EMERGENCY ACTION PLANNING

- All schools should have a written and rehearsed Emergency Action Plan (EAP) for all sponsored activities and venues.
- School administrators should design a chain of command for medical decision making.
- A protocol for defining the need for and providing safe transport of an injured athlete must be developed.

Significance
While interscholastic sports promote health, competition, and teamwork, the risks of catastrophic injury and sudden death exists during both practice and competition. The potential for a medical emergency is ever present. The purpose of the Emergency Action Plan is to facilitate a prompt, efficient, coordinated response in the case of a medical emergency. Planning, preparation, and practice are the keys to achieving success in the case of an actual emergency.

Background
All schools and school districts should have an EAP that addresses medical emergencies among athletes, staff, officials, and spectators. The plan should also address severe weather, fire, electrical failure, bomb threat, criminal behavior or other possible emergencies. For purposes of this plan, we will concentrate on the EAP for medical emergencies involving athletes.

The prevention and minimization of injury is a year-round, comprehensive effort. Risk of injury is minimized by the pre-participation evaluation of athletes, safety review of venues for practices and contests, proper equipment selection and fit, preseason strength training and conditioning programs, adequate environmental acclimatization, comprehensive rehabilitation following injury, and prudent return-to-activity protocols.

The EAP is a blueprint for response to a medical emergency and activation of the emergency medical system (EMS). The sports medicine team and administration must be prepared for any emergency situation. An EAP should be established for each separate venue and should be in effect at all practices and competitions. A modified EAP should also be developed for away contests in all sports. A proper plan establishes accountability and should be comprehensive, yet flexible, practical, and easily understood. The written EAP must be revised, approved, distributed, and rehearsed regularly prior to every athletic season. The athletic department, administration, and sports medicine team share the responsibility to establish, practice, and execute the EAP.

COMPONENTS OF THE EAP

1. **Personnel:**
   a. Define the responsibilities of each member of the sports medicine team, coaching staff, and administration. Identify the persons delegated to provide emergency care. The highest available level of sports medicine expertise should be present at all events, if possible. An athletic trainer or physician should be present for events with a high risk of injury such as football and ice hockey. Given the limited sports medicine staff available to many high schools, coaches and administrators must be expected to be called upon to assist inured athletes. Even if a school employs an athletic trainer, it is not possible for the athletic trainer to attend all practices and contests. It is highly recommended that coaches and administrators be certified in CPR/AED use and First Aid.

b. Delegate staff to keep the scene safe, manage spectators, and restrict others from interfering with the sports medicine staff or others providing emergency care. Officials and coaches should move athletes and family members away from the injured athlete. Players should be educated not to touch, move, pull on, or remove equipment from any injured player.
c. Designate a "chain of command" for medical decision making. The sports medicine team should be empowered with unchallengeable authority in medical decisions for the athlete and in situations where modification of practices or contests due to environmental danger is deemed necessary.

2. Communication:

a. Designate telecommunication devices and a list of emergency phone numbers. Be aware of locations where cell phones may not operate and ensure that hand-held radios and/or landlines are available.
b. A written description of the venue and its access points will facilitate a prompt response by EMS. Identify the person charged with contacting EMS in the event of an emergency.
c. Agree to and rehearse hand signals for communication between sports medicine team members on the field and on the sidelines to facilitate rapid activation of EMS.
d. Plan for notification of the hospital emergency department receiving the inured athlete(s).
e. Plan for communication with the athlete's family, teammates, and media while honoring the patient confidentially. This is especially important in the event of a catastrophic injury.

3. Equipment:

a. Mandatory emergency equipment includes tools for facemask removal, spine and extremity immobilization, airway management, and AED.
b. All equipment must be regularly checked and well maintained. AED's should be maintained as per their manufacturer instructions with regular changes of batteries and pads.
c. Each member of the sports medicine team, as well as coaches and administrators, should be knowledgeable and cross trained in all of the techniques and equipment to be used in an emergency.

