



Health Physical Instructions for 2023-2024 School Year

Downloading this file will contain all the forms required for medical clearance.

All medical forms, dated June 1st or after, are required to be completed, signed, and submitted by August 1, 2023, if you are a.....

- Member of incoming class of 2027
- Transfer upper-class student for 2023-2024 school year
- Fall sport student-athlete
- Member of the marching band & all units
- Member of winter & spring sports, to be cleared for entire school year

Members of the marching band and cheerleading team MUST be medically cleared prior to attending cheer or band camp if those dates are prior to August 1st.

Enclosed are the following documents that need to be submitted by August 1st:

- 1. Medical forms – 4 pages - parent/guardian & examining physician**
- 2. Immunization Status**
- 3. Participation/Hazard Agreement Signatures**
- 4. Opioid Drug Fact/Signatures**
- 5. Emergency Contact and Signatures**
- 6. Concussion Information Acknowledgement & Signatures**
- 7. Steroid Testing Acknowledgement & Signatures**
- 8. General Consent Form**

Also enclosed are forms that the NJSIAA requires you to review. These copies are yours to keep.

1. Banned Substances for 2023-2024
2. Opioid Use and Misuse Fact Sheet
3. Sports-Related Eye Injury information
4. Sports-Related Concussions in Youth document
5. Steroid Testing Policy
6. Sudden Cardiac Death in Young Athlete information

SMALL PRINT:

- For your records, please keep a copy of all forms prior to sending to school
- **Return all required forms TOGETHER to Immaculata Health Office, 240 Mountain Ave., Somerville, NJ 08876**
- A student may not participate in fall season practice/tryout unless all forms are completed & returned on time
- Physical forms are not necessary to attend any summer sports camps.
- Please do not call to check on status of medical clearance.
- All forms are reviewed by our athletic trainer for medical clearance. If anything is out of order, you will be contacted. Fall coaches are informed of medical clearance status of their student-athletes.



IMMACULATA
HIGH SCHOOL
FAITH • SCHOLARSHIP • SERVICE • FRIENDSHIP

HEALTH PHYSICAL INSTRUCTIONS

Important Information for the Physician Completing this Sports Physical

The State of New Jersey requires that all physicians, advanced practice nurses (APN), or physicians assistants (PA) performing a sports physical examination, must complete the professional development module (PD module) prior to performing any sports physicals.

In order to expedite the clearance procedure of this athletic physical, please be sure and sign the bottom of the clearance form that you have completed the Cardiac Assessment Professional Development Module, on page 4 of the medical form.

Thank you for your cooperation.

ALL FORMS MUST BE RETURNED TOGETHER.

■ PREPARTICIPATION PHYSICAL EVALUATION

THE ATHLETE WITH SPECIAL NEEDS: SUPPLEMENTAL HISTORY FORM

Date of Exam _____

Name _____ Date of birth _____

Sex _____ Age _____ Grade _____ School _____ Sport(s) _____

1. Type of disability		
2. Date of disability		
3. Classification (if available)		
4. Cause of disability (birth, disease, accident/trauma, other)		
5. List the sports you are interested in playing		
	Yes	No
6. Do you regularly use a brace, assistive device, or prosthetic?		
7. Do you use any special brace or assistive device for sports?		
8. Do you have any rashes, pressure sores, or any other skin problems?		
9. Do you have a hearing loss? Do you use a hearing aid?		
10. Do you have a visual impairment?		
11. Do you use any special devices for bowel or bladder function?		
12. Do you have burning or discomfort when urinating?		
13. Have you had autonomic dysreflexia?		
14. Have you ever been diagnosed with a heat-related (hyperthermia) or cold-related (hypothermia) illness?		
15. Do you have muscle spasticity?		
16. Do you have frequent seizures that cannot be controlled by medication?		

Explain "yes" answers here

Please indicate if you have ever had any of the following.

	Yes	No
Atlantoaxial instability		
X-ray evaluation for atlantoaxial instability		
Dislocated joints (more than one)		
Easy bleeding		
Enlarged spleen		
Hepatitis		
Osteopenia or osteoporosis		
Difficulty controlling bowel		
Difficulty controlling bladder		
Numbness or tingling in arms or hands		
Numbness or tingling in legs or feet		
Weakness in arms or hands		
Weakness in legs or feet		
Recent change in coordination		
Recent change in ability to walk		
Spina bifida		
Latex allergy		

Explain "yes" answers here

I hereby state that, to the best of my knowledge, my answers to the above questions are complete and correct.

Signature of athlete _____ Signature of parent/guardian _____ Date _____

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New Jersey Department of Education 2014; Pursuant to P.L.2013, c. 71

NOTE: The preparticipation physical examination must be conducted by a health care provider who 1) is a licensed physician, advanced practice nurse, or physician assistant; and 2) completed the Student-Athlete Cardiac Assessment Professional Development Module.

PREPARTICIPATION PHYSICAL EVALUATION PHYSICAL EXAMINATION FORM

Name _____ Date of birth _____

PHYSICIAN REMINDERS

- Consider additional questions on more sensitive issues
 - Do you feel stressed out or under a lot of pressure?
 - Do you ever feel sad, hopeless, depressed, or anxious?
 - Do you feel safe at your home or residence?
 - Have you ever tried cigarettes, chewing tobacco, snuff, or dip?
 - During the past 30 days, did you use chewing tobacco, snuff, or dip?
 - Do you drink alcohol or use any other drugs?
 - Have you ever taken anabolic steroids or used any other performance supplement?
 - Have you ever taken any supplements to help you gain or lose weight or improve your performance?
 - Do you wear a seat belt, use a helmet, and use condoms?
- Consider reviewing questions on cardiovascular symptoms (questions 5–14).

