

# **CONCUSSION MANAGEMENT POLICY & PROTOCOL**

## Introduction

The understanding of sports-related concussions has evolved dramatically in recent years. We now know that young athletes are particularly vulnerable to the effects of a concussion. Once considered little more than a "ding" on the head, it is now understood that a concussion has the potential to result in short or long-term changes in brain function, or in some cases, death.

In order to have a standard method of managing concussions for Providence Athletics' student-athletes, the following guidelines are offered as a written protocol for concussion management.

## What is a concussion?

You've probably heard the terms "ding" and "bell-ringer." These terms were once used to refer to minor head injuries and thought to be a normal part of sports. There is no such thing as a minor brain injury. Any suspected concussion must be taken seriously. A concussion is caused by a bump, blow, or jolt to the head or body. Basically, any force that is transmitted to the head causes the brain to literally bounce around or twist within the skull, potentially resulting in a concussion. It used to be believed that a player had to lose consciousness or be "knocked-out" to have a concussion. This is not true, as the vast majority of concussions do not involve a loss of consciousness. In fact, less than 10% of players actually lose consciousness with a concussion. What exactly happens to the brain during a concussion is not entirely understood. It appears to be a very complex injury affecting both the structure and function of the brain. The sudden movement of the brain causes stretching and tearing of brain cells, damaging the cells and creating chemical changes in the brain. Once this injury occurs, the brain is vulnerable to further injury and very sensitive to any increased stress until it fully recovers.

Common sports injuries such as torn ligaments and broken bones are structural injuries that can be seen on MRIs or x-rays, or detected during an examination. A concussion, however, is primarily an injury that interferes with how the brain works. While there is damage to brain cells, the damage is at a microscopic level and cannot be seen on MRI or CT scans. Therefore, the brain looks normal on these tests, even though it has been seriously injured.

## **Recognition and Management**

If an athlete exhibits any signs, symptoms, or behaviors that make you suspicious that he or she may have had a concussion, that athlete must be removed from all physical activity, including sports and recreation. Continuing to participate in physical activity after a concussion can lead to worsening concussion symptoms, increased risk for further injury, and even death.

Symptoms include but are not limited to-

- any loss of consciousness
- headache
- amnesia
- nausea and/or vomiting
- dizziness, unsteadiness, and/or vertigo
- confusion

- vision changes
- ringing in the ears
- poor concentration
- change in mood and/or behavior
- sensitivity to noise and/or light
- change in sleep patterns

## **Responsible Individuals**

At every athletic activity sponsored by Providence Athletic Department in which the activity involved carries a potential risk for concussion in the participants, there should be a designated individual who is responsible for identifying student-athletes with symptoms of concussion injuries. This individual should be:

- a physician
- an advanced practice nurse
- athletic trainer\*

- neuropsychologist,
- physician assistant

\*School's Athletic Trainer or licensed Athletic Trainer will be at most home competitions and on-site practices. In the event that the athletic trainer is not available, such as a practice or away competition, coaches are responsible for recognizing the signs and symptoms of a concussion in athletes and responding accordingly. When another

school's athletic trainer is available, they are the appropriate designated person to assume this role. It is important that the individual responsible for determining the presence of the symptoms of a concussion for initiating the process of informing the student-athlete and parents related to the injury event and providing documentation. **Prevention Strategies** 

- 1. All must insist that safety comes first.
- 2. Teach and practice safe playing techniques/fundamentals.
- 3. Educate athletes and their parents on the dangers of playing with a concussion.
- 4. Encourage athletes to follow the rules of play and to practice good sportsmanship at all times.
- 5. Ensure athletes wear the right protective equipment for their activity (such as helmets, padding, shin guards, and eye and mouth guards) and that it fits appropriately.
- 6. All headgear must be NOCSAE certified.
- 7. Make sure all headgear fits the individual and is secured properly to the individual.
- 8. For all sports that require headgear, a coach or appropriate designate should check headgear before use to make sure air bladders work and are appropriately filled. Padding should be checked to make sure they are in proper working condition and replaced appropriately. All headgear must be checked each season to determine wear and usability for continued use.

# Providence Athletic Department: Concussion Management Policy & Protocol

Any one or group of symptoms may appear immediately and be temporary, or delayed and long lasting. The appearance of **any one** of these symptoms should alert the responsible personnel to the possibility of concussion.

