

By Dr. Mercola

From 2003 to 2012, 350 people died from being struck by lightning in the US. Many more are struck by lightning and survive, as only about 10 percent of lightning-strike victims are killed, although many do suffer from serious long-term effects.

Contrary to popular belief, what you do during a lightning strike can make all the difference in the outcome, helping you to survive and potentially suffer only minor injuries.

You might think this will never happen to you, but when you consider that the earth is struck by more than 100 lightning bolts every second, it doesn't sound so far-fetched. If you live in the US, you have a 1 in 3,000 chance of being struck by lightning in your lifetime. Knowing what to do if it happens can save your life. Get off your bike, motorcycle, or ATV. See page 2.

How to Survive a Lightning Strike

Squat with your two feet on the ground away from trees and all types of conductors.

- Don't lie down: If you lie down, an electrical current passing through the ground from a nearby lightning strike can pass right through your body.
- Crouch low so you're not the tallest object around, and at the same time keep your feet close together with your heels touching. This will help the electricity to go in one foot and out the other. Crouch as low to the ground as you can.
- Crouch on the balls of your feet: This way, a minimal surface of your body is touching the ground and, if a lightning strike does come through you off the ground, the current will most likely travel up one leg and down the other, missing vital organs like your heart.
- Placing your hands over your ears can help minimise hearing loss from the forthcoming (loud) thunder boom.
- Be aware of hair standing on end or skin tingling: These are signs that a lightning strike is imminent. Get into the crouching position immediately if you feel them, but be aware that lightning may strike without these warnings.

If You Can Make It to Your Car, Go There

Have you ever heard of a Faraday suit or Faraday cage? This is what some electrical linemen wear so they can work on live, high-voltage power lines without being electrocuted.

Named after Michael Faraday, a scientist who invented them in the 1800s, the suit or cage is made of a mesh metal or other conducting material, which allows the electrical current to pass through the conducting material without reaching whatever is inside. It moves the current around you rather than through you.

Your car is actually a Faraday cage, which is why you're safe inside one if lightning strikes. It's not just the rubber wheels that protect you, as often believed, it's the effect of the Faraday cage.

So, if you can make it to your vehicle, do. If not, crouch low.

You Can Be Struck by Lightning Even If the Sky Is Blue

According to an analysis by the National Weather Service, in many lightning-strike deaths, the victims were either headed to safety, or just steps away from safety, when the fatal strike occurred, so if you think a storm is approaching, don't wait to seek shelter! Many wait far too long, believing the storm is too far away to be a threat.

National Geographic reported, "Most people do not realise that they can be struck by lightning even when the centre of a thunderstorm is 10 miles (16 kilometres) away and there are blue skies overhead. If you can hear thunder, you are within 10 miles of a storm, and can be struck by lightning. Seek shelter and avoid situations in which you may be vulnerable."

Furthermore, lightning is not only a concern during a thunderstorm. It can also strike during other weather events, including:

- Heavy snowstorms
- Hurricanes
- Forest fires
- Volcanic eruptions

Generally speaking, if you know a storm is approaching, don't risk it. Seek shelter immediately.

Memorise this. You should use the 30-30 rule when deciding if you need to take cover. When you see lightning, begin counting until you hear thunder. If the time is 30 seconds or less, it means the storm is within six miles and you should move to safety immediately. Even after the sun comes out, you should wait at least 30 minutes after the last clap of thunder before heading back outside.

The Worst Places to Go in a Thunderstorm

If you're caught in a thunderstorm, resist the temptation to hide under a tree. Trees are typically the tallest objects around, making them perfect targets for lightning and one of the worst places to seek shelter. If you're near one, the lightning can jump over to you and follow your body on its way to the ground.

Rivalling trees as the worst place to go in a thunderstorm would be going near (or in) any type of water, as water is an efficient conductor of electricity, and if you're swimming, you'll also be the tallest object around. You also can't depend on wooden, vinyl, or metal sheds or structures to protect you, unless they're specifically designed to be lightning-safe, and most are not.

Small shelters common to picnic sites, parks, golf courses, and athletic fields will not typically protect you from lightning because they have no mechanism to conduct the electrical current to the ground, such as plumbing or wiring.

If you're indoors be aware that if lightning strikes, it can travel through electrical and telephone wires, which is why you should avoid contact with electrical appliances, plumbing and landline phones. Don't take a shower, do laundry, wash dishes, or even wash your hands. Phone use is a leading cause of indoor lightning injuries.

Where Are You Most Likely to Be Struck by Lightning?

Contrary to popular belief, it's not on the golf course, although it is while you're engaged in leisure activities. According to a National Weather Service analysis, two-thirds of lightning deaths occur in people enjoying outdoor leisure activities. As you might suspect, the deaths spiked during the summer months and on Saturdays and Sundays, when people are most likely to be outdoors. Interestingly, golf didn't even make the top 10 list of leisure activities associated with the most lightning deaths (it was #12). The top locations revealed by the analysis were:

1. Fishing
2. Camping
3. Boating
4. Soccer
5. Beach
6. Farming or ranching
7. Riding a bike, motorcycle, or ATV
8. Social gathering
9. Yard work
10. Walking to/from home

What to Do If You're Struck by Lightning

Most lightning strikes are not fatal, but that doesn't mean they're without consequence. Lightning can injure your nervous system, leading to brain and nerve injuries. It can also lead to cardiac arrest from the electrical shock which is typically the cause of death in fatal lightning strikes. Rarely, serious burns may occur. If you're near someone who has been struck by lightning and they become unresponsive, it is safe to help them. There is no risk of being electrocuted if you touch them.

After calling for emergency help, administering CPR, or CCR, may keep them alive until help arrives. Aside from cardiac arrest, a lightning strike can lead to short-term symptoms such as muscle soreness, headache, nausea, upset stomach, confusion, mental slowness or fogginess, dizziness, and balance problems. In the longer term, other symptoms may also emerge, some of which may be delayed, including -

- Problems coding new information and accessing old information
- Difficulty multitasking
- Slower reaction time
- Distractibility
- Irritability

Inattentiveness or forgetfulness

Headaches

Chronic pain from nerve injury

Ringing in your ears, dizziness or balance problems

Difficulty sleeping, sometimes sleeping excessively at first and later only two or three hours at a time

Personality changes, self-isolation

Embarrassment because you can't remember people or your responsibilities

Difficulty carrying on a conversation

Depression