**Concussion Protocol**

**Document Ref AP102**

In many cases, concussion management consists primarily of requiring the individual to rest, and sometimes restricting them from physical and cognitive exertion. During this time of recovery, it is important to avoid the activities that require excessive brain activation, which may include texting, spending a prolonged time on the computer, listening to loud music, and so on. It is our aim to safely facilitate a return to pre-injury functioning for concussed members.

1. **What is a concussion:**

A concussion is a type of traumatic brain injury(TBI) caused by a bump, blow or jolt to the head. Concussions can also occur from a fall or blow to the body that causes the head and brain to move quickly back and forth. Doctors may describe a concussion as a “mild” brain injury because concussions are usually not life-threatening. However, sports-related head injuries and concussions can have serious consequences for students, including long-term health and educational issues if they are not properly managed.

1. **What are the signs and symptoms of a concussion?**

If you think that a member has sustained a concussion, they may exhibit any or all of the following signs:

* Appears dazed or confused
* Is confused about assignment or position
* Forgets their drill/music
* Moves clumsily
* Answers questions slowly
* Loses consciousness (even briefly)
* Shows behavior or personality change
* Can't recall events prior to hit or fall
* Can't recall events after hit or fall

Also, observe the member and determine if he/she describes feeling any of the following symptoms:

* Physical Symptoms (Body) Cognitive Symptoms (Mind) Emotional Symptoms (Feelings) Maintenance Symptoms (Energy)
* Headache Fogginess Irritability (Grumpy) Fatigue (Body is Tired)
* Nausea Feeling "Slowed Down" Sadness Drowsy (Mind is Tired)
* Vomiting
* Trouble Concentrating
* More Emotional than Usual
* Sleeping Less than Usual
* Balance Problems
* Troubles with Memory
* Nervous or Anxious
* Sleeping More than Usual
* Dizziness
* Change in Smell
* Trouble Falling or Staying Asleep
* Sensitivity to Light Change in Taste
* Change in Appetite
* Sensitivity to Noise Ringing in the Ear
* Change in Energy Levels
* Visual Problems
* Numbness or Tingling
* Neck Pain

Seek immediate medical attention if the member experiences any of the following signs after the injury:

* Headaches that Worsen
* Neck Pain
* Unusual Behavior Change
* Weakness/Numbness in Arms/Legs
* Looks Very Drowsy (Cannot be Awakened)
* Repeated Vomiting
* Focal Neurologic Signs (Lacerations, Fractures, Bruising, Raised Skin, etc.)
* Change in State of Consciousness
* Can't Recognize People or Places
* Increased Confusion or Irritability
* Slurred Speech
* Seizures

**Stepwise approach**

Although each concussion is treated on an individual basis, there are a set of Return to Play guidelines that are generally accepted by trained healthcare professionals. The following shows the steps generally taken, once an athlete is deemed "cleared", to ensure their complete return. However, it's important to remember that these recommendations can differ for each member based on their unique symptomatology.

The initial management of sport-related concussion is relative physical and cognitive rest. Members diagnosed with sport-related concussion must be removed from any activity and must not return to sport-related activity for at least one calendar day and are to be evaluated by a health care provider with expertise in concussion. Once a concussed member has returned to baseline level of symptoms, cognitive function and balance, then the return-to-play progression can be initiated, as follows in this general outline:

1.Light aerobic exercise such as walking. No playing of any musical instruments. If asymptomatic with light aerobic exercise, then;

2.Playing musical instrument – special attention should be paid to anyone in the brass or percussion sections. If asymptomatic with this activity, then;

3.Combining movement and playing. If asymptomatic, then;

4.Unrestricted training. If asymptomatic with unrestricted training, then;

5.Return-to-full performances.

At any point, if the member becomes symptomatic (i.e., more symptomatic than baseline), or scores on clinical/cognitive measures decline, the supervising member of staff should be notified and the member should be returned to the previous level of activity.

If in doubt seek medical attention. A member of staff must always accompany any member to hospital.

**Concussion myths and facts**

1. You cannot go to sleep after a concussion: Myth. As long as the symptoms are not getting any worse and new symptoms do not arise during the first minutes and hours immediately following a concussion, it's recommended that if you need to sleep, you should. This is the brain's way of beginning the healing process. If you notice any new symptoms or existing symptoms get worse, it is recommended that you seek emergency medical attention.
2. Any healthcare professional can treat a concussion: Myth. Concussions are a complex injury and require a specialized and multi-disciplinary approach to treatment. Not every healthcare professional is fully trained in the empirically-driven methods for assessment and treatment of concussion. In fact, some research surveys purport that only 68% of graduated chief residents were comfortable in managing sport-related concussions. It is a very unique injury, one that often requires the specialized training offered by neuropsychologists and neurologists.
3. Athletes don't always know when they've received a concussion: Fact. Athletes will not always acknowledge that they have sustained a concussion. Consciously, an athlete may underreport their symptoms, minimize the severity of the injury, and/or attempt to play through the pain. Subconsciously, they may even be unaware of how to recognize subtle symptoms, how many previous concussions they've actually had (e.g., "Bell Rung"), or fear being removed from play for an extended period of time.
4. Concussions can occur without hitting the head directly: Fact. In the case of whiplash, for instance a forceful blow to the neck or body can cause the brain to accelerate and decelerate within the skull, resulting in axonal shearing or tearing at the site of injury.
5. It is safe for a child to return to play if the symptoms are still present but less intense: Myth. Experts from around the world agree that no athlete should be allowed to return to physical activity until totally asymptomatic (showing no symptoms). After a concussion, the brain needs rest and time to heal, and this cannot happen when it is subjected to physical activity (athletic), cognitive exertion (classroom), and the emotional up's and down's that characterize a youth's behavior patterns (life). Returning a child or teenager to physical and cognitive activities before symptoms dissipate risks further injury, decreases in performance, and potentially debilitative long-term effects such as depression, anxiety, and in some cases, chronic traumatic encephalopathy (CTE).
6. A concussion only affects the injured individual: Myth. A concussion, just like any TBI, has a profound affect on everyone surrounding them, including parents and family, coaches, academic personnel, and healthcare professionals. Therefore, it is vital to treat concussions from a multi-disciplinary approach. At the Sports Concussion Institute, our aim is to safely and accurately assess, treat, and evaluate the progress of recovery, as well as educate and involve those who make up the social support system of the concussed child.