



## Bozeman Baseball Lightning Safety Policy

### Lightning Facts

- Approximately 70 people are killed by lightning and 400 are injured in any given year in the U.S. (NOAA)
- On average, 10% of strike victims die and 70% suffer serious long term effects. (NOAA)
- The second most likely place of occurrence for a person to be struck is at a ball field or open field. (*Golf courses are the most likely location*). (Angel and Hison 1995)
- Bolts of lightning reach temperatures as high as 50,000 degrees.
- The average thunderstorm is six to ten miles wide.
- The average rate of travel of a thunderstorm is 25 mph.
- Lightning can strike from as far away as 10 miles.

### Lightning Myths

- Heat lightning is not harmless. Heat lightning is regular lightning that is too far away to be heard. It can pose a threat if it moves into your area.
- Tennis shoes with rubber soles offer little protection against a lightning bolt.
- If lightning strikes a vehicle, the occupants can still be injured (even though the car has rubber tires and the windows are up) if the occupants are touching metal or any conducting path going to the outside of the vehicle. However, the risk of injury or death while inside a vehicle is much less than staying outside a vehicle but greater than taking shelter within a sturdy building. The metal shell of the vehicle provides the protection- not the rubber tires.
- A person who has been struck by lightning does not carry an electrical charge and must receive immediate first aid/CPR.

### Helping Lightning Victims

Lightning victims **do not carry an electrical charge**, are **safe to handle**, and **need immediate medical attention**. **Call 9-1-1** or your local ambulance service.

In some cases, lightning strikes are catastrophic without being fatal. In many cases, the **victim's heart or breathing may stop, which can be fatal without immediate medical attention**. It is always a good idea to have a coach or official in attendance who can administer CPR (cardiopulmonary resuscitation) and who also has experience using an automated external defibrillator to revive them until an ambulance can arrive. Continue to monitor the victim until medical help arrives. If possible, move the victim to a safer place away from the threat of another lightning strike.

## Our Policy...

### The 30/30 Lightning Rule For Postponing Activity And Returning To Activity

- **NO PLACE IS SAFE OUTDOORS** when thunderstorms are in the area!
- If you can **see lightning** or **hear thunder** it means the storm is within 6-10 miles and you are no longer safe
- Most experts recommend that outdoor athletic events should be postponed when the thunderstorm approaches from a **distance of six miles**. The best way to gauge the distance of a thunderstorm is to measure the elapsed time from the flash to bang. Since a count of five seconds equals a distance of one mile, a count of **30 seconds equals a distance of six miles**.
- **If you hear thunder, immediately move to safe shelter**. Vehicles are the safest shelter readily available at most of the facilities Bozeman Baseball utilizes.
- All individuals should have left the outdoor athletic site and reached a safe shelter or location by the time the elapsed flash to bang reaches a count of 30 seconds.
- Individuals can **resume activities at the site 30 minutes has elapsed since the last flash or thunder**.
- If a game cannot resume because of weather, don't even try. **Safety is always your first priority** and erring on the side of caution is never an error.



For more information on lightning safety, please visit:

<https://www.weather.gov/safety/lightning>



## BABE RUTH LEAGUE, INC. GUIDE TO EMERGENCY WEATHER AND LIGHTNING SAFETY

Lightning is the most dangerous and frequently encountered weather hazard that physically active people face. Each year, about 400 children and adults in the U.S. are struck by lightning. On average about 70 people are killed, and many others are left with serious life-long disabilities. The safety of the players, parents, coaches, officials and spectators is of great importance to Babe Ruth League, Inc. When *Mother Nature* calls, knowing what to do is an important step in enforcing safety. Sports officials must understand thunderstorms and lightning to ensure they make educated decisions on when to seek safety. All leagues should have a written plan in place for such emergencies. Make sure your league doesn't *strike out* against emergency weather situations by following the safety policies below:



### Before An Event—Plan Ahead-Monitor Weather Conditions

- Officials/Organizers should listen to the latest forecast to determine the likelihood of severe weather. If severe weather is imminent, consider postponing the activity.
- Many sports officials use a portable tone-alert NOAA Weather Radio (NWR) to monitor forecasts for changing weather conditions. If you don't have NWR, stay up to date via TV, internet, smart phone, or radio.
- If games have begun and/or people are already at the ballpark, the guidelines listed in this policy should be followed.

### Stopping Activities

In general, a significant lightning threat extends outward from the base of a thunderstorm cloud about 6 to 10 miles. Therefore, everyone should be in a safe place when a thunderstorm is 6 to 10 miles away. A plan's guidelines should account for the time it will take for everyone to get to safety by using the following criteria:

- **If you see lightning.** The ability to see lightning varies depending on the time of day, weather conditions, and obstructions such as trees, mountains, etc. In clear air, and especially at night, lightning can be seen from storms more than 10 miles away provided that obstructions don't limit the view of the thunderstorm.

