Young School Athletes at Risk for Sports-Related Injuries, including Heat Stroke

Four Teen Athletes Died in Past 7 Days During Football Practice Due to Extreme Heat

August 4, 2011

Charleston, SC-- With many young school athletes working hard this month to prepare for fall sports, Safe Kids USA is hosting Youth Sports Safety Clinics across the country to educate parents and coaches on how to keep children safe and prevent sports injuries, including heat-related illnesses. Nearly 3/4 of U.S. households have at least one child who plays organized sports. Unfortunately, about 3.5 million children receive medical treatment for a sports-related injury each year, and as many as half of these injuries are preventable according to the Centers for Disease Control and Prevention.

“With scorching high temperatures and vigorous practice sessions underway for school age children, parents and coaches have an even greater role to play in keeping children safe and injury free,” said Meri-K Appy, president of Safe Kids USA. “It’s vitally important to set realistic expectations for children about sports and understand how to help them prepare properly, prevent injuries and play safely.”
In a nation-wide education campaign supported by its founding sponsor Johnson & Johnson, Safe Kids USA coalitions have hosted more than 150 Youth Sports Safety Clinics for parents and youth coaches since April. The Safe Kids Trident Area coalition is holding its second Youth Sports Safety Seminar this year at the Joe Riley Park on Sunday, August 7. The Seminar will be attended by the area’s middle and high school football, soccer and tennis coaches; athletes, and parents before the ball game.

At the Medical University of South Carolina (MUSC), 164 children, ages 17 and under, have been treated for sports related injuries since 2006, and 25 percent were for heat exhaustion. According to the American Journal of Preventive Medicine, the number of heat-related injuries from 1997 to 2006 increased 133 percent. Youth accounted for the largest proportion of heat-related injuries or 47.6 percent.

“In the past seven days there has been 4 teen athletes, including 1 teen from South Carolina, that have died due to the extreme heat while practicing high school football,” said Douglas J. Casa, PhD, ATC, FACSM, FNATA, and chief operating officer with the Korey Stringer Institute, Neag School of Education, for the University of Connecticut. “Over the past five years, the number of heat stroke deaths from exertion in youth sports is higher than in any five-year period in the past 35 years. A coach needs to have the knowledge to prevent the condition, recognize the signs or symptoms, and then rely on athletic trainers or emergency response personnel to implement the life-saving treatment strategy.”

A national survey commissioned by Safe Kids USA and Johnson & Johnson confirmed parents and coaches need more youth sports safety information. In fact, just 29 percent of parents surveyed feel coaches have the necessary skills to identify and prevent injuries and just 40 percent feel confident in their own abilities.

According to the Consumer Product Safety Commission (CPSC), the rate and severity of sports related injuries increases with a child's age. Children ages 5 - 14 years of age account for nearly 40 percent of all sports-related injuries treated in hospital emergency departments with collision and contact sports associated with higher rates of injury. In fact, the CPSC reported in 2009 an estimated 216,232 children age 14 and under were injured playing football, 88,789 were injured in soccer. For children 14 years and younger playing baseball or softball, there were 115,133 injuries in 2009.
The most common types of sport-related injuries in children are sprains, muscle strains, bone or growth plate injuries, and heat-related illness. Although very rare, brain injury is the leading cause of sports-related death to children.

“One worrisome aspect about the injuries that occur in youth sports is that so many of them could be prevented,” said Dr. C. David Geier, Jr., director of MUSC Sports medicine and assistant professor of orthopedic surgery. “We know that almost half of injuries in middle-school and high-school athletes are overuse injuries in sports. These aren't traumatic injuries over which the athletes and the parents and coaches have no control. These are overuse injuries that could be prevented with rest from the sport for two to three months, proper fitness and strength training necessary for that sport, and not trying to compete when experiencing pain.”

Safe Kids Youth Sports Safety Clinics are focusing on the most common causes of preventable injuries including overuse injuries, heat-related illness, concussions and injuries caused by pre-existing medical conditions. Safe Kids encourages parents to have consistent communications with their child’s coach in order to take a proactive role in keeping their child safe while playing sports.