4. Emergency Medical Care:

a. Follow basic first aid and/or CPR/AED protocols.
b. Observation of the mechanism of injury allows rapid anticipation of the resulting injury and its severity.
c. Everyone assisting with the care of an injured athlete must work as a team. No single healthcare discipline should have entitlement to the supervision or performance of any particular aspect of the rescue. The individual at the athlete's head is in charge until that responsibility is transferred to and accepted by another member of the team.
d. If a neck injury is suspected, stabilize the head and neck until cervical spine injury is ruled out. If the athlete is unconscious, always assume that there is a spine injury.
e. Decisions of how and when to transport an injured athlete from the field should follow a set protocol. If no parent or guardian is available, there must be a protocol for contacting them and at least one adult should accompany the injured athlete to the hospital.

5. Information:

a. Plan to keep a small file (paper or electronic) with each athlete's medical information and parental consent form. This file must be available at all practices and contests (home and away).
b. Important data to have on file includes: past medical history, present medications; allergies; tetanus vaccination status; emergency contact information; primary care provider information; signed consent for examination, treatment, transport, and sharing of medical and insurance information.

6. **Gameday: <u>(See MSHSAA Pre-Event/Contest Medical Planning Meeting document)</u>**
    a. Review of the EAP by the leadership of the home and away teams and officials prior to the start of play.
    b. Identify those athletes who may be at special risk given past medical history or recent illness or injury.
    c. Ensure equipment and telecommunication devices are present and functioning. Ensure that the venue is accessible by EMS personnel and vehicles.
    d. Survey the environmental conditions and the playing field for potential dangers. An inclement weather plan should delegate responsibility and protocol for decision-making in case of heat, cold, rain, or lightning. Provide an evacuation plan for each team, officials, and spectators in case of environmental or other universal danger.

7. **Catastrophic Incident Plan:**
    a. Injuries resulting in death or permanent disability are uncommon. The aftermath of such tragedies is a time of sadness and confusion for everyone involved. School administrators are well-served at such times by a separate Catastrophic Incident Plan.
    b. The plan should delegate a management team that collects accurate information; provides official communication; provides institutional risk management; follows a flow chart of communication/notification; coordinates legal, medical, police, and media interaction; and keeps a chronological record of the events leading to and following the incident.

Sideline Preparedness Items

The NFHS SMAC suggests the following items be available on the sidelines for all practices and competitors to facilitate appropriate care for a sick or injured athlete when an athletic trainer is not present. Actual items for each venue should be determined in consultation with the athletic trainer or team physician.

First Aid Kit:

- Athletic Tape
- Pre-Wrap
- Band-Aids of various shapes and sizes
- Sterile Gauze
- Iodine, Hydrogen Peroxide or other antiseptic
- Triple Antibiotic Ointment
- Disposable Latex Gloves
- Scissors
- Eye Wash with Cup (to rinse foreign bodies)
- Dental Kit in case of tooth loss
- Saline Solution (for athletes with contact lenses)
- Petroleum Jelly (to stop chafing skin)
- Ice Bags
- CPR Mask
- Face-mask removal tool such as a screwdriver, Trainers Angel, FM Extractor, or a modified anvil pruner. A backup removal tool should also be on hand if a screwdriver is the first tool of choice.

Medical Resource Binder or readily available electronic access to:

- Athlete emergency medical cards and authorizations
- Injury report forms
- List of phone numbers and addresses of all local hospitals in each town or county to which the team travels

Authorized Items for Individual Athletes:
These items are for use by the individual athlete who has been prescribed to use them by his/her primary care provider, as indicated on the emergency card or other medical documentation; these items are not to be shared with other athletes). Before carrying these items, institutions should check with individual state laws and school policies concerning the carrying and dispensing of medications to minors.

- Asthma inhalers
- Bee-sting kits (e.g., Epi-pen)
- Diabetic kits
- Other prescription medications

THE COACH'S ROLE IN THE EAP

Many high schools do not have the services of an athletic trainer. During practice or competition, athletes are often in need of first aid or other care when an athletic trainer or other healthcare professional is not physically present. In these situations, the head coach and other members of the coaching staff must have the basic knowledge and supplies on the sidelines to facilitate appropriate care for the athletes, commensurate with the coaches training (i.e., CPR/AED and first aid).

