

Lightning Safety Lessons

from the National Weather Service Disaster Preparedness Program

Since light travels at over 186,200 miles per second, the lightning flash is seen the instant it occurs. Sound travels much more slowly, at about one-fifth of a mile per second. Count the number of seconds between seeing the lightning flash and hearing the thunder, and divide by five to estimate how far away the lightning stroke occurred, in miles.

If the count is 10-15 seconds, the flash was 2-3 miles away: too close for comfort. Successive lightning strokes can be 2-3 miles apart, and you could be the next target. Don't be lulled into complacency that the storm is still a ways off. Lightning may leap quite a distance through clear air to strike several miles away from the storm, in what is the proverbial "bolt from the blue." The rule to remember is the **30-30 Rule**: *When you see lightning, count the seconds until you hear thunder. If that is 30 seconds or less, you're in the danger zone; seek appropriate shelter. Wait for 30 minutes after the last lightning strike before resuming normal outdoor activities.*

- 1.** If caught outdoors when thunderstorms threaten, don't seek shelter under a lone tree. Isolated trees, especially tall ones, make very effective lightning rods and attract lightning. Standing under trees is probably the deadliest thing you can do in a thunderstorm.
- 2.** If at all possible, do go indoors. Most lightning deaths and injuries occur outdoors. Indoor casualties are rare and come mostly from being in contact with electrical appliances and plumbing fixtures, or from lightning-caused fires.
- 3.** If you're unable to go indoors, don't be the highest object around. Don't stand on a hilltop, in an open field, or on a boat.
- 4.** Do plan ahead. Get the latest weather information on NOAA Weather Radio. Listen for static on your AM radio. Keep a sharp weather eye. Give yourself time to get to safety. Remember too, that some thunderstorms can bring winds strong enough to capsize even some larger craft.
- 5.** Don't stay in the water. Get out, regardless of whether it's a swimming pool, lake, or ocean. Get off the beaches.
- 6.** Do get off of and away from farm and construction equipment, unless it has an

enclosed metal cab. Get off of and away from motorcycles and bicycles, too.

- 7.** Don't be near wire fences, metal plumbing, railings, and other metallic paths which might conduct electricity to you from a distance.
- 8.** Don't use golf clubs, aluminum tennis rackets, or other metal objects when thunderstorms threaten. Get to safety.
- 9.** Do spread out. Groups caught in a thunderstorm should split up. That way, if lightning strikes the group, the least possible number will be affected.
- 10.** Suppose you're unable to go indoors or seek other appropriate shelter. You find yourself hopelessly isolated in a level field. Suddenly you feel your hair standing on end. This sometimes happens and indicates your body is taking on a strong electrical charge. It means you're about to become a lightning target. Do immediately drop to your knees and bend forward, with your hands on your knees. This will not necessarily prevent your being struck, but it's the best compromise between keeping a low profile and minimizing the flow of current between you and the ground. Remember that you can survive lightning. About two-thirds of lightning victims fully recover.