

# STAYING SAFE IN A SEVERE STORM

When there is a **severe storm** in your area, it is important to find shelter as soon as you can. The best option is a house or building with the windows and doors closed, and no open areas to the outside.

If you are...	Then...
<b>Indoors</b> A sturdy building with no open windows to the outside	<ul style="list-style-type: none"><li>• Take shelter in a sturdy building. Avoid isolated sheds or other small structures in open areas.</li><li>• Avoid contact with corded phones and devices including those plugged into electrical outlets for recharging. Cordless and wireless phones not connected to wall outlets are OK to use.</li><li>• Avoid contact with electrical equipment or cords. Unplug appliances and other electrical items such as computers, and turn off air conditioners. Power surges from lightning can cause serious damage.</li><li>• Avoid contact with plumbing. Do not wash your hands, do not take a shower, do not wash dishes, and do not do laundry. Plumbing and bathroom fixtures can conduct electricity.</li><li>• Stay away from windows and doors, and stay off porches.</li><li>• Do not lie on concrete floors and do not lean against concrete walls. Avoid contact with anything metal—tractors, farm equipment, motorcycles, golf carts, golf clubs, and bicycles.</li></ul>
<b>In a Forest</b>	Seek shelter in a low area under a thick growth of small trees.
<b>In an Open Area</b>	<ul style="list-style-type: none"><li>• Go to a low place such as a ravine or valley. Be alert for flash floods.</li><li>• Avoid hilltops, open fields, or the beach.</li><li>• Avoid natural lightning rods such as a tall, isolated tree in an open area.</li></ul>
<b>In Open Water</b>	Get to land and find shelter immediately.
<b>In a Car</b>	<ul style="list-style-type: none"><li>• Try to safely exit the roadway and park.</li><li>• Stay in the vehicle and turn on the emergency flashers until the heavy rain ends.</li><li>• Avoid touching metal or other surfaces that conduct electricity in and outside the vehicle.</li></ul>

If a **tomado warning** is implemented, seek shelter immediately. Protect yourself by finding an area in the interior of a building. Below is information on how to proceed in different scenarios when a tornado is spotted.

If you are in...	Then...
<p><b>A Structure</b> (e.g., residence, small building, school, nursing home, hospital, factory, shopping center, high-rise building)</p>	<p>Go to a pre-designated area such as a safe room, basement, storm cellar, or the lowest building level. If there is no basement, go to the center of a small interior room on the lowest level (closet, interior hallway) away from corners, windows, doors, and outside walls. Put as many walls as possible between you and the outside. Get under a sturdy table and use your arms to protect your head and neck.</p> <ul style="list-style-type: none"> <li>• In a high-rise building, go to a small interior room or hallway on the lowest floor possible.</li> <li>• Put on sturdy shoes.</li> <li>• Do not open windows.</li> </ul>
<p><b>A Manufactured Home or Office</b></p>	<p>Get out immediately and go to a pre-identified location such as the lowest floor of a sturdy, nearby building or a storm shelter. Mobile homes, even if tied down, offer little protection from tornadoes.</p>
<p><b>The Outdoors with No Shelter</b></p>	<p>If you are not in a sturdy building, there is no single research-based recommendation for what last-resort action to take because many factors can affect your decision. Possible actions include the following:</p> <ul style="list-style-type: none"> <li>• Immediately get into a vehicle, buckle your seat belt and try to drive to the closest sturdy shelter. If your vehicle is hit by flying debris while you are driving, pull over and park.</li> <li>• Take cover in a stationary vehicle. Put a seat belt on and cover your head with your arms and a blanket, coat, or cushion if possible.</li> <li>• Lie in an area noticeably lower than the level of the roadway and cover your head with your arms and a blanket, coat, or other cushion if possible.</li> <li>• Do not get under an overpass or bridge. You are safer in a low, flat location.</li> <li>• In urban or congested areas, never try to outrun a tornado in a vehicle. Instead, leave the vehicle immediately for safe shelter.</li> <li>• Watch out for flying debris. Flying debris causes most fatalities and injuries from tornadoes.</li> </ul>

**Straight-line winds** can cause damage similar to tornadoes and usually emerge from thunderstorms. The damage caused by straight-line winds is pushed in the direction the wind was moving.