Pre-Participation Physical Evaluations
Safe Kids USA and the American Academy of Pediatrics (AAP) recommend every child receive an annual pre-participation evaluation (PPE), which will help determine his/her readiness to play sports and may uncover any underlying conditions that could limit participation or increase the risk for injury or a medical emergency. Parents should talk to their child’s doctor and ask them to perform the full pre-participation evaluation, which was recently updated by the AAP.

Dehydration/Health Related Illness
Young athletes need to be encouraged to drink water before, during and after practice, in order to prevent dehydration and the risk of a more serious heat-related illness such as heat exhaustion and heat stroke. Athletes should start practice/play fully hydrated, and drink water for every 20 minutes of play.

Overuse Injuries
An overuse injury is difficult to diagnose and treat because they are usually subtle and occur over time. Fatigue, burnout or playing while injured can lead to overuse injuries such as repetitive motion injuries as well as acute injuries including sprains (mostly ankle), muscle strains, bone or growth plate injuries. Warming up and stretching before play is essential to preventing sports related injuries. This helps athletes avoid injuries such as muscle tears or sprains by stretching and releasing any muscle tension.
Concussion
Children who do not wear or use protective equipment are at greater risk of sustaining sports-related injuries. Parents can reduce their child’s risk of minor or serious injuries such as concussions by making sure their child wears the appropriate and properly fitted sports equipment during practice and competitive play and knowing the signs and symptoms of a concussion.

About Safe Kids USA
Safe Kids USA is a member of Safe Kids Worldwide, which is a global network of organizations whose mission is to prevent unintentional childhood injury, the leading cause of death and disability to children ages 1 to 14. More than 600 coalitions and chapters across the U.S. and more than 20 member countries across the globe bring together health and safety experts, educators, corporations, foundations, governments and volunteers to educate and protect families. Founded in 1987 as the National SAFE KIDS Campaign by Children’s National Medical Center with support from Johnson & Johnson, Safe Kids Worldwide is a non-profit organization located in Washington, D.C.
Drivers

- When backing out of a driveway or leaving a garage, watch out for children walking or bicycling to school.

- When driving in neighborhoods with school zones, watch out for young people who may be thinking about getting to school, but may not be thinking of getting there safely.

- Slow down. Watch for children walking in the street, especially if there are no sidewalks in neighborhood.

- Slow down. Watch for children playing and congregating near bus stops.

- Be alert. Children arriving late for the bus may dart into the street with out looking for traffic.

- Learn and obey the school bus laws in your state. Learn the "flashing signal light system" that school bus drivers use to alert motorists of pending actions:
  
  - Yellow flashing lights indicate that the bus is preparing to stop to load or unload children. Motorists should slow down and prepare to stop their vehicles.
  
  - Red flashing lights and extended stop arms indicate that the bus has stopped, and that children are getting on or off. Motorists must stop their cars and wait until the red lights stop flashing, the extended stop sign is withdrawn, and the bus begins moving before they can start driving again.

- Teach children to follow these common sense practices to make school bus transportation safer.
Children

- Get to the bus stop at least five minutes before the bus is scheduled to arrive.
- When the bus approaches, stand at least three giant steps (6 feet) away from the curb, and line up away from the street.
- Wait until the bus stops, the door opens, and the driver says that it's okay before stepping onto the bus.
- If you have to cross the street in front of the bus, walk on the sidewalk or along the side of the road to a point at least five giant steps (10 feet) ahead of the bus before you cross. Be sure that the bus driver can see you, and you can see the bus driver.
- Use the handrails to avoid falls. When exiting the bus, be careful that clothing with drawstrings, and book bags with straps don't get caught in the handrails or doors.
- Never walk behind the bus.
- Walk at least three giant steps away from the side of the bus.
- If you drop something near the bus, tell the bus driver. Never try to pick it up because the driver may not be able to see you.

Parents

- Teach children to follow these common sense practices to make school bus transportation safer.
Safety Meeting Topic

September Monthly Safety Topic

September National Fire Safety Month

For those wanting more information on National Fire Prevention Week, please visit the National Fire Prevention Association website at [http://www.firepreventionweek.org](http://www.firepreventionweek.org)

In preparation for National Campus Fire Safety Month (September 30) and National Fire Protection Association’s (NFPA) National Fire Prevention Week (October 3-9), EH&S wants to remind you that fire prevention and fire safety are of paramount importance to ASU. Please review both EH&S ([http://cfo.asu.edu/ehs](http://cfo.asu.edu/ehs)) and NFPA’s ([www.nfpa.org](http://www.nfpa.org)) website to obtain more information and training opportunities related to fire safety and prevention as well as ASUs emergency preparedness website ([http://www.asu.edu/uaec/emergency/](http://www.asu.edu/uaec/emergency/)).