While not all injuries are preventable, a properly trained coach may effectively control or lessen the incidence or consequence of an injury through appropriate initial first aid and emergency care. To accomplish this goal, the NFHS recommends that coaches hold current certifications in CPR/AED and receive training in basic first aid. Medical concerns that arise that are beyond their training and knowledge should be immediately referred to a qualified medical professional. No items should be on the sideline that a coach does not have the training or authorization to use.

In the case of existing medical conditions where an item has been authorized or prescribed for a particular athlete, it is important that the coach understands the specific medical needs of the athlete, as well as the indications for use of the items. The coach should also be familiar with the signs and symptoms specific to the individual athlete's medical concern (e.g., those that signify an asthma attack, allergic reaction requiring the use of an Epi-pen, or a diabetic emergency), so that they may appropriately assist the athlete when the need arises. Therefore, communication between the athlete, his or her legal guardian, the athletic trainer, and the prescribing provider is essential in order to provide appropriate sideline care for athletes with chronic medical conditions. It is also recommended that institutions check individual state laws and school policies concerning carrying prescription medications and dispensing the prescription medication to minors.

For teams where multiple coaches are present, it is a sound practice to appoint one coach to communicate regularly with the sports medicine staff and be responsible for sideline preparedness. In the absence of a healthcare provider, the designated coach (at a minimum) should have current training in CPR/AED use and first aid and be aware of the EAP for each venue.

A chain of command should be established that identifies the roles and responsibilities of all administrators and staff on site. A method of documenting the incident of injury or illness is also important to ensure that appropriate information is conveyed to EMS personnel. Keeping a list of items used during each event will ensure that supplies are adequately restocked prior to the next practice or competition. Lastly, when the team travels, a coach should be designated to identify healthcare personnel and resources available on site if a medical emergency arises.

THE SPINE-INJURED ATHLETE

Athletic participation carries with it the risk of catastrophic cervical spine injury. Because of the potential for permanent neurological injury or death associated with cervical spine injury, proper on-field management is of utmost importance. Sports medicine professionals support the practice of not removing football helmets when there is even the slightest chance of cervical spine injury for the following reasons:

1. The football helmet does not hinder proper head and neck immobilization techniques.
2. The football helmet does not hinder the ability of the examiner to visualize facial and cranial injuries.
3. The football helmet with the facemask removed allows for proper management and control of the airway during CPR.
4. The football helmet will tend to protect against hyper-flexion of the cervical spine in the presence of should pads.

The NFHS SMAC supports the recommendations and guidelines set forth in the National Athletic Trainers' Association's 2009 Position Statement on the Acute Management of the Cervical Spine-Injured Athletes.

IMMEDIATE CARE OF ALL SUSPECTED SPINE INJURIES:

- Any athlete suspected of having a spinal injury should not be moved and should be managed as though a spinal injury exists.
- The athlete's airway, breathing and circulation, neurological status, and level of consciousness should be assessed.
- The athlete should not be moved unless absolutely essential to maintain airway, breathing, or circulation.
- If the athlete must be moved to maintain airway, breathing, or circulation, the athlete should be placed in a supine position while maintaining spinal immobilization.
- When moving a suspected spine-injured athlete, the head and trunk should be moved as a unit.
- The Emergency Medical System must be activated immediately.

FACE MASK REMOVAL:

- It is imperative that all coaches, athletic trainers, team physicians and EMS personnel practice the use of the different face mask removal tools and familiarize themselves with how the face mask is to be removed from every helmet currently on the market.
- The face mask should be removed prior to transportation, regardless of the athlete's respiratory status.
- Those involved in the pre-hospital care of injured football players should have the tools for face mask removal readily available (screwdriver, power screwdriver, Trainer's Angel, FM Extractor, or a modified anvil pruner. A backup removal tool should also be on hand if a screwdriver is the first tool of choice).

