

## **Information on Lightning Safety and Injuries**

All thunderstorms are accompanied by some lightning, so watch and listen. If you can hear thunder, you are at risk for lightning.

Determine how close the lightning is by counting the number of seconds between lightning flash and the sound of thunder. Divide the number by 5 to get the approximate distance of lightning in miles.

When the time between lightning and thunder is 20 seconds or less, the lightning is about 4 or fewer miles away. Time to seek shelter, if possible.

If no shelter is available, go to a low lying, open area away from the tallest trees. It's better to be among a group of trees than under the only tree in an open area. There is a 45-degree "cone of safety" formed by the top of a tall object (bluff, tree-lined shore, cliff) and the ground. Spread group members out.

Get into a tucked position: squat low to the ground, on a dry, non-conducting surface (life jacket if possible). Keep your feet together and your hands off of the ground. You can try putting your hands on your knees with your head between your knees. Do not lie on ground. Stay that way until after the lightning passes. (fifteen minutes without a strike within 3 miles).

If you cannot reach dry land, stay in boats with life jackets on. Paddle all boats into the marsh or mangroves (where applicable) so they are firmly stuck. Spread boats 20 feet or more apart, keeping in mind that most people are not going to like being away from their leader in such an emergency. Have everyone assume the tucked position.

If you feel your hair stand on end, or hear a high-pitched sound, a strike may be imminent. Some experts suggest that you keep your mouth open during this time to lessen eardrum trauma. (50% of all strike victims suffer ruptured eardrums!)

If there is a strike, there are generally four kinds of injuries: cardiopulmonary arrest, neurological damage, burns, and blunt trauma. GIVE CPR IMMEDIATELY WHEN YOU FEEL NO PULSE OR BREATHING (75% chance of survival). Victims can have temporary amnesia, paralysis, brain damage, confusion, blindness, and deafness. Usually the burns are not severe. The blunt trauma of shock waves can cause fractures.

**(Protocol for marsh based canoe and kayak trips threatened by electrical storms courtesy of Charleston County Park and Recreation Commission, Charleston, SC)**