

## Concussion Acknowledgment & Management Plan

### What is a Concussion?

A concussion is a brain injury that:

- Is caused by a blow to the head or body. – From contact with another player, hitting a hard surface such as the ground, ice or floor, or being hit by a piece of equipment such as a bat, lacrosse stick or field hockey ball.
- Can change the way your brain normally works.
- Can range from mild to severe.
- Presents itself differently for each athlete.
- Can occur during practice or competition in ANY sport.
- Can happen even if you do not lose consciousness

### What are the Symptoms of a Concussion?

You can't see a concussion, but you might notice some of the symptoms right away. Other symptoms can show up hours or days after the injury. Concussion symptoms include:

- Amnesia
- "Pressure in Head"
- Neck pain
- Feeling anxious or more emotional
- "Don't feel right"
- Change in sleep patterns
- Confusion
- Headache
- Loss of consciousness
- Balance problems or dizziness
- Double or fuzzy vision
- Sensitivity to light or noise
- Nausea (feeling that you might vomit)
- Feeling sluggish, foggy or groggy
- Feeling unusually irritable
- Concentration or memory problems (forgetting game plays, facts, meeting times)
- Slowed reaction time
- Exercise or activities that involve a lot of concentration, such as studying, working on the computer, or playing video games may cause concussion symptoms (such as headache or tiredness) to reappear or get worse.

Signs observed by teammates, coaches, and parents may include:

- Appears dazed
- Vacant facial expression
- Confused about assignment
- Forgets play
- Is unsure of game, score, or opponent
- Moves clumsily or displays incoordination
- Answers questions slowly
- Slurred speech
- Shows behavior or personality changes

- Cannot recall events prior to injury
- Cannot recall events following injury
- Seizures or convulsions
- Loss of consciousness

If any of the following symptoms intensify or begin **after** your daughter has been released to you, call 911 immediately:

- Bleeding from the nose or ears
- Paralysis or marked weakness of limbs and facial muscles
- Drainage of fluids from nose or ears
- Loss of consciousness
- Nausea and vomiting

Avoid drugs of any kind for 24 hours, unless otherwise specified by a physician (MD or DO).

### **What can Happen if an Athlete Continues Playing with a Concussion or Returns too Soon?**

- Due to brain vulnerability after a concussion, an athlete may be more likely to suffer another concussion while symptomatic from the first one.
- In rare cases, repeat head trauma can result in brain swelling, permanent brain damage or even death.
- Continuing to play after a concussion increases the chance of sustaining other injuries too, not just concussion.
- Athletes with concussion have reduced concentration and slowed reaction time. This means that you won't be performing at your best.
- Athletes who delay reporting concussion take longer to recover fully.

### **What are the Long Term Effects of Concussion?**

We don't fully understand the long-term effects of a concussion, but ongoing studies raise concerns. Athletes who have had multiple concussions may have an increased risk of degenerative brain disease and cognitive and emotional difficulties later in life.

### **How Long does it take to Recover from a Concussion?**

Post-concussion symptoms can remain for a vary time depending on the individual. Some modifiers that may prolong concussion include:

- Age
- Prior history of concussion (i.e. number, severity, recency, etc.)
- Learning disabilities (i.e. ADHD)
- Migraine history
- Seizure history
- Other (i.e. anxiety, depression, parental concern, emotional readiness, etc.)

### **What is the Proper Concussion Management Progression?**

- Baseline Testing: Balance, cognitive, and neurological tests that help medical staff manage and diagnose a concussion. All incoming Cheer, Volleyball, Basketball, Lacrosse, and Water Polo athletes are required to participate in a baseline ImPACT Test prior to participation.
- Concussion: Mercy High School follows the proper management guidelines of CA State Law AB 2127.
- Recovery: A student-athlete who is suspected of having a concussion and diagnosed by a physician (MD or DO) cannot return to play sooner than 7 days following evaluation by the physician, as stated in CA State Law AB 2127. This includes athletes who have sustained a concussion prior to her season of sport.

- Return to Learn: Return to school should be done in a step-by step progression in which adjustments are made as needed to manage symptoms.
- Return to Play: Return to play may occur when the athlete has had clearance by the physician and has successfully completed the Mercy High School Return to Play Protocol.

**Acute Injury / Sideline Management:**

The Certified Athletic Trainer for Mercy High School or the opposing team may pull the student-athlete from participation if there is a suspected head injury. Mercy High School, Burlingame coaches are also expected to intervene if no Certified Athletic Trainer is present and a head injury is suspected. It is expected that the coach will contact the Mercy High School Certified Athletic Trainer (if not present) when he/she pulls a student-athlete from participation for suspect head injury.

