

THE FIRST AIDER[®]

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Lightning Safety

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Over the past century, the lightning hazard has consistently been one of the top three causes of weather-related deaths in this country. It kills approximately one hundred people and injures hundreds more each year. Worldwide, there are approximately 2000 thunderstorms, and 100 lightning flashes occurring every second. The National Lightning Detection Network (NLDN) records over twenty-five million cloud-to-ground lightning strikes in the United States every year.

Certain areas of the United States experience higher propensities for thunderstorm activity, and thus higher casualty rates. The regions of the United States with consistently high casualty rates are Florida, the Atlantic seaboard, the southwest, southern Rockies, and the southern plains states. Therefore, lightning is an enormous and widespread danger to the physically active population, due in part to the prevalence of thunderstorms in the warm summer afternoons, and a societal trend towards outdoor physical activities.

While print and television news reports of lightning strike incidents to recreational athletes are frequent during the thunderstorm season, many people are unsure about what to do and where to go to improve their own

safety during thunderstorms. While the odds of being struck by lightning are extremely low over the course of a year, the odds are enormously greater when a storm is in the area and the proper safety precautions are not followed. It is incumbent upon all individuals to appreciate the lightning hazard, know the published lightning safety guidelines, and act in a spirit that will encourage safe behavior in others.



The keys to lightning safety are education and prevention. Education begins with the background information and physics of lightning. I encourage everyone to go to your local library to read the latest books on lightning and meteorology so that you can educate yourself about the basics of thunderstorms and lightning.

Preventative measures should be implemented long before any athletic event. Having a written plan or poli-

cy is the primary step in preventing casualties due to lightning. As part of that plan, it is important to mandate checking weather reports each day before a practice or event. In this way, you will be aware of the possibility of storms forming or moving into the area during the day. Most electronics stores have for purchase National Oceanographic and Atmospheric Administration (NOAA) weather radios that can give weather reports and sound an alarm if the National Weather Service (NWS) issues a severe thunderstorm "watch" or "warning" for your local area. There are also numerous Internet sites that give timely weather information, as well as lightning flash data.

Prevention also means that everyone should be wary of the signs of thunderstorms developing nearby. Thunderstorms can become threatening in as little as half an hour. Lightning and thunder activity, in addition to increasing winds and darkening skies in the local area are the "alarms" for people to begin monitoring thunderstorm activity, such as direction of movement and distance from the lightning flashes.

The next measure in mitigating the lightning threat is for everyone to know where the closest safe structure or location is to the field or playing

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Add Buckle Up to your Injury Prevention Program

Tom Wealand, Vice President of Marketing
Cramer Products, Inc.

In 1998, three young women were killed when they lost control of their vehicle on their way to play in a high school softball game. This past February, Derrick Thomas, perennial pro bowl linebacker for the Kansas City Chiefs, died of injuries he suffered in a weather-related car crash. A week earlier, James Sperry, a Certified Athletic Trainer, from Atchison, Kansas was killed in an auto accident after apparently falling asleep at the wheel. Four young athletes and one experienced athletic trainer, all victims of fatal single-vehicle accidents

These five tragic deaths had one other common circumstance. None of the victims was wearing a seat belt. While no one can say with certainty these deaths could have been prevented if seat belts had been worn, it is known that failure to buckle up contributes to more fatalities than any other single traffic-safety-related behavior.

What is also known is that the age group represented by America's high school and college athletes is the group least likely to use seat belts and the most likely to be involved in an auto accident. According to the National Highway Transportation and Safety Agency, young men, ages 16 to 25, have the lowest incidence of seat belt use and are the nation's highest risk drivers, accounting for more drunk driving, more speeding and more crashes per capita than any other segment of the American population.

Young people's failure to use seat belts stems from one misguided attitude. They simply do not believe they can be injured or killed. According to the NHTSA, "neither education nor fear of injury is strong enough to motivate

this tough-to-reach group." Since few individuals have more influence over young people, especially young athletes, perhaps the time is right for coaches and athletic trainers to add this issue to their injury prevention program. The need to expand team injury prevention practices to the automobile are echoed by statistics



which show that an injury in an automobile accident occurs every nine seconds, and a fatality every 13 minutes.

