Bellarmine Preparatory School
Sport Concussion Management Protocol

Bellarmine Preparatory School's Sport Concussion Management Protocol has been developed over the last several years, and is derived from the most recent literature on sport-related concussions. Bellarmine has worked closely with the guidelines established by the Centers for Disease Control, Lystedt Law, and the Washington Interscholastic Activities Association.

Clinical research has shown that an athlete's balance and/or cognitive functioning are often depressed following a concussion--even in the absence of self-reported symptoms. It has been demonstrated that it typically takes anywhere from 3-10 days for an athlete to return to his or her normal state following a concussion. However, in some cases (<10%), athletes can experience post-concussion symptoms in which the symptoms last beyond 3 weeks.

Bellarmine Preparatory School's athletic training staff utilizes a three-fold approach when determining an athlete's readiness to return to play following a concussion. In the event of a suspected concussion, the Sport Concussion Management Protocol requires the evaluation of the athlete's symptoms, neurocognitive function, and balance which provide the sports medical staff with the objective information necessary to return the athlete to play safely. The findings of these post-injury assessments are then compared to the pre-season baseline assessment (ImPACT), conducted on all student-athletes participating in contact sports, every other year, or annually if a concussion episode did occur.

The following Sport Concussion Management Protocol has been adopted by Bellarmine Preparatory School's Athletic Department and is followed by all teams when managing athletes suspected of sustaining a concussion.

1. Sport Concussion Management Protocol

Concussions and other brain injuries in sports can be serious and potentially life-threatening. Research indicates that these injuries can also have serious consequences later in life if not managed properly. In an effort to combat this, the following will be used for Bellarmine student-athletes suspected of sustaining a concussion.

A concussion occurs when there is a direct or indirect injury to the brain. As a result, transient impairment of mental functions such as memory, balance/equilibrium, and vision may occur. It is important to recognize that many sport-related concussions *do not* result in loss of consciousness and, therefore, all suspected head injuries should be taken seriously. Coaches and fellow teammates can be helpful in identifying those who may potentially have a concussion, because a concussed athlete may not be aware of his or her condition or try to hide the injury to stay in the game or practice.

1) Concussion management begins with pre-season baseline testing. Every incoming freshman participating in any of the following sports will have a baseline test performed: football, soccer, basketball, and wrestling.
2) An athlete suspected of sustaining a concussion will be evaluated by the athletic training staff using the Standardized Assessment of Concussion (SAC), Balance Error Scoring System (BESS), and Graded Symptom Checklist (GSC). Ideally, an assessment of symptoms will be performed at the time of the injury and then periodically thereafter (i.e., 2-3 hours, 24 hours, 48 hours post-injury, etc.). The presence or absence of symptoms will dictate the inclusion of additional neurocognitive and balance testing.
3) Any student-athlete diagnosed with a concussion **shall not return** to activity for the remainder of that day. Medical clearance will be determined by the athletic trainers involved with management of the concussion.
4) If requested by the athletic training staff, Athletic Director, coach, parents, or administrative personnel, testing may be conducted while the athlete is still symptomatic.
5) In the event the athlete does not have a baseline score on file and a concussion is suspected, age-matched normative percentile scores will be used for comparison to post-injury scores.
6) The following assessment and return to play plan will be used for all concussions:

Concussion Assessment:
AN ATHLETE SUSPECTED OF HAVING A CONCUSSION IS NOT PERMITTED TO RETURN TO PLAY THE SAME DAY, AND NO ATHLETE IS PERMITTED TO RETURN TO PLAY WHILE SYMPTOMATIC FOLLOWING A CONCUSSION.

Baseline Testing: Baseline testing will be conducted on select athlete their freshman those athletes who sustained a concussion the previous season.

Time of Injury: At the time of injury or close thereafter, a clinical evaluation will be performed by a member of the athletic training staff along with a review of a concussion symptom checklist.

1-3 hours post-injury: If circumstances allow, one to three hours post-injury, an athletic trainer will review the symptom checklist with the athlete and make a referral to a medical professional if deemed necessary.

Next Day: An athletic trainer should conduct a follow-up clinical evaluation and review of concussion symptom checklist.

Follow-up Evaluations Daily to Track Symptom Recovery: An athletic trainer will follow up with the injured athlete to track symptom recovery.