Although Campus Fire Safety Month is geared towards faculty, staff and students while on campus, it is also important to improve your ability to protect you and your family at home or anywhere while off campus. Fire incidents (death, injuries and property loss) still remain a concern in America making fire safety and prevention awareness important both on and off the job.

Many polls and interviews of survivors of an emergency state that have or know of the escape plans for their home or work place in case of a fire but most do not practice it. Prevention and emergency plans work together to help prevent fires or exposures that may cause injuries/fatalities. Please work with your department head or contact EH&S emergency preparedness questions/information.

Below is a list of the common fire prevention violations that you should be aware of.

- Materials on walls and ceilings shall be non-combustible or flame resistant treated.
- Extension cords shall not be a substitute for permanent wiring.
- Re-locatable power taps (Surge protectors) shall be directly connected to a permanently installed receptacle, and not into one another.
- All Multi-plug adapters shall be surge protected.
- Electrical panels shall have a 36’ clearance in front of the panel.
- The required Corridors path shall not be reduced in size by storage.
- Fire Department access roads shall not be obstructed in any manner, including the parking of vehicles.

Let’s work together to make your work place and your home a safe place by taking the necessary measures to prevent fires.

Remember, you must receive Fire Safety and Prevention training in order to use fire extinguishers at ASU. Training is available through EH&S. You can register at [http://www.asu.edu/uaec/EHS/trainingschedule.htm](http://www.asu.edu/uaec/EHS/trainingschedule.htm)

If you have any questions related to fire safety and prevention please contact EH&S at (480) 965-1823 or email at EHS@asu.edu.
Teamwork at its Best

The quote, “may you live in interesting times,” is rumored to have origins as both a blessing and a curse. However, our response to “interesting times” can create defining moments. One such moment occurred during the 2011 Sun ’n Fun International Fly-In and Expo in Lakeland, Florida.

The weather had been iffy since opening day. The forecast for Thursday, March 31, was bleak, and the day dawned accordingly. The morning saw severe thunderstorms roll across central Florida and tornado watches were in effect throughout the state. The sky grew ominously dark around lunchtime, changing from gray to a light greenish color, when the winds picked up and hail began to fall. We quickly moved as many people as we could into the FAASTeam’s National Resource Center (NRC) hangar, and closed the doors.

A tornado touched down shortly after noon, shaking the hangar as we huddled together. As one employee described it, “It felt as if the building was breathing very heavily.” We watched through the nearby glass doors as the wind bent large metal flag poles into the ground. The power went off. We could hear destruction all around us for many anxious moments until the storm’s fury abated. Then we saw it…. damaged and destroyed aircraft in heaps of twisted metal along with display booths scattered in all directions. Destruction was everywhere and there was a collective gasp of horror.

The NRC was filled with wet, frightened people. A FAASTeam member took the stage and started telling flying stories in an effort to bring some composure to the shaken crowd. Other FAA employees distributed bottled water. Illuminated by flashlights, Administrator Babbutt addressed the group and brought calm to a tense situation. He spoke from his heart about how difficult it is for people who love aviation to see so many aircraft damaged in just a matter of moments. He assured us that we would get through the storm and clean-up process. His remarks filled us with pride and, more importantly, with motivation to move forward.

Event organizers worked with local police to vacate the grounds, and FAA employees used golf carts and vans to help transport people until the grounds were clear. Our people then spent hours picking up trash and debris, repairing fences, and cleaning up the runway and taxiways. Everyone worked late into the evening doing whatever needed to be done.

