

Safety Note #80

FIELDWORK SAFETY: LIGHTNING



According to information available from the National Weather Service, approximately 1,000 people are struck by lightning in the United States each year. In addition, lightning caused 490 fatalities nationwide from 1995 through 2004. Of this total, approximately 50 percent of the lightning deaths occurred outside in open areas and about 16 percent of the fatalities happened when people stood under trees that were hit by lightning. Lightning from thunderstorms is a dangerous threat to fieldworkers and other people outdoors if they are in proximity to the storm.

The following fieldwork precautions and actions should be taken to reduce the potential for being struck or seriously injured by lightning:

- Be aware that if you are within hearing distance of thunder, you are also within striking distance of lightning.
- If you see lightning and hear the resultant thunder in less than 30 seconds, the thunderstorm is within six miles of you and should be considered dangerous.
- Whenever a lightning threat becomes significant, seek shelter immediately.
- Sheltering from lightning includes returning to a field vehicle, vacating ridge or hill tops and open water bodies, and occupying field buildings or facilities.
- If you are able to shelter indoors, unplug and keep your distance from appliances, computers, radios, and television sets.
- Never stand under an isolated tree in an open area to shelter from a thunderstorm.
- During a thunderstorm, avoid contact with metal objects such as fences, poles, electrical wires including overhead utility lines, machinery, and power tools.
- It is not a safe practice to take refuge from lightning beneath canopies or small picnic or rain shelters.
- If you are caught in the open during a thunderstorm, crouch down and protect your hearing by covering your ears. If possible, crouch down in a nearby topographic depression or low spot.
- If a fieldworker is struck by lightning, immediately contact 911.
- If the victim of a lightning strike is unconscious, check airway. As necessary, start CPR and apply other first aid measures.
- Wait at least 30 minutes after a thunderstorm has passed before resuming fieldwork.