ARTICLE 33

MEDICAL POSITION STATEMENTS OF THE

RHODE ISLAND INTERSCHOLASTIC LEAGUE

The following position statements were developed by the Rhode Island Interscholastic League's Sports Medicine Advisory Committee and approved by the RILL Principals' Committee on Athletics:

Section I. CARDIOVASCULAR DISEASE IN ATHLETES

The Rhode Island Interscholastic League in an attempt to emphasize the importance of screening for cardiovascular diseases in young student-athletes, has developed the following position on a prudent approach to this important problem.

Sudden death in young athletes has become a highly visible health concern in our country. Unfortunately, most of these deaths are most often congenital cardiovascular malformations. The most common lesion is hypertrophic cardiomyopathy.

The ultimate goal is not treatment, but early detection. Therefore, it is the position of the Rhode Island Interscholastic League that every Rhode Island community have in place a comprehensive preparticipation screening program with appropriate procedures for identification of these potentially lethal cardiovascular abnormalities. The objective of these exams is the disqualification of selected athletes from competition thereby reducing their risk for sudden death during sports activities.

Although sudden cardiac death is a rare event, it is the responsibility of our communities to provide a safe environment for our student athletes.

The RIIL has produced a comprehensive sports-oriented history and physical examination form to aid Rhode Island physicians in identifying these and other problems.

The history is the most sensitive method for detection. The majority of cardiac problems will be identified by the history rather than by the physical exam.

The physical exam must be performed by a clinician familiar and comfortable with the physical signs of the causes of sudden cardiac death.

It is the goal of the Rhode Island Interscholastic League that all communities utilize this screening form in order to standardize the approach of all Rhode Island physicians, thereby optimizing our chances of detecting these potentially lethal conditions in our student-athletes.

Section 2. CONCUSSIONS

Please refer to the NFHS – Sports Medicine Handbook (3rd Edition 2008, Pages 77-82) that was distributed to every member high school.

Section 3. BURNERS AND STINGERS

The Rhode Island Interscholastic League has taken the following position on return to play criteria after sustaining *a* ***burner.***

Burners **or** ***stingers*** are terms used to describe an injury to one side of the upper extremity, which typically includes burning pain and muscle weakness most commonly involving the biceps, deltoids, and rotator cuff muscles (supraspinatos and infraspinatos). *A* ***burner*** **usually** occurs from downward movement of the shoulder associated with the lateral flexion of the neck toward the opposite shoulder.

A detailed assessment should be performed consisting of neck palpation for pain and range of motion. If all motor and sensory symptoms resolve within seconds to minutes and there is no associated neck pain or limitation of neck motion, the athlete may return to competition. If symptoms persist for more than a few minutes, an MRI of the cervical spine should be considered to look for a herniated disc or any other cervical compressive pathology. Electromyography (EMG) is recommended when symptoms remain for more than two weeks. Any athlete who suffers two repetitive stingers should use high shoulder pads and a soft cervical roll or cowboy collar. One should also undergo cervical radiographs and an MRI to evaluate a possible underlying cervical spinal stenosis.

Burners can be minimized with appropriate equipment and education on tackling technique. An on-field evaluation is crucial to differentiate ***burners*** from a far more serious spinal cord injury. An individual who sustains recurrent ***burners*** and demonstrates evidence of cervical spinal stenosis should be disqualified from any contact athletic events.

Section 4. ANDROSTENEDIONE

Androstenedione is a naturally occurring steroid mainly found in testes, but also produced in the adrenal glands and ovaries. It is a precursor to the steroid hormone testosterone. Androstenedione was first synthesized in 1935 and was shown in 1936 to produce both androgenic and anabolic (i.e., muscle building) effects; however the anabolic effects were seen only **in** castrated dogs. A 1962 study showed that oral administration of androstenedione did increase testosterone levels but only for a few hours with a peak level lasting only a few minutes. Androstenedione was also used as a nasal spray by the elite East German athletes in the 1970's.