The next morning I winced as I drove past the damaged or destroyed aircraft now confined to one corner of the airport. I could only imagine what daylight would reveal. But as I looked over the grounds from the NRC’s roof deck that morning, I was astonished. There was no noticeable debris and, with only a slight delay at the gates, Friday was open for business as usual. The spectacular Blue Angels flyover was a great way to announce “we’re here, and so is this air show!” Patrons and vendors tried to return to normalcy as much as possible. People were still reaching out to help others. FSDO inspectors continued to accommodate heavy walk-in traffic while assuring safety for the event.

Being part of the storm response and clean up made for one of Sun ’n Fun’s finest hours. That day we were truly “one FAA,” and the definition of real teamwork. I am proud of the professionalism my colleagues demonstrated, and honored to have been part of the team.

Kieran O’Farrell is the frontline manager at the FAA Safety Team’s National Resource Center in Lakeland, Florida. She is an active general aviation pilot. 
Aid for Avoiding Close Calls with Military Aircraft
Notice Number: NOTC3091

See and Avoid.org
Avoid midair collisions through proper flight planning

The FAA Safety Team is pleased to announce that in conjunction with the Department of Defense, the FAA is now hosting the See and Avoid website on FAASafety.gov.

Originally created by the Air National Guard Aviation Safety Division and funded by the Defense Safety Oversight Council, it now includes all military services. Our goal is to eliminate midair collisions and reduce close calls through continuous flight safety and proper flight planning. By promoting information exchange between civilian pilots and the military flight safety community, we hope to provide one-stop shopping to help all of us safely share the skies. This portal will allow users to find and link to all existing military Mid-Air Collision Avoidance (MACA) programs in a single web site, while also enjoying new access to information from military bases that did not previously have web-based content.

Since 1978, there has been an average of 30 midair collisions in the United States each year. These collisions resulted in an average of 75 deaths per year. There are also over 450 Near Midair Collisions (NMACs) reported each year; no one can calculate the number that have gone unreported! As recently as February, 2006 a civilian pilot was killed in a single plane crash after colliding with an Air Force jet. In many cases, one or both of the aircraft are not aware that a midair collision nearly occurred. Particularly in cases where military and civilian aircraft come into close proximity, lack of basic information regarding military flight characteristics creates problems among civilian pilots. FAA regulations and EAA guidelines just aren't enough. The SeeAndAvoid.org portal offers a centralized, credible website that provides civilian and military pilots with reciprocal information and education on airspace, visual identification, aircraft performance, and mutual hazards to safe flight - with the ultimate goal of eliminating midair collisions and reducing the number of close calls. After all, what price can be put on proper flight safety and flight planning?

Over 136,600 pilots earned WINGS credits last year. Will you, this year?
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This portal is targeting two user groups. The first group is General Aviation (GA) Pilots, who we encourage to include SeeAndAvoid.org as part of their flight planning. From weather to Notices to Airmen (NOTAMs) to flight planning, pilots in general and civilian pilots in particular, use the Internet to get their most important flight safety information. As important as the weather, knowing where the military operational flying areas are - and how to avoid that airspace - is crucial to a safe flight. Unexpected turbulence, icing, terrain obscured by fog, or a jet flying low at 500 knots; each one is just as deadly to the GA pilot if not planned for prior to takeoff.

The second group targeted are the military safety officers at all military bases. This portal site provides every participating DoD flying base in the U.S. with the opportunity to create a web-based MACA educational and public outreach program. This web-based MACA program, intended primarily for an audience of 750,000 civil pilots, is modeled on centralized support, with decentralized execution. This website integrates and links with related sites such as FAA Special Use Airspace, AOPA’s Air Safety Foundation, and the new FAA MADE (military airspace deconfliction) program.

The interface is simple to use with point-and-click interaction, predominately using Google maps and graphics for ease of use and is designed to include the MACA programs of all DoD aviation installations in the Continental United States (CONUS), Alaska, Hawaii, Virgin Islands, Guam and Puerto Rico. By going to www.FAASafety.gov right now and using the new portal on the Home page, you will be able to see the wealth of information available to you. Note: all military activity may not be displayed, so please use caution when flying in areas where military aircraft could be. Later this summer, we will make a user's guide available. Meanwhile, try it out!

This notice is being sent to you because you selected "General Information" in your preferences on FAASafety.gov. If you wish to adjust your selections, log into https://www.faasafety.gov/Users/pub/preferences.aspx where you can update your preferences.

