



## **CONCUSSION MANAGEMENT PLAN**

Concussion is a common consequence of collisions, falls and other forms of contact in sports. Concussion is defined as a traumatically induced transient disturbance of brain function, which is generally self-limited. Signs and symptoms of concussive injury vary. These symptoms may include headache, dizziness, nausea, poor concentration and increased sensitivity to light. Studies report 80-90% of athletes has symptom resolution within 7 - 10 days of their injury, although symptom resolution may not correlate with return to normal brain function. Concussion may be complicated by continuation of symptoms (the post-concussive syndrome) and in rare cases by cerebral edema related to the second impact syndrome. The risk for prolonged recovery is increased in athletes who prematurely return to play.

It is the role of the team physician to evaluate the concussed athlete, develop a management plan to expedite their recovery from injury, and determine appropriate return to play timing. Existing guidelines clearly state that an athlete should not be given same day return to play clearance if a concussion is suspected, and should not be allowed to resume sports participation until all symptoms of a concussion have resolved.

The importance of rapidly identifying those athletes who have suffered a concussive injury is well established in order to prevent prolonged symptoms and worsened outcomes. A growing body of research exists to assist the team physician in management and return to play decisions following such an injury. Two expert panel (Zurich 2012 and AMSSM Position Statements) guidelines together form Saint Louis University (SLU) "standards of care" for concussive injury.

This Management Plan has been developed to protect our student-athletes during their time at SLU. It is also a mandatory component of any athletics program, as outlined in the NCAA handbook: "Institutions shall have a concussion management plan on file such that a student- athlete who exhibits signs symptoms or behaviors consistent with a concussion shall be removed from practice or competition and be evaluated by an athletics healthcare provider with experience in the evaluation and management of concussion. Student-athletes diagnosed with a concussion shall not return to activity for the remainder of that day. Medical clearance shall be determined by the team physician or their designee according to the concussion management plan."

### **DEFINITIONS AND DIAGNOSIS**

A concussion is a traumatically induced, transient disturbance in brain function, which is usually self-limited. It may be caused by a direct blow to the head or a force indirectly transferred to the head. Signs and symptoms of a concussion are varied. The most common symptoms are headache and dizziness. Other non-specific symptoms include confusion, amnesia, difficulty concentrating, sleep disturbances, increased sensitivity to light and sometimes depression or anxiety. Less than 10% of concussions involve loss of consciousness. Symptoms of a concussion may immediately follow the head trauma or evolve gradually over several minutes to hours. These symptoms, outlined above, are usually transient and resolve over a short period of time. Occasionally there can be a more severe injury; thus it is important that concussed individuals be monitored.



# CONCUSSION

## A FACT SHEET FOR STUDENT-ATHLETES

### 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.**

### HOW CAN I PREVENT A CONCUSSION?

Basic steps you can take to protect yourself from concussion:

- Do not initiate contact with your head or helmet. You can still get a concussion if you are wearing a helmet.
- Avoid striking an opponent in the head. Undercutting, flying elbows, stepping on a head, checking an unprotected opponent, and sticks to the head all cause concussions.
- Follow your athletics department's rules for safety and the rules of the sport.
- Practice good sportsmanship at all times.
- Practice and perfect the skills of the sport.

### 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.
- 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.

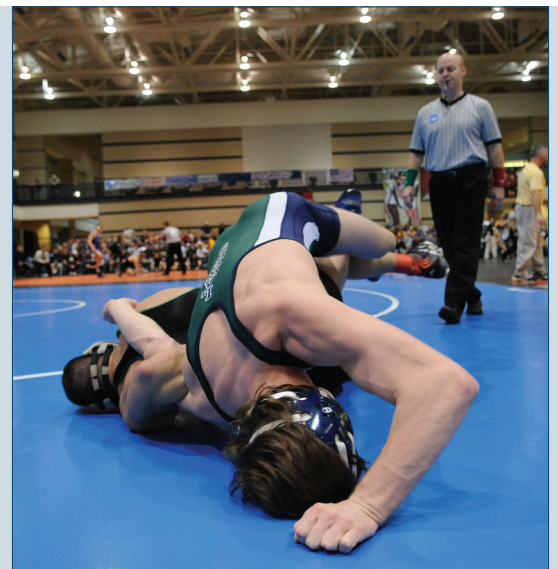
### WHAT SHOULD I DO IF I THINK I HAVE A CONCUSSION?

**Don't hide it.** Tell your athletic trainer and coach. Never ignore a blow to the head. Also, tell your athletic trainer and coach if one of your teammates might have a concussion. Sports have injury timeouts and player substitutions so that you can get checked out.

**Report it.** Do not return to participation in a game, practice or other activity with symptoms. The sooner you get checked out, the sooner you may be able to return to play.

**Get checked out.** Your team physician, athletic trainer, or health care professional can tell you if you have had a concussion and when you are cleared to return to play. A concussion can affect your ability to perform everyday activities, your reaction time, balance, sleep and classroom performance.

**Take time to recover.** If you have had a concussion, your brain needs time to heal. While your brain is still healing, you are much more likely to have a repeat concussion. In rare cases, repeat concussions can cause permanent brain damage, and even death. Severe brain injury can change your whole life.



### IT'S BETTER TO MISS ONE GAME THAN THE WHOLE SEASON. WHEN IN DOUBT, GET CHECKED OUT.

For more information and resources, visit [www.NCAA.org/health-safety](http://www.NCAA.org/health-safety) and [www.CDC.gov/Concussion](http://www.CDC.gov/Concussion).



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