

Safety in High School Sports

FHSAA
SPORTS MEDICINE ADVISORY COMMITTEE



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Overview

- Provide important information to parents regarding sports related injuries.
- Highlight the educational, and preventative measures in place to provide the safest sports experience.
- Explain critical strategies in place to care for someone who has become injured.
- Remind you to Discuss any school specific policies or procedures related to sports safety with your individual school athletic trainer, team physician or athletic department administrator.

*Designed in cooperation with the FHSAA Sports
Medicine Advisory Committee - 2021*



Sports Safety

Top deadly risks associated with physical activity and high schools sports

- Sudden Cardiac Arrest
- Exertional Heat Stroke
- Head Injury
- Asthma



2020 – Zachary Martin Act – Student Athlete Safety

New Florida Sports Safety Legislation:



- Heat Stroke awareness
 - ✓ WBGT
 - ✓ Cold Water Tubs
- CPR and AED emphasis
- Year-round safety



Sudden Cardiac Arrest

Education: All student-athletes and Coaches must complete the *NFHS educational video* on Sudden Cardiac Arrest prior to any participation in sports. Parents are strongly recommended to view the educational course as well.

Prevention: Pre-Participation Physical Evaluation - ***the first step in preventing all sports injuries***. Should be completed by a health care provider familiar with your student as well as the demands of physical activity (Sports). Health care provider may suggest a cardiovascular assessment, which may include such diagnostic tests as electrocardiogram (EKG), echocardiogram (ECG) and/or cardio stress test.



Sudden Cardiac Arrest - Cont

State Law and FHSAA Policy: requires schools to have an AED accessible and recommends coaches obtain training for CPR and AED use

Care:

- **Early recognition:** Trained coaches and student-athletes immediately recognize the emergency and call 911
- **CPR:** Trained coaches and staff perform early CPR with emphasis on compressions
- **AED:** AED locations and access; can be used as soon as it arrives



What can I do as a parent/guardian?

Ensure your student has received a proper pre-participation exam and follow up testing, as directed by health care provider. Submit all paperwork to school.

- Be sure to pay attention to all medical history questions on the form and answer them appropriately.

Don't be afraid to ask questions:

1. Does the school have an AED(s), and where are they located?
2. Who is trained to use the AED? Are they present at practices and games?
3. Who is the athletic trainer, team physician or other medical provider?



Pause for individual school information



School specific information - SCHOOL SHOULD EDIT

- How to get in contact with:
 - Head Coach
 - Athletic Trainer
 - Team Physician
 - Athletic Director
- Number and location of school AEDs
- Insert any other school information on required paperwork and expectations / appropriate chain of command



Exertional Heat Stroke

Education: All student-athletes and Coaches must complete the *NFHS educational video on exertional heat illness* prior to any participation in sports. **Parents** are strongly recommended to view the educational course as well.

Prevention: FHSAA Acclimatization policy (41), environmental monitoring (WBGT)

Hydrate, fuel, rest and recover (work/rest ratio)

Care: Cold water immersion (cool before transport), activation of the EAP



Exertional Heat Stroke

Heat stroke occurs when the body can no longer cool itself down and the internal temperature becomes very dangerous.

★ **Heat stroke is a medical emergency (105 degrees)**

Florida is extremely vulnerable to dangerous conditions for our student-athletes

- High temperatures
- High humidity
- Intense sunshine



Exertional Heat Stroke

Prevention:

State Law and FHSAA Policy: requires schools to monitor environmental conditions and make modifications to keep kids safe

- **WBGT:** Provides objective information about heat stress levels
- **Cooling Zone:** Includes a shaded area, a cold water tub

***Heat stroke is 100% survivable if
Cold Water Immersion is used in the first 10 minutes***

- **Acclimatization:** FHSAA policy to guide coaches with gradual increases in preseason activity



Exertional Heat Stroke

What can I do as a parent/guardian?

- Ensure proper rest, nutrition and hydration: student-athletes should be encouraged to obtain at least 8 hours of sleep and maintain healthy hydration.
 - Monitor urine color and output
 - Weight in/out - for every pound lost, athlete should consume 16 oz fluids
 - Water and sport drink mixture
- Monitor acclimatization - ask questions of coaches and your student
- Familiarize yourself with your schools cooling zone - check it out!



Heat Illness

Parents/Guardians:

- Athletes struggling with the heat may have these symptoms:
- Symptoms of exertional heat illness include: (may vary)

Cramps, dizziness, headache, weakness/light headed, nausea/vomiting, behavioral changes such as confusion/disorientation, and unconsciousness

- Report any concerning signs and symptoms to coaches, athletic trainers and your family health care provider.
- Heat illness does not necessarily always precede heat stroke



Exertional Heat Stroke

- When internal (core) body temperature exceeds 104 degrees the body may begin showing some advanced signs / symptoms of an emergency:

*Irrational behavior *Irritability *Emotional instability

*Altered consciousness, collapse, coma *Dizziness

This is a medical emergency

- Cold water immersion is the best practice treatment method - water 40% more effective than any other method. Cool first, then transport



Pause for individual school information



School Specific Information - School Should Edit

Cooling zone location

List of responsible parties

Other pertinent information



Head Injury - including concussion

Education: All student-athletes and Coaches must complete the NFHS educational video on sports-related concussion prior to any participation in sports. **Parents** are strongly recommended to view the educational course as well.