Coaches and athletic trainers working with America's young athletes can play an important role in reducing serious injury and death among young people. This is true for several reasons. First, they work with the group that is most at risk. Traffic accidents are the leading cause of death for young people aged six to 27. Research shows that minority youth are at even greater risk since they are less likely to use seat belts than non-minority young people.

Second, they are a respected source of information and discipline among young athletes. Coaches and athletic trainers commonly make team rules which influence behavior off of the playing field and out of the training room. These rules are developed and

enforced "for the good of the team " and often carry more weight with an athlete than those imposed by the athletes' parents.

Finally, coaches and athletic trainers work with the group of students which provides the role models and opinion leaders for the rest of the student body.

Success in getting student athletes to buckle up will result in a more "buckled up" student body in general

Team rules concerning seat belts are essential in situations where athletes provide their own transportation

to and from practices and games. Where buses are available to transport the team to practices and games, coaches and athletic trainers can promote team safety by insisting players buckle up if the bus is equipped with seat belts.

Developing and enforcing seat belt rules will help reduce the risk of serious injuries or a fatality when an accident happens. And, they will help reduce the school district's liability in case an injury or death does occur.

Help in creating awareness among student athletes is available from the National Highway Transportation and Safety Agency. Their web site is www.nhtsa.gov. A web site listing educational materials promoting seat belt safety may be found at www.nhtsa.dot.gov/people/outreach/media/catalog/tmaterial.cfm.

TFA

Lightning Safety

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area, and to know how long it takes to get to that place. A safe structure or location is defined as:

- Any building normally occupied or frequently used by people. In other words, a building with plumbing and/or wiring that acts to electrically ground the structure. This should be your primary choice in seeking a safer location from the lightning threat.
- Any vehicle with a hard metal roof (not a convertible), with the windows rolled up can provide a measure of safety. A vehicle with a hard metal roof is certainly safer than remaining outdoors. It is not the rubber tires that make a vehicle a safe shelter, but the hard metal roof that transfers the lightning channel around the vehicle. It is extremely important not to touch any part of the metal framework of the vehicle while inside the vehicle. Convertible cars or golf carts are not considered safe locations during thunderstorms.

Lightning Safety Guidelines:

1. All outdoor and swimming pool (outdoor and indoor) athletic activity must cease at the first sign of lightning activity. All people involved should leave the playing field, event site, or the swimming pool area to seek a safe structure or location (described above). Avoid using the locker room shower facilities for a safe location, and do not use the shower or plumbing facilities during the thunderstorm!
2. Stay away from the tallest trees or objects (such as light poles or flagpoles), individual trees, standing pools of water, and open fields. Avoid being the highest object in a field, and do not take shelter under trees. Increasing your height, such as demonstrated by these unsafe behaviors, increases your chances of being struck by lightning.

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Jim Sperry 1958-2000

District Five lost a good friend on February 6 when Jim Sperry was killed in a one car accident northwest of Kansas City. Jim is best remembered for always doing more than his share. That is how we at Cramer Products came to know him.

Jim approached Cramer in 1995 to use whatever contacts we might have in the state capitol to achieve state registration for Kansas' Certified Athletic Trainers. Under Jim's supervision, telephone calls were made, letters were sent and hands were shaken. Ultimately, due in large part to Jim Sperry, Certified Athletic Trainers in the State of Kansas enjoyed the benefits of registration.

He was very active in the Kansas Athletic Training Society, serving as its legislative chairman from 1995 until his death and its president from 1997 to 1999. He remained active with the State of Kansas. In 1995, Governor Bill Graves appointed Jim to the Kansas Athletic Trainers Council and re-appointed him several times.

Jim had a wonderful ability to make friends and he was able to make even casual acquaintances feel as though they had known him forever. Certainly that's how he made his friends at Cramer feel. Even though we might not have seen him since the last KATS party at the National Convention, he always made us feel like we were his next-door neighbors.

Jim Sperry lived a full life and the last day of that life was no different. He had worked all night at his job as a physician's assistant at a hospital in Atchison, Kansas and then went directly to the NATABOC examination site in Overland Park, Kansas. After a full day performing his duties as an examiner, Jim started home. About halfway through his journey it is assumed Jim fell asleep at the wheel. His car left the road, overturned and Jim was killed.

Jim wasn't wearing his seat belt when the car crashed. No one knows why, because he was a careful man, conscious of details. But I do know that many of us, mindful of the loss of a dear friend, now take special care to buckle up. Even after his passing, Jim Sperry continues to do more than his share.