Androstenedione is classified as a dietary supplement by the FDA. It is banned by the International Olympic Committee and numerous sports organizations.

Androstenedione has again come into the public light due to Mark McGuire's use of androstenedione. It is not known, however, if Mark McGuire's use of this substance had anything to do with his home run hitting performance. Although androstenedione is an immediate precursor to testosterone in the body, it is not necessarily true that oral administration of androstenedione will result in increased levels of testosterone. The pathway is complex and dependent upon numerous factors. Androstenedione has existed for over 60 years and there is still no well-controlled independent scientific studies, which demonstrates anabolic (muscle building) effects. If however, androstenedione does produce anabolic effects then all the dangerous side effects of anabolic steroids (heart disease, increase in HDL's, kidney disease, liver disease, testicular atrophy, acne, psychological effects - steroid rage) will also be produced.

The Rhode Island Interscholastic League discourages the use of androstenedione. The beneficial effects are unproven, but the potential risks are large. This substance should **not** be supplied, administered or its use encouraged by high school personnel.

Section 5. CREATINE

Creatine is an amino derivative. It is synthesized in the body by the liver, kidneys, and pancreas. Ninety-five (95) percent of the body's creatine is stored in muscle. In the diet, creatine is found in fish and meat, which in a typical diet will provide approximately one half of the daily requirements of creatine, or 1 gram. In the muscle creatine (Cr) is stored as bound to phosphorus (P) which gives phosphocreatine (PCr). (PCr) binds to ADP (adenosine diphosphate) to form ATP (adenosine triphosphate) which is the immediate source of energy for skeletal muscle contractions. Thus the goal of adding creatine to the diet is to donate a phosphorus to ADP to produce more ATP. Since PCr is depleted in approximately 10 seconds, increasing the amount of PCr should result in more ATP being created and thus the ability to increase the amount of short, high intensity exercise an individual can perform.

However, there is a maximum amount of PCr a muscle can store and this varies between individuals. Therefore, if an individual already possesses the maximum amount of PCr in their muscle cells, **adding more will not have any positive effect.** Thus there are "responders" and "non-responders" to creatine loading. A detrimental effect of creatine supplementation is that the body will produce less of its own creatine in response to the increase in exogenous creatine. What is not known is if this effect could become permanent or how long it lasts after discontinuation of the supplement creatine. Other long-term side effects of creatine use are unknown. The following concerns do exist with respect to the effect on the liver and kidneys: the liver because it stops making creatine during supplementation period; and the kidneys because they must filter out the increased levels of creatine. There is also concern with cardiac muscle hypertrophy after long-term use of creatine.

Creatine is classified by the FDA as a dietary supplement and is widely available.

Although creatine use is widely popular and increasing, there is still no data regarding the effects of creatine use on renal function, liver function, fluid balance and the musculoskeletal system. This is especially concerning when one considers the effects on the organ systems of a rapidly growing child. The Rhode Island Interscholastic League discourages the use of creatine. This substance should **not** be supplied, administered, or its use encouraged by high school personnel.

Section 6. CERTIFIED ATHLETIC TRAINERS AT RIIL CHAMPIONSHIP EVENTS

The Rhode Island Interscholastic League has established a relationship with The Rhode Island Interscholastic Injury Fund (RIIIF) to provide certified athletic trainers to all high school championship events. The purpose of these certified athletic trainers is to provide emergency medical coverage to all participants of these games.

As more and more schools have begun to see the necessity of proper athletic medical coverage, high schools have begun using certified athletic trainers, physicians and other medical professionals to assist with the schools' medical needs. Many of these medical personnel have developed a strong working relationship with the teams.

It is the position of the RIIIF not to interfere with the role that medical personnel play with their teams. However, a role must be established for the RIIIF certified athletic trainers at championship events.