Prevention: Appropriate equipment fitting, injury awareness, knowledgeable coaching and direct supervision.

Care: Recognize concerning injury - when in doubt, sit them out. Head injuries are not negotiable

- Requires evaluation by a licensed MD or DO who is familiar with the most current consensus statement on sports-related concussion



Head injury - Concussion

State Law and FHSAA Policy: requires schools to educate kids on the dangers of concussion and to immediately remove anyone suspected of a head injury from activity (game or practice) until evaluated by an appropriate health care provider.

All head injuries are serious

These safeguards are in place to protect the kids, not to punish them; please respect the actions taken for the safety of your child and report any symptoms you may have noticed as soon as possible.



Head injury - important information

- Helmets do not prevent concussion
- Coaching staff CANNOT diagnose concussion; nor, authorize return to school or play
- Everyone plays a part in the decision to remove an athlete from participation due to a concerning head injury.



Return to play after a head injury

- Following diagnosis of a concussion, a supervised return-to-play protocol must be completed before return to competition. (FHSAA AT-18)
- Student must be cleared by a MD or DO to start AND complete the return to activity protocol.
 - FHSAA AT-18 form, page 1 - signed by doctor to begin protocol
 - FHSAA AT-18 form, page 2 - signed following completion of page 1 - return to normal team activity
- A concussion is an injury to the brain and therefore, recovery should be closely monitored/supervised by the most appropriate/responsible person.



What can I do as a parent/guardian?

- Be familiar with what a concerning head injury is and common symptoms (>26)
 - Headache, dizziness, feeling in a fog, not feeling like self, sensitivity to light/sound, difficulty concentrating, nausea and many others
- Understand, all head injuries are **serious**, repeat head injuries are **dangerous**.
- Identify health care providers who are available at the school to assist athletes
 - Report any findings/concerns to coaches, athletic trainers, family health care provider
- When in doubt - get checked out by a qualified healthcare provider (ER, AHCP)



Pause for individual school information



School Specific information: SCHOOL SHOULD EDIT

Baseline assessments – Post injury assessment

Procedures coaches, student-athletes and parents to follow

School Board Policies

Chain of command

Who is the most appropriate contact for a parent who suspects child has a head injury?



The Student Athlete with Asthma



Asthma and Exercise-induced Bronchoconstriction

- Exercise-induced bronchoconstriction (EIB) occurs in athletes at a similar prevalence **as** that of the general population (9 to 15 percent).
- It is important to identify students with the diagnosis of asthma. Asthma may be unrecognized in the young athlete.
- Asthma vs. EIB:
 - Testing available to differentiate between two (lung function tests)
 - Asthma may produce symptoms at all times, or seasonally associated with allergens
 - EIB is bronchospasm triggered by exercise
 - Both treated with Metered dose inhalers (MDI)
- Pulmonary disease accounts for 2 percent of sudden death in sports. Asthma and EIB can be treated with pre-exercise medication in most patients. These conditions are not a reason to avoid exercise.

Symptoms of asthma in athletes

- Narrowing of the airway from airway smooth muscle contraction, mucus plug production leads to wheezing, which results in:
 - increased respiratory effort with difficulty breathing
 - anxiety
 - decreased speech
 - pursed lips
 - increased respiratory rate
 - sweating
 - increased heart rate
- EIB is commonly triggered by exercising in cold, dry air or environmental pollutants



Treatment of an athlete with breathing difficulties

- Quick relief and preventive treatment — Short-acting beta-agonists (SABAs; [albuterol](#) [salbutamol], [levalbuterol](#)) are the most effective therapy for quick relief of EIB. These are supplied via a metered dose inhaler.
- All athletes who report exercise-related symptoms must have access to their SABA (metered dose inhaler) for quick relief.
- 2-4 inhalations (e.g., albuterol 90 mcg/inhalation) are generally sufficient
- EIB should use MDI 15 min *before* exercise
- May need additional meds to control as well
- If no better, notify **the athletic** trainer, **coach** or EMT.
- **Inhaler responsibility of the student. No inhaler, No participation. Always in gym bag for travel/away games**



Conclusion

- Sports are a rewarding experience for our kids; however, sports participation is not without risk.
- Sudden cardiac arrest, exertional heat stroke and head injuries are catastrophic injuries associated with high school sports participation
- Our State, the FHSAA and our schools have implemented strategies to keep kids safe
- Parents/guardians are an integral component of this sports safety strategy

FOR MORE INFORMATION: Please contact your individual school athletic trainer



or



<http://fasmed.fadss.org/>

<https://fhsaa.com/>

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