SUDDEN CARDIAC DEATH IN YOUNG ATHLETES

The Basic Facts on Sudden Cardiac Death in Young Athletes

Sudden death in young athletes between the ages of 10 and 19 is very rare. What, if anything, can be done to prevent this kind of tragedy?

Sudden cardiac death is the result of an unexpected failure of proper heart function, usually (about 60% of the time) during or immediately after exercise without trauma. Since the heart stops pumping adequately, the athlete quickly collapses, loses consciousness, and ultimately dies unless normal heart rhythm is restored using an automated external defibrillator (AED).

Sudden cardiac death in young athletes is very rare. About 100 such deaths are reported in the United States per year. The chance of sudden death occurring to any individual high school athlete is about one in 200,000 per year.

Sudden cardiac death is more common in males than in females; in football and basketball than in other sports; and in African-Americans than in other races and ethnic groups.
Research suggests that the main cause is a loss of proper heart rhythm, causing the heart to quiver instead of pumping blood to the brain and body. This is called ventricular fibrillation (ven-TRICK-you-lar fibr- oo-LAY-shun).

The problem is usually caused by one of several cardiovascular abnormalities and electrical diseases of the heart that go unnoticed in healthy-appearing athletes.

The most common cause of sudden death in an athlete is hypertrophic cardiomyopathy (hi-per-TRO-ic CAR-dee-oh-my-OP-a-thee) also called HCM. HCM is a disease of the heart, with abnormal thickening of the heart muscle, which can cause serious heart rhythm problems and blockages to blood flow. This genetic disease runs in families and usually develops gradually over many years.

The second most likely cause is congenital (con-JEN-it-al) (i.e., present from birth) abnormalities of the coronary arteries. This means that these blood vessels are connected to the main blood vessel of the heart in an abnormal way. This differs from blockages that may occur when people get older (commonly called “coronary artery disease,” which may lead to a heart attack).
Other diseases of the heart that can lead to sudden death in young people include:

- Myocarditis (my-oh-car-DIE-tis), an acute inflammation of the heart muscle (usually due to a virus).
- Dilated cardiomyopathy, an enlargement of the heart for unknown reasons.
- Long QT syndrome and other electrical abnormalities of the heart which cause abnormal fast heart rhythms that can also run in families.
- Marfan syndrome, an inherited disorder that affects heart valves, walls of major arteries, eyes and the skeleton. It is generally seen in unusually tall athletes, especially if being tall is not common in other family members.

**Are there warning signs to watch for?**

In more than a third of these sudden cardiac deaths, there were warning signs that were not reported or taken seriously. Warning signs are:

- Fainting, a seizure or convulsions during physical activity;
- Fainting or a seizure from emotional excitement, emotional distress or being startled;
- Dizziness or lightheadedness, especially during exertion;
- Palpitations - awareness of the heart beating unusually (skipping, irregular or extra beats) during athletics or during cool down periods after athletic participation;
- Fatigue or tiring more quickly than peers; or
- Being unable to keep up with friends due to shortness of breath.

**What are the current recommendations for screening young athletes?**

New Jersey requires all school athletes to be examined by their primary care physician ("medical home") or school physician at least once per year. The New Jersey Department of Education requires use of the specific Annual Athletic Pre-Participation Physical Examination Form.

- Chest pains, at rest or during exertion;
- Palpitations - awareness of the heart beating unusually (skipping, irregular or extra beats) during athletics or during cool down periods after athletic participation;
- Fatigue or tiring more quickly than peers; or
- Being unable to keep up with friends due to shortness of breath.

The required physical exam includes measurement of blood pressure and a careful listening examination of the heart, especially for murmurs and rhythm abnormalities. If there are no warning signs reported on the health history and no further evaluation or testing is recommended.

**When should a student athlete see a heart specialist?**

If the primary healthcare provider or school physician has concerns, a referral to a child heart specialist, a pediatric cardiologist, is recommended. This specialist will perform a more thorough evaluation, including an electrocardiogram (ECG), which is a graph of the electrical activity of the heart. An echocardiogram, which is an ultrasound test of the heart, is also often performed.

**Why have an AED on site during sporting events?**

The only effective treatment for ventricular fibrillation is immediate use of an automated external defibrillator (AED). An AED can restore the heart back into a normal rhythm. An AED is also life-saving for ventricular fibrillation caused by a blow to the chest over the heart (commotio cordis).

Effective September 1, 2014, the New Jersey Department of Education requires that all public and nonpublic schools grades K-12 have AEDs on site during sporting events. Each school is responsible for ensuring adequate training of staff in the use of the AED. The AED must be stored in a convenient location near the area of sports participation and be accessible to the entire school community, including athletic trainers, coaches, and athletic staff. Each school must also develop policies and procedures for the use of the AED and provide training to all athletic staff on the use of the AED.

**Are there warning signs to watch for?**

- Fainting, a seizure or convulsions during physical activity;
- Fainting or a seizure from emotional excitement, emotional distress or being startled;
- Dizziness or lightheadedness, especially during exertion;
- chest pain, at rest or during exertion;
to allow for direct visualization of the heart structure, will likely also be done. The specialist may also order a treadmill exercise test and a monitor to enable a longer recording of the heart rhythm. None of the testing is invasive or uncomfortable.

Can sudden cardiac death be prevented just through proper screening?

