

Lightning Risk Reduction

Last year in the lightning risk reduction spotlight we introduced "*When Thunder Roars, Go Indoors*!" This is the recommendation from The National Weather Service and is the only completely safe action; get inside a safe building or vehicle."

When you first hear thunder, see lightning, or observe dark, threatening clouds developing overhead, the best risk-reduction technique to avoid being struck or injured by lightning is to shelter in a substantial building or hard-topped vehicle. **Stay inside until 30 minutes after you last hear the rumble of thunder before resuming outdoor activities.**

To prepare for significant council, district, or unit activities, we should develop a plan. Elements of an effective lightning safety written plan identifies vulnerable venues or activities where lightning poses a significant hazard to us. The following checklist items will help in preparing a plan.

- 1. **Weather Situational Awareness -** Obtain timely thunderstorm information; designate a weather watcher; and assign someone to be "in charge" with the authority to stop events when required.
- 2. **Public Notification Plan -** Communicate to staff, leaders, and Scouts that the threat for lightning and hazardous weather exists and outline the safety measures that will be implemented if the threat becomes imminent.
- 3. **Public Notification Plan -** Communicate the imminent threat to staff and event attendees and explain that sheltering or evacuation actions will occur.
- 4. **Protection Plan -** Identify safe structures or best practices when out-of-doors or if it is too far from a safe location. Provide specific evacuation instructions and actions to minimize exposure and maps.
- 5. **Staff Education and Plan Review -** Educate the leaders or staff so they know the lightning safety rules and are comfortable with all aspects of the written lightning safety plan.

The following seven myths are very important and should be re-emphasize each year.

Myth #1: Lightning never strikes the same place twice.

Fact: In fact, Lightning often strikes the same place repeatedly, especially if it's a tall, pointy, isolated object. The Empire State Building is hit by lightning nearly 100 times a year.

Myth #2: If it's not raining or there aren't clouds overhead, you're safe from lightning. **Fact:** Lightning often strikes more than three miles from the center of the thunderstorm, far outside the rain or thunderstorm cloud. "Bolts from the blue" can strike 10-15 miles from the thunderstorm.

Myth #3: Rubber tires on a car protect you from lightning by insulating you from the ground.

Fact: Most cars are safe from lightning, but it is the metal roof and metal sides that protect you, NOT the rubber tires. Remember, convertibles, motorcycles, bicycles, openshelled outdoor recreational vehicles and cars with fiberglass shells offer no protection from lightning. When lightning strikes a vehicle, it goes through the metal frame into the ground. Don't lean on doors during a thunderstorm.

Myth #4: A lightning victim is electrified. If you touch them, you'll be electrocuted. **Fact:** The human body does not store electricity. It is perfectly safe to touch a lightning victim to give them first aid. This is the most chilling of lightning Myths. Imagine if someone died because people were afraid to give CPR!

Myth #5: If outside in a thunderstorm, you should seek shelter under a tree to stay dry. **Fact:** Being underneath a tree is the second leading cause of lightning casualties. Better to get wet than fried!

Myth #6: Structures with metal, or metal on the body (jewelry, cell phones, Mp3 players, watches, etc), attract lightning.

Fact: Height, pointy shape, and isolation are the dominant factors controlling where a lightning bolt will strike. The presence of metal makes absolutely no difference on where lightning strikes. Mountains are made of stone but get struck by lightning many times a year. When lightning threatens, take proper protective action immediately by seeking a safe shelter – don't waste time removing metal. While metal does not attract lightning, it does conduct it so stay away from metal fences, railing, bleachers, etc.

Myth#7: If trapped outside and lightning is about to strike, I should lie flat on the ground.

Fact: Lying flat increases your chance of being affected by potentially deadly ground current. If you are caught outside in a thunderstorm, you keep moving toward a safe shelter.

* See http://www.lightningsafety.noaa.gov/myths.htm.

Note: For additional general information regarding lightning safety, see http://www.lightningsafety.noaa.gov. A great training video for Scouts in the backcounty is available at http://www.youtube.com/watch?v=PVSCD1mdzY0.