FOOTBALL HELMET REMOVAL:

1. **The athletic helmet and chin strap should only be removed:**
    a. If the helmet and chin strap do not hold the head securely, such that immobilization of the helmet does not also immobilize the head.
    b. If the design of the helmet and chin strap is such that even after removal of the face m ask the airway cannot be controlled or ventilation provided.
    c. If the face mask cannot be removed after a reasonable period of time.
    d. If the helmet prevents immobilization for transportation in an appropriate position.
2. **If the helmet does need to be removed:**
    a. Spinal immobilization must be maintained while removing the helmet.
    b. Helmet removal should be frequently practiced under proper supervision. Specific guidelines for helmet removal need to be developed.
    c. In most circumstances, it may be helpful to remove cheek padding and/or deflate air padding prior to helmet removal.

HELMET REMOVAL IN OTHER SPORTS:
It is recommended that each situation be treated individually and held to the same criteria for determining the removal of football helmets. In all cases, it is recommended that the helmet be left on during pre-hospital management of the spine-injured athlete unless:

- The helmet is not form-fitted to the head, such that the head is able to move within the helmet and is not provided adequate immobilization.
- The design of the helmet does not allow for airway control, even after the face mask is removed.
- The face mask is difficult to remove and cannot be done in a reasonable amount of time.
- The helmet does not allow immobilization in a safe position for transportation.

References:

Centers for Disease Control and Prevention, Emergency Action Plans. www.cdc.gov/niosh/docs/2004-101/emrgact/emrgact1.html.

National Athletic Trainers' Association, Emergency Action Plan for Athletic Facilities. www.nata.org/emergency-medical-plan-athletic-facilities.

National Collegiate Athletic Association, Sample Catastrophic Incident Guidelines. www.ncaa.org/heath-safety.

National Collegiate Athletic Association, Guideline 1c: Emergency Care and coverage. 2010-2011 Sports Medicine Handbook (21st Edition).

National Collegiate Athletic Association, Guideline 1e: Catastrophic Incident in Athletics. 2010-11 Sports Medicine Handbook (21st Edition).

Swartz EE, et al., NATA Position Statement: Acute management of the cervical injured athlete. Journal of Athletic Training 2009; 44:306-331.

Terrell TR, Moeller JL., Covering Athletic Competition. In: McKeag D and Moeller JL, eds. ACSM's Primary Care Sports Medicine, 2nd Ed. Philadelphia, PA:LLW, 2007-143-152.

University of Georgia Sports Medicine Emergency Action Plan, www.nata.org/search/node/emergency%20action%20plan.

Handling Medical Emergencies

All school districts should have written procedures for handling medical emergencies and for the evacuation of potentially seriously injured students. Athletic staff members must, without exception, be totally familiar with these procedures to ensure that they can be implemented at all times. Constant access to a telephone, as well as transportation plans and hospital routes, are critical to your procedures.

An idea which has been utilized by some school districts is to prepare a small laminated card summarizing the procedures for responding to medical emergencies. Each coach, activities director, and student manager is required to carry the laminated card on their person at all times. The following is a sample Emergency Card that you can use as a guide in preparing one for use by your staff.

FRONT SIDE OF CARD

Emergency Numbers:
Doctor/Paramedics:
Fire Department:
Police Department:
School District Transportation (in case of breakdown):
Principal:
Boy's Athletic Director:
Girl's Athletic Director:
Activities Director:
Athletic Trainer:

Information for Paramedics:
Your Name:
High School Phone Number:
Site:
School Name:
School Street Address:
City, State, and Zip Code:
Directions for Entering Campus:
Type of Injury:

REVERSE SIDE OF CARD

1. A responsible person must stay with the injured student.
2 Do not move a seriously-injured student **especially with a back or neck injury**.
3. A responsible person should call Paramedics/Fire Department IMMEDIATELY. Have a responsible person meet unit at the entrance to the school (see reverse side for information).
4. Have athlete's Emergency Card ready.
5. Contact parents as soon as possible.
6. Contact Athletic Director.
7. Send a "Return to Competition" form with the person accompanying the injured student.