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Pilot Deviation Safety Tip
Notice Number: NOTC3078

When “Once a Day” is not so good!

Nearly every day a pilot incurs a violation in the Washington DC Special Flight Rules Area (SFRA) for infractions that are entirely avoidable.

A typical deviation reads, “Aircraft observed in the SFRA with a 1200 transponder code.” Voice recordings indicate pilots revert to ingrained habit-patterns and fail to keep their assigned beacon code when cancelling their IFR flight plans in the SFRA. The old saying that, "Good habits are good friends" is true, but the question here is, "What is the good habit?" It is to ask yourself, "What should the transponder code be?" And the answer is not always 1200!

Pilots operating VFR within 60 NM of the DCA VOR are required to obtain online training at http://www.faasafety.gov. The Course Number for the special training course, Washington DC Special Flight Rules Training Course, is ALC-55. You can find the course in the Online Course Catalog under the Courses tab. Statistically, pilots who complete this required training are less likely to incur a SFRA violation.

To avoid incurring a violation for an action or inaction that could have been easily prevented, it is strongly recommended that all pilots planning a flight, VFR or IFR, within 100 NM of the DCA VOR/DME take the special awareness training course.

You may read the entire FDC Notam 0/8326 at http://tfr.faa.gov/save_pages/detail_0_8326.html

Over 136,600 pilots earned WINGS credits last year. Will you, this year?
CAP Members:

The following information has been repeated time and time again but I feel it necessary to write about it here so we can all help reduce incidents of dehydration.

The best prevention for heat injuries, is to call off activities on very hot and humid days. Local weather stations and military bases often provide valuable information on when it could be hazardous to conduct strenuous activities outdoors. These warnings are generally based on wet-bulb globe thermometer readings and should be very carefully taken into account by activity directors. This is extremely important to the risk management process.

Sometimes it can take up to two weeks for the human body to totally acclimatize to changes in heat/humidity. This needs to be taken into account. Once acclimatized, the body begins to sweat earlier and the sodium content of sweat lessens...all part of the natural process to keep the body cooler.

Activity leaders should encourage participants to stay hydrated. They should drink 16 to 20 ounces of water or sports drink two hours before, and again a half hour after participating in strenuous activities. Participants should also drink 8 ounces every twenty minutes. Sports drinks help provide needed sodium that the body loses by sweating.

**Heat cramps are the first signs of trouble.** Cramps of the muscles, arms, legs, or abdomen are to be taken very seriously. Participants with these symptoms should be removed from activities immediately. They should sit in a cool, shaded place, and drink sodium-containing fluids.

**Heat Fainting** is a more serious sign of heat trouble. A person experiencing heat fainting should be taken to an air-conditioned room, hydrated, and carefully watched. This person **should not be allowed to participate in similar activities until the following day.**

**Heat Exhaustion** is the next most serious sign of heat injury. The participant sweats heavily, might be nauseated, breathes rapidly, has a fast pulse, and low blood pressure. He/she is apt to be confused. This person is dehydrated, and sodium depleted. He/she should be quickly taken to an air-conditioned room. Activity leaders should consider loosening outer layers of clothing and constricting items (belts, boots, shoes) and elevate the member’s legs. Administering of fluids containing sodium is essential. If this person is not responding to this treatment in a short time (less than five minutes), they should be taken to a hospital.

**Heat Stroke** is the most serious heat injury. All of the signs above are present, but the skin can be dry. The person is groggy or unresponsive. This person should be taken to an emergency room by ambulance immediately.

It is my hope that this information is read by many of our members, and that perhaps it may save a life.

Bob Alex, Col. CAP
Ass't. National Safety Officer
SUMMARY

CAP's safety awareness and program management has significantly improved with the addition of NHQ safety staff working in conjunction with the National Safety Team (NST). The NST is comprised of the National Safety Officer and volunteer assistants assigned as subject matter experts for flight and ground safety. Region and Wing Commanders are moving away from a punitive safety program towards a behavior-based safety program that has shown significant improvement in using safety mishaps as an educational opportunity to raise awareness and prevent risk exposure.

Got a great safety article that you would like to see in a future Beacon newsletter? Please send it to Lt Col Sharon Williams at safetybeacon@capnhq.gov.