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## Coordinator's Corner: Did I Really Just Get Struck by Lightning?

Written by: Greg Scott

According to the National Weather Service, lightning is a major cause of storm related deaths in the United States. There have been 55 reported lightning fatalities per year over the last 30 years. The odds of being struck by lightning in a given year is 1/1,000,000 but the odds of you being struck within your lifetime increases to 1/10,000 and then even more astounding is that the odds of you being affected by someone else being struck is 1/1,000. The last statistic is the one that I found the most interesting as these are pretty high odds that you will come into contact with someone during your lifetime that has been struck by lightning. This could be during your duties as an EMS provider or as an

individual citizen.

The National Weather Service also relays that only approximately 10% of people struck by lightning are killed but 90% are left with various degrees of disability. Some of the signs and symptoms that you may encounter when responding to a lightning strike victim:

- Cardiorespiratory arrest
- Cardiac arrhythmias including STEMI
- Airway compromise
- Seizures
- CNS changes
- Burns
- Musculoskeletal injuries
- Blindness
- Tinnitus
- GI irritability
- Irritability

As an EMS provider it will be critical to make sure that the scene is safe prior to approaching a lightning strike victim.

Once you do approach the patient and there is still an active lightning storm it will be important to move the patient to a safe environment as quickly as possible while treating life threatening injuries that are found.

Remember to review preparedness plans as we move into the thunderstorm season.

Sources:  
Cooper, MA. (2010), *Medical Aspects of Lightning*.  
<http://www.lightningsafety.noaa.gov/medical.htm>





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#### Stay Alert from the Weather Channel @ weather.com

Though spring in the U.S. is usually the busiest season for severe thunderstorms, they can occur in any season throughout the year.

Warm, humid conditions offer the most favorable environment for thunderstorms to develop.

Most deaths and injuries from lightning happen to people who have been caught outdoors in a storm in the afternoon and evening during the summer months.

Though thunderstorms often bring heavy rainfall, lightning can occur far away from areas of heavy rain.

If a severe thunderstorm watch or warning has not been issued, that does not mean that a storm isn't dangerous.

Thunderstorms that aren't designated "severe" still can be accompanied by lightning and hail.

## MCI Management Review

*Written by: Jim Davis*

With the spring storm season just around the corner, let's review the fundamentals of MCI management. Remember, the first two people on scene need to divide up and fill the Incident Commander and triage roles. When acting as the Incident Commander, the initial actions can be remembered as the 5 S's: Safety, Size-Up, Send Information, Set-up and START.

Safety includes ensuring the scene is safe before entering, before leaving your vehicle, and constantly assessing the scene while operating. We assess not only for responder safety, but the safety of those affected by the incident. If the incident is still producing patients or large numbers of patients cannot be located or accessed (dynamic), stabilizing the incident becomes the top priority.

Size-up begins when the call is received. Consideration should be given to the location of the call, time of day, and weather conditions. Once on scene an initial patient estimate needs to be made so requests for resources can be specific. Remember - it's just an estimate.

Send Information begins with the recognition that an MCI is occurring. Once a rough patient estimate is made, you need to notify several people. Dispatch needs to be notified that an MCI has been declared, who is in command, and what resources are needed. The resource hospital also needs to be notified and given the initial patient estimate. Finally, the system director needs to be notified.

Set-up is the action of setting up and organizing the scene. Decide where the treatment areas will be. Determine the transport corridors in and out of the scene. Establish and announce a staging area for the incoming units.

START is the last of the initial actions. Begin triage using the Simple Triage and Rapid Transport System. As resources arrive, begin to assign roles and build your incident command.

For further information, please review the MCAEMS System MCI policy.

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## Tornado Safety

*Courtesy of RedCross.org*

### Tornado Safety Checklist

A tornado is a violently rotating column of air extending from the base of a thunderstorm down to the ground. Tornado intensities are classified on the Fujita Scale with ratings between F0 (weakest) to F5 (strongest). They are capable of completely destroying well-made structures, uprooting trees and hurling objects through the air like deadly

missiles. Although severe tornadoes are more common in the Plains States, tornadoes have been reported in every state.

### Tornado Watch

Tornadoes are possible in and near the watch area. Review and discuss your emergency plans, and check supplies and your safe room. Be ready to act quickly if a warning is issued or you suspect a tornado is approaching. Acting early helps to save lives!

### Tornado Warning

A tornado has been sighted or indicated by weather radar. Tornado warnings indicate imminent danger to life and property. Go immediately under ground to a basement, storm cellar or an interior room (closet, hallway or bathroom).



## Newest Staff Addition

Sandy Alsman began working for the Mclean County EMS in February as the part-time Secretary II. Originally from Nebraska, Sandy has spent the majority of her life in Bloomington-Normal. Sandy has worked in the clerical field at many local businesses. She currently resides in Normal with her husband and two sons.

## Electrical Injuries

*Written by: Michael Crabtree*

Electrical injuries have numerous treatment considerations that are often forgotten or ignored. In a similar manner, lightning strikes present a significant mechanism of patient injury. Always keep in mind the following treatment considerations for any lightning strike or electrocution patient:

- Scene safety! Ensure the source of electricity is eliminated or otherwise controlled.
- Anyone who has been electrocuted or sustained a lightning strike is at risk for spinal injuries. These injuries typically occur as secondary injuries, resulting from either a fall from height or being thrown into objects/ground (much like a blast injury). In rare occurrences, severe uncontrolled muscular contractions can tear ligaments and tendons and fracture vertebrae, resulting in column instability.
- Respiratory arrest may persist after the heart regains electrical activity. Respiratory centers of the brain may be damaged by the jolt or the respiratory muscles may take longer to recover from the shock than the heart. In either case, assisting respirations will be imperative.
- According to the CDC, patients in cardiac arrest due to electrocution have better chances of survival than cardiac arrest due to other reasons.
- Always look for entry and exit wounds on all patients suffering from electrical or lightning strike injuries. Sometimes these injuries are not easy to locate.
- Many times, extreme heat will be generated during the application of electricity. Do not attempt to remove any articles of clothing that are stuck to the patient. Treat any burn injuries you discover as you would thermal burns. Keep in mind, however, that victims of electrical injury will typically not need wounds "cooled."