Lightning Safety

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3. Do not remain in a boat, or swim in the open water. Get to a safe location as quickly as possible. It is extremely important to stay ahead of the lightning threat in these types of activities due to the distance (and time) it will take to get to your safe location.

4. If a person feels his or her hair stand on end or their skin tingle, get to a safe structure or location (described above) immediately.

5. You should allow half an hour (30 minutes) to pass (if not longer) after the last sound of thunder or flash of lightning before resuming any athletic activity or returning outdoors. In other words, if the "thirty minute clock" has been started to gauge return to activity, it must be reset after each sound of thunder or flash of lightning.

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 structure or location, and all other precautions are followed. Three percent of lightning casualties are to people who are indoors using a land-

line telephone during a thunderstorm.

UNSAFE LOCATIONS

1. High terrain
2. Open fields or open water
3. Under trees (or other tall objects)
4. Baseball dugouts
5. Outdoor/indoor swimming pools
6. Shelters for picnics, rain, or golf

UNSAFE BEHAVIORS

1. Remaining outdoors
2. Increasing your height in any way
3. Sheltering under trees
4. Talking on the telephone
5. Taking showers, washing dishes

7. Lightning strike victims do not carry an electrical charge. Therefore, first responders can safely touch lightning strike victims. Lightning strike victims who show signs of cardiac or respiratory arrest need prompt emergency help. Therefore, CPR is safe for the responder and necessary for any hope of survival for many lightning victims.

Prevention is certainly the best policy in staying ahead of the lightning threat. Enact a lightning safety policy for your school or league so that everyone knows what to do or where to go to be safe from the lightning dan-

ger. As part of that policy or guideline, make sure that all people are aware of the weather threats before all outdoor or swimming pool activities by checking the local weather forecasts. Weather forecasts can be gathered from television, radio, or Internet sites. It is extremely important to be inside a safe structure or location long before the lightning threat becomes dangerous. Also, it is imperative to understand that lightning is a real and deadly weather phenomenon. It can come in ahead of the rain and it can strike as far as ten miles from where it is raining. Therefore, one should not wait for it to begin raining to postpone a game or practice. Lastly, blue sky or sunshine peeking through the thunderstorm clouds are not safe reasons to shorten the 30 minute rule. Avoid becoming a casualty statistic!

For more information about lightning safety, contact the National Lightning Safety Institute at the following URL: <http://www.lightningsafety.com>.

Author's note:

The author wishes to extend his deepest thanks to Ron Holle at the National Severe Storms Laboratory in Norman, OK for reviewing this article. **TFA**

August 8.

Practice Field 1.

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NATABOC Examiner Training: Is This Important?

Eric Walser, ATC-R

MidAmerica Nazarene University

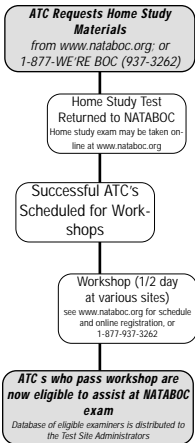
What don't we like about playing an away game? (Is it the unfamiliar surroundings or the comforts and conveniences of home contests?) Remember what it was like to take an exam in college? What don't we like about taking a test? These are stresses that can cause you to break out in a cold sweat. When a candidate is taking the NATABOC exam, how we, as examiners, reduce stress is a key to our profession's future. For these reasons, the NATABOC implemented an examiner training program in November 1998.

The examiner training program was developed to standardize the examination experience that an NATABOC candidate receives. It is an attempt to make the exam experience like a "home contest" for the candidate and to ensure consistency in the way the examination is administered from person to person and from exam site to exam site. The intent of the examiner training program is to objectively train and qualify individuals to judge candidates in the practical portion of the NATABOC certification examination. An examiner's scoring for candidates must be based on their performances

alone. Where they attended school, their appearance or the examiner's own personal thoughts about the question being asked must not be taken into consideration. All of these things can lead to a break down in inter-rater reliability.

The examiner training process is a simple one; the ATC requests the examiner training material, returns a home study examination, attends the workshop and has his or her examiner scoring skills assessed. Those individuals scoring 85% or higher will be allowed to serve as examiners and models for the NATABOC exam. Examiners will earn 5 continuing education units (CEU's) for their participation.

