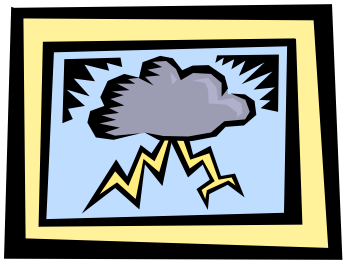
What Is Lightning?



Lightning is an electrical discharge that results from the buildup of positive and negative charges within a thunderstorm. When the buildup becomes strong enough, lightning appears as a "bolt." This flash of light usually occurs within the clouds or between the clouds and the ground.

Plan Ahead For Lightning

The best way to protect yourself is to plan ahead so you're not in a dangerous location when storms threaten.

Be prepared to end golf games or fishing trips early when lightning approaches. The inconvenience of rescheduling outdoor activities is a small price to pay for safety from lightning strikes.

Carry a portable NOAA Weather Radio to keep abreast of all weather situations. These radios provide 24-hour weather coverage from the National Weather Service.

A person who has been struck by lightning does not carry an electrical charge that can shock other people. If the victim is burned, provide first aid and call emergency medical assistance immediately. Look for burns where lightning entered and exited the body. If the strike caused the victim's heart and breathing to stop, give CPR until medical professionals arrive and take over.

The power of lightning's electrical charge and intense heat can electrocute on contact, split trees, ignite fires, and cause electrical failures.

Types of Lightning

Cloud to ground lightning is the most damaging and dangerous form of lightning. Although not the most common type, it is the one which is best understood. Most flashes originate near the lower-negative charge center and deliver negative charge to earth. However, an appreciable minority of flashes carry positive charge to earth. These positive flashes often occur during the dissipating state of a thunderstorm's life. Positive flashes are also more common as a percentage of total ground strikes during the winter months.

Intra-cloud lightning is the most common types of discharge. This occurs between oppositely charged centers within the same cloud. Usually the process takes place within the cloud and looks from the outside of the cloud like a diffuse brightening which flickers. However, the flash may exit the boundary of the cloud and a bright channel, similar to a cloud-to-ground flash, can be visible for many miles.

Summer is the peak season for one of the nations' deadliest weather phenomena.....lightning.

MITIGATION includes any activities that prevent an emergency, reduce the chance of an emergency happening, or lessen the damaging effects of unavoidable emergencies. Investing in preventive mitigation steps now, such as installing lightning rods to carry the electrical charge of lightning bolts safely to the ground or purchasing flood insurance, will help reduce the impact of severe thunderstorms in the future. For more information on mitigation, contact your local emergency management office.

OKLAHOMA FLOODPLAIN MANAGERS ASSOCIATION

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www.fema.gov

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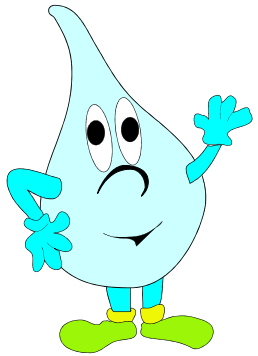


Freddie Floodway wants YOU to know about

LIGHTNING SAFETY In Oklahoma

Every year people are killed or injured by lightning strikes in Oklahoma On average, about 50 bolts of lightning will strike less than a mile from any given person each year—about 1 million strikes per year across the state. Where you are when these strikes occur could greatly affect your chances of getting struck by lightning.

For additional information on how YOU can protect you and your family from lightning, check out these web sites: www.okflood.org and www.fema.gov

Lightning Kills, Play It Safe

Freddie Floodway Knows

Lightning is a serious danger. A bolt of lightning reaches a temperature approaching 50,000 degrees fahrenheit in a split second. The rapid heating and cooling of air near the lightning causes thunder.

HOW CAN YOU TELL HOW FAR AWAY A STORM IS?

You can tell how far away lightning struck by counting seconds between the flash and the thunder. Every 5 seconds equals one mile, so if you count 10 seconds until your hear the thunder, the lightning flash was 2 miles away.

In the United States, an average of 67 people are killed each year by lightning. In 2003, there were 44 deaths. That's more than the annual number of people killed by tornadoes or hurricanes. Many more are struck but survive. However, they often report a variety of long-term, debilitating symptoms, including memory loss, attention deficits, sleep disorders, numbness, dizziness, stiffness in joints, irritability, fatigue, weakness, muscle spasms, depression , and an inability to sit for long periods of time.

WHEN YOU ARE CAUGHT IN A STORM, WHAT CAN YOU DO?

IF INDOORS:

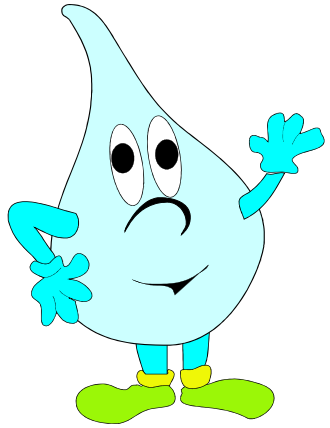
- Do not handle any electrical equipment or telephones because lightning could follow the wire. Television sets are particularly dangerous at this time.
- Avoid bathtubs, water faucets, and sinks because metal pipes can transmit electricity.

IF OUTDOORS:

- Attempt to get into a building or car.
- If no structure is available, get to an open space and squat low to the ground as quickly as possible. Kneel or crouch with hands on knees
- Avoid tall structures such as towers, tall trees, fences, telephone lines, or power lines.
- Stay away from natural lightning rods such as golf clubs, tractors, fishing rods, bicycles, or camping equipment.
- Stay away from rivers, lakes, or other bodies of water.
- If you are isolated in a level field or prairie and you feel your hair stand on end (which indicates that lightning is about to strike), drop to your knees and bend forward, putting your hands on your knees. Do not lie flat on the ground.

IF IN A CAR:

- Pull safely onto the shoulder of the road away from any trees that could fall on the vehicle.
- Stay in the car and turn on the emergency flashers until the heavy rains subside.



Common Lightning Myths

Myth: If it's not raining, then there is no danger from lightning.
Truth: Lightning often strikes outside of heavy rain and may occur more than ten miles away from any rainfall.

Myth: Rubber soles on shoes or rubber tires will protect you from being struck by lightning.
Truth: Rubber soles on shoes and rubber tires offer no protection from lightning. However, the metal body of a hard-topped vehicle does provide increased protection. Make sure not to touch any metal inside the vehicle.

Myth: People struck by lightning carry an electrical charge—never touch anyone who has just been struck by lightning.
Truth: People just struck by lightning carry no electrical charge and should be given attention—including CPR immediately.

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Contact your local emergency management office or American Red Cross chapter for more information on LIGHTNING