The Certified Athletic Trainer and/or the coach will notify the parent or guardian if a head injury is suspected. The Certified Athletic Trainer and/or coach will seek immediate medical attention in the form of activating EMS for the student-athlete if signs and symptoms appear to be severe, has neck pain, loss of consciousness, seizure or convulsions, or other severe symptoms present.

Once a head injury is suspected, the student-athlete will enter the concussion protocol and will need a diagnosis from a physician (MD or DO).

**What is the ImPACT Test?**

The ImPACT Test is Immediate Post-Concussion Assessment and Cognitive Testing. It is used to help determine the athlete’s full recovery and readiness to return to her sport and activities. ImPACT evaluates multiple aspects of neurocognitive function including memory, attention, brain processing speed, reaction time, and post-concussion symptoms. ImPACT provides specific objective information regarding the severity of the injury and can help take the guess-work out of the return to play decisions as well as prevent the cumulative effects of multiple concussions.

**Mercy High School, Burlingame Return to Learn Progression (After Concussion):**

This is an individualized decision made by the physician, certified athletic trainer, parents, students, and academic officials. Hours of classroom learning, studying, technology usage, and administration of exams will be determined in collaboration of the above listed individuals. A letter outlining other limitations by the physician must be given to the Certified Athletic Trainer and academics staff at Mercy High School. The general guideline of graduated progression in cognitive/academic activity is as follows:

- No classroom activity on the same day of the concussion.
- Remain at home and rest if experiencing significant symptoms with cognitive stimulation (i.e. computer use, reading) lasting <30 minutes.
- Once able to tolerate 30 minutes of cognitive activity, it is ok to resume modified class attendance (modified class attendance options include attending first 30 minutes of classes, breaks between classes, half-days, etc.).
- Upon return to class, load can be increased as tolerated. If exacerbation of symptoms, return back to previous level of cognitive activity where there were no symptoms and attempt to progress again after 24 hours.

Physician reevaluation should take place if symptoms worsen with academic challenges or if full return to academics has not been achieved within 2 weeks. Student-athletes will not return to full play before achieving full return to academics.

**Mercy High School, Burlingame Return to Play Progression (After Concussion):**

If an athlete is diagnosed with a concussion by a physician, CA State Law AB 2127 states that return to play cannot be sooner than 7 days after evaluation by a physician (MD or DO) who made the diagnosis of concussion. This includes athletes who have sustained a concussion prior to their season of sport. The athlete must meet all of the following criteria in order to progress to activity:

- Asymptomatic at rest and with exertion (physical and cognitive) for at least 24 hours AND:
- Within normal range of baseline on post-concussion ImpACT Testing AND:
- Within normal range of baseline on post-concussion ImpACT Testing following exertional activity (20 minute bike with heart rate between 120-130 BPM) AND:
- Have written clearance from a physician who has personally evaluated the athlete.

Once the athlete has completed the above, the Certified Athletic Trainer will guide the athlete in the return to play progression which entails the following:

- Step 1:
  - Light Aerobic Activity: 15-20 minutes of stationary bike. If the athlete experiences symptoms during the exercise, the athlete will stop activity and will not be allowed to repeat Step 1 until asymptomatic for 24 hours without the use of Tylenol or Ibuprofen.
- Step 2:
  - Unlimited Cardiovascular activity, sport specific exercise without head impact or contact: The athlete may participate in a determined amount of cardiovascular sport-specific activity. This may not include weight lifting. If the athlete reports symptoms during the step or within 24 hours following, she will repeat step 1 following 24 asymptomatic hours without the use of Tylenol or Ibuprofen.
- Step 3:
  - Non-contact training drills / progressive resistance training: The athlete may participate in a determined amount of non-contact sport specific drills and progress into weight lifting. If the athlete reports symptoms during the step or within 24 hours following, she will repeat step 2 following 24 asymptomatic hours without the use of Tylenol or Ibuprofen.
- Step 4:
  - Full-contact practice / unrestricted training: The athlete may return to full practice along with unrestricted cardiovascular and weight lifting exercise. If the athlete reports symptoms during the step or within 24 hours following, she will repeat step 3 following 24 asymptomatic hours without the use of Tylenol or Ibuprofen.
- Step 5:
  - Return to full game play: The athlete may participate in all practices and games without limitations. If the athlete reports symptoms during this step or following, the athlete will be reevaluated and referred to the physician.

The Mercy High School, Burlingame Certified Athletic Trainer has the final say in the return to play decisions and reserves the right to hold out an athlete if her assessment indicates the athlete is not ready to compete safely, even with the physician's clearance.

#### **Parent & Student Resources:**

Impacttest.com

CDC.gov/HeadsUp

NFHSlearning.com

Nata.org

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Parent Name

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Date

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Parent Signature

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Student Name

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Date

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Student Signature