As examiners we are assessing individuals, who upon successful completion of the certification process, will be our peers in the field of athletic training. They deserve a fair, accurate assessment of their skills. I look forward to all Certified Athletic Trainers participating in this examiner training process. **TFA**



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Heel and Lace (and Hand, Arch, Blister) Pads:

Tamara Stelling, ATC-R, Product Manager
Cramer Products, Inc.

We all know the traditional uses for foam heel and lace pads. As an athletic trainer, I found that these pads could be used in ways other than just protecting the heel, Achilles Tendon and anterior ankle from potential tape friction spots and "lacebite". Here are three other ways I use heel and lace pads when I am in a hurry or short on supplies:

1. Blister Protection

- Cut out two circles of the same size that are larger than the blister site.
- Cut a center donut out of one of the two circles. The donut hole should be slightly larger than the blister.
- Place the piece with the donut cut out over the blister first.
- Place the second whole circle on top.
- Tape those pads onto the skin.



2. Longitudinal Arch lift

- Use 2-3 pads
- Fold in half and place in the arch.
- Tape to foot.
- Do not apply tape to the arch area too tightly.



3. Dorsal Hand Pad

- Use 5-6 pads
- Fold on perforated edges to make a stack.
- Tape to dorsal side of hand.



TFA

We would love to hear some of the uses you have for the Heel and Lace Pad. We will print the three best ideas in an up-coming issue of The First Aider. Send all ideas by June 1, 2000 to:

*Attention: The First Aider
Cramer Products, Inc.
P.O. Box 1001
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E-mail: info@cramersportsmed.com

Athletic Facility Safety

Tamara Stelling, ATC-R, Product Manager
Cramer Products, Inc.

When was the last time you surveyed the playing surface or field on which your athletes play for hazards? Usually this question comes after an athlete has injured himself by some hazard that should have been corrected. It only takes one incident to cause great injury and possibly catastrophic results. Facilities are often targets of lawsuits stemming from sports injuries. The best way to prevent possible risk of injury is to be observant of the facility's condition. There are certain hazards to look for every time you enter the facility to help avoid liability and most important, protect your athletes.

Athletic Facilities - "all areas used by athletes in conjunction with sports activities." (CAPS)

EXAMPLES:

- Gymnasium
- Field
- Equipment room
- Athletic training room
- Weight room
- Locker room, shower room, rest room
- Conditioning area
- Swimming pool decks
- Indoor and outdoor routes to the practice and game area.

There are several different types of hazards found in an athletic facility. Here are some examples to look for:

Outdoors

- Common
Trash, holes, rocks, glass, sticks,
dry soil cracks

- Chemical Toxins
Fertilizers, pesticides, exhaust,
pollution
- Biological toxins and allergens
Mold, bacteria, fresh cut grass
- Fixed objects
Bleachers, railings, trees, fences,
goal standards
- Moveable objects
Scorers table, equipment, pitch-
ing throwing machines



Indoors

- Common
Trash, broken glass, water on
floor
- Chemical Toxins
Improper dilution, rinsing and
ventilation of cleaning agents
- Biological toxins and allergens
Mold, bacteria, ventilation sys-
tems
- Fixed objects
Walls, goal standards, cables and
bleachers
- Movable objects
Desk, chairs, tables, glass, equip-
ment

Athletic facilities must comply with the standards set by American Society for Testing and Materials (ASTM) and Consumer Product Safety Commission (CPSC). Early recognition and action is always best. Check the facility before the season starts to correct problem areas. Modifying and repairing athletic facilities can take time and money; however, that may be a small price to pay for the safety of your athletes. Plan ahead for changes or change venues until corrections can be made. Temporary solutions are just that, temporary. Check daily for new hazards at the facility you use. Check all facilities for every level of athlete. Make sure the lowest level of teams play at an adequate facility for that sport. If a practice facility change is made due to the weather or other factors, check the new location for hazards so practice modifications can be made if needed. A checklist can be created to establish a habit of daily inspections. Alert the maintenance department, coaches and athletes of hazards. Make your facility safe by using common sense awareness. Remember that you are responsible for the safety of your athletes.

Special thanks to the Coalition of Americans to Protect Sports (CAPS) for their help and information. References available upon request. **TFA**

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