

Lightning: The Shocking Truth about Nature's Underrated Hazard

Cartoons may make being hit by lightning look funny, but the fact is, lightning is no laughing matter. **Lightning is a leading storm-related killer**, causing nearly **\$1 billion** in property damage each year. Knowing the facts about the weather hazard experienced most often in the U.S. can save lives, prevent injuries and protect property.

Some Truths About Lightning

As lightning passes through air, it can heat the air to **50,000 degrees Fahrenheit** (about **five** times hotter than the surface of the sun)

A typical lightning flash is about **300 million Volts** and about **30,000 Amps**. In comparison, a household electrical current is 120 Volts and 15 Amps. There is enough energy in a typical flash of lightning to light a 100-watt incandescent light bulb for about three months or the equivalent compact fluorescent bulb for about a year.

Myth:

Lightning Never Strikes the Same Place Twice.

Fact:

Lightning strikes (like that old joke about where 800 lb gorillas sleep), "Anywhere (and anytime) it wants."

Did You Know...

The Empire State Building is struck by lightning nearly 25 times per year, and has been hit up to a dozen times during a single storm.

The Top Five States Most Often Struck by Lightning

(ranked by no. of strikes per sq. mile)

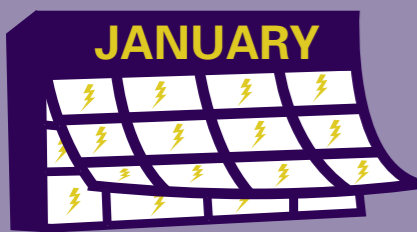
No. 5 (tie) South Carolina/
Oklahoma: **14.6** strikes per sq. mile

No. 4 Alabama
15.9 strikes per sq. mile

No. 3 Mississippi:
18.0 strikes per sq. mile

No. 2 Louisiana:
20.3 strikes per sq. mile

No. 1 Florida:
25.3 strikes per sq. mile

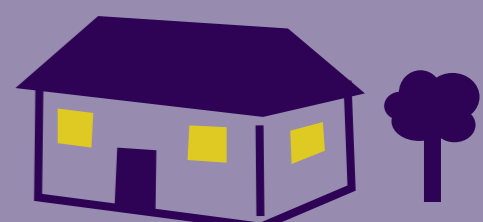


16 million

Average number of thunderstorms on Earth per year.



"When Thunder Roars, Go Indoors" is great advice, but remember that nearly **1/3** of all lightning-related injuries occur indoors.



Myth:

Lightning only strikes the tallest objects.

Fact:

Lightning is indiscriminate and it can find you anywhere. It hits homes instead of trees, people instead of nearby telephone poles, and homes and businesses instead of skyscrapers.



41% of lightning strike victims are between **15** and **34** years of age. Be careful out there!



Myth:

If you don't see clouds or rain, you're safe.

Fact:

Lightning can strike **10** miles from a thunderstorm. Every year, lightning casualties occur when people are hit outside of a thunderstorm—this is where we get the expression, "a bolt from the blue."

Fact:

When you are in a thunderstorm, you are **NOT** safe **ANYWHERE** outdoors.

- Run to a safe building or vehicle when you first hear thunder, see lightning or observe dark threatening clouds developing overhead
- Stay inside until **30** minutes after you hear the last clap of thunder
- Do not shelter under trees
- Remember, a tent offers **NO** protection from lightning

Fact:

You are **NOT** completely safe indoors. **AVOID:**

- Contact with corded phones
- Contact with electrical equipment or cords. If you plan to unplug any electronic equipment, do so well before the storm arrives.
- Contact with plumbing. Do not wash your hands, do not take a shower, do not wash dishes, and do not do laundry.

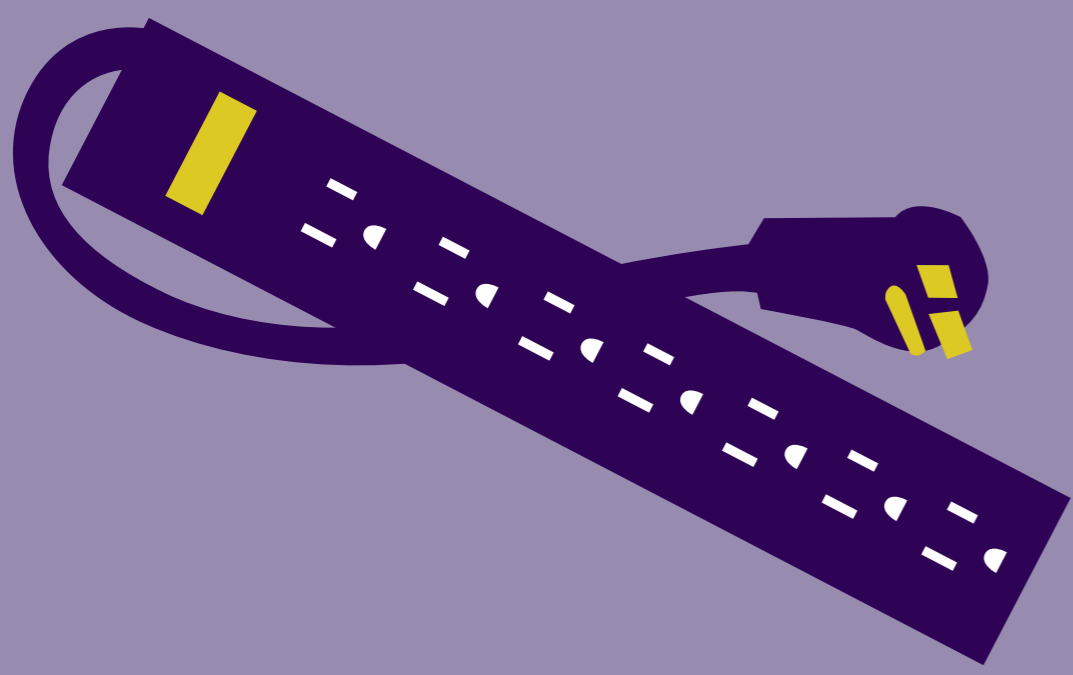
Myth:

Lightning Protection Systems...

- Attract lightning
- Act as a surge protector for household electronics
- "Drain" a storm of its charge or prevent lightning

Fact:

A **Lightning Protection System** is a network of components designed to intercept a lightning strike and provide a preferred path to ground. The system **discharges** the dangerous electricity, leaving occupants and the structure safe from harm.



Myth: Surge arresters and suppressors will protect my home against lightning.

Fact: Surge Protection Devices (SPDs) are important components of a complete **Lightning Protection System**, but can do nothing to protect a structure against a direct lightning strike or a lightning fire. SPDs should be installed in conjunction with a **Lightning Protection System** (air terminals, bonding, grounding) to provide whole house protection.



Myth: If you touch a lightning victim you'll be electrocuted.

Fact: The human body doesn't store electricity. It's **perfectly safe** to touch a lightning victim to give them first aid.

Making a Difference!

In recent years **deaths** and **property damage** have declined partly due to awareness about best practices for personal safety and increased specification of lightning protection systems for structures. Partnerships and education are fueling this success!

Lightning.org