EXAMINATION		
Height _____	Weight _____	<input type="checkbox"/> Male <input type="checkbox"/> Female
BP _____ / _____ (_____ / _____)	Pulse _____	Vision R 20/ _____ L 20/ _____ Corrected <input type="checkbox"/> Y <input type="checkbox"/> N
MEDICAL	NORMAL	ABNORMAL FINDINGS
Appearance <ul style="list-style-type: none"> Marfan stigmata (kyphoscoliosis, high-arched palate, pectus excavatum, arachnodactyly, arm span > height, hyperlaxity, myopia, MVP, aortic insufficiency) 		
Eyes/ears/nose/throat <ul style="list-style-type: none"> Pupils equal Hearing 		
Lymph nodes		
Heart ^a <ul style="list-style-type: none"> Murmurs (auscultation standing, supine, +/- Valsalva) Location of point of maximal impulse (PMI) 		
Pulses <ul style="list-style-type: none"> Simultaneous femoral and radial pulses 		
Lungs		
Abdomen		
Genitourinary (males only) ^b		
Skin <ul style="list-style-type: none"> HSV, lesions suggestive of MRSA, tinea corporis 		
Neurologic ^c		
MUSCULOSKELETAL		
Neck		
Back		
Shoulder/arm		
Elbow/forearm		
Wrist/hand/fingers		
Hip/thigh		
Knee		
Leg/ankle		
Foot/toes		
Functional <ul style="list-style-type: none"> Duck-walk, single leg hop 		

^aConsider ECG, echocardiogram, and referral to cardiology for abnormal cardiac history or exam.

^bConsider GU exam if in private setting. Having third party present is recommended.

^cConsider cognitive evaluation or baseline neuropsychiatric testing if a history of significant concussion.

- Cleared for all sports without restriction
- Cleared for all sports without restriction with recommendations for further evaluation or treatment for _____
- Not cleared
- Pending further evaluation
 - For any sports
 - For certain sports _____
- Reason _____

Recommendations _____

I have examined the above-named student and completed the preparticipation physical evaluation. The athlete does not present apparent clinical contraindications to practice and participate in the sport(s) as outlined above. A copy of the physical exam is on record in my office and can be made available to the school at the request of the parents. If conditions arise after the athlete has been cleared for participation, a physician may rescind the clearance until the problem is resolved and the potential consequences are completely explained to the athlete (and parents/guardians).

Name of physician, advanced practice nurse (APN), physician assistant (PA) (print/type) _____ Date of exam _____

Address _____ Phone _____

Signature of physician, APN, PA _____

■ PREPARTICIPATION PHYSICAL EVALUATION CLEARANCE FORM

Name _____ Sex M F Age _____ Date of birth _____

Cleared for all sports without restriction
 Cleared for all sports without restriction with recommendations for further evaluation or treatment for _____

Not cleared
 Pending further evaluation
 For any sports
 For certain sports _____
Reason _____

Recommendations _____

EMERGENCY INFORMATION

Allergies _____

Other information _____

HCP OFFICE STAMP

SCHOOL PHYSICIAN:

Reviewed on _____
(Date)

Approved _____ Not Approved _____

Signature: _____

I have examined the above-named student and completed the preparticipation physical evaluation. The athlete does not present apparent clinical contraindications to practice and participate in the sport(s) as outlined above. A copy of the physical exam is on record in my office and can be made available to the school at the request of the parents. If conditions arise after the athlete has been cleared for participation, the physician may rescind the clearance until the problem is resolved and the potential consequences are completely explained to the athlete (and parents/guardians).

Name of physician, advanced practice nurse (APN), physician assistant (PA) _____ Date _____

Address _____ Phone _____

Signature of physician, APN, PA _____

Completed Cardiac Assessment Professional Development Module

Date _____ Signature _____



Student Name (please print) _____ Grade _____ Date of Birth _____

Address: _____ Phone Number: _____

Immunizations: Precise Dates (day, month and year) are required by NJ State Law:

If no immunization, provide proof of immunity with titers

D.P.T. Series: Dates 1 _____ 2 _____ 3 _____ 4 _____ 5 _____

Tdap 1 _____ 2 _____

Polio (IPV): Dates 1 _____ 2 _____ 3 _____ 4 _____

Measles, Mumps, Rubella (MMR): Dates 1 _____ 2 _____

HIB: Dates 1 _____ 2 _____ 3 _____ 4 _____

Hepatitis B: Dates 1 _____ 2 _____ 3 _____

Varicella (chicken pox): Dates 1 _____ 2 _____

Meningococcal: Date: _____

Additional Immunizations and dates administered:

PHYSICIAN'S/PROVIDER'S STAMP:

Date of Physical Exam: _____



Student Name (please print) _____ Grade _____ Date of Birth _____

Address: _____ Phone Number: _____

Acknowledgement of Physical Hazards

The undersigned hereby acknowledges that participation in athletics involves an inherent potential for injury. Further, the undersigned acknowledges that even with the best coaching, injuries are still a possibility. On rare occasions these injuries can be severe, resulting in total disability, paralysis or even death.

Immaculata provides secondary coverage insurance for all student-athletes. Such secondary coverage generally provides for coverage beyond the initial coverage provided by your private health insurance. ***All sports injuries must be reported to the Athletic Trainer AT THE TIME OF INJURY and an incident report, which will be required by the secondary insurer, will be generated.***

Many of our playing fields are off campus. The school is not able to provide transportation to these fields for practices and home games. Transportation is the responsibility of the student and the parents. Immaculata is not liable for this transportation. The school provides buses for all away games. The student-athlete is expected to ride the bus both ways for these games. If the game is in close proximity to your home, with prior written parental permission and visual observance, your son or daughter may go home with you. No other student-athlete may go home with you.

