Athletic Concussion Procedures
Concussion Procedures

Concussions sometimes occur among athletes in competitive sports programs. At WJCC Schools, careful protocols are utilized, including the use of ImPACT software, to guide management of head injuries. The following will provide background information on concussions and describe the protocols followed at WJCC Schools.

PLEASE NOTE: If a student athlete is suffering from any signs and/or symptoms of concussion resulting from a blow to the head, the athlete MUST report to the school's athletics trainers or a physician as soon as possible. The sooner a proper diagnosis can be made, the sooner healing can begin.

Definition of a Concussion

A concussion is the disruption of normal brain function due to either a direct blow to the head, face and neck, or an indirect blow or jolt to another part of the body that transmits an "impulsive" force to the brain. Some concussions may result in a loss of consciousness. However, loss of consciousness is not the defining characteristic of a concussion.

It is imperative that the brain have enough time to heal in order to prevent any further trauma or permanent damage. Rest must always come in the form of ceasing all physical activity, but may also involve a break from challenging cognitive activity as well.

Signs (observable behaviors) that may be present with concussions

- Appears to be dazed or stunned
- Is confused about time, date, and/or location
- Is unable to remember what he/she did prior to or after the injury
- Has altered balance
- Is slow to answer questions
- Displays a personality change
- Has altered sleep patterns: is unable to fall asleep or feels like he/she always wants to sleep
- Is vomiting
- Experiences loss of consciousness (not present in all concussions)

Symptoms (experienced and reported by the athlete) that may be present with concussions

- Headache
- Nausea
- Dizziness
- Double of fuzzy vision or any other visual altercation
- Sensitivity to light and/or noise
- Feeling sluggish or slow
- Feeling "foggy" or in a "funk"
- Difficulty in concentrating when reading, listening or speaking
- Extreme fatigue

Management of a Concussion

Proper management of a concussion is the best form of prevention of a serious injury. Most important is prevention of Second Impact Syndrome – a catastrophic increase in intracranial pressure leading to massive brain swelling, herniation and potentially death. This syndrome occurs in athletes up to 14 days post-concussion and when an athlete returns to competition prior to complete resolution of symptoms. Therefore, the following concussion protocols are utilized at WJCC Schools:

1. Any student-athlete diagnosed with a concussion is removed from competition.
2. No student with a concussion is allowed to return to play in the current game.
3. Consideration should be given to addressing the academic needs and gradual reintroduction to cognitive demands to students who have been diagnosed with a concussion. Modification to the academic workload may be needed during recovery.
4. All concussions are referred for medical evaluation following the injury by an appropriate licensed health care provider as designated by the State of Virginia.
5. Stepwise return to play:
   a. No physical activity; rest until asymptomatic
   b. Light aerobic exercise is supervised by the athletic trainer
   c. Non-contact drills until one week post-injury.
   d. Return to contact sports after minimum of one week post-injury and completely asymptomatic (neurocognitive testing will now be used to assess return-to-play).
   e. Any recurrence of concussive symptoms should lead to the athlete dropping back to the previous level.
6. An athlete with two concussions per season will be removed from contact sports for the remainder of that season. Return to play will require neurocognitive testing and the approval by an appropriate licensed health care provider as designated by the State of Virginia.

7. An athlete with a history of three or more concussions is highly recommended to avoid contact sports. Participation will require neurocognitive testing and be at the discretion of the school medical inspector.

Parents are encouraged to report out of school concussions to the athletic director or athletic trainer for the safety of the student athlete.

**Use of ImPACT Software**

In order to assess the severity of concussions and promote safe return to play, WJCC Schools uses the ImPACT Software Program.

**Some Additional Facts About Concussions**

- Mild concussions ("bell ringers") do not require loss of consciousness. Presenting symptoms may include headache, nausea, balance problems, photosensitivity, fatigue, foggy or sluggish feeling, and/or a change in sleep patterns and cognitive changes.
- Cutting edge research suggests that a concussion produces a metabolic, rather than anatomic, injury to the brain, making CT scanning and MRI insensitive to the physiological changes in the concussed brain.
- An athlete who sustains a concussion is 4-6 times more likely to sustain a second concussion.
- Effects of a concussion are cumulative in athletes who return to play prior to complete recovery.
- High school athletes with a history of three or more concussions are up to nine times more likely to have more severe symptoms following subsequent concussions.
- Post-concussion syndrome can involve decreased processing speed, short term memory impairment, concentration deficit, depression/irritability, fatigue/sleep disturbance, and academic difficulties.

More information on concussions can be obtained from the following website: www.sportsconcupison.bianj.org or contact one of the WJCC School's athletic trainers.