For any suspected concussion:

- 1. **REMOVAL:** The student-athlete will be immediately removed from game/practice by athletic trainer, coach or athletic administrator.
- 2. INITIAL EVALUATION:
  - a. The student-athlete must be evaluated by school's athletic trainer as soon as possible for the appropriate plan to be instated.
  - b. If school's athletic trainer is not available, the coach will be responsible for setting up any emergency care needed or advising student-athlete and parent to make an appointment with a physician. When in doubt...sit them out!
- 3. **INFORM:** Concussion symptoms and Return to Play Protocol will be discussed with parents/guardians before the athlete leaves the event. Specific home instructions and ER precautions may also be given.
- 4. ACTION PLAN:
  - a. If the athletic trainer removes an athlete from a game/practice and they are not allowed to return, the student-athlete and parents will be advised about the possibility of a concussion and be given information on concussions.
  - b. An athlete removed play, unable to return during that event, will be advised to get a concussion evaluation by a doctor in the appropriate time frame, the **physician must authorize** and provide a date **before** the athlete can **begin the RTP Protocol.** RTP Protocol will be given to the student-athlete and parents to present to the doctor. The doctor may advise of any provisions and changes needed for the care of the athlete.
  - c. All medical paperwork must be on file with the athletic trainer in order to begin RTP Protocol.

The Providence Athletic Department will use standardized forms for the Return to Play procedure (see attached). A coach of an interscholastic athletics team may not authorize a student's return to play.

# **Return to Play (RTP) Protocol**

According to the Providence Concussion Management Protocol, following clearance and compliance with the above information, supervised progression of activities should be initiated utilizing the standardized protocol:

- No physical activity until the athlete is symptom free and cleared by a physician to start the return to play
  protocol
- Activity is to progress at a rate of one step daily.
  - Light aerobic exercise with no resistance training
  - o Light aerobic exercise with light resistance training
  - o Moderate aerobic exercise and medium resistance training

- Full aerobic exercise with full resistance training
- o Non-contact sports-specific training drills
- Full contact training drills
- Athlete progression continues as long as athlete remains <u>asymptomatic</u>. If the athlete experiences any post concussion symptoms, they should stop all activity and consult with the treating physician immediately. Resumption of the return-to-play protocol will be determined by the treating physician pending possible further evaluation.
- RTP form used for most concussion outlines activities for the student-athlete to progress over 5 days. However, a modified RTP may be requested by the parent or the doctor in which the studentathlete will progress over 7 days.

### **Academic Adjustments**

It may be necessary for individuals with concussion to have both cognitive and physical rest in order to achieve maximum recovery in shortest period of time. In addition to the physical management noted above, the school athletic trainer will notify the school health coordinator, who will be responsible for notifying all classroom teachers regarding the student athlete's condition.

The Health Coordinator will advise teachers of post concussion symptoms.

- Student may need (only until asymptomatic) special accommodations regarding academic requirements (such as limited computer work, reading activities, testing, assistance to class, etc.) until concussion symptoms resolve.
- Student may only be able to attend school for half days or may need daily rest periods until symptoms subside. In special circumstances the student may require homebound status for a brief period.

#### **Evaluation of a Concussion:**

When evaluating an individual who has sustained concussion, the professional will evaluate three separate domains of brain function: Physical/Motor, Cognitive, and Behavioral/Emotional. These represent functions of widely different anatomical regions in the brain (although there are cross over/dual function in some areas). Evaluation should focus on each domain separately. Separate evaluation protocols/instruments are employed to assess each domain. Documentation of the method of assessment is always helpful to have for subsequent examiners. The school's athletic trainer will use a sports concussion assessment tool (SCAT2) at the time of the injury:

# **EVALUATION DOMAINS**

PHYSICAL/MOTOR Dazed/Stunned Balance difficulties Weakness Excessive Fatigue Slowed reactions Lack of facial expressions COGNITIVE Amnesia Confused/Disoriented Slowed Verbal Responses Forgets easily Difficulty concentrating Short Attention Span BEHAVIOR/EMOTIONAL Irritable Emotionally unstable/Explosive Depressed Sleep disturbances Anxious Lack of Interest

#### References:

 National Federation of State High School Associations, Suggested Guidelines for the Management of Concussion in Sports; November 2014

Both Student-Athlete and Parent/Guardian must sign acknowledgement of this policy and consent to follow protocol annually. Acknowledgement and Consent may be submitted online or print the Acknowledgement Form and turn into the Athletic Trainer prior to participating in any sport.

\*Updated June 2015