Once Athlete Becomes Asymptomatic: Once an injured athlete becomes asymptomatic, an athletic trainer will conduct the following:

1. Determine where athlete is relative to baseline

on the following measures:

   a. Symptom Assessment (Graded Symptom Checklist)
   b. Mental Status Assessment (Standard Assessment of Concussion)
   c. Neuropsychological Assessment (CNS Vital Signs)
   d. Balance Assessment (Balance Error Scoring System- BESS)

2. If the measures (a-d) listed above are at least 95% of baseline scores and the athlete remains asymptomatic for **1 additional day** following these tests, the athlete will be allowed to begin a 5-step graduated exertional return to play (RTP) protocol to help assess increasing signs and symptoms. The athlete should be re-assessed immediately following exertional activities.
3. If the athlete remains asymptomatic on the day following the first step(s) of the graduated exertional RTP protocol, the athlete will be reassessed using the measures above (#1), and continue with the next step(s) on the graduated exertional RTP protocol.
4. All scores on the aforementioned assessments or exertional activities below will be recorded in the athlete's medical record by the team's assigned athletic trainer.

IF AT ANY POINT DURING THIS PROCESS, THE ATHLETE BECOMES SYMTOMATIC, THE ATHLETE SHOULD BE RE-ASSESSED DAILY UNTIL ASYMPTOMATIC. ONCE ASYMPTOMATIC, THE ATHLETE WILL THEN FOLLOW STEPS 1-4 ABOVE.

2. Five-Step Graduated Exertional Return to Play (RTP) Protocol

This exertional protocol allows a gradual increase in volume and intensity during the return-to-play process. The athlete is monitored for any concussion-like signs/symptoms during and after each exertional activity.

The following steps are not ALL to be performed on the same day. In some cases, steps, 1,2, or 3 (or even 4) may be completed on the same day, but typically will occur over multiple days. Steps 4 and 5 will each be performed on separate and subsequent days.

Exertion Step 1: 20 minute stationary bike ride (10-14 MPH)
Exertion Step 2: Interval bike ride: 30 second sprint (18-20 MPH/10-14MPH)/30 second recovery x 10; and bodyweight circuit: squat/push-ups/sit-ups x20 seconds x 3
Exertion Step 3: 60 yard shuttle run x 10 (40 second rest); and plyometric workout; 10 yard bounding/10 medicine ball throws/10 vertical jumps x 3; and non-contact, sport-specific drills for approximately 15 minutes
Exertion Step 4: Limited, controlled return to full-contact practice and monitoring for symptoms
Exertion Step 5: Full sport participation in a practice

No athlete can return to full activity or competitions until he or she is asymptomatic in limited, controlled, and full-contact activities, and cleared by the athletic training staff.

3. Bellarmine Preparatory School
Student-Athlete Concussion Statement

- I understand that it is my responsibility to report all injuries and illnesses to my athletic trainer and/or physician.
- I have read and understand the Bellarmine Concussion Fact Sheet.

After reading the Bellarmine Concussion Fact Sheet, I am aware of the following:

_____ A concussion is a brain injury, which I am responsible for reporting to the athletic trainer

_____ A concussion can affect my ability to perform every day activities, and affect reaction time, balance, sleep, and classroom activities.

_____ You cannot see a concussion, but you might notice some of the symptoms right away. Other symptoms can show up hours or days after the injury.

_____ If I suspect a teammate has a concussion, I am responsible for reporting the injury to the athletic training staff.

_____I will not return to play in a game or practice if I have received a blow to the head or body that results in concussion-related symptoms.

_____ Following a concussion, the brain needs time to heal. You are much more likely to have a repeat concussion if you return to play before your symptoms resolve.

_____ In rare cases, repeat concussion can cause permanent brain damage, and even death.

_____ _____

Signature of Student-Athlete Date

_____

Printed Name of Student –Athlete

4. **Bellarmine Preparatory School**
   Coaches Concussion Statement

- I have read and understand the Bellarmine Concussion Management Protocol.
- I have read and understand the Bellarmine Concussion Fact Sheet.

After reading the Bellarmine Concussion Management Protocol and Concussion Fact Sheet, I am aware of the following:

____A concussion is a brain injury, which I am responsible for reporting to the athletic trainer.

____A concussion can affect individuals' abilities to perform every day activities, and affect reaction time, balance, sleep and classroom activities.

____You cannot see a concussion, but you might notice some of the symptoms right away. Other symptoms can show up hours or days after the injury.

____I will not knowingly allow the athlete to return to play in a game or practice if/she received a blow to the head or body that results in concussion-related symptoms.

____Athletes shall not return to play in a game or practice on the same day that they are suspected of having a concussion.

____If I suspect one of my athletes has a concussion, it is my responsibility to have the athlete see the athletic training staff.

____I will encourage my athletes to report any suspected injuries and illnesses to the athletic training staff, including signs and symptoms of concussion.

____Following a concussion, the brain needs time to heal. Concussed athletes are much more likely to have a repeat concussion if they return to play before their symptoms resolve. In rare cases, a repeat concussion can cause permanent brain damage, and even death.

____I am aware that athletes diagnosed with a concussion will be assessed until the concussion symptoms have resolved. Athletes then will begin a graduated return to play protocol following full recovery of neurocognition and balance.

_____ _____

Signature of Coach Date

Printed Name of Coach