

Lightning and You



NOAA NATIONAL WEATHER SERVICE

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Did you know...

Each year in the United States, more than 400 people are struck by lightning. On average, between 55 and 60 people are killed and hundreds of others suffer permanent neurological disabilities. Most of these tragedies could be prevented with a few simple precautions.

Lightning kills about the same number of people as tornadoes and more people than hurricanes in the US.

Avoid the Lightning Threat!

Plan... Know where you'll go for safety and how much time it will take to get there. Allow enough time to reach safety!

Postpone... Before going outdoors, check the forecast for thunderstorms. Although it may be inconvenient, consider postponing activities to avoid being caught in a dangerous situation.

Monitor... Look for signs of a developing thunderstorm such as darkening skies, flashes of lightning, or increasing wind.

Act! If you see lightning or hear thunder, even a distant rumble, immediately move to a safe place.

Stay inside... Stay indoors for 30 minutes after the thunder ends. While indoors, keep away from electrical equipment, corded phones, and plumbing since household wiring and water pipes conduct electricity. The good news...cordless phones and cell phones are safe to use!

Choosing Shelter from Lightning



Best protection: Fully enclosed buildings with wiring and plumbing



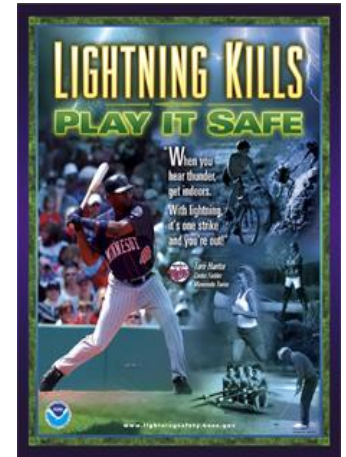
Good protection: Hard-topped metal vehicle with windows closed



No protection: Sheds, picnic shelters, tents, or covered porches

Outdoor Group Activities

It's essential for leaders to understand the dangers of lightning, have a lightning safety plan, and follow that plan once thunder is heard or lightning is seen. Many activities rely on volunteer leaders, coaches, or sports officials to make safety decisions. Don't be afraid to ask, and don't be afraid to speak out during an event if conditions become unsafe. You could save a life!



Designate a Weather Watcher

For larger events, it can be useful to designate someone to be the "weather watcher". This person would have the responsibility for monitoring conditions (via NOAA Weather Radio All-Hazards, TV, internet, their eyes, etc). They would then alert leaders or officials of any impending weather hazards.

Lightning Facts

- ⚡ There are an estimated 25 million cloud-to-ground lightning flashes in the U.S. each year.
- ⚡ All thunderstorms produce lightning and are potentially fatal.
- ⚡ Lightning can strike as far as 10 miles from any rainfall.
- ⚡ Temperatures in a lightning bolt reach 50,000°F.
- ⚡ Many lightning victims suffer permanent disabilities.

How close is the lightning?

- ⚡ Count the number of seconds between a flash of lightning and the next clap of thunder.
- ⚡ Divide this number by 5 to determine the distance to the lightning in miles.

When Thunder Roars, Go Indoors!

If Caught Outside...

There is no safe place outside in a thunderstorm. Plan ahead to avoid this dangerous situation! If you're outside and hear thunder, the only way to significantly reduce your risk of becoming a lightning casualty is to get inside a substantial building or hard-topped metal vehicle as fast as you can.

In a worst-case scenario, consider these facts:

- ⚡ **Avoid open areas.** Don't be the tallest object.
- ⚡ **Stay away from isolated tall trees, towers or utility poles.** Lightning tends to strike the taller objects.
- ⚡ **Avoid metal conductors such as wires or fences.** Metal does not attract lightning, but lightning can travel long distances through it.
- ⚡ **If you are with a group of people, spread out.** While this actually increases the chance that someone might get struck, it tends to prevent multiple casualties, and increases the chance that someone could help if a person is struck.

But remember – there is no substitute for getting to a safe place!



Lightning Safety Week

To raise awareness of the dangers of lightning, NOAA designates the last full week of June each summer as Lightning Safety Week. Visit the web site at www.lightningsafety.noaa.gov for posters, games, brochures, survivor stories, and more.

If Someone is Struck...

Act fast!! Lightning victims do not carry an electrical charge, are safe to touch, and need urgent medical attention.

Cardiac arrest is the immediate cause of death for those who die from a lightning strike. Some deaths can be prevented if the victim receives the proper first aid immediately.

- ⚡ **Call for help.** Call 9-1-1 or your local ambulance service.
- ⚡ **If possible, move the victim to a safer place.** Lightning *can* strike twice. Don't become a victim yourself!
- ⚡ **Give first aid.** If the person is unresponsive or not breathing, begin CPR immediately. Use an Automatic External Defibrillator (AED) if available.

Stay Informed

As a further safety measure, consider purchasing a portable, battery-powered, tone-alert NOAA Weather Radio All Hazards. The radio will allow you to listen for short-term forecasts of changing weather conditions. The tone-alert feature can automatically alert you when the NWS issues a severe thunderstorm watch or warning.



A Severe Thunderstorm Warning means:

The thunderstorm is capable of producing one-inch diameter (quarter size) hail or larger and/or 58 mph (damaging) winds or stronger.

Many people are surprised to learn that watches and warnings are NOT issued for lightning! (This is because all lightning is potentially fatal – and all thunderstorms have lightning.)

On the Web:

Lightning Facts, Awareness, Safety, and Resources	www.lightningsafety.noaa.gov
National Weather Service	www.weather.gov
Federal Emergency Management Agency	www.fema.gov
Red Cross Preparedness	www.redcross.org