A proper evaluation should find most, but not all, conditions that would cause sudden death in the athlete. This is because some diseases are difficult to uncover and may only develop later in life. Others can develop following a normal screening evaluation, such as an infection of the heart muscle from a virus.

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through 12 shall:

- Have an AED available at every sports event (three minutes total time to reach and return with the AED);
- Have adequate personnel who are trained in AED use present at practices and games;
- Have coaches and athletic trainers trained in basic life support techniques (CPR); and
- Call 911 immediately while someone is retrieving the AED.
NJSIAA’S STEROID TESTING POLICY

In accordance with Executive Order 72, issued by the Governor of the State of New Jersey, Richard J. Codey, on December 20, 2005, the NJSIAA will test a random selection of student athletes, who have qualified, as individuals or as members of a team, for state championship competition.

1. **General prohibition against performance enhancing drugs:**
   A. It shall be considered a violation of the Sportsmanship Rule for any student-athlete to possess, ingest, or otherwise use any substance on the list of banned substances, without written prescription by a fully licensed physician, as recognized by the American Medical Association, to treat a medical condition.
   B. Violations found as a result of NJSIAA’s testing shall be penalized in accordance with this policy.
   C. Violations found as a result of member school testing shall be penalized in accordance with the school’s policy.
   D. The NJSIAA policy shall consist of this general prohibition, the NJSIAA Steroid Testing Procedures, the NJSIAA Steroid Testing Protocol and the NJSIAA Banned Drug Classes.

2. **List of banned substances:**
   A list of banned substances shall be prepared annually by the Medical Advisory Committee, and approved by the Executive Committee. (See list)

3. **Consent form:**
   Before participating in interscholastic sports, the student-athlete and the student-athlete’s parent or guardian shall consent, in writing, to random testing in accordance with this policy. Failure to sign the consent form renders the student-athlete ineligible.

4. **Selection of athletes to be tested:**

5. **Tested athletes will be selected randomly from those athletes participating in championship competition. Testing may occur at any state championship site or at the school whose athletes have qualified for championship competition.**

   **Administration of tests:**
   Tests shall be administered by a certified laboratory, selected by the Executive Director and approved by the Executive Committee.

6. **Testing methodology:**
   The methodology for taking and handling samples shall be in accordance with current legal standards.

7. ** Sufficiency of results:**
   No test shall be considered a positive result unless the approved laboratory reports a positive result, and the NJSIAA’s medical review officer confirms that there was no
medical reason for the positive result. A “B” sample shall be available in the event of an appeal.

8. **Appeal process:**

If the certified laboratory reports that a student-athlete’s sample has tested positive, and the medical review officer confirms that there is no medical reason for a positive result, a penalty shall be imposed unless the student-athlete proves, by a preponderance of the evidence, that he or she bears no fault or negligence for the violation. Appeals shall be heard by a NJSIAA committee consisting of two members of the Executive Committee, the Executive Director/designee, a trainer and a physician. Appeal of a decision of the Committee shall be to the Commissioner of Education, for public school athletes, and to the superior court, for non-public athletes. Hearings shall be held in accordance with NJSIAA By-Laws, Article XIII, “Hearing Procedure.”

9. **Penalties**

Any person who tests positively in an NJSIAA administered test, or any person who refuses to provide a testing sample, or any person who reports his or her own violation, shall immediately forfeit his or her eligibility to participate in NJSIAA competition for a period of one year from the date of the test. Any such person shall also forfeit any individual honor earned while in violation. No person who tests positive, refuses to provide a test sample, or who reports his or her own violation shall resume eligibility until he or she has undergone counseling and produced a negative test result.

10. **Confidentiality:**

Results of all tests shall be considered confidential and shall only be disclosed to the individual, his or her parents and his or her school.

11. **Compilation of results:**

The Executive Committee shall annually compile and report the results of the testing program.

12. **Yearly renewal of the steroid policy:**

The Executive Committee shall annually determine whether this policy shall be renewed or discontinued.
Model Policy and Guidance for Prevention and Treatment of Sports-Related Concussions and Head Injuries

Introduction

This document is designed to provide guidance to local district boards of education in the development, establishment, and implementation of policies, procedures and programs for the prevention, treatment, and education of Sports-Related Concussions and Head Injuries.

Part I

Background

Legislation (P.L. 2010, Chapter 94) (N.J.S.A. 18A:40-41.3) enacted on December 7th, 2010 requires each school district, charter, and non-public school that participates in interscholastic athletics to adopt by September 1, 2011, a policy concerning the prevention and treatment of sports-related concussions and other head injuries among student-athletes. The Center for Disease Control estimates that 300,000 concussions are sustained during sports-related activity in the United States. A concussion is a traumatic brain injury (TBI) caused by a direct or indirect blow to the head or body. In order to ensure the safety of student-athletes, it is imperative that athletes, coaches, and parents/guardians are educated about the nature and treatment of sports-related concussions and head injuries. Allowing a student-athlete to return to play before recovering from a concussion increases the chance of a more serious brain injury that can result in severe disability and/or death.

To assist each district board of education, board of trustees, and non-public school in developing its sports-related concussion and head injuries policy, the legislation required the Commissioner of Education to issue a model policy applicable to grades kindergarten through twelve (K-12), by March 31, 2011. This document includes appropriate references to statutes, regulations and emergent information on sports-related concussions and head injuries.

