



British Softball Federation Lightning Advice and Policy

Weather in the UK can be subject to change at short notice -- especially during the spring and summer months. Thunderstorms and lightning can sometimes occur with little warning. If you are playing or practicing in less than ideal weather conditions, you need to be aware of the possible hazards and have a plan worked out ahead of time to deal with them.

Basic Lightning Facts and Stats

- It does not have to be raining for lightning to strike.
- All thunderstorms produce lightning. If you can hear thunder, the storm is close enough for lightning to strike.
- The most dangerous time is when there is an underestimation of the likelihood of being hit -- for example, before the storm or when you think it is over. There are three different ways of being struck by lightning:
 - 1) Direct strike: the lightning hits you and goes to earth through you.
 - 2) Side flash: the lightning hits another object and jumps sideways to hit you.
 - 3) Ground strike: the lightning strikes the ground then travels through it, hitting you on the way.
- Lightning strikes can cause death or permanent disability, and on average, 5-10% of lightning strikes are fatal. Those most at risk are people who are outdoors and exposed in vulnerable, unsheltered locations.
- In Britain, between 30 and 60 people are struck by lightning each year, with deaths in recent years ranging from two to 14.

- The greatest number of fatalities occur in the 10-to-19-year-old and 20-to-29-year-old age groups. Many victims were either headed to safety or just steps away from safety at the time of a fatal lightning strike. Therefore, taking action before the threat is upon you is key!

BRITISH SOFTBALL FEDERATION LIGHTNING POLICY

BSF policy is based on two principles put forward by RoSPA, the Royal Society for the Prevention of Accidents, and endorsed by other organisations in the UK and abroad:

- Flash to Bang
- The 30/30 Rule

Flash to Bang

To check if a storm is coming or going from where you are standing, apply the 'flash to bang' principle, counting as soon as the lightning flash is seen until the thunder is heard.

'Flash to bang' is based on the following facts:

- Sound travels approximately 1 mile every 5 seconds.
- Lightning will always be seen before you hear the thunder.

If the time delay between the lightning flash and the sound of thunder increases over a couple of strikes, the storm is moving away from you. If it decreases, it is coming towards you.

30/30 rule

Research shows that people struck by lightning are predominantly hit before and after the peak of the storm. This means that you should be thinking about the proximity of the lightning, not the occurrence of rain. The 30 / 30 rule provides a good way of ensuring that people are sheltering during the riskiest parts of the storm.

- **If the 'flash to bang' is 30 seconds or less, you should seek shelter.**
- **Staying inside this shelter is advised until 30 minutes after the last clap of thunder.**

Following these rules will ensure that any distant strikes at the beginning of the storm or trailing storm clouds at the back of the storm (lightning can travel up to 10 miles) do not take anyone by surprise.

LIGHTNING AND SPORTS SAFETY TIPS

All softball and baseball captains, coaches and officials need to be aware of extreme weather conditions -- including lightning -- and need to be prepared to suspend or cancel games if conditions worsen and players are at risk.

The following recommendations will help prevent lightning injuries during softball and baseball events:

- **Prior to any practice or game, the person in charge should check the local weather forecasts.** Be aware of whether a thunderstorm "watch" or "warning" has been issued. A "watch" means conditions are favorable for severe weather to develop in an area; a "warning" means severe weather has been reported in the area and everyone should take proper precautions. Activities should be delayed if a thunderstorm is approaching before or during a practice or a game based on the 30/30 rule above.
- **Recognise the signs of a coming storm.** Although lightning can strike without warning, when a thunderstorm is on the way clouds may darken, winds may pick up, and there may be thunder activity. Pay close attention to these signs and any issued warnings.
- **Follow the 30/30 rule.** Familiarize yourself with the flash-to-bang count to determine when to seek shelter. Begin counting when you see a flash of lightning. Stop counting when you hear thunder. Dividing this number by five will determine the distance (in miles) to the lightning flash and when safe shelter needs to be sought. Generally, a lightning strike within 6 to 8 miles of the venue calls for evacuation. After any suspension of practice or play, wait at least 30 minutes following the last sound of thunder or lightning flash before resuming activity.
- **Risk-assess the venue for possible lightning strikes and have established protocols for lightning incorporated into an Emergency Action Plan (EAP).**
 - Designate a "weather watcher" and a clear chain of command to monitor and respond to severe weather.
 - Invest in a weather app. There are weather apps that can be downloaded and used for live-time, verified information. Umpires, coaches, parents and other spectators, as well as the designated "weather watcher", can utilise these apps to make objective recommendations on whether there is need to cancel the activity and seek shelter.
 - In the event of impending thunderstorms, those in control of the event/venue should postpone play, warn participants and spectators of the lightning danger and specifically instruct on the proper procedure for evacuation.
 - The timeframe needed for everyone to seek safe shelter depends on how fast the storm is approaching – which can be determined by using the “flash to bang” calculation -- and the layout of the venue.

- **Make sure a safe shelter has been designated.** Trees, tents, bleachers, dugouts, storage sheds, and open garages are not safe shelters! In fact, there are very few safe places outdoors when thunderstorms are in the area. The safest shelters are structures with four solid walls and electrical and telephone wiring. If no safe shelter is available, take shelter in a hardtop vehicle and don't touch the radio dial or the door handles—especially if they are metal.
- **Specifically avoid standing water and open fields.** If you are in an open field, avoid being at or near the highest point in the field and stay well away from any standing water.
- **If you feel your skin tingling, you are in more immediate danger.** Assume the lightning safe position. This means crouching on the ground with your weight on the balls of your feet, your feet together, your head lowered, and your ears covered.
- **Even if you are indoors, stay away from open windows, sinks, toilets, tubs, showers, and electrical outlets.** During a lightning storm, electric currents can run through these objects and "jump" onto a person -- even inside a safe shelter.
- **If someone is struck by lightning, get the victim emergency help immediately and move him or her to a safe place.** Contrary to what you may have heard, lightning can strike the same place twice. Initiate the chain of survival (call 999, begin CPR, apply AED). People who have been struck by lightning do not carry an electrical charge and are safe to handle. A lightning strike is not usually instantly fatal; however, victims' hearts and/or breathing may stop, so prompt application of CPR could well save their life.