rare—about 1 in 500,000 in a given year—the CDC still lists lightning as [one of the leading causes of weather-related deaths](#).

Not surprisingly, most lightning-related injuries involve people who are caught in open areas or near tall structures. Often, they’re enjoying outdoor leisure activities—for instance, golf. This is why it’s critical that golf courses have a lightning protection program in place. We may not be able to prevent, or even predict, lightning. But there are still actions we can take to protect both people and property.

Keeping People Safe

When it comes to keeping people safe, there’s a lot of ground to cover. In the literal sense, the average 18-hole course spans 150 acres. More metaphorically, it can sometimes be an uphill climb to get people to take lightning risks seriously. As you’ve undoubtedly encountered, many will put that day’s round or daily swim ahead of their own safety even when the weather takes a turn for the worse.

Still, education is your best defense against lightning. Remind your employees, members, and guests about lightning risks and basic lightning safety tips.

Lightning Safety Tips

- Get indoors. This means an enclosed structure, such as a house or a car. Golf carts, gazebos, and other open structures do not provide adequate protection. A third of lightning-related deaths or injuries occur when someone is sheltering in an open structure such as these.
- Stay clear of trees and get off of high ground. Moving down into a ravine or valley is much safer.
- Avoid conductive substances such as metal and water (e.g., swimming pools).
- If caught outdoors during a lightning storm:
 - » Spread out. Try to keep at least 15 feet of space between people.
 - » Remove all metal objects (e.g., watches, earrings, and metal-spiked shoes).
 - » Crouch with feet together and head bowed, and place hands on ears to reduce acoustic shock.

Education is only the first step, however. There are a number of other measures you can take to further protect your guests and your facility.



Lightning Protection Measures

1. Install an audible lightning alert system that can clearly be heard in all areas, including the golf course and swimming pool. DO NOT send employees onto the grounds to warn guests.
2. Construct weather shelters at the farthest points of your facility equipped with air terminals (formerly known as lightning rods) installed at strategic points of the structure. At least one weather shelter per nine-hole course should be in place.
3. Install early lightning detection technology. These systems detect cloud-to-cloud lightning, which precedes cloud-to-earth lightning.
4. Assign someone to monitor daily weather conditions. Some resources they should be provided with include:
 - Weather radio
 - TV weather channel
 - Online weather services
 - Weather subscription services
 - Notification from nearby commercial or government airfields
 - Lightning detection and notification systems.
5. Encourage employees to suspend activities and proceed to an appropriate shelter if they feel threatened by lightning.
6. Place lightning safety stickers on all operating machinery, pump house, employee bulletin boards, rest room and locker room mirrors, cash registers, golf cars, beverage carts, and other visible locations.
7. Notify members and guests of threatening conditions. You could post a daily weather advisory, activate the lightning alert system, and put a safety notice on scorecards and golf carts.
8. Suspend all outdoor activities until 30 minutes after the last thunder is heard. Lightning can strike even 10 miles outside of the storm cell. Don't risk it.

Protecting Your Property

With measures in place to keep your members, guests, and employees safe, you can now turn your attention to your property. This includes your clubhouse—with any tennis courts and swimming pools nearby—maintenance buildings, golf carts, irrigation systems, and even the trees throughout your course.

To protect these assets, institute and maintain a lightning protection system to intercept lightning along a controlled path between the air and the earth. Many systems include features such as those outlined below.

- Air terminals installed at strategic points of a building.
- Two or more ground connectors installed at each building. These connectors provide contact with the earth to dissipate the lightning charge. Be sure to consult a qualified contractor or electrician if you have any concerns about complying with local regulations.
- To protect computers, TVs, and other electronic equipment, ensure you have everything connected to proper surge protection.
- Regularly back up any data from your computer systems to be stored off-site.



- Irrigation and sprinkler systems often contain electronic components and smart features. Work with the manufacturer to ensure you've implemented the proper protection measures.
- Install air terminals in your most important trees (similar to your buildings).

Maintaining Your Lightning Protection Program

First, be sure to document your lightning protection program. Include what measures are being taken and who is responsible for each item, and develop an inspection and maintenance schedule. You should inspect your processes and systems at least once a year, but if you're located in an area that sees considerable shifts in climate throughout the year, you may need to inspect more frequently. Keep records of all inspections, maintenance, and testing, and compare results from previous records.

Given its unpredictable nature, lightning is capable of thwarting any defense measure you throw its way. We urge you to consult a qualified electrical contractor, your legal counsel, and your broker or insurance provider to ensure you have the proper protective measures and adequate coverage in place.

For more information on how to mitigate your risk, reach out to our golf insurance experts at info@vgminsurance.com or 866-362-3363.