Part II

Guidance For Local Policy Development

Policy Context

The New Jersey Department of Education (NJDOE) recognizes that the decisions made on the policy governing the care of student-athletes who have sustained sports-related concussions and head injuries is dependent on the individual characteristics in each school district, charter, and non-public school. Each district board of education, charter, and non-public school policy, however, must comply with the
minimum requirements stated in N.J.S.A. 18A: 40-41.4 in regards to the care and treatment of a student-athlete who is suspected of sustaining a sports-related concussion or head injury.

Local Policy Development
The following descriptions of applicable regulations make it clear that the content and format of local policies and procedures must be developed locally:

- Each district board of education, board of trustees, and non-public school will adopt an Interscholastic Head Injury Training program to be completed by the School/Team Physician, Licensed Athletic Trainer, Coaches, School Nurses, and other appropriate district personnel pursuant to N.J.S.A. 18A:40-41.2.
- Each district board of education, board of trustees, and non-public school must develop its written policy concerning the prevention and treatment of sports-related concussions and head injuries in accordance with N.J.S.A. 18A:40-41.3.
- Each district board of education, board of trustees, and non-public school must review their sports-related concussion and head injury policy annually, and update as necessary, to ensure that it reflects the most current information available on the prevention, risk, and treatment of sports related concussions and head injuries pursuant to N.J.S.A. 18A:40-41.3.

Requirements for Policy Contents
Each district board of education, board of trustees, and non-public school has local control over the content of the Sports-Related Concussion and Head Injury Policy, except that the policy must contain, at a minimum, the following components:

- 18A:40-41.4- Removal of student-athlete from competition, practice; return.
  A student who participates in interscholastic athletics and who sustains or is suspected of sustaining a concussion or other head injury shall be immediately removed from practice or competition. The student-athlete may not return to play until he/she has obtained medical clearance in compliance with local school district return-to-play policy.
- All Coaches, School Nurses, School/Team Physicians and Licensed Athletic Trainers must complete an Interscholastic Head Injury Training Program.
- The Athletic Head Injury training program must include, but not be limited to:
  1. The recognition of the symptoms of head and neck injuries, concussions, risk of secondary injury, including the risk of second impact syndrome; and
  2. Description of the appropriate criteria to delay the return to sports competition or practice of a student-athlete who has sustained a concussion or other head injury.
- An Athletic Head Injury Training program such as the National Federation of State High Schools Association online “Concussion in Sports” training program or a comparable program that meets mandated criteria shall be completed by the above named staff or others named by local district/school policy. Additional head injury training programs that meet the mandated criteria may be completed by professionals of different levels of medical knowledge and training. Guidance for these additional training programs will be provided to each school district, charter and non-public school by the NJDOE.
- Distribution of NJ Department of Education Concussion and Head Injury fact sheet to every student-athlete who participates in interscholastic sports. Each school district, charter or non public school,
that participates in interscholastic sports shall obtain a signed acknowledgement of the receipt of the fact sheet by the student-athlete’s parent/guardian and keep on file for future reference.

Model Concussion Protocol for the Prevention and Treatment of Sports-Related Concussions and Head Injuries

Prevention
1. Pre-season baseline testing.
2. Review of educational information for student-athletes on prevention of concussions.
3. Reinforcement of the importance of early identification and treatment of concussions to improve recovery.

- Student-athletes who are exhibiting the signs or symptoms of a sports-related concussion or other head injuries during practice or competition shall be immediately removed from play and may not return to play that day.

Possible Signs of Concussion:
(Could be observed by Coaches, Licensed Athletic Trainer, School/Team Physician, School Nurse)
1. Appears dazed, stunned, or disoriented.
2. Forgets plays, or demonstrates short term memory difficulty.
3. Exhibits difficulties with balance or coordination.
4. Answers questions slowly or inaccurately.
5. Loses consciousness.

Possible Symptoms of Concussion
(Reported by the student athlete to Coaches, Licensed Athletic Trainer, School/Team Physician, School Nurse, Parent/Guardian)
1. Headache
2. Nausea/Vomiting
3. Balance problems or dizziness.
4. Double vision or changes in vision.
5. Sensitivity to light or sound/noise.
6. Feeling sluggish or foggy.
7. Difficulty with concentration and short term memory.
8. Sleep disturbance.
9. Irritability

- Student-Athletes must be evaluated by a physician or licensed health care provider trained in the evaluation and management of concussion to determine the presence or absence of a sports-related concussion or head injuries.

- To return to practice and competition the student-athlete must follow the protocol:
  1. Immediate removal from competition or practice. 911 should be called if there is a deterioration of symptoms, loss of consciousness, or direct neck pain associated with the injury.
  2. When available the student-athlete should be evaluated by the school’s licensed healthcare provider who is trained in the evaluation and management of concussions.
3. School personnel (Athletic Director/Building Administrator, Licensed Athletic Trainer, School Nurse, Coach, etc.) should make contact with the student-athlete’s parent/guardian and inform him/her of the suspected sports-related concussion or head injury.

4. School personnel (Athletic Director/Building Administrator, Licensed Athletic Trainer, School Nurse, Coach, etc.) shall provide the student-athlete with district board of education approved suggestions for management/medical checklist to provide their parent/guardian and physician or other licensed healthcare professional trained in the evaluation and management of sports related concussions and other head injuries (See attachment sections at end of model policy for examples CDC, NCAA, etc.)