Being aware of the physical hazards and risk of injury involved in competitive & contact sports, I grant permission for my son/daughter, _____, to participate in All Interscholastic Athletic Sports/Clubs and/or Cheerleading offered at Immaculata :

I am also advised that Immaculata holds student-athletes responsible for all athletic equipment and uniforms issued to them. Uniforms are to be handed in to the coaches when requested. I will reimburse Immaculata for any unreturned, lost, or damaged uniform or equipment.

Parent's/Guardian Signature _____ Date _____

Student Athlete Signature _____ Date _____



Immaculata
HIGH SCHOOL

School Year 2023-2024

Emergency Contact
Authorization for Medical Treatment

Student's Name (PRINT CLEARLY)

()
Home Phone

Address

City/State/Zip

Date of Birth

Parent Email Address

Parent(s) / Guardian's Name

Parent(s) / Guardian's Name

Work /Cell Phone # _____ - _____ - _____ Relationship: _____

Work /Cell Phone # _____ - _____ - _____ Relationship: _____

Emergency Phone # _____ - _____ - _____ Relationship: _____

Family Physician

Physician's Phone

List all medications taken on a regular basis for allergies, diabetes, epilepsy, etc: _____

List all medications you are allergic to: _____

Do you wear contact lenses? > Yes > No Have you ever had: a CONCUSSION > Yes > No ASTHMA: > Yes > No

Any family/personal history of heart conditions: _____

Any Medical Conditions our medical staff should be aware of: _____

In the event of serious injury and your family doctor cannot be contacted, and if we are unable to contact one or the other parent, does the coaching staff/athletic trainer have your permission to seek medical attention from the nearest physician?
> YES > NO

If the answer is NO, please state the procedure you wish the coaching staff/athletic trainer to follow:

X

Parent's/Guardian's Signature

Date

[The New Jersey Department of Education developed this template Student-Athlete Sign-Off Form in January 2018 to assist schools with adhering to state statute requiring student-athletes (and their parents/guardians, if the student is a minor) to confirm they have received an Opioid Fact Sheet from the school. School districts, approved private schools for students with disabilities, and nonpublic schools that participate in an interscholastic sports or cheerleading program should insert their district or school letterhead here.]

Use and Misuse of Opioid Drugs Fact Sheet

Student-Athlete and Parent/Guardian Sign-Off

In accordance with N.J.S.A. 18A:40-41.10, public school districts, approved private schools for students with disabilities, and nonpublic schools participating in an interscholastic sports program must distribute this [Opioid Use and Misuse Educational Fact Sheet](#) to all student-athletes and cheerleaders. In addition, schools and districts must obtain a signed acknowledgement of receipt of the fact sheet from each student-athlete and cheerleader, and for students under age 18, the parent or guardian must also sign.

This sign-off sheet is due to the appropriate school personnel as determined by your district prior to the first official practice session of the spring 2018 athletic season (March 2, 2018, as determined by the New Jersey State Interscholastic Athletic Association) and annually thereafter prior to the student-athlete's or cheerleader's first official practice of the school year.

Name of School: _____

Name of School District (if applicable): _____

I/We acknowledge that we received and reviewed the Educational Fact Sheet on the Use and Misuse of Opioid Drugs.

Student Signature: _____

Parent/Guardian Signature (also needed if student is under age 18): _____

Date: _____

¹Does not include athletic clubs or intramural events.

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 parent/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 a signed 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 too 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:

- [CDC Heads Up](#)
- [Keeping Heads Healthy](#)
- [National Federation of State High School Associations](#)
- [Athletic Trainers' Society of New Jersey](#)

Signature of Student-Athlete

Print Student-Athlete's Name

Date

Signature of Parent/Guardian

Print Parent/Guardian's Name

Date



1161 Route 130, P.O. Box 487, Robbinsville, NJ 08691 609-259-2776 609-259-3047-Fax

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.

Athletes may submit supplements and medications to Drug Free Sport AXIS to receive information regarding banned substances or safety issues. Athletes or parents may login to the NJSIAA account at www.dfsaxis.com using the password "njsports".

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.

Signature of Student-Athlete

Print Student-Athlete's Name

Date

Signature of Parent/Guardian

Print Parent/Guardian's Name

Date



STATE OF NEW JERSEY
DEPARTMENT OF EDUCATION

**Sudden Cardiac Death Pamphlet
Sign-Off Sheet**

Name of School District: _____

Name of Local School: _____

I/We acknowledge that we received and reviewed the Sudden Cardiac Death in Young Athletes pamphlet.

Student Signature: _____

Parent or Guardian Signature: _____

Date: _____



Student Name (please print) _____ Grade _____ Date of Birth _____

Address: _____ Phone Number: _____

I understand that my son/daughter requests to be enrolled as a candidate for participation in athletics and/or music program at Immaculata High School. I fully acknowledge that physical hazards may be encountered and hereby release all claims or demands, including those for damages or costs, I might have against Immaculata High School, Immaculate Conception Parish, Diocese of Metuchen, or its representatives, or made by other persons on my behalf, in regard to any injury my child may suffer in conjunction with his/her participation in the sport/sport related activity/ music activity.