If you are...	Then...
<b>Inside a Building</b>	<ul style="list-style-type: none"> <li>• Move to the lowest floor and stay away from windows.</li> <li>• Taking shelter in a basement is strongly encouraged, especially if you are surrounded by trees that could fall onto the building or house.</li> <li>• If you are in a mobile home, move to a stronger building or storm cellar if winds reach speeds of 70 mph.</li> </ul>
<b>Driving</b>	<ul style="list-style-type: none"> <li>• Keep both hands on the wheel and slow down.</li> <li>• Pull over to the shoulder and stop, making sure you are away from trees or other tall objects that could fall on your vehicle. <i>DO NOT</i> stop in the middle of a lane under an overpass. This could lead to an accident.</li> <li>• Take extra care in a high-profile vehicle such as a truck, van, SUV, or when towing a trailer. <ul style="list-style-type: none"> <li>◊ These are more prone to being pushed or even flipped by straight-line winds.</li> <li>◊ If possible, orient your vehicle so it points into the wind.</li> </ul> </li> <li>• Stay in the car and turn on the hazard lights until the wind subsides.</li> </ul>
<b>Outside</b>	<ul style="list-style-type: none"> <li>• Take cover in a well-built building, or use this building to block the wind if you cannot get inside.</li> <li>• If no building is nearby, find the lowest spot and crouch low to the ground.</li> <li>• Stay away from trees or power lines since these are easily felled by straight-line winds.</li> <li>• If you are in the middle of a forest, move to the lowest/smallest stand of trees.</li> <li>• Stay clear of roadways or train tracks, as the winds may blow you into the path of an oncoming vehicle.</li> <li>• Watch for flying debris. Tree limbs, street signs, and other objects may break and become flying projectiles in the wind.</li> </ul>

# LIGHTNING SAFETY

As of November 2014, there were 26 lightning fatalities in the United States in 2014. Six were in Florida, three in Wisconsin, and two each in Arizona, Arkansas, Colorado, Georgia, and Massachusetts.<sup>10</sup> Knowing the facts about lightning can help you stay safe.

## Lightning Fiction and Fact

**Fiction:** If it is not raining, then there is no danger from lightning.

**Fact:** Lightning often strikes in the absence of heavy rain and may occur as far as 10 miles away from any rainfall. This is especially true in the western United States, where thunderstorms sometimes produce very little rain.

**Fiction:** The rubber soles of shoes or tires on a car will protect you from being struck by lightning.

**Fact:** Rubber-soled shoes and rubber tires provide NO protection from lightning. The steel frame of a hard-topped vehicle provides increased protection if you are not touching metal. Although you may be injured if lightning strikes your car, you are much safer inside a vehicle than outside.

**Fiction:** People struck by lightning should not be touched because they carry an electrical charge.

**Fact:** Lightning-strike victims carry no electrical charge and should be helped immediately. Anyone who has been hit by lightning requires immediate professional medical care. Call 9-1-1 and begin CPR immediately if the person has stopped breathing. Use an automatic external defibrillator if one is available. Contact your local American Red Cross chapter for information on CPR and first aid classes.

**Fiction:** “Heat lightning” occurs after very hot summer days and poses no threat.

**Fact:** “Heat lightning” is a term used to describe lightning from a thunderstorm too far away for the thunder to be heard.



## What You Can Do Before Lightning Strikes

### Plan Ahead

- Develop a plan for you and your family at home, work, school, and when outdoors. Tips are available from the American Red Cross ([redcross.org](https://www.redcross.org)) and the Federal Emergency Management Agency at [ready.gov](https://www.ready.gov).<sup>7</sup>
- Check the weather forecast. If thunderstorms are predicted, consider postponing outdoor activities.
- Have a Public Alert™ certified NOAA Weather Radio or use a weather application for your cell phone to alert you if threatening weather arises.

### Seek Safe Shelter

- Small outdoor buildings, including sports dugouts, rain shelters, garages, etc., are **NOT SAFE**. Substantial buildings with wiring and plumbing are the safest places. Office buildings, schools, and homes offer good protection.
- Once inside, stay away from windows, doors, and anything that conducts electricity.
- A hard-topped metal vehicle with the windows closed also provides good protection. Avoid contact with metal in the vehicle and try to keep away from windows.

### If You Cannot Get to a Safe Shelter

- Avoid open fields, the top of a hill, or a ridge top.
- Stay away from tall, isolated trees or other tall objects.
- Stay away from water, wet items, and metal objects. Water and metal are excellent conductors of electricity. The current from a lightning flash will easily travel for long distances.



**Wisconsin Department of Health Services**

Division of Public Health

Climate and Health Program

P-01037b (Rev. 05/2019)