5. The student-athlete must receive written clearance from a physician, trained in the evaluation and management of concussions that states the student-athlete is asymptomatic at rest and may begin the local districts’ graduated return-to-play protocol. Medical clearance that is inconsistent with district, charter, and non-public school policy may not be accepted and such matters will be referred to the school/team physician.

**Graduated Return to Competition and Practice Protocol**

- Complete physical, cognitive, emotional, and social rest is advised while the student-athlete is experiencing symptoms and signs of a sports-related concussion or other head injury. (Minimize mental exertion, limiting overstimulation, multi-tasking etc.)

- After written medical clearance is given by a physician trained in the evaluation and management of concussions stating that the student-athlete is asymptomatic at rest, the student-athlete may begin a graduated individualized return-to-play protocol supervised by a licensed athletic trainer, school/team physician or in cases where the afore mentioned are not available a physician or licensed health care provider trained in the evaluation and management of sports-related concussions. The following steps should be followed:

1. Completion of a full day of normal cognitive activities (school day, studying for tests, watching practice, interacting with peers) without re-emergence of any signs or symptoms. If no return of symptoms, next day advance to:

2. Light aerobic exercise, which includes walking, swimming, or stationary cycling, keeping the intensity < 70% maximum percentage heart rate: no resistance training. The objective of this step is increased heart rate. If no return of symptoms, next day advance to:

3. Sport-specific exercise including skating, and/or running; no head impact activities. The objective of this step is to add movement and continue to increase heart rate. If no return of symptoms, next day advance to:

4. Non-contact training drills (e.g., passing drills). The student-athlete may initiate progressive resistance training. If no return of symptoms, next day advance to:

5. Following medical clearance (consultation between school health care personnel, i.e., Licensed Athletic Trainer, School/Team Physician, School Nurse and student-athlete’s physician), participation in normal training activities. The objective of this step is to restore confidence and to assess functional skills by the coaching staff. If no return of symptoms, next day advance to:

6. Return to play involving normal exertion or game activity.

- In the absence of daily testing by knowledgeable school district staff (i.e. Licensed Athletic Trainer, School/Team Physician) to clear a student-athlete to begin the graduated return-to-play
protocol a student-athlete should observe a 7 day rest/recovery period before commencing the protocol. Younger students (K-8) should observe the 7 day rest/recovery period (after they are symptom free at rest) prior to initiating the graduated-return-to-play protocol. A physician trained in the evaluation and management of concussion as well as the parents/guardians of the student-athlete shall monitor the student-athlete in the absence of knowledgeable school district staff (i.e., Athletic Trainer, School/Team Physician). School Nurses may serve as an advocate for student-athletes in communicating signs and symptoms to physicians and parents/guardians.

- Utilization of available tools such as symptom checklists, baseline and balance testing are suggested.
- If the student athlete exhibits a re-emergence of any concussion signs or symptoms once they return to physical activity, he/she will be removed from further exertional activities and returned to his/her school/team physician or primary care physician.
- If concussion symptoms reoccur during the graduated return-to-play protocol, the student-athlete will return to the previous level of activity that caused no symptoms.

Temporary Accommodations for Student-Athletes with Sports-Related Head Injuries

- Rest is the best “medicine” for healing concussions or other head injuries. The concussed brain is affected in many functional aspects as a result of the injury. Memory, attention span, concentration and speed of processing significantly impacts learning. Further, exposing the concussed student-athlete to the stimulating school environment may delay the resolution of symptoms needed for recovery.
- Accordingly, consideration of the cognitive effects in returning to the classroom is also an important part of the treatment of sports-related concussions and head injuries.
- Mental exertion increases the symptoms from concussions and affects recovery. To recover, cognitive rest is just as important as physical rest. Reading, studying, computer usage, testing, texting – even watching movies if a student is sensitive to light/sound – can slow a student's recovery. In accordance with the Centers for Disease Control’s toolkit on managing concussions boards of education may look to address the student’s cognitive needs in the following ways.
- Students who return to school after a concussion may need to:
  1. Take rest breaks as needed.
  2. Spend fewer hours at school.
  3. Be given more time to take tests or complete assignments. (All courses should be considered)
  4. Receive help with schoolwork.
  5. Reduce time spent on the computer, reading, and writing.
  6. Be granted early dismissal to avoid crowded hallways.

Part III
Use of the Model Policy and Guidance
This document is presented as a summary guide and model. District boards of education, boards of trustees, and non-public schools may add additional provisions or protocols to address local issues and priorities, and may use formats that are consistent with the board of education’s approved policies and procedures.

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**Part IV
Implementation of the Interscholastic Sports-Related Concussions and Head Injuries Policy**

Statutory and Regulatory Provisions: N.J.S.A. 40-41.3 Information regarding the Interscholastic Head Injury Safety training program and policy for the prevention and treatment of sports-related concussions and head injuries which shall be completed by the school/team physician, coaches, athletic trainer, school nurse, and any other school employee the local district, charter, and non-public school deems necessary.

The school district, charter, and non-public school are required to monitor the above named school district employees in the completion of an Interscholastic Head Injury Training program such as the National Federation of State High Schools Association’s online, “Concussion in Sports” or a comparable program which meets the mandated criteria and includes but is not limited to:

1. The recognition of the symptoms of head and neck injuries, concussions, and injuries related to second-impact syndrome.
2. Includes the appropriate criteria to delay the return to sports practice or competition of a student-athlete who has sustained a concussion or other head injury.

