

The College of William and Mary
Division of Sports Medicine
221-3407

Lightning Policy

Please review the attached information concerning the monitoring of environmental conditions and lightning safety. Contact one of the athletic trainers immediately if you have any questions or concerns.

Planning/Supervision:

All intercollegiate athletic activities must be conducted with the safety of the student-athlete as the paramount concern. Each coach must take appropriate time and measures to plan and conduct safe, well-organized practice sessions. All practice sessions must be supervised by the coach. The coach is ultimately responsible for the safety and well-being of the student-athlete during all practice and competitive situations, as well as during team travel.

Emergency Care:

All coaches are required to be certified in cardiopulmonary resuscitation (CPR) and first aid techniques. The staff of the Division of Sports Medicine may, from time to time, conduct CPR and first aid workshops free of charge for the intercollegiate coaching staff.

Each coach has the responsibility to request appropriate coverage of their practices and events according to departmental guidelines. When a member of the athletic training staff is not present, the coach or appointed representative has the responsibility for providing appropriate emergency care to an injured athlete. When an athletic event is covered by a member of the athletic training staff, appropriate emergency equipment will be available. All personnel are responsible for locating emergency communication sources and maintaining an awareness of established emergency and referral procedures, well in advance of the event or practice.

Keep this information for quick reference. Also, please review these procedures with all your student-athletes and members of your staff.

Lightning Policy

The odds of being struck by lightning are extremely low over the course of a year, and the odds are estimated to be 1 in 600,000. While the probability of being struck by lightning is extremely low, the odds are enormously greater when a storm is in the area and the proper safety precautions are not followed.

The keys to lightning safety are knowledge and prevention. Knowledge begins with the background information and physics of lightning. Prevention should begin long before any intercollegiate athletic event. The first preventative measure for lightning safety is to obtain a weather report each day before a practice or event. In this way, the coaching staff will be aware of the possibility of storms forming or moving into the area during the day. A "watch" means conditions are favorable for severe weather to develop in an area. A "warning" is more definitive. A "warning" simply means that severe weather has been reported in an area, and for everyone in that area to take the necessary precautions. Secondly, the coaching staff should be wary of the signs of thunderstorms developing nearby, which can become threatening in as little as half an hour. Lightning and thunder activity in the local area are the "wake-up alarms" for the coaching staff to begin monitoring thunderstorm activity, such as direction of movement and distance from the lightning flashes. The next measure for the coaching staff is to know where the closest safe shelter is to the field or playing area, and to know how long it takes to get to that safe shelter. Safe shelter is defined as:

- A. Any sturdy building normally occupied or frequently used by people, *i.e.* a building with plumbing and/or wiring that acts to electrically ground the structure,
- B. In the absence of a sturdy, frequently inhabited building, any vehicle with a hard metal roof (not a convertible), with the windows rolled up completely, such as a car, bus, or truck, can provide a measure of safety. A vehicle is certainly better than remaining outdoors. It is not the rubber tires that make a vehicle a safe shelter, but the hard metal roof which transfers the lightning current around the vehicle.

The safe shelters for the various W&M athletic fields are as follows:

- Zable Stadium:** Locker rooms or building at large, **not** shower area!
- Plumeri Park:** Locker rooms or building at large, **not** shower area!
- Intramural Fields:** W&M Hall
- Busch Tennis Courts:** W&M Hall
- Busch Soccer Field:** W&M Hall
- Dillard Practice Field:** Vans and personal vehicles
- Adair Tennis Courts:** Adair Hall
- Adair/Rec. Center Pools:** Locker rooms or building at large, **not** shower area!
- Dillard Tennis Courts:** Vans and personal vehicles
- Albert-Daly Field:** Vans and personal vehicles
- Montgomery Field:** Zable Stadium locker rooms or building at large **not** shower area!

Lastly, the coaching staff should be aware of how close lightning is occurring. The "**flash to bang**" method is the easiest and most convenient way to estimate how far away lightning activity is occurring. Simply stated, count the seconds from the time the lightning ("flash") is sighted to when the clap of thunder ("bang") is heard. (*Divide this number by five* to obtain how far away (in miles) lightning is occurring.)

For practicality purposes, The College of William and Mary Division of Sports Medicine advocates the following policy on lightning for intercollegiate athletics outdoor or swimming pool activities:

1. If thirty (30) seconds or less are counted from "flash to bang" (*i.e.* the storm is less than six miles away), all outdoor and swimming pool athletic activity is to be stopped, and all people involved must leave the playing field or the swimming pool area to seek safe shelter. Even though a swimming pool is indoors, this does not insure safety; lightning travels very easily through bodies of water. Avoid using the locker room shower facilities for safe shelter, and **do not use the shower or plumbing facilities!** Lightning can travel through the plumbing and pipes of a building. It has been documented that people have been struck by lightning in the shower.

2. Stay away from the tallest trees or objects (such as light poles or flag poles), metal objects (such as metal fences or metal bleachers), individual trees, standing pools of water, and open fields. Avoid being the highest object in a field, and **do not** take shelter under a single, tall tree. Metal fences should be grounded in accordance with the National Electric Code.

3. If there is no safe shelter within a reasonable distance away, crouch in a thick grove of small trees surrounded by taller trees, or a dry ditch. Assume a crouched position on the ground with only the balls of the feet touching the ground, wrap your arms around your knees and lower your head. Minimize contact with the ground, because lightning current often enters a victim through the ground rather than a direct overhead strike. **MINIMIZE YOUR BODY'S SURFACE AREA, AND MINIMIZE CONTACT WITH THE GROUND! DO NOT LIE FLAT!**

4. If a person feels his or her hair stand on end, or skin tingle, immediately crouch, as described in item 3.

5. Allow half an hour to pass after the *last* sound of thunder or flash of lightning before resuming any intercollegiate athletics activity.

6. Do not use the telephone, except in emergency situations. A cellular phone or a cordless telephone are safe alternatives to a land line phone, *if* the person *and* the antenna are located within a safe shelter, *and* if all other precautions are followed. It has been documented that people have been struck by lightning while using a land line telephone.

7. People who have been struck by lightning **do not** carry an electrical charge. Therefore, lightning strike victims **can be** safely touched. It is only people that have been electrocuted by high voltage lines, *and* who are still in contact with those electrical lines that continue to carry an electrical charge. People that have been struck by lightning who show signs of cardiac or respiratory arrest need prompt emergency help. In documented cases of cardiac arrest following lightning strike, prolonged and aggressive cardiopulmonary resuscitation (CPR) has been shown to fully revive victims. All coaches are required to be certified in CPR and First Aid.

The most important point to remember about lightning safety is comparing how far you are from safe shelter *vs.* how far away the lightning is occurring, and how fast the storm is approaching your location. People boating on a lake or ocean, or people on a golf course are probably a lot farther from safe shelter than most other outdoor events, such as football, baseball, or soccer games. Those people (or any one else who is at a considerable distance from safe shelter) should give themselves extra time to get to safe shelter, and may want to consider using a fifty second rule, rather than the thirty second rule. It should also be pointed out that if *greater than* thirty seconds are counted from "flash to bang," and you feel you are still in danger of lightning, do not hesitate to get to safe shelter.

The onus of removing a team or individuals from a field or competition site in the event of dangerous and imminent lightning activity is incumbent upon the coach supervising the activity, since the safety of any team or student-athlete is ultimately rests with the coach. With the information presented in this policy, the coach supervising the activity has the information needed to make an intelligent and safe decision regarding removal of a team or individuals from a field or event site. Lastly, *any* individual who feels he or she is in danger of a lightning threat, has the right to leave the field or event site to seek safe shelter.