A. **To** provide the best possible coverage for all students-athletes at these games, the following protocol will be observed by all RIlIF athletic trainers at all contests. We hope that this outline will promote better quality care at all championship events.

1. Upon arrival at the game/meet, the athletic trainers will situate themselves in such a location to be available to both teams, without interfering with the area of competition.
2. Prior to the start of the game, the athletic trainer will introduce themselves to a member of the

coaching staff from each team. The athletic trainer will state their purpose for being at the game, their location and availability. The athletic trainer will then ask if there is any medical personnel traveling with the team. The athletic trainer will also inquire if there are any medical problems or conditions that any member of their team may have that they should be aware of during the contest.

3. The athletic trainer will also introduce themselves to the officiating staff and alert them of their presence and availability.
4. If there is NO medical coverage traveling with a team, the RIIIF athletic trainer will inform the coach that they will go out onto the floor/field if it is warranted to provide medical care to a downed athlete. All medical decisions regarding the treatment of the athlete will be made by the **RIIIF athletic trainer.**
5. If there IS medical personnel (ATC, PT/ATC, EMT) with a team, the RIIIF athletic trainers will introduce themselves and offer assistance. In the event that medical treatment for one of their athletes is needed, the RIIIF athletic trainer will accompany their medical personnel on the floor/field. However, the RIIIF athletic trainer will remain at a discrete distance to observe the incident and to assist if needed. All medical decisions made in regard to the athlete will be done by the **team's medical personnel.**
6. If the medical personnel is a physician, all decisions made by the doctor will be considered final.
7. If there is "medical personnel" with a team that is **not** a certified athletic trainer, physician, EMT or if the "medical personnel" is a non-accredited individual, (i.e., a student athletic trainer or a certified first-aider) then all medical decisions regarding the care and treatment of the athlete will be made by the RIIIF athletic trainer.

Section 7. COMMUNICABLE DISEASE PROCEDURES

While the risk of one student-athlete infecting another with HIV/AIDS during competition is close to non-existent, there is a remote risk that other blood-borne infectious diseases can be transmitted. For example: Hepatitis B can be present in blood as well as other body fluids. Procedures for reducing the potential for transmission of these infectious agents should include, but not be limited to, the following:

1. The bleeding must be stopped and the open wound covered. If there is an excessive amount of blood on the uniform; it must be changed before the athlete may participate.
2. Routine use of gloves or other precautions to prevent skin and mucous membrane exposure when contact with blood or other body fluids is anticipated.
3. Immediately wash hands and other skin surfaces if contaminated (in contact) with blood or other body fluids. Wash hands immediately after removing gloves.
4. Clean all contaminated surfaces and equipment with an appropriate disinfectant before competition resumes.
5. Practice proper disposal procedures to prevent injuries caused by needles, scalpels, and other sharp instruments or devices.
6. Although saliva has not been implicated in HIV transmission, to minimize the need for emergency mouth-to-mouth resuscitation, mouthpieces, resuscitation bags, or other ventilation devices should be available for use.
7. Athletic trainers/coaches with bleeding or oozing skin conditions should refrain from all direct athletic care until the condition resolves.
8. Contaminated towels should be properly disposed of and/or disinfected.
9. Follow acceptable guidelines in the immediate control of bleeding and when handling bloody dressings, mouth-guards, and articles containing body fluids.

Section 8. USE OF LEGAL CAST IN ATHLETIC CONTESTS

If the student/athlete's doctor gives clearance to participate with the use of a protective cast that is approved by the Rule of the game (NFHS), the student athlete will be required and must have an authorization letter from the doctor which shall be considered valid for a period of six (6) weeks form the date of letter. (It shall not be necessary for the student-athlete to present a note each week). At the end of the six (6) week period the student-athlete may provide another doctors note which shall remain valid for another six(6 weeks from the date of the letter). The school is required to have the doctors authorization letter for review by the officials prior to any RIIL contest.