*Additional head injury training programs that meet the mandated criteria may be completed by professionals of different levels of medical knowledge and training. Guidance for these additional training programs will be provided to each school district, charter, and nonpublic school by NJDOE.

The school district, charter, or nonpublic school that participates in an interscholastic sports program shall distribute the educational fact sheet annually to the parents or guardians of student-athletes and shall obtain a signed acknowledgement of the receipt of the fact sheet by the student-athlete and his parent or guardian.

Each school district, charter, and non-public school shall develop a written policy concerning the prevention and treatment of sports-related concussions and other head injuries among student-athletes. The policy shall include, but need not be limited to, the procedure followed when it is suspected that student-athlete has sustained a concussion or other head injury. Each school district shall implement the policy by the 2011-2012 school year.

Each school whose students participate in an interscholastic sports program and are suspected of sustaining a concussion or other head injury in practice or competition shall be immediately removed from the sports competition or practice. Student-athletes who are removed from competition or practice shall not participate in further sports activity until they are evaluated by a physician or other licensed healthcare provider trained in the evaluation and management of concussions, and receive written
clearance from a physician trained in the evaluation and management of concussions to return to completion or practice.

Part V

Resources on Interscholastic Sports Related Concussions and Head Injuries

Internet Resources
Centers for Disease Control and Prevention – Concussion Toolkit

National Federation of State High Schools Association- Online “Concussion in Sports” training program.
www.nfhs.org

Brain Injury Association of New Jersey
www.BIANJ.org
www.sportsconcussion.com

Athletic Trainers Society of New Jersey
www.atsnj.org

National Collegiate Athletic Association
www.NCAA.org/health-safety

New Jersey Interscholastic Athletic Association
www.njsiaa.org

Articles

2019-2020 NJSIAA Banned Drugs

IT IS YOUR RESPONSIBILITY TO CHECK WITH THE APPROPRIATE OR DESIGNATED ATHLETICS STAFF BEFORE USING ANY SUBSTANCE

The NJSIAA bans the following classes of drugs:

- Stimulants
- Anabolic Agents
- Alcohol and Beta Blockers
- Diuretics and Other Masking Agents
- Street Drugs
- Peptide Hormones and Analogues
- Anti-estrogens
- Beta-2 Agonists

Note: Any substance chemically related to these classes is also banned.

THE INSTITUTION AND THE STUDENT-ATHLETE SHALL BE HELD ACCOUNTABLE FOR ALL DRUGS WITHIN THE BANNED DRUG CLASS REGARDLESS OF WHETHER THEY HAVE BEEN SPECIFICALLY IDENTIFIED.

Drugs and Procedures Subject to Restrictions

- Blood Doping
- Gene Doping
- Local Anesthetics (under some conditions)
- Manipulation of Urine Samples
- Beta-2 Agonists permitted only by prescription and inhalation

NJSIAA Nutritional/Dietary Supplements Warning

Before consuming any nutritional/dietary supplement product, review the product with the appropriate or designated athletics department staff!

- Dietary supplements, including vitamins and minerals, are not well regulated and may cause a positive drug test result.
- Student-athletes have tested positive and lost their eligibility using dietary supplements.
- Many dietary supplements are contaminated with banned drugs not listed on the label.
- Any product containing a dietary supplement ingredient is taken at your own risk.

NOTE TO STUDENT-ATHLETES: THERE IS NO COMPLETE LIST OF BANNED SUBSTANCES. DO NOT RELY ON THIS LIST TO RULE OUT ANY SUPPLEMENT INGREDIENT. CHECK WITH YOUR ATHLETICS DEPARTMENT STAFF PRIOR TO USING A SUPPLEMENT. REMINDER: ANY DIETARY SUPPLEMENT INGREDIENT IS TAKEN AT THE STUDENT'S OWN RISK.
**Some Examples of NJSIAA Banned Substances in Each Drug Class**

*Do NOT RELY ON THIS LIST TO RULE OUT ANY LABEL INGREDIENT.*

**Stimulants**
Amphetamine (Adderall); caffeine (guarana); cocaine; ephedrine; fenfluramine (Fen); methamphetamine; methylphenidate (Ritalin); phentermine (Phen); synephrine (bitter orange); methylhexaneamine, "bath salts" (mephedrone); Octopamine; DMBA; etc.

*exceptions:* phenylephrine and pseudoephedrine are not banned.

**Anabolic Agents** (sometimes listed as a chemical formula, such as 3,6,17-androstenetrione)
Androstenedione; boldenone; clenbuterol; DHEA (7-Keto); epi-trenbolone; etiocholanolone; methasterone; methandienone; nandrolone; norandrastenedione; ostarine, stanozolol; stenbolone; testosterone; trenbolone; SARMS (ostarine); etc.

**Alcohol and Beta Blockers**
Alcohol; atenolol; metoprolol; nadolol; pindolol; propranolol; timolol; etc.

**Diuretics (water pills) and Other Masking Agents**
Bumetanide; chlorothiazide; furosemide; hydrochlorothiazide; probenecid; spironolactone (canrenone); triameterene; trichlormethiazide; etc.