I am also aware that my child must meet ALL ELIGIBILITY requirements, both academic and medical, which include: a physical exam which must be reviewed and APPROVED, and passing a minimum of 30 credits for grades 10, 11, 12 for the academic year preceding participation in the fall and winter sports. To participate in spring sports, ALL students must be passing a minimum of 15 credits for all courses during the first semester of the year.

I understand that parents and students are responsible for checking on the credit requirements for each athletic season. I hereby confirm that prior to enrolling at Immaculata High School, my son/daughter did not play on another high school interscholastic athletic team (this does not include athletic camps, recreation, traveling teams or AAU teams), **OR YES**, my son/daughter played on an athletic team at _____ High School.

By signing below, I indicate that I have received, read, understand, consent to, and agree to comply with and be bound by the terms, provisions, requirements and content of all of the forms included in the "Interscholastic Athletics Packet" as well as information specified in this consent form.

I have returned all completed required forms, as specified in the Health Physical Instructions:

- 1. NJ DEPARTMENT OF EDUCATION FORMS (PAGES 1, 2, 3, 4)
- 2. IMMACULATA'S INTERSCHOLASTIC FORMS
 - #1: IMMUNIZATION FORM
 - #2: PARTICIPATION/HAZARD FORM
 - #3: OPIOD SIGN-OFF
 - #4: EMERGENCY CONTACT FORM
 - #5: CONCUSSION POLICY FORM
 - #6: STEROID POLICY FORM
 - #7: SUDDEN CARDIAC DEATH FORM
 - #8: CONSENT FORM

Please keep a copy of all the above listed forms for your own records.

I understand that my child will not be permitted to participate unless these documents are completed entirely, signed and submitted:

Parent/Guardian—printed name: _____ Parent/Guardian—Signature: _____ Date: _____

Student's printed name: _____ Student's Signature: _____ Date: _____

Parent Email Address (please print neatly): _____



Banned Substances 2023-2024

It is the student athlete's responsibility to check with the appropriate or designated athletic staff before using any substance.

The NJSIAA bans the following drug classes:

1. Stimulants
2. Anabolic agents
3. Beta-blockers
4. Diuretics and other masking agents
5. Narcotics
6. Cannabinoids
7. Peptide hormones, growth factors, related substances and mimetics
8. Hormone and metabolic modulators
9. Beta-2 agonists

Note: Any substance chemically/pharmacologically related to any of the classes listed above and with no current approval by any governmental regulatory health authority for human therapeutic use (e.g., drugs under pre-clinical or clinical development or discontinued, designer drugs, substances approved only for veterinary use) is also banned. All drugs within the banned-drug class shall be considered to be banned regardless of whether they have been specifically identified. There is no complete list of banned substances.

Substances and Methods Subject to Restrictions:

1. Blood and gene doping.
2. Local anesthetics (permitted under some conditions).
3. Manipulation of urine samples.
4. Beta-2 agonists (permitted only by inhalation with prescription).
5. Tampering of urine samples.

NJSIAA Nutritional/Dietary Supplements:

Before consuming any nutritional/dietary supplement product, review the product and its label with your school's athletics department staff.

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

Athletics department staff should consider providing information to student-athletes about supplement use and the importance of having nutritional/dietary products evaluated by qualified staff members before consumption. The NJSIAA has identified Drug Free Sport AXIS™ (AXIS) as the service designated to facilitate student-athletes and schools review of label ingredients in medications and nutritional/dietary supplements. Contact AXIS at 816-474-7321 or axis.drugfreesport.com (password: njsports).

There is no complete list of banned substances. The following are some examples of substances in each of the banned drug classes. Do not rely on this list to rule out any labeled ingredient. Any substance that is chemically/pharmacologically related to one of the below classes, even if it is not listed as an example, is also banned.

1. Stimulants

Amphetamine (Adderall) Caffeine (Guarana) Cocaine Dimethylbutylamine (DMBA; AMP) Dimethylhexylamine (DMHA; Octodrine) Ephedrine Heptaminol Hordenine Methamphetamine	Methylhexanamine (DMAA; Forthane) Methylphenidate (Ritalin) Mephedrone (bath salts) Modafinil Octopamine Phenethylamines (PEAs) Phentermine Synephrine (bitter orange)
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Exceptions: Phenylephrine and Pseudoephedrine are not banned.

2. Anabolic Agents

Androstenedione Boldenone Clenbuterol DHCMT (Oral Turinabol) DHEA (7-Keto) Drostanolone Epi­trenbolone Etiocholanolone Methandienone	Methasterone Nandrolone Norandrostenedione Oxandrolone SARMs [Ligandrol (LGD-4033); Ostarine; RAD140; S-23] Stanozolol Stenbolone Testosterone Trenbolone
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3. Beta Blockers

Atenolol Metoprolol Nadolol	Pindolol Propranolol Timolol
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4. Diuretics and Masking Agents

Bumetanide Chlorothiazide Furosemide Hydrochlorothiazide	Probenecid Spironolactone (canrenone) Triamterene Trichlormethiazide
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Exceptions: Finasteride is not banned

5. Narcotics

Buprenorphine Dextromoramide Diamorphine (heroin) Fentanyl, and its derivatives Hydrocodone Hydromorphone Methadone	Morphine Nicomorphine Oxycodone Oxymorphone Pentazocine Pethidine
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6. Cannabinoids

Marijuana Synthetic cannabinoids (Spice; K2; JWH-018; JWH-073)	Tetrahydrocannabinol (THC, Delta-8)
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7. Peptide Hormones, growth factors, related substances, and mimetics

Growth hormone (hGH) Human Chorionic Gonadotropin (hCG) Erythropoietin (EPO)	IGF-1 (colostrum; deer antler velvet) Ibutamoren (MK-677)
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Exceptions: Insulin, Synthroid, and Forteo are not banned.

