



# Maine Farm Safety Program

Bulletin #2315

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## Lightning Safety

Thunderstorms and lightning are most likely to develop on hot, humid days. Thunderstorms and lightning can be very dangerous, especially if a person is outdoors without proper protection. If lightning is seen or heard, take protective action immediately.

### ◆ Ways Lightning Can Kill

There are five ways in which lightning can severely injure or kill people or animals.

1. **A direct strike** usually results in cardiac arrest and/or stoppage of breathing.
2. **A sideflash** may occur when the body of a person provides an alternate or parallel path for the current. This means the person may be another way for the current to reach the ground. If the current passes through the head or heart, death may result.

3. **Conducted current** from a lightning flash may range from tingling shock to a massive current diverted from a poorly grounded electric power pole through the wiring system.
4. **Step voltage** radiates out through the ground from a struck tree or pole. This results in many livestock deaths every year.
5. **Fires, fallen trees, crushed cars.** These are secondary effects. Injuries that occur from these are an indirect result of lightning.

### Lightning Safety

- ◆ Avoid tall, isolated objects during a lightning storm.
- ◆ Let professionals handle fallen wires.



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◆ **Protection During Lightning Storms**

There are several things one can do if caught outdoors when a lightning storm strikes. Take shelter inside a building or car and close the windows and doors. Get off farm machinery. Get out of the water if you are swimming or boating, and get away from it. If boating, stay low and avoid contact with the water.

Do not take refuge under any tall, isolated object, such as a tent or tree. Standing under a group of trees, shorter than others in the area, is better than being in the open. Avoid electrical fences, clothes lines, metal pipes, rails, telephone poles and other conductors. Put down any object that might conduct electricity, such as a rake, hoe or shovel. Seek low ground, preferably a ditch or gully.

If you are outside with no protection, get to a low spot. Make your body low to the ground, but do not lie flat on the earth. Curl on your side or drop to your knees and bend forward, putting your hands on your knees. If there is a group of people, spread out. If someone feels their hair stand on end, it may mean lightning is about to strike. Stay calm and keep low. This will help reduce your chances of being struck by lightning.



Do not take refuge under an isolated object

If lightning strikes are suspected, keep clear of windows if inside a dwelling. Turn off the television and any other electrical appliances. Electricians suggest unplugging televisions and other valuable appliances because lightning can strike or cause electrical surges that can destroy these appliances. Postpone baths, showers and doing dishes until the storm passes because there is the possibility of electrocution. Stay away from water and gas pipes, electrical appliances and telephones because electricity can travel through these and cause electrocution.

◆ **Lightning-Caused Hazards**

**Fallen Wires:** Do not touch fallen wires. Report them to the police or local utility immediately. If the wire should fall on an occupied vehicle, tell the driver to stay in it and drive away, if possible. If they are unable to drive away, tell them to wait for help and do not get out. They are safe inside the car, but should avoid touching the metal parts of the car.

**Electrical Fires:** If an appliance or tool catches fire, try to unplug it or turn off the current at the fuse box. Do not pour water on the fire. Use a Class C fire extinguisher or throw baking soda on the fire. If it gets out of control, call the local fire department and get out.



◆ **First Aid for Lightning Victims**

Besides burns, lightning can also cause nervous system damage, broken bones and loss of hearing or eyesight. Victims may experience confusion and memory loss. First aid for lightning victims needs to be carried out immediately. After the lightning strikes, get to the victim as quickly as possible. Check breathing and pulse if the victim is unconscious. If the victim has a pulse, but is not breathing, begin mouth-to-mouth resuscitation. If there is no pulse, begin cardiopulmonary resuscitation (CPR). Check for other injuries, such as possible fractures. Do not move a suspected spinal injury victim. Cover the electrical burn with a dry, sterile dressing, but

do not cool the burn. There may be more than one burn area — one where the current entered the body and another where it left. Call the local emergency department for help. Keep the victim from getting chilled until help arrives.

If a person struck by lightning appears only stunned or otherwise unhurt, medical attention may still be needed. Check for burns, especially at fingers and toes, and areas next to buckles and jewelry. Make sure all lightning victims have a medical examination even if they do not seem to need it.

***Make sure all lightning victims have a medical examination even if they do not seem to need it.***



**This Maine Farm Safety Fact Sheet is part of an educational fact sheet series produced by the University of Maine Cooperative Extension. For more information on farm safety, contact your county Extension office.**



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