**Street Drugs**
Heroin; marijuana; tetrahydrocannabinol (THC); synthetic cannabinoids (eg. spice, K2, JWH-018, JWH-073)

**Peptide Hormones and Analogues**
Growth hormone (hGH); human chorionic gonadotropin (hCG); erythropoietin (EPO); etc.

**Anti-Estrogens**
Anastrozole; tamoxifen; formestane; ATD, clomiphene; SERMS (nolvadex); etc.

**Beta-2 Agonists**
Bambuterol; formoterol; salbutamol; salmeterol; higenamine; norcuclaurine; etc.

**ANY SUBSTANCE THAT IS CHEMICALLY RELATED TO THE CLASS, EVEN IF IT IS NOT LISTED AS AN EXAMPLE, IS ALSO BANNED! IT IS YOUR RESPONSIBILITY TO CHECK WITH THE APPROPRIATE OR DESIGNATED ATHLETICS STAFF BEFORE USING ANY SUBSTANCE.**
NJSIAA STEROID TESTING POLICY

CONSENT TO RANDOM TESTING

In Executive Order 72, issued December 20, 2005, Governor Richard Codey directed the New Jersey Department of Education to work in conjunction with the New Jersey State Interscholastic Athletic Association (NJSIAA) to develop and implement a program of random testing for steroids, of teams and individuals qualifying for championship games.

Beginning in the Fall, 2006 sports season, any student-athlete who possesses, distributes, ingests or otherwise uses any of the banned substances on the attached page, without written prescription by a fully-licensed physician, as recognized by the American Medical Association, to treat a medical condition, violates the NJSIAA’s sportsmanship rule, and is subject to NJSIAA penalties, including ineligibility from competition. The NJSIAA will test certain randomly selected individuals and teams that qualify for a state championship tournament or state championship competition for banned substances. The results of all tests shall be considered confidential and shall only be disclosed to the student, his or her parents and his or her school. No student may participate in NJSIAA competition unless the student and the student’s parent/guardian consent to random testing.

By signing below, we consent to random testing in accordance with the NJSIAA steroid testing policy. We understand that, if the student or the student’s team qualifies for a state championship tournament or state championship competition, the student may be subject to testing for banned substances.

May 1, 2010
Sports-Related Concussion and Head Injury Fact Sheet and Parent/Guardian Acknowledgement Form

A concussion is a brain injury that can be caused by a blow to the head or body that disrupts normal functioning of the brain. Concussions are a type of Traumatic Brain Injury (TBI), which can range from mild to severe and can disrupt the way the brain normally functions. Concussions can cause significant and sustained neuropsychological impairment affecting problem solving, planning, memory, attention, concentration, and behavior.

The Centers for Disease Control and Prevention estimates that 300,000 concussions are sustained during sports-related activities nationwide, and more than 62,000 concussions are sustained each year in high school contact sports. Second-impact syndrome occurs when a person sustains a second concussion while still experiencing symptoms of a previous concussion. It can lead to severe impairment and even death of the victim.

Legislation (P.L. 2010, Chapter 94) signed on December 7, 2010, mandated measures to be taken in order to ensure the safety of K-12 student-athletes involved in interscholastic sports in New Jersey. It is imperative that athletes, coaches, and parents/guardians are educated about the nature and treatment of sports-related concussions and other head injuries. The legislation states that:

- All coaches, Athletic Trainers, School Nurses, and School/Team Physicians shall complete an Interscholastic Head Injury Safety Training Program by the 2011-2012 school year.
- All school districts, charter, and non-public schools that participate in interscholastic sports will distribute annually this educational fact to all student-athletes and obtain an acknowledgement from each parent/guardian and student-athlete.
- Each school district, charter, and non-public school shall develop a written policy describing the prevention and treatment of sports-related concussion and other head injuries sustained by interscholastic student-athletes.
- Any student-athlete who participates in an interscholastic sports program and is suspected of sustaining a concussion will be immediately removed from competition or practice. The student-athlete will not be allowed to return to competition or practice until he/she has written clearance from a physician trained in concussion treatment and has completed his/her district’s graduated return-to-play protocol.

Quick Facts
- Most concussions do not involve loss of consciousness
- You can sustain a concussion even if you do not hit your head
- A blow elsewhere on the body can transmit an “impulsive” force to the brain and cause a concussion

Signs of Concussions (Observed by Coach, Athletic Trainer, Parent/Guardian)
- Appears dazed or stunned
- Forgets plays or demonstrates short-term memory difficulties (e.g. unsure of game, opponent)
- Exhibits difficulties with balance, coordination, concentration, and attention
- Answers questions slowly or inaccurately
- Demonstrates behavior or personality changes
- Is unable to recall events prior to or after the hit or fall

Symptoms of Concussion (Reported by Student-Athlete)
- Headache
- Nausea/vomiting
- Balance problems or dizziness
- Double vision or changes in vision
- Sensitivity to light/sound
- Feeling of sluggishness or fogginess
- Difficulty with concentration, short term memory, and/or confusion
What Should a Student-Athlete do if they think they have a concussion?

- Don’t hide it. Tell your Athletic Trainer, Coach, School Nurse, or Parent/Guardian.
- Report it. Don’t return to competition or practice with symptoms of a concussion or head injury. The sooner you report it, the sooner you may return-to-play.
- Take time to recover. If you have a concussion your brain needs time to heal. While your brain is healing you are much more likely to sustain a second concussion. Repeat concussions can cause permanent brain injury.

What can happen if a student-athlete continues to play with a concussion or returns to play to soon?

- Continuing to play with the signs and symptoms of a concussion leaves the student-athlete vulnerable to second impact syndrome.
- Second impact syndrome is when a student-athlete sustains a second concussion while still having symptoms from a previous concussion or head injury.
- Second impact syndrome can lead to severe impairment and even death in extreme cases.

Should there be any temporary academic accommodations made for Student-Athletes who have suffered a concussion?

- To recover cognitive rest is just as important as physical rest. Reading, texting, testing—even watching movies can slow down a student-athletes recovery.
- Stay home from school with minimal mental and social stimulation until all symptoms have resolved.
- Students may need to take rest breaks, spend fewer hours at school, be given extra time to complete assignments, as well as being offered other instructional strategies and classroom accommodations.

Student-Athletes who have sustained a concussion should complete a graduated return-to-play before they may resume competition or practice, according to the following protocol:

- **Step 1:** Completion of a full day of normal cognitive activities (school day, studying for tests, watching practice, interacting with peers) without reemergence of any signs or symptoms. If no return of symptoms, next day advance.
- **Step 2:** Light Aerobic exercise, which includes walking, swimming, and stationary cycling, keeping the intensity below 70% maximum heart rate. No resistance training. The objective of this step is increased heart rate.
- **Step 3:** Sport-specific exercise including skating, and/or running: no head impact activities. The objective of this step is to add movement.
- **Step 4:** Non contact training drills (e.g. passing drills). Student-athlete may initiate resistance training.
- **Step 5:** Following medical clearance (consultation between school health care personnel and student-athlete’s physician), participation in normal training activities. The objective of this step is to restore confidence and assess functional skills by coaching and medical staff.
- **Step 6:** Return to play involving normal exertion or game activity.

For further information on Sports-Related Concussions and other Head Injuries, please visit:

www.cdc.gov/concussion/sports/index.html  www.nfhs.com
www.ncaat.org/health-safety  www.bianj.org
www.atsnj.org
OPIOID USE AND MISUSE EDUCATIONAL FACT SHEET

Keeping Student-Athletes Safe

School athletics can serve an integral role in students' development. In addition to providing healthy forms of exercise, school athletics foster friendships and camaraderie, promote sportsmanship and fair play, and instill the value of competition.

Unfortunately, sports activities may also lead to injury and, in rare cases, result in pain that is severe or long-lasting enough to require a prescription opioid painkiller. It is important to understand that overdoses from opioids are on the rise and are killing Americans of all ages and backgrounds. Families and communities across the country are coping with the health, emotional and economic effects of this epidemic.

This educational factsheet, created by the New Jersey Department of Education as required by state law (N.J.S.A. 18A:40-41.10), provides information concerning the use and misuse of opioid drugs in the event that a health care provider prescribes a student-athlete or cheerleader an opioid for a sports-related injury. Student-athletes and cheerleaders participating in an interscholastic sports program (and their parent or guardian, if the student is under age 18) must provide their school district written acknowledgment of their receipt of this fact sheet.

How Do Athletes Obtain Opioids?

In some cases, student-athletes are prescribed these medications. According to research, about a third of young people studied obtained pills from their own previous prescriptions (i.e., an unfinished prescription used outside of a physician’s supervision), and 83 percent of adolescents had unsupervised access to their prescription medications. It is important for parents to understand the possible hazard of having unsecured prescription medications in their households. Parents should also understand the importance of proper storage and disposal of medications, even if they believe their child would not engage in non-medical use or diversion of prescription medications.

What Are Signs of Opioid Use?

According to the National Council on Alcoholism and Drug Dependence, 12 percent of male athletes and 8 percent of female athletes had used prescription opioids in the 12-month period studied. In the early stages of abuse, the athlete may exhibit unprovoked nausea and/or vomiting. However, as he or she develops a tolerance to the drug, those signs will diminish. Constipation is not uncommon, but may not be reported. One of the most significant indications of a possible opioid addiction is an athlete’s decrease in academic or athletic performance, or a lack of interest in his or her sport. If these warning signs are noticed, best practices call for the student to be referred to the appropriate professional for screening, such as provided through an evidence-based practice to identify problematic use, abuse and dependence on illicit drugs (e.g., Screening, Brief Intervention, and Referral to Treatment (SBIRT)) offered through the New Jersey Department of Health.

What Are Some Ways Opioid Use and Misuse Can Be Prevented?

According to the New Jersey State Interscholastic Athletic Association (NJISIAA) Sports Medical Advisory Committee chair, John P. Kripsak, D.O., “Studies indicate that about 80 percent of heroin users started out by abusing narcotic painkillers.”

The Sports Medical Advisory Committee, which includes representatives of NJISIAA member schools as well as experts in the field of healthcare and medicine, recommends the following:

- The pain from most sports-related injuries can be managed with non-narcotic medications such as acetaminophen, nonsteroidal anti-inflammatory medications like ibuprofen, naproxen or aspirin. Read the label carefully and always take the recommended dose, or follow your doctor’s instructions. More is not necessarily better when taking an over-the-counter (OTC) pain medication, and it can lead to dangerous side effects.
- Ice therapy can be utilized appropriately as an anesthetic.
- Always discuss with your physician exactly what is being prescribed for pain and request to avoid narcotics.
- Tramadol, a non-opioid analgesic in the serotonin uptake inhibitor category, is a good choice should the previously listed options be insufficient to relieve pain.
- In extreme cases, such as severe trauma or post-surgical pain, opioid pain medication should not be prescribed for more...
than five days at a time;
- Parents or guardians should always control the dispensing of pain medications and keep them in a safe, non-accessible location; and
- Unused medications should be disposed of immediately upon cessation of use. Ask your pharmacist about drop-off locations or home disposal kits like Deterra or Medsaway.
Half of all sports medicine injuries in children and teens are from overuse. An overuse injury is damage to a bone, muscle, ligament, or tendon caused by repetitive stress without allowing time for the body to heal. Children and teens are at increased risk for overuse injuries because growing bones are less resilient to stress. Also, young athletes may not know that certain symptoms are signs of overuse.

The best way to deal with sports injuries is to keep them from happening in the first place. Here are some recommendations to consider:

- **PREPARE**: Obtain the preparticipation physical evaluation prior to participation on a school-sponsored interscholastic or intramural athletic team or squad.
- **PLAY SMART**: Try a variety of sports and consider specializing in one sport before late adolescence to help avoid overuse injuries.
- **TRAINING**: Increase weekly training time, mileage, or repetitions no more than 10 percent per week. For example, if running 10 miles one week, increase to 11 miles the following week. Athletes should also cross-train and perform sport-specific drills in different ways, such as running in a swimming pool instead of only running on the road.
- **PROPER EQUIPMENT**: Wear appropriate and properly fitted protective equipment such as pads (neck, shoulder, elbow, chest, knee, and shin), helmets, mouthpieces, face guards, protective cups, and eyewear. Do not assume that protective gear will prevent all injuries while performing more dangerous or risky activities.

**Even With Proper Training and Prevention, Sports Injuries May Occur**

There are two kinds of sports injuries. Acute injuries happen suddenly, such as a sprained ankle or strained back. Chronic injuries may happen after someone plays a sport or exercises over a long period of time, even when applying overuse-preventative techniques. **5**

Athletes should be encouraged to speak up about injuries, coaches should be supported in injury-prevention decisions, and parents and young athletes are encouraged to become better educated about sports safety. **6**

**Resources for Parents and Students on Preventing Substance Misuse and Abuse**

The following list provides some examples of resources:

- **National Council on Alcoholism and Drug Dependence – NJ** promotes addiction treatment and recovery.
- **New Jersey Department of Human Services, Division of Mental Health and Addiction Services** has a mission to decrease the abuse of alcohol, tobacco and other drugs by supporting the development of a comprehensive network of prevention, intervention and treatment services in New Jersey.
- **New Jersey Prevention Network** includes a parent's quiz on the effects of opioids.
- **Operation Prevention Parent Toolkit** is designed to help parents learn more about the opioid epidemic, recognize warning signs, and open lines of communication with their children and those in the community.
- **Parent to Parent NJ** is a grassroots coalition for families and children struggling with alcohol and drug addiction.
- **Partnership for a Drug Free New Jersey** is New Jersey’s anti-drug alliance created to localize and strengthen drug-prevention media efforts to prevent unlawful drug use, especially among young people.
- **ReachNJ** provides information for parents and families, including addiction and treatment stories.
- **The Science of Addiction: The Stories of Teens** shares common misconceptions about opioids through the voices of teens.
- **Youth Impacting NJ** is made up of youth representatives from coalitions across the state of New Jersey who have been impacting their communities and peers by spreading the word about the dangers of underage drinking, marijuana use, and other substance misuse.

**References**

1. Massachusetts Technical Assistance Partnership for Prevention
2. Centers for Disease Control and Prevention
3. New Jersey State Interscholastic Athletic
4. Association (NSIAR) Sports Medical Advisory Committee (SMAC)
5. Athletic Management, David Csilan, athletic trainer,
An online version of this fact sheet developed in January 2018 is available on the New Jersey Department of Education’s Alcohol, Tobacco, and Other Drug Use webpage.
JFKMHS Athletic Contract

I understand that representing JFK Memorial HS in athletics is a privilege that carries certain responsibilities. I understand that being part of the athletic program requires following rules set forth by the coach, the athletic department, and the school principal.

I agree to:
1. Conduct myself in a manner that reflects good sportsmanship at all times.
2. Refrain from taunting or physical confrontations with opponents and teammates.
3. Attend all practices and games as scheduled by the coaching staff.
4. Practice hard and work to the best of my ability at all times.
5. Treat my coaches, teammates, and opponents with respect.
6. Follow all team rules and regulations.
7. Refrain from actions which would bring discredit to myself, my team, my family, and my school.
8. Maintain regular attendance in school and abide by all requirements of the school attendance policy.

I understand that use of drugs, alcohol, or tobacco use during the season will result in the immediate removal from the athletic team.
I understand that failure to uphold the contract will result in suspension and/or removal from the athletic program.
I understand that accumulating 2 instances of school/athletic suspensions during the season will result in immediate removal from the team.
I understand taking a vacation during the athletic season will count as an unexcused absence. On the 2nd unexcused absence the student-athlete will be removed from the team.
I understand while participating on an athletic team, participation on another athletic team that is non-school sanctioned will result in removal from the team.

7/2019

- Best Practice School ~ State of New Jersey
- A National Service Learning Leader School

On the Internet: www.woodbridge.k12.nj.us/SchoolsHS/JFK-HS/high_jfk.htm