8. Hormone and Metabolic Modulators

Anti-Estrogen (Fulvestrant) Aromatase Inhibitors [Anastrozole (Arimidex); ATD (androstatrienedione); Formestane; Letrozole] PPAR-d [GW1516 (Cardarine); GW0742] SERMS [Clomiphene (Clomid); Raloxifene (Evista); Tamoxifen (Nolvadex)]

9. Beta-2 Agonists

Bambuterol Formoterol Higenamine	Norocloaurine Salbutamol Salmeterol
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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.¹ 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.²

This educational fact sheet, 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.³ 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.³ 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,⁴ 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 (NJSIAA) 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."

According to NJSIAA 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."

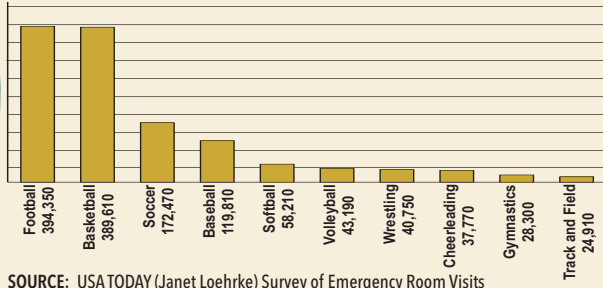
The Sports Medical Advisory Committee, which includes representatives of NJSIAA member schools as well as experts in the field of healthcare and medicine, recommends the following:

- The pain from most sports-related injuries can be managed with non-narcotic medications such as acetaminophen, non-steroidal 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.⁴
- 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.
- 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.



Number of Injuries Nationally in 2012 Among Athletes 19 and Under from 10 Popular Sports

(Based on data from U.S. Consumer Product Safety Commission's National Electronic Injury Surveillance System)



SOURCE: USA TODAY (Janet Loehrke) Survey of Emergency Room Visits

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

What Are Some Ways to Reduce the Risk of Injury?⁷

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.



CONDITIONING Maintain a good fitness level during the season and offseason. Also important are proper warm-up and cooldown exercises.



PLAY SMART Try a variety of sports and consider specializing in one sport before late adolescence to help avoid overuse injuries.



ADEQUATE HYDRATION Keep the body hydrated to help the heart more easily pump blood to muscles, which helps muscles work efficiently.



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.



REST UP Take at least one day off per week from organized activity to recover physically and mentally. Athletes should take a combined three months off per year from a specific sport (may be divided throughout the year in one-month increments). Athletes may remain physically active during rest periods through alternative low-stress activities such as stretching, yoga or walking.



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.

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 Health, Division of Mental Health and Addiction Services is committed to providing consumers and families with a wellness and recovery-oriented model of care.

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.

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.

¹ Massachusetts Technical Assistance Partnership for Prevention

² Centers for Disease Control and Prevention

³ New Jersey State Interscholastic Athletic

Association (NJSIAA) Sports Medical Advisory Committee (SMAC)

⁴ Athletic Management, David Csilan, athletic trainer, Ewing High School, NJSIAA SMAC

⁵ National Institute of Arthritis and Musculoskeletal and Skin Diseases

⁶ USA TODAY

⁷ American Academy of Pediatrics

SPORTS-RELATED EYE INJURIES:

AN EDUCATIONAL FACT SHEET FOR PARENTS



Participating in sports and recreational activities is an important part of a healthy, physically active lifestyle for children. Unfortunately, injuries can, and do, occur. Children are at particular risk for sustaining a sports-related eye injury and most of these injuries can be prevented. Every year, more than 30,000 children sustain serious sports-related eye injuries. Every 13 minutes, an emergency room in the United States treats a sports-related eye injury.¹ According to the National Eye Institute, the sports with the highest rate of eye injuries are: baseball/softball, ice hockey, racquet sports, and basketball, followed by fencing, lacrosse, paintball and boxing.

Thankfully, there are steps that parents can take to ensure their children's safety on the field, the court, or wherever they play or participate in sports and recreational activities.

Prevention of Sports-Related Eye Injuries

Approximately 90% of sports-related eye injuries can be prevented with simple precautions, such as using protective eyewear.² **Each sport has a certain type of recommended protective eyewear, as determined by the American Society for Testing and Materials (ASTM). Protective eyewear should sit comfortably on the face. Poorly fitted equipment may be uncomfortable, and may not offer the best eye protection. Protective eyewear for sports includes, among other things, safety goggles and eye guards, and it should be made of polycarbonate lenses, a strong, shatterproof plastic. Polycarbonate lenses are much stronger than regular lenses.**³

Health care providers (HCP), including family physicians, ophthalmologists, optometrists, and others, play a critical role in advising students, parents and guardians about the proper use of protective eyewear. To find out what kind of eye protection is recommended, and permitted for your child's sport, visit the National Eye Institute at <http://www.nei.nih.gov/sports/findingprotection.asp>. Prevent Blindness America also offers tips for choosing and buying protective eyewear at <http://www.preventblindness.org/tips-buying-sports-eye-protectors>, and <http://www.preventblindness.org/recommended-sports-eye-protectors>.

It is recommended that all children participating in school sports or recreational sports wear protective eyewear. Parents and coaches need to make sure young athletes protect their eyes, and properly gear up for the game. Protective eyewear should be part of any uniform to help reduce the occurrence of sports-related eye injuries. Since many youth teams do not require eye protection, parents may need to ensure that their children wear safety glasses or goggles whenever they play sports. Parents can set a good example by wearing protective eyewear when they play sports.

¹ National Eye Institute, National Eye Health Education Program, Sports-Related Eye Injuries: What You Need to Know and Tips for Prevention, www.nei.nih.gov/sports/pdf/sportsrelatedeyeInjuries.pdf, December 26, 2013.

² Rodriguez, Jorge O., D.O., and Lavina, Adrian M., M.D., Prevention and Treatment of Common Eye Injuries in Sports, <http://www.aafp.org/afp/2003/0401/p1481.html>, September 4, 2014; National Eye Health Education Program, Sports-Related Eye Injuries: What You Need to Know and Tips for Prevention, www.nei.nih.gov/sports/pdf/sportsrelatedeyeInjuries.pdf, December 26, 2013.

³ Bedinghaus, Troy, O.D., Sports Eye Injuries, http://vision.about.com/od/emergencyeyecare/a/Sports_Injuries.htm, December 27, 2013.

Most Common Types of Eye Injuries



The most common types of eye injuries that can result from sports injuries are blunt injuries, corneal abrasions and penetrating injuries.

◆ **Blunt injuries:** Blunt injuries occur when the eye is suddenly compressed by impact from an object. Blunt injuries, often caused by tennis balls, racquets, fists or elbows, sometimes cause a black eye or hyphema (bleeding in front of the eye). More serious blunt injuries often break bones near the eye, and may sometimes seriously damage important eye structures and/or lead to vision loss.

◆ **Corneal abrasions:** Corneal abrasions are painful scrapes on the outside of the eye, or the cornea. Most corneal abrasions eventually heal on their

own, but a doctor can best assess the extent of the abrasion, and may prescribe medication to help control the pain. The most common cause of a sports-related corneal abrasion is being poked in the eye by a finger.

◆ **Penetrating injuries:** Penetrating injuries are caused by a foreign object piercing the eye. Penetrating injuries are very serious, and often result in severe damage to the eye. These injuries often occur when eyeglasses break while they are being worn. Penetrating injuries must be treated quickly in order to preserve vision.⁴

- Pain when looking up and/or down, or difficulty seeing;
- Tenderness;
- Sunken eye;
- Double vision;
- Severe eyelid and facial swelling;
- Difficulty tracking;

Signs or Symptoms of an Eye Injury



- The eye has an unusual pupil size or shape;
- Blood in the clear part of the eye;
- Numbness of the upper cheek and gum; and/or
- Severe redness around the white part of the eye.

What to do if a Sports-Related Eye Injury Occurs



If a child sustains an eye injury, it is recommended that he/she receive immediate treatment from a licensed HCP (e.g., eye doctor) to reduce the risk of serious damage, including blindness. It is also recommended that the child, along with his/her parent or guardian, seek guidance from the HCP regarding the appropriate amount of time to wait before returning to sports competition or practice after sustaining an eye injury. The school nurse and the child's teachers should also be notified when a child sustains an eye injury. A parent or guardian should also provide the school nurse with a physician's note detailing the nature of the eye injury, any diagnosis, medical orders for

the return to school, as well as any prescription(s) and/or treatment(s) necessary to promote healing, and the safe resumption of normal activities, including sports and recreational activities.

Return to Play and Sports

According to the American Family Physician Journal, there are several guidelines that should be followed when students return to play after sustaining an eye injury. For example, students who have sustained significant ocular injury should receive a full examination and clearance by an ophthalmologist or optometrist. In addition, students should not return to play until the period of time recommended by their HCP has elapsed. For more minor eye injuries, the athletic trainer may determine that

it is safe for a student to resume play based on the nature of the injury, and how the student feels. No matter what degree of eye injury is sustained, it is recommended that students wear protective eyewear when returning to play and immediately report any concerns with their vision to their coach and/or the athletic trainer.



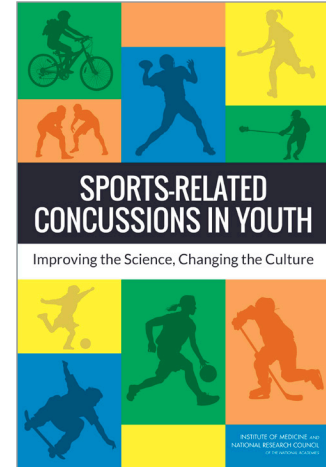
Additional information on eye safety can be found at <http://isee.nei.nih.gov> and <http://www.nei.nih.gov/sports>.

⁴Bedinghaus, Troy, O.D., Sports Eye Injuries, http://vision.about.com/od/emergencyeyecare/a/Sports_Injuries.htm, December 27, 2013.

For more information visit www.iom.edu/concussions

Sports-Related Concussions in Youth

Improving the Science, Changing the Culture



In the past decade, few subjects at the intersection of medicine and sports have generated as much public interest as sports-related concussions—especially among youth. Despite growing awareness of sports-related concussions and campaigns to educate athletes, coaches, physicians, and parents of young athletes about concussion recognition and management, confusion and controversy persist in many areas.

The Institute of Medicine (IOM) and the National Research Council (NRC), supported by a number of government agencies and private groups, convened an expert committee to review the science of sports-related concussions in youth from elementary school through young adulthood, as well as in military personnel and their dependents. The committee was asked to recommend actions that can be taken by a range of audiences—including research funding agencies, legislatures, state and school superintendents and athletic directors, military organizations, and equipment manufacturers, as well as youth who participate in sports and their parents—to improve what is known about concussions and to reduce their occurrence.

Sports-Related Concussions in Youth: Improving the Science, Changing the Culture finds that while some studies provide useful information, much remains unknown about the extent of concussions in youth; how to diagnose, manage, and prevent concussions; and the short- and long-term consequences of concussions as well as repetitive head impacts that do not result in concussion symptoms.

The committee was asked to recommend actions that can be taken by a range of audiences—including research funding agencies, legislatures, state and school superintendents and athletic directors, military organizations, and equipment manufacturers, as well as youth who participate in sports and their parents—to improve what is known about concussions and to reduce their occurrence.

Charting the Unknowns

Currently, there is a lack of data concerning the overall incidence of sports-related concussions in youth, although the number of reported concussions has risen over the past decade. A number of factors may have contributed to this increase, including more awareness and better recognition of such injuries.

Among male athletes at the high school and collegiate levels, football, ice hockey, lacrosse, wrestling, and soccer consistently are associated with the highest rates of concussions. Among female athletes, high school and collegiate sports associated with the highest rates of concussions are soccer, lacrosse, basketball, and ice hockey. There has been little research on the frequency of concussions among athletes in intramural and club sports and in athletes younger than high school age.

To help close data gaps, the committee calls for the Centers for Disease Control and Prevention to establish and oversee a national surveillance system to accurately determine the incidence of sports-related concussions, including those in youth ages 5 to 21. Data should be collected on a range of factors related to the participants, including their demographic information, concussion history, and use of protective equipment. Also, data should be collected on the cause, nature, and extent of the concussive injury, including on the sport or activity, level of competition and type of event, impact location on the body, nature of impact—such as contact with another player or equipment—and signs and symptoms observed that are consistent with a concussion.

Understanding Diagnosis, Recovery, and Health Effects

Although some research indicates that a series of molecular and functional changes take place in the brain following injury, little research has been conducted specifically on changes in the brain following concussions in youth or on the differences

in such changes between females and males. The diagnosis and management of concussion, as well as the measurement of recovery, also remain unsettled. Currently, diagnosis is based primarily on the symptoms reported by the individual rather than on objective diagnostic markers, and there is little empirical evidence for the optimal degree and duration of physical rest needed to promote recovery or the best timing and approach for returning to full physical activity. The committee therefore recommends that the National Institutes of Health (NIH) and Department of Defense (DoD) support research to establish objective, sensitive, and specific metrics and markers of concussion diagnosis, prognosis, and recovery in youth and to inform the creation of age-specific, evidence-based guidelines for the management of short- and long-term health consequences of concussion in youth.

Studies of the shorter-term effects of repetitive head impacts and multiple concussions have had mixed results; some studies show that these injuries result in a decrease in cognitive function—such as memory loss—and changes in brain physiology while others do not. The role that multiple concussions and repetitive head impacts play in long-term health also is not fully understood. For example, it remains unclear whether repetitive head impacts and multiple concussions sustained in youth lead to long-term neurodegenerative diseases, such as chronic traumatic encephalopathy—commonly known as CTE—and Alzheimer’s disease.

To this end, the committee recommends that NIH and DoD conduct controlled, longitudinal, large-scale studies to assess short- and long-term consequences of concussions and repetitive head impacts over the life span. Research should include an examination of the effects of concussions and repetitive head impacts on quality of life and daily activities. It is critical that such studies identify predictors and modifiers of outcomes, including the possible influence of socioeconomic status, race and ethnicity, sex, and co-occurring conditions.

Currently, diagnosis is based primarily on the symptoms reported by the individual rather than on objective diagnostic markers, and there is little empirical evidence for the optimal degree and duration of physical rest needed to promote recovery or the best timing and approach for returning to full physical activity.

Improving Safety Standards and Equipment Design

Enforcing rules and standards for safe play can help to reduce the occurrence of sports-related injuries. Though there is some evidence that rules and playing standards can affect the incidence of concussions in youth sports, there is a need for much more research on this. Toward this goal, the committee recommends that the National Collegiate Athletic Association (NCAA), in conjunction with the National Federation of State High School Associations (NFHS), national governing bodies for youth sports, and youth sport organizations undertake a rigorous scientific evaluation of the effectiveness of age-appropriate techniques, rules, and playing and practice standards in reducing sports-related concussions and any resulting conditions. DoD should conduct equivalent research for sports and physical training—including combatives—at military service academies and for military personnel.

Designing more effective safety equipment may offer another route to protecting youth from concussions. The committee finds limited evidence that current helmet designs reduce the risk of sports-related concussions and no evidence that mouthguards or facial protection reduce concussion risk, although such protective equipment protects against other injuries, such as skull fractures and injuries to the mouth and face. The committee recommends that NIH and DoD fund research on the biomechanical factors that influence injury risk in youth, including how one's likelihood of being injured may be modified by

the number of repetitive head impacts and concussions he or she sustained in the past, as well as the amount of time that has passed since prior injury.

These data are critical for informing the development of effective protective equipment and equipment safety standards, impact-monitoring systems, and athletic and military training programs.

Changing the Culture

The culture of sports negatively influences athletes' self-reporting of concussion symptoms and their adherence to return-to-play guidance. Athletes, their teammates, and, in some cases, coaches and parents may not fully appreciate the health threats posed by concussions. Similarly, military recruits are immersed in a culture that includes devotion to duty and service before self, and the critical nature of concussions may often go unheeded. If the youth sports community can adopt the belief that concussions are serious injuries and emphasize care for players with concussions until they are fully recovered, then the culture in which these athletes perform and compete will become much safer.

Most states have laws with requirements for concussion education for athletes and parents, criteria for removal from play, and medical clearance for returning to play. However, there is variation among states in the specific educational requirements for coaches, student athletes, and parents; qualifications of providers who are permitted to



Committee on Sports-Related Concussions in Youth

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National Institutes of Health

National Foundation for the Centers for Disease Control and Prevention (CDC Foundation)

(Funding for the study was provided to the CDC Foundation by the National Football League)

make return-to-play decisions; and populations to which the legislation applies. Research indicates that concussion education programs are effective for improving concussion knowledge and awareness, but there is little evidence that these programs change behavior.

The committee recommends that the NCAA and the NFHS, in conjunction with various other public and private groups, develop, implement, and evaluate the effectiveness of large-scale efforts to increase knowledge about concussions and change the culture—social norms, attitudes, and behaviors—surrounding concussions among elementary school through college-aged youth and their parents, coaches, sports officials, educators, trainers, and health care professionals. These efforts should take into account demographic variations—including socioeconomic status, race and ethnicity, and age—across population groups.

Conclusion

Given the prevalence of youth sports participation in the United States, improving understanding of the extent, causes, effects, and prevention of sports-related concussions is vitally important for the health and well-being of youth athletes. The IOM and NRC hope that the findings and recommendations in this report will help in reaching this goal.

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NJSIAA



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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. List of banned substances: A list of banned substances shall be prepared annually by the Medical Advisory Committee, and approved by the Executive Committee.
2. 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.
3. Selection of athletes to be tested: Tested athletes will be selected randomly from all of 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**
4. Administration of tests: Tests shall be administered by a certified laboratory, selected by the Executive Director and approved by the Executive Committee.
5. Testing methodology: The methodology for taking and handling samples shall be in accordance with current legal standards.
6. 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.
7. 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."

- 8. 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.
- 9. 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.
- 10. Compilation of results:** The Executive Committee shall annually compile and report the results of the testing program.
- 11. Yearly renewal of the steroid policy:** The Executive Committee shall annually determine whether this policy shall be renewed or discontinued.

June 1, 2007

Website Resources

- Sudden Death in Athletes
<http://tinyurl.com/m2gjmvg>
- Hypertrophic Cardiomyopathy Association
www.4hcm.org
- American Heart Association www.heart.org

Collaborating Agencies:

American Academy of Pediatrics New Jersey Chapter

3836 Quakerbridge Road, Suite 108
Hamilton, NJ 08619
(p) 609-842-0014
(f) 609-842-0015
www.aapnj.org



American Heart Association

1 Union Street, Suite 301
Robbinsville, NJ, 08691
(p) 609-208-0020
www.heart.org



New Jersey Department of Education

PO Box 500
Trenton, NJ 08625-0500
(p) 609-292-5935
www.state.nj.us/education/



New Jersey Department of Health

P. O. Box 360
Trenton, NJ 08625-0360
(p) 609-292-7837
www.state.nj.us/health



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SUDDEN CARDIAC DEATH IN YOUNG ATHLETES

The Basic Facts on Sudden Cardiac Death in Young Athletes



STATE OF NEW JERSEY
DEPARTMENT OF EDUCATION

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™



American Heart
Association 
Learn and Live



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?



What is sudden cardiac death in the young athlete?

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).

How common is sudden death in young athletes?

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.



What are the most common causes?

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 fib-roo-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-fic 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).

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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;
- 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;
- Being unable to keep up with friends due to shortness of breath (labored breathing).

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 Preparticipation Physical Examination Form (PPE).

This process begins with the parents and student-athletes answering questions about symptoms during exercise (such as chest pain, dizziness, fainting, palpitations or shortness of breath); and questions about family health history.

The primary healthcare provider needs to know if any family member died suddenly during physical activity or during a seizure. They also need to know if anyone in the family under the age of 50 had an unexplained sudden death such as drowning or car accidents. This information must be provided annually for each exam because it is so essential to identify those at risk for sudden cardiac death.

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 abnormalities discovered on exam, no further evaluation or testing is recommended.

Are there options privately available to screen for cardiac conditions?

Technology-based screening programs including a 12-lead electrocardiogram (ECG) and echocardiogram (ECHO) are noninvasive and painless options parents may consider in addition to the required

PPE. However, these procedures may be expensive and are not currently advised by the American Academy of Pediatrics and the American College of Cardiology unless the PPE reveals an indication for these tests. In addition to the expense, other limitations of technology-based tests include the possibility of "false positives" which leads to unnecessary stress for the student and parent or guardian as well as unnecessary restriction from athletic participation.

The United States Department of Health and Human Services offers risk assessment options under the Surgeon General's Family History Initiative available at <http://www.hhs.gov/familyhistory/index.html>.

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 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.

This is why screening evaluations and a review of the family health history need to be performed on a yearly basis by the athlete's primary healthcare provider. With proper screening and evaluation, most cases can be identified and prevented.

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).

N.J.S.A. 18A:40-41a through c, known as "Janet's Law," requires that at any school-sponsored athletic event or team practice in New Jersey public and nonpublic schools including any of grades K through 12, the following must be available:

- An AED in an unlocked location on school property within a reasonable proximity to the athletic field or gymnasium; and
- A team coach, licensed athletic trainer, or other designated staff member if there is no coach or licensed athletic trainer present, certified in cardiopulmonary resuscitation (CPR) and the use of the AED; or
- A State-certified emergency services provider or other certified first responder.

The American Academy of Pediatrics recommends the AED should be placed in central location that is accessible and ideally no more than a 1 to 1½ minute walk from any location and that a call is made to activate 911 emergency system while the AED is being retrieved.