- **If you hear thunder.** Thunder can usually be heard for a distance of about 10 miles provided there is no background noise. Traffic, wind, and precipitation may limit to hear thunder to less than 10 miles. If you hear thunder, though, it's a safe bet that the storm is within 10 miles.
- **Flash to Bang Theory.** You can also count the seconds between the flash of lightning and the bang of thunder to estimate the distance between you and the lightning strike. Because sound travels at approximately 1 mile in 5 seconds, you can determine how far away the lightning is by using this "flash-to-bang" method. In most cases, whenever lightning can be seen and/or thunder can be heard, the risk is already present and individuals should seek a safe location.
- **Keep an eye on the sky.** Other warning signs of impending bad weather include: darkening skies, sudden change in temperature and/or humidity, and increase in air movement. Not all people struck by lightning are in the rain.

**If you see or hear a thunderstorm, or the skies look threatening, or there are sudden changes in temperature/humidity, the event should be immediately postponed or cancelled and everyone should seek a safe shelter.**



## Seeking Safe Shelter

No place **OUTSIDE** is safe in or near severe weather. Run to a safe enclosed building. Once inside, avoid corded phones and stay away from any wiring or plumbing. Avoid sheds, picnic shelters, dugouts and bleachers. If there aren't any safe buildings nearby, find a fully enclosed vehicle with a hard metal top and windows up.

If you absolutely cannot get to safety, the following tips *may* help you slightly lessen the threat of being struck by lightning while outside. Don't kid yourself, you are **NOT SAFE OUTSIDE!**

- Avoid open fields, the top of a hill or a ridge top.
- Avoid standing water.
- Avoid contact with metal objects (bleachers, fences, bats, metal spikes, umbrellas).
- Avoid single or tall trees, tall objects and standing in a group. It is better to find a thick grove of small trees.
- Never lie flat on the ground during a lightning storm.
- As a last resort and/or if you feel your hair stand on end (indicating lightning is about to strike), assume the lightning-safe position Crouch on the ground with your weight on the balls of your feet, your feet together, your head lowered and ears covered. Some experts recommend placing your hands on your forehead and your elbows on your knees to create a path for lightning to travel to the ground through your extremities rather than through your core (heart).



## Resuming Activities

Because electrical charges can linger in the clouds after a thunderstorm has passed, experts agree that people should wait at least 30 minutes after the storm before resuming activities. If a game cannot resume because of weather, don't even try. Safety is always your first priority and erring on the side of caution is never an error.

## Helping Lightning Victims

Lightning victims do not carry an electrical charge, are safe to handle, and need immediate medical attention. Call 9-1-1 or your local ambulance service.

**Give first aid.** In some cases, lightning strikes are catastrophic without being fatal. In many cases, the victim's heart or breathing may stop, which can be fatal without immediate medical attention. It is always a good idea to have a coach or official in attendance who can administer CPR (cardiopulmonary resuscitation) and who also has experience using an automated external defibrillator to revive them until an ambulance can arrive. Continue to monitor the victim until medical help arrives. If possible, move the victim to a safer place away from the threat of another lightning strike.

## Safety First!

Most tragedies from extreme weather conditions can be avoided if you plan ahead. Babe Ruth League, Inc. urges all leagues to have a safety plan in place. Establish specific guidelines where people will go for safety and how much time it will take for them to reach shelter. Establish guidelines for postponing or canceling an event so everyone is safe and/or has time to reach safety. Post these guidelines around your facility and provide handouts of the guidelines to umpires, coaches, volunteers, participants and parents. **Follow the plan without exception!**

**Stay Informed!** Listen to NOAA Weather Radio or obtain forecasts from other sources. A severe thunderstorm **WATCH** is issued when conditions are favorable for severe weather to develop. A severe thunderstorm **WARNING** is issued when severe weather is imminent.

When storms threaten, officials and coaches must not let the desire to start or finish an activity hinder their judgment when the safety of participants and spectators could be in jeopardy.

In any amateur contest, remember that it's just a game. None of them should risk an injury for the sake of a win. There will always be many more tomorrows to play. If you don't establish and follow safety guidelines, pushing the limit might make this game yours or someone else's last game.

For further information, please visit <http://www.lightningsafety.noaa.gov/outdoors.htm> or <http://www.lightningsafety.noaa.gov/sports.htm>

### Sources:

NOAA National Weather